

2022 | CENSUS *OF* AGRICULTURE

2023 Irrigation and Water Management Survey

Volume 3 • Special Studies • Part 1

AC-22-SS-1

Issued October 2024

United States Department of Agriculture
Tom Vilsack, Secretary
National Agricultural Statistics Service
Joe Parsons, Administrator

Contents

Introduction.....	Page V
-------------------	-----------

MAP

Water Resource Regions of the United States	1
---	---

TABLES

Entire Farm Data Tables

1. Irrigated and Equipped for Irrigation Farms in the Censuses of Agriculture: 2022 and 2017	2
2. Land Use on Farms with Irrigation Equipment: 2023	3
3. Land Use on Farms with Irrigation: 2023 and 2018	5
4. Irrigated Farms by Size of Farm: 2023 and 2018	7
5. Irrigated Farms by Acres Equipped: 2023	10
6. Irrigated Farms by Acres Irrigated: 2023 and 2018	14
7. Estimated Quantity of Water Applied by Source: 2023 and 2018	18
8. Farms Using Off-Farm Water: 2023 and 2018	22
9. Farms Using Recycled or Reclaimed Water: 2023 and 2018	23
10. Irrigation by Estimated Quantity of Water Applied: 2023 and 2018	24
11. Irrigation Wells Used on Farms: 2023	28
12. Characteristics of Irrigation Wells Used on Farms: 2023	30
13. Irrigation Pumps on Farms: 2023	31
14. Characteristics of Pumped Wells and Irrigation Well Pumps on Farms: 2023	32
15. Irrigation Pumps Used on Farms Other Than for Wells: 2023	38
16. Energy Expenses for Pumps by Type of Energy Used: 2023	44
17. Solar Pumps and Other Pumps Without Direct Energy Expense: 2023	57
18. Expenses for Irrigation Water from Off-Farm Suppliers: 2023	58
19. Expenditures for Irrigation Infrastructure: 2023	59
20. Labor Used for Irrigation: 2023	79
21. Farms With Diminished Crop Yields Resulting from Irrigation Interruption by Cause: 2023	80
22. Irrigated Farms by North American Industrial Classification System: 2023 and 2018	82
23. Irrigated Farms by Market Value of Agricultural Products Sold: 2023 and 2018	85
24. Irrigated Farms by Percent of Total Sales from Irrigated Crops and Livestock: 2023 and 2018	93

25. Methods Used in Deciding When to Irrigate: 2023	94
26. Groundwater Recharge Participation on Farms with Irrigation: 2023	95
27. Technical and Financial Assistance Received During the Past Five Years for Irrigation or Drainage Improvements: 2023	96
28. Barriers to Making Improvements to Reduce Energy Use or Conserve Water: 2023	98
29. Sources of Information Relied on for Reducing Irrigation Costs and Conserving Water: 2023	103
30. Reasons for Discontinuing Irrigation and Idle Irrigation Equipment: 2023 and 2018	105

Crops Grown in the Open and Pasture Data Tables

31. Method of Water Distribution in Fields in the Open: 2023 and 2018	111
32. Gravity Irrigation in Fields in the Open: 2023 and 2018	112
33. Sprinkler Irrigation in Fields in the Open: 2023 and 2018	115
34. Drip, Trickle, or Low-Flow Micro Irrigation in Fields in the Open: 2023 and 2018	118
35. Estimated Quantity of Water Applied in the Open Using Only One Method of Distribution: 2023 and 2018	119
36. Estimated Quantity of Water Applied in the Open Using Only Gravity Flow Systems: 2023 and 2018	121
37. Estimated Quantity of Water Applied in the Open Using Only Sprinkler Systems: 2023 and 2018	123
38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018	127
39. Field Water Distribution for Selected Items in the Open: 2023 and 2018	145
40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018	168
41. Irrigated Items in the Open by Primary Method of Water Distribution – United States: 2023	191
42. Water Management Practices Used by Producers with Gravity Systems for Acres in the Open: 2023 and 2018	194

Horticultural Operations Data Tables

43. Irrigated Horticultural Operations: 2023 and 2018.....	197
44. Irrigated Horticultural Operations by Selected Crops Irrigated: 2023 and 2018.....	198
45. Irrigation for Nursery and Other Horticultural Crops Grown in the Open: 2023 and 2018.....	204
46. Irrigation for Nursery, Greenhouse, and Other Horticultural Crops Grown Under Protection: 2023 and 2018.....	210
47. Reasons for Discontinuing Irrigation on Horticultural Operations since Previous Census Year: 2023 and 2018	216
48. Irrigated Horticultural Operations by Market Value of All Agricultural Products Sold: 2023 and 2018	218

APPENDICES

A. Statistical Methodology.....	A-1
B. General Explanation and Report Form	B-1

Introduction

PURPOSE AND SCOPE

The primary purpose of the Irrigation and Water Management Survey (IWMS) is to provide data relating to on-farm irrigation activities for use in preparing a wide variety of water-related local programs, economic models, legislative initiatives, market analyses, and feasibility studies.

Selected irrigation data for on-farm irrigation operations have been collected in the Census of Agriculture since 1890. The 2023 Irrigation and Water Management Survey marks 44 years of comprehensive irrigation data collected on water management practices and water uses in American agriculture. The 1979, 1984, 1988, and 1994 surveys were conducted by the U.S. Department of Commerce, Bureau of the Census. Responsibility for the survey was transferred to the U.S. Department of Agriculture (USDA), National Agricultural Statistics Service (NASS) in 1997. The 1998 survey utilized NASS field offices, which expanded opportunities for telephone follow-up or personal enumeration of nonresponse cases. The 1998 Farm and Ranch Irrigation Survey was the first survey to collect and publish data for each of the 50 States. Previously, the farm and ranch irrigation surveys published data only for the leading irrigation States and the U.S. total without including Alaska and Hawaii. In 2008, horticultural specialty operations with sales of \$10,000 or greater were included in the survey for the first time. In 2018, the survey name was changed to Irrigation and Water Management to be more inclusive of nursery and greenhouse growers.

USES OF SURVEY DATA

The 2023 Irrigation and Water Management Survey provides data that supplement the basic irrigation data collected from all farm and ranch operators in the 2022 Census of Agriculture. Irrigation data from this survey, combined with the 2022 census data, provide one of the most complete and detailed profiles for irrigation in the U.S.

Survey data are used by producers, farm organizations, businesses, State departments of agriculture, elected

representatives and legislative bodies at all levels of government, public and private sector analysts, the news media, and colleges and universities. The data are used to:

- Compare water use by application methods;
- Develop improved technologies;
- Develop Federal programs;
- Appraise water use trends;
- Assess impact of congressional legislation; and
- Evaluate the impact of irrigated crops by State.

AUTHORITY

The census of agriculture is required by law under the "Census of Agriculture Act of 1997," Public Law 105-113 (Title 7, United States Code, Section 2204g). The law authorizes the Secretary of Agriculture to conduct surveys deemed necessary to furnish annual or other data on the subjects covered by the census. The 2023 Irrigation and Water Management Survey was conducted under the provisions of this section.

FARM DEFINITION

A farm is any place from which \$1,000 or more of agricultural products were produced and sold, or normally would have been sold, during the census or survey year.

DATA COMPARABILITY

The data are mostly comparable between 2023 and 2018. Direct comparisons for Land in Vegetables and Horticulture in the Open are not directly comparable due to vegetable seeds being reported under land in vegetables in 2023 when it was reported under horticulture in the open in 2018, impacting tables 16, 38, 39, 40, 41, 43, 44, 45, 47, and 48. For table 42, the data concerning Surge Flow, Cablegation, and Mulch, as well as the general acres for any water management practices used, are not comparable. In 2018, the three items were recorded together but for 2023 they were individually recorded. For tables 45 and 46, subirrigation including hydroponics was replaced with just hydroponics for 2023 and is therefore not comparable. The rest of the data remains comparable between 2018 and 2023. See Appendix A, Statistical Methodology for a

detailed discussion of data comparability.

WATER RESOURCE REGIONS MAP

The map on page 1 shows the Water Resource Regions delineated to the approximate basin boundaries based on the topographical drainage characteristics. Data are tabulated separately for each of the 20 Water Resource Regions shown on the map.

TABLES AND APPENDICES

The tables are divided into three sections: Entire Farm, Crops Grown in the Open and Pasture, and Horticultural Operations.

Entire Farm Data Tables. Table 1 shows farms and acres irrigated for the 2017 and 2022 Censuses of Agriculture for each State, as well as acres equipped with irrigation systems, which was added in 2022. Table 2 is new in 2023 and presents detailed information on acres equipped with irrigation systems or equipment. Tables 3 through 30 present detailed irrigation data collected in the 2023 Irrigation and Water Management Survey from operations that reported irrigated land during 2023 and in the 2022 census. Excluded from these data are institutional, research, and experimental operations. Table 30 presents data on farm operations with idle irrigation equipment as well as data on operations which irrigated in 2022 but discontinued irrigation, either temporarily or permanently, during 2023 while continuing to operate their farm or ranch. Data are reported at the national level, for each State, and for the 20 Water Resource Regions except for table 17 which reports only at the national and Water Resource Region level.

Crops Grown in the Open and Pasture Data Tables. Tables 31 through 42 present detailed 2023 irrigation data collected on crops grown in the open and pasture. Excluded from these data are institutional, research, and experimental operations. Crops grown under protection and their water usage is reported separately in the Horticultural Operations data tables. Data are reported at the national level, for each State, and for the 20 Water resource regions.

Horticultural Operations Data Tables. Tables 43 through 48 present detailed 2023 irrigation data collected on horticultural crops. Data are from horticultural operations that reported irrigating in the 2022 census and in the 2023 survey. Data are reported at the national level, for each State, and for the 20 Water Resource Regions.

Appendix A. Provides information about data collection

and data processing activities and discusses the statistical methodology used in conducting and evaluating the survey. Table A provides a comparison of the irrigated acres published in the 2022 Census of Agriculture and the expanded 2023 Irrigation and Water Management Survey acres irrigated by size group. Table B provides the standard error for selected data for irrigated crops grown in the open in 2023. Table C provides the standard error for selected horticultural data in 2023.

Appendix B. Provides information about the development of the report form. It also contains the definitions of specific terms and phrases used in this publication, including items in the publication tables that carry the note “see text.” The facsimiles of the report form and the instruction sheet used to collect the Irrigation and Water Management Survey data are included.

RESPONDENT CONFIDENTIALITY

In keeping with the provisions of Title 7 of the United States Code, no data are published that would disclose information about the operations of an individual farm or ranch. All tabulated data are subjected to an extensive disclosure review prior to publication. Any tabulated item that identifies data reported by a respondent or allows a respondent’s data to be accurately estimated or derived, was suppressed and coded with a ‘D’. However, the number of farms reporting an item is not considered confidential information and is provided even though other information is withheld.

SPECIAL STUDIES AND CUSTOM TABULATIONS

The 2023 Irrigation and Water Management Survey data, as well as the 2022 Census of Agriculture Volume 1 Geographic Area Series and related reports, are available on the NASS website at www.nass.usda.gov.

Custom-designed tabulations may be developed when data are not published elsewhere. These tabulations are developed to individual user specifications on a cost-reimbursable basis and shared with the public. Quick Stats, NASS’s online database that allows data users to build customized queries, should be investigated before requesting a custom tabulation.

All special tabulations are subject to a thorough disclosure review prior to release to prevent the disclosure of any individual respondent data. Instructions to request a special tabulation can be found on the [NASS website](http://www.nass.usda.gov), including information about timing, fees, and the submission form. Questions can be directed to SM.NASS.Data.Lab@usda.gov.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used throughout the tables:

- Represents zero.
- (D) Withheld to avoid disclosing data for individual farms.
- (H) Coefficient of variation is greater than or equal to 99.95 percent or the standard error is greater than or equal to 99.95 percent of mean.
- (L) Coefficient of variation is less than 0.05 percent or the standard error

is less than 0.05 percent of the mean.

- WRR Water Resource Regions.
- (NA) Not available.
- (X) Not applicable.
- (Z) Less than half of the unit shown.
- (cwt) Hundredweight.
- gpm Gallons per minute.
- psi Pounds per square inch.
- sq ft Square feet

Water Resource Regions Map of the United States

Note: Water resource regions outline the major drainage areas of the United States. These boundaries which often split county lines are defined by the U.S. Geological Survey.

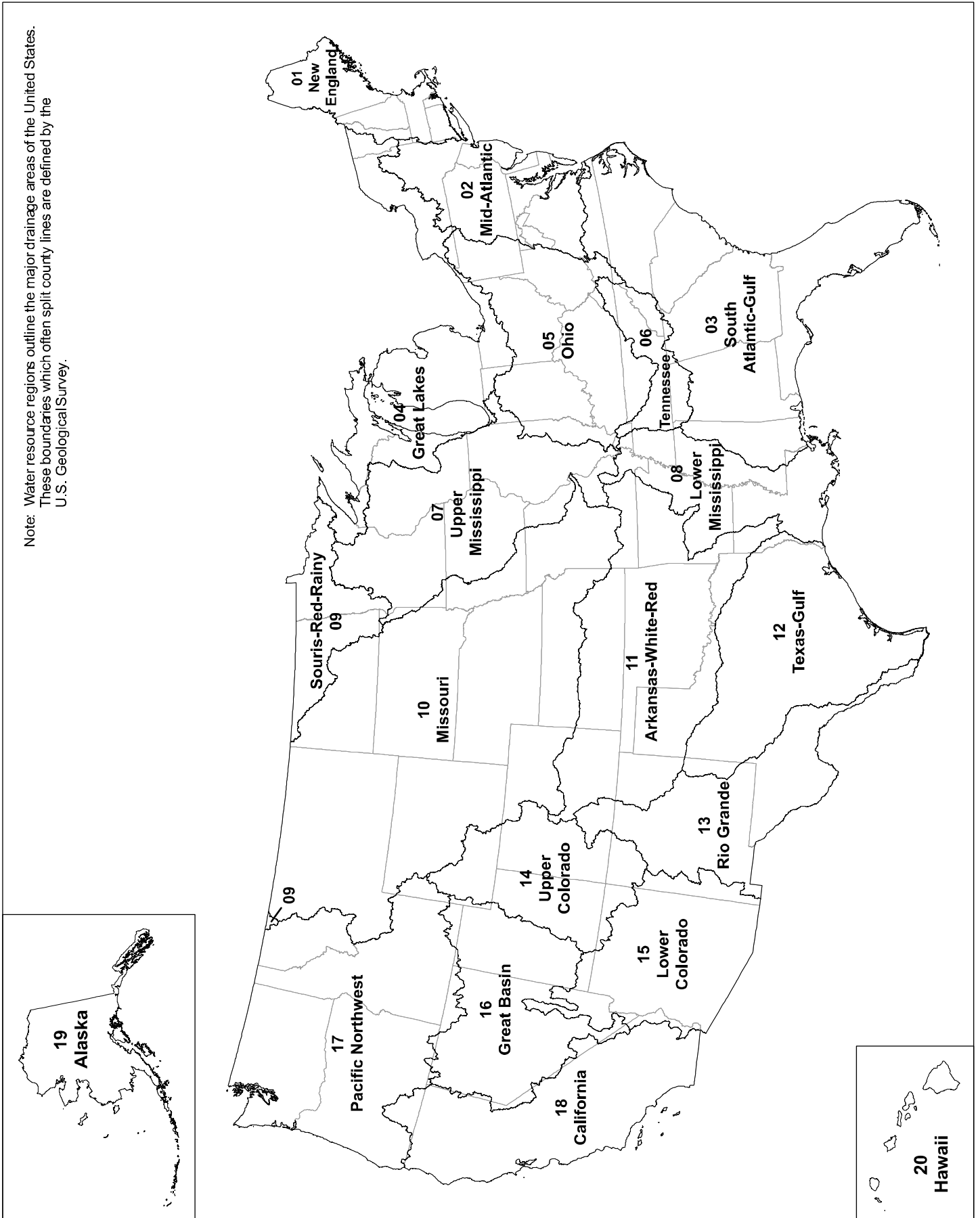


Table 1. Irrigated and Equipped for Irrigation Farms in the Censuses of Agriculture: 2022 and 2017

Geographic area	2022				2017			
	Equipped (see text)		Irrigated		Equipped (see text)		Irrigated	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States	309,375	61,016,692	284,598	54,930,363	(NA)	(NA)	294,235	58,013,907
Alabama	2,503	187,700	2,217	170,537	(NA)	(NA)	1,891	142,001
Alaska	494	3,026	465	2,398	(NA)	(NA)	377	2,400
Arizona	4,974	987,358	4,701	897,330	(NA)	(NA)	4,808	910,883
Arkansas	4,588	4,990,727	4,251	4,749,773	(NA)	(NA)	4,475	4,855,143
California	47,775	8,711,690	46,247	8,158,067	(NA)	(NA)	52,362	7,833,593
Colorado	16,266	2,578,139	15,203	2,287,808	(NA)	(NA)	17,162	2,761,173
Connecticut	1,112	11,417	999	8,114	(NA)	(NA)	998	7,376
Delaware	574	166,646	561	144,513	(NA)	(NA)	612	163,255
Florida	13,508	1,614,581	11,991	1,478,408	(NA)	(NA)	11,228	1,519,379
Georgia	7,059	1,402,527	6,391	1,287,251	(NA)	(NA)	6,191	1,287,541
Hawaii	2,634	51,698	2,216	41,851	(NA)	(NA)	2,250	45,452
Idaho	14,784	3,391,992	14,191	3,167,499	(NA)	(NA)	15,597	3,398,266
Illinois	3,201	713,406	2,930	635,957	(NA)	(NA)	2,541	612,459
Indiana	3,265	656,001	3,006	610,670	(NA)	(NA)	2,836	555,443
Iowa	2,204	283,619	2,006	259,687	(NA)	(NA)	1,707	221,986
Kansas	5,708	2,620,631	5,315	2,344,782	(NA)	(NA)	5,141	2,503,386
Kentucky	2,908	97,520	2,531	83,458	(NA)	(NA)	2,030	83,859
Louisiana	3,568	1,538,092	3,144	1,291,830	(NA)	(NA)	3,102	1,235,752
Maine	1,463	42,830	1,330	33,138	(NA)	(NA)	1,420	32,312
Maryland	1,452	154,672	1,298	138,097	(NA)	(NA)	1,318	124,831
Massachusetts	2,011	27,958	1,856	23,990	(NA)	(NA)	1,696	23,928
Michigan	6,357	734,761	5,729	672,335	(NA)	(NA)	5,153	670,212
Minnesota	3,968	709,449	3,625	648,313	(NA)	(NA)	3,220	611,621
Mississippi	2,877	2,050,818	2,628	1,921,886	(NA)	(NA)	2,561	1,814,548
Missouri	4,172	1,464,118	3,749	1,334,751	(NA)	(NA)	3,523	1,529,155
Montana	9,392	1,958,905	8,795	1,724,667	(NA)	(NA)	9,941	2,061,236
Nebraska	15,866	8,447,188	15,122	7,965,938	(NA)	(NA)	16,112	8,588,389
Nevada	2,083	705,414	1,984	667,764	(NA)	(NA)	2,217	790,425
New Hampshire	770	4,121	679	2,592	(NA)	(NA)	618	2,207
New Jersey	2,215	103,254	1,977	88,477	(NA)	(NA)	1,980	86,819
New Mexico	10,118	662,280	9,270	545,904	(NA)	(NA)	10,745	626,034
New York	4,079	92,927	3,721	64,520	(NA)	(NA)	3,285	53,257
North Carolina	5,238	233,716	4,604	175,949	(NA)	(NA)	3,708	143,444
North Dakota	870	282,591	783	247,700	(NA)	(NA)	764	263,885
Ohio	3,672	88,440	3,386	69,818	(NA)	(NA)	2,935	50,665
Oklahoma	3,623	571,945	2,988	450,417	(NA)	(NA)	2,668	573,776
Oregon	17,254	1,771,864	15,919	1,534,766	(NA)	(NA)	16,291	1,664,921
Pennsylvania	4,440	63,853	4,073	44,057	(NA)	(NA)	3,904	32,139
Rhode Island	344	4,337	329	4,023	(NA)	(NA)	234	2,956
South Carolina	2,974	260,284	2,497	227,963	(NA)	(NA)	2,167	210,437
South Dakota	1,819	458,218	1,707	410,870	(NA)	(NA)	1,798	492,452
Tennessee	3,032	224,857	2,689	206,906	(NA)	(NA)	2,011	184,899
Texas	22,692	5,145,985	18,813	3,765,438	(NA)	(NA)	17,932	4,363,345
Utah	12,217	941,045	11,404	853,471	(NA)	(NA)	13,159	1,097,219
Vermont	856	5,096	777	3,758	(NA)	(NA)	672	3,017
Virginia	2,500	86,668	2,158	61,216	(NA)	(NA)	2,053	63,433
Washington	13,462	1,789,492	12,696	1,668,415	(NA)	(NA)	14,887	1,689,377
West Virginia	1,032	7,952	850	5,215	(NA)	(NA)	581	1,660
Wisconsin	3,841	537,429	3,482	475,471	(NA)	(NA)	3,284	454,362
Wyoming	5,561	1,377,455	5,315	1,272,605	(NA)	(NA)	6,090	1,567,599

Table 2. Land Use on Farms with Irrigation Equipment: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Land in farms			Total cropland			Cropland harvested in the open			Nursery, greenhouse, and other horticulture, under protection ¹		
	Farms	Acres	Acres equipped	Farms	Acres	Acres equipped	Farms	Acres	Acres equipped	Farms	Acres	Acres equipped
United States	228,586	213,724,739	57,887,512	211,383	98,932,153	54,425,145	198,702	84,923,179	52,093,158	26,716	58,631	58,631
Alabama	1,369	874,187	175,390	1,362	630,271	170,093	1,313	605,705	167,503	260	(D)	(D)
Alaska	374	10,820	2,554	374	3,711	2,497	307	2,853	1,975	251	(D)	(D)
Arizona	3,503	10,154,523	1,066,049	2,802	1,518,189	1,007,655	2,394	878,557	873,077	181	593	593
Arkansas	3,102	5,621,487	4,763,280	3,081	5,319,234	4,757,420	2,982	5,196,506	4,722,853	148	234	234
California	39,093	15,365,828	8,283,252	36,913	8,451,118	7,909,242	35,593	7,788,215	7,584,673	2,047	9,502	9,502
Colorado	13,854	13,538,304	2,549,592	12,461	4,354,580	2,163,974	11,751	2,981,448	2,016,014	556	826	826
Connecticut	742	36,494	9,598	742	16,266	9,519	624	12,361	7,586	368	803	803
Delaware	453	283,960	135,073	453	261,622	135,006	441	259,476	134,488	36	(D)	(D)
Florida	8,073	2,994,640	1,329,212	7,586	1,635,949	1,284,230	6,823	1,440,620	1,180,402	1,667	9,544	9,544
Georgia	4,536	3,286,775	1,337,784	4,483	2,245,637	1,336,098	4,319	2,121,360	1,315,128	465	736	736
Hawaii	2,027	212,923	53,629	2,004	92,427	51,943	1,799	40,071	32,298	519	(D)	(D)
Idaho	12,355	7,075,335	3,284,977	9,508	3,662,303	2,970,394	9,047	3,313,673	2,907,960	287	304	304
Illinois	2,206	1,880,217	724,917	2,206	1,799,295	724,352	2,067	1,739,633	715,759	574	991	991
Indiana	2,398	1,995,318	606,132	2,382	1,871,371	604,505	2,241	1,859,210	603,043	544	768	768
Iowa	1,215	1,087,172	255,154	1,215	1,045,128	255,124	1,138	1,025,938	253,875	323	527	527
Kansas	4,335	12,572,931	2,489,128	4,315	9,800,306	2,482,219	4,237	7,921,365	2,376,518	258	363	363
Kentucky	1,546	611,532	109,656	1,530	508,409	105,935	1,380	486,014	103,484	710	771	771
Louisiana	2,034	2,497,498	1,494,765	1,999	2,188,668	1,484,196	1,827	2,030,369	1,421,404	253	506	506
Maine	807	286,347	47,524	807	122,989	47,422	734	86,270	34,928	332	(D)	(D)
Maryland	987	357,615	139,938	981	304,603	138,549	890	294,033	136,420	335	(D)	(D)
Massachusetts	1,485	127,871	28,797	1,477	58,940	28,135	1,353	43,059	23,668	401	(D)	(D)
Michigan	4,959	2,263,878	850,380	4,941	1,989,731	843,746	4,273	1,918,292	824,929	1,615	4,334	4,334
Minnesota	2,517	1,455,302	581,370	2,517	1,318,842	581,135	2,371	1,293,474	578,366	483	737	737
Mississippi	1,853	2,318,551	1,783,341	1,827	2,140,758	1,781,161	1,708	2,097,625	1,774,173	193	261	261
Missouri	2,546	2,648,839	1,538,069	2,490	2,487,022	1,536,461	2,367	2,461,620	1,531,418	573	697	697
Montana	7,466	23,496,239	1,777,108	6,883	4,439,548	1,355,379	6,605	3,050,728	1,317,332	312	326	326
Nebraska	13,452	23,258,365	7,495,816	13,362	12,192,574	7,417,736	13,187	11,645,293	7,365,020	206	243	243
Nevada	1,611	3,846,023	801,810	1,428	721,532	614,489	1,401	538,769	516,426	80	80	80
New Hampshire	463	34,889	5,226	459	10,957	5,138	408	8,301	4,467	245	295	295
New Jersey	1,402	226,065	92,004	1,402	135,280	91,856	1,363	124,590	85,608	436	1,243	1,243
New Mexico	8,158	5,789,869	709,514	7,282	1,085,503	635,781	6,645	629,490	500,558	287	321	321
New York	2,731	447,784	128,021	2,695	316,106	125,175	2,388	288,662	119,553	1,446	2,133	2,133
North Carolina	3,422	975,726	231,118	3,377	670,020	221,627	3,183	644,095	213,955	1,202	1,758	1,758
North Dakota	657	1,822,761	262,371	657	1,443,591	259,373	625	1,344,856	257,239	53	62	62
Ohio	2,118	369,940	76,135	2,076	309,989	75,232	1,792	296,781	71,051	1,046	2,234	2,234
Oklahoma	2,182	4,332,945	674,055	2,102	1,774,964	606,129	1,809	1,094,448	545,488	164	247	247
Oregon	13,752	8,623,821	1,746,213	11,242	2,336,984	1,480,687	10,939	1,940,296	1,388,982	1,092	2,399	2,399
Pennsylvania	2,823	389,168	70,109	2,817	261,205	68,067	2,439	237,745	60,925	1,367	2,144	2,144
Rhode Island	249	11,646	4,391	247	5,259	4,275	213	4,508	3,912	132	(D)	(D)
South Carolina	1,780	882,371	233,862	1,706	624,488	230,584	1,547	593,795	226,668	432	(D)	(D)
South Dakota	1,520	3,214,083	411,883	1,494	2,380,905	406,797	1,468	2,348,892	396,563	116	145	145
Tennessee	1,613	802,110	185,236	1,613	728,982	184,311	1,388	705,644	183,475	527	634	634
Texas	13,392	20,690,842	4,536,890	12,038	9,420,096	4,132,219	11,378	6,051,595	3,547,762	653	3,217	3,217
Utah	10,677	4,453,875	1,169,534	9,050	1,088,201	800,274	8,707	906,710	766,250	179	303	303
Vermont	607	38,973	6,256	603	13,997	6,087	514	11,382	5,058	335	345	345
Virginia	1,544	424,096	86,101	1,510	307,568	83,738	1,437	293,771	79,924	631	(D)	(D)
Washington	10,559	6,332,720	1,801,001	9,281	2,400,912	1,741,953	8,751	2,031,508	1,690,825	878	1,240	1,240
West Virginia	554	73,545	4,881	554	22,867	4,179	422	18,562	3,050	374	404	404
Wisconsin	2,817	1,589,757	515,014	2,817	1,195,046	513,990	2,557	1,174,961	510,759	998	1,284	1,284
Wyoming	4,668	12,038,779	1,223,402	4,232	1,218,210	949,058	4,103	1,040,050	910,366	146	146	146
Water Resource Regions												
Region 01 New England	3,920	511,462	97,697	3,906	217,347	96,591	3,490	156,564	76,131	1,574	2,289	2,289
Region 02 Mid-Atlantic	7,802	1,698,883	558,576	7,734	1,286,906	552,860	6,978	1,220,920	532,557	3,156	5,705	5,705
Region 03 South Atlantic-Gulf	19,431	8,889,429	3,277,367	18,739	5,614,039	3,211,533	17,382	5,212,569	3,071,748	4,101	13,162	13,162
Region 04 Great Lakes	8,664	3,172,588	1,156,793	8,598	2,742,505	1,147,621	7,505	2,643,626	1,120,382	3,236	7,307	7,307
Region 05 Ohio	5,931	2,415,971	544,855	5,887	2,115,877	538,368	5,224	2,055,086	530,771	2,681	3,467	3,467
Region 06 Tennessee	1,500	503,523	96,839	1,500	434,632	95,145	1,293	417,797	94,385	531	(D)	(D)
Region 07 Upper Mississippi	8,140	5,776,330	1,955,758	8,117	5,130,652	1,952,236	7,639	5,021,318	1,937,435	2,079	(D)	(D)
Region 08 Lower Mississippi	6,513	11,499,763	8,718,950	6,460	10,907,360	8,705,632	6,193	10,602,334	8,608,559	383	(D)	(D)
Region 09 Souris-Red-Rainy	538	1,055,305	202,247	538	946,031	200,747	525	866,013	199,786	63	(D)	(D)
Region 10 Missouri	31,387	71,020,230	12,467,549	30,223	27,675,955	11,810,605	29,442	23,914,596	11,587,477	1,416	2,022	2,022
Region 11 Arkansas-White-Red	10,244	20,730,049	5,398,577	9,879	12,882,361	5,187,814	9,358	9,675,558	4,904,593	635	868	868
Region 12 Texas-Gulf	10,860	12,073,090	2,902,457	9,515	6,138,377	2,537,894	8,926	3,995,944	2,122,486	579	2,959	2,959
Region 13 Rio Grande	7,147	7,795,512	801,279	6,592	970,268	687,193	6,074	582,884	549,160	286	487	487
Region 14 Upper Colorado	11,335	9,586,631	1,557,916	9,729	1,467,817	1,040,355	9,054	1,028,940	922,408	274	295	295
Region 15 Lower Colorado	4,079	10,576,492	1,238,659	3,261	1,691,970	1,177,382	2,790	1,021,596	1,016,080	259	674	674
Region 16 Great Basin	10,799	7,592,647	1,690,754	9,376	1,833,689	1,349,007	9,015	1,417,715	1,225,893	179	297	297
Region 17 Pacific Northwest	38,292	22,934,716	6,873,707	31,678	8,378,455	6,230,734	29,795	7,300,203	6,021,749	2,445	4,131	4,131
Region 18 California	39,603	15,668,375	8,291,349	37,273	8,401,774	7,848,988	35,913	7,746,592	7,537,285	2,069	9,524	9,524
Region 19 Alaska	374	10,820	2,554	374	3,711	2,497	307	2,853	1,975	251	(D)	(D)
Region 20 Hawaii	2,027	212,923	53,629	2,004	92,427	51,943	1,799	40,071	32,298	519	(D)	(D)

See footnote(s) at end of table.

--continued

Table 2. Land Use on Farms with Irrigation Equipment: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Cropland not harvested or grazed			Permanent pasture and rangeland			Woodland pastured		Other pasture and grazing land that could have been used for crops without additional improvements			All other land	
	Farms	Acres	Acres equipped	Farms	Acres	Acres equipped	Farms	Acres	Farms	Acres	Acres equipped	Farms	Acres
United States	46,827	11,583,156	1,758,740	92,880	100,196,715	3,462,367	20,648	5,339,456	14,491	2,367,187	514,616	119,051	9,256,415
Alabama	375	18,026	(D)	512	57,757	5,297	308	15,123	144	(D)	-	807	171,036
Alaska	95	4,470	(D)	31	671	57	44	405	16	(D)	(D)	224	6,033
Arizona	890	180,048	112,207	1,501	8,464,858	58,394	41	11,630	237	458,991	21,778	1,746	159,846
Arkansas	624	116,006	33,945	519	76,271	5,860	269	18,610	54	6,488	388	1,131	207,372
California	6,146	539,068	297,280	6,659	5,376,360	374,010	1,600	675,092	1,141	114,333	17,787	17,975	863,258
Colorado	2,636	1,185,526	87,913	7,633	7,611,073	385,618	1,373	921,359	1,161	186,780	59,221	7,675	651,292
Connecticut	238	2,065	599	171	1,619	79	76	1,802	31	1,037	531	487	16,807
Delaware	60	1,969	(D)	54	800	67	23	387	8	(D)	-	268	21,151
Florida	1,186	150,686	94,284	2,032	533,951	44,982	653	302,456	278	35,099	-	3,980	522,284
Georgia	1,024	113,418	15,000	1,449	88,601	1,686	801	53,595	228	10,123	5,234	2,953	898,942
Hawaii	406	43,811	11,406	378	64,820	1,686	65	11,989	65	(D)	(D)	784	43,687
Idaho	1,280	245,026	42,781	7,540	3,137,233	314,583	355	72,549	959	103,300	19,349	6,544	203,250
Illinois	491	57,646	7,488	369	14,351	565	221	10,343	95	1,025	114	1,058	56,228
Indiana	501	9,003	599	635	22,669	1,627	159	7,696	170	2,390	95	1,495	93,582
Iowa	281	13,975	722	291	8,138	30	96	2,708	63	4,688	-	704	31,198
Kansas	2,261	1,799,123	87,135	2,379	2,596,389	6,909	341	21,306	283	79,455	18,203	2,181	154,930
Kentucky	465	17,479	834	852	48,279	3,721	435	9,602	248	4,145	846	1,037	45,242
Louisiana	580	147,507	52,973	476	86,422	10,589	410	12,682	90	10,286	9,313	1,034	209,726
Maine	295	36,119	11,998	243	2,691	102	127	17,656	57	(D)	(D)	688	143,011
Maryland	221	9,410	1,549	291	6,353	1,389	182	2,301	78	(D)	(D)	704	44,358
Massachusetts	444	15,101	(D)	381	4,557	662	222	2,690	55	(D)	-	1,097	61,684
Michigan	1,239	60,371	13,646	818	23,145	6,634	326	8,653	337	6,734	837	3,159	242,349
Minnesota	512	19,958	816	520	24,624	235	400	13,628	146	4,673	1,216	1,783	98,208
Mississippi	410	41,543	6,614	363	19,075	2,180	232	23,316	66	1,329	113	834	135,402
Missouri	396	19,765	3,872	859	69,288	1,608	411	17,745	190	4,940	474	1,428	74,784
Montana	1,078	1,131,065	9,044	5,460	17,624,387	421,729	1,147	1,027,229	669	257,429	28,677	3,897	405,075
Nebraska	2,561	468,441	47,764	5,672	10,595,444	78,080	649	193,633	462	78,597	4,709	6,177	276,714
Nevada	254	55,333	23,957	904	2,953,706	187,321	36	38,529	98	127,350	74,026	954	132,256
New Hampshire	124	1,005	376	101	1,279	88	75	3,246	29	1,356	-	304	19,407
New Jersey	456	8,386	4,963	353	1,471	148	216	31,383	117	1,061	42	920	57,931
New Mexico	1,809	347,461	97,649	3,689	4,215,776	73,733	607	125,782	759	108,231	37,253	3,406	362,808
New York	763	23,430	2,871	808	21,659	2,846	229	3,101	119	1,881	618	2,035	106,918
North Carolina	967	20,369	3,633	967	33,051	9,491	524	8,525	221	3,798	2,281	2,547	264,130
North Dakota	193	77,074	2,072	266	347,439	2,998	46	6,230	40	21,599	-	237	25,501
Ohio	532	8,961	1,737	679	10,533	903	348	2,310	114	2,013	210	1,556	47,108
Oklahoma	726	574,321	44,808	1,496	2,440,580	67,926	463	81,147	339	105,948	15,586	829	36,254
Oregon	2,582	343,336	70,351	8,111	5,200,400	265,526	1,744	620,201	1,019	50,953	18,955	7,794	466,236
Pennsylvania	698	15,597	3,886	1,309	32,253	2,042	390	4,733	267	5,719	1,112	2,092	90,977
Rhode Island	70	541	(D)	53	317	116	33	262	19	(D)	(D)	159	5,788
South Carolina	608	24,319	3,009	782	62,964	3,278	408	9,139	117	(D)	(D)	1,031	185,780
South Dakota	321	30,092	9,678	906	799,618	5,086	79	3,589	68	1,776	411	647	29,971
Tennessee	386	19,619	177	670	16,358	925	296	2,972	167	3,085	25	1,053	53,798
Texas	4,247	3,001,550	464,196	7,105	10,222,284	404,671	1,823	429,316	1,121	363,734	117,044	5,009	619,146
Utah	1,437	136,228	22,695	6,688	3,179,345	369,260	540	70,824	842	44,960	11,026	4,583	115,505
Vermont	178	1,424	421	215	2,894	169	57	1,039	44	846	263	497	21,043
Virginia	469	8,685	2,778	671	43,997	2,363	237	4,568	169	(D)	(D)	1,100	67,963
Washington	1,883	340,976	31,500	4,405	3,726,029	59,048	839	64,662	883	27,188	18,388	5,584	141,117
West Virginia	176	2,375	614	250	8,877	702	102	5,221	85	1,526	111	388	36,580
Wisconsin	724	16,181	1,842	663	22,657	1,024	335	7,585	136	2,620	105	2,104	364,469
Wyoming	529	83,268	18,158	3,701	10,293,402	274,344	455	358,887	387	94,746	20,388	2,372	168,280
Water Resource Regions													
Region 01 New England	1,232	55,318	17,247	1,005	12,635	1,106	562	25,892	210	3,176	924	2,885	255,588
Region 02 Mid-Atlantic	1,976	50,499	13,349	2,642	73,421	5,716	975	40,763	550	9,782	1,249	5,353	297,793
Region 03 South Atlantic-Gulf	4,259	326,077	118,701	5,991	788,957	65,834	2,799	395,932	1,054	62,231	7,922	11,541	2,090,501
Region 04 Great Lakes	2,242	80,745	18,388	1,938	45,394	9,172	698	14,496	600	10,827	1,544	5,947	370,193
Region 05 Ohio	1,522	46,022	2,993	2,447	75,852	6,487	1,131	25,779	638	11,302	1,137	4,087	198,463
Region 06 Tennessee	314	13,292	(D)	545	13,379	1,694	328	3,669	162	(D)	(D)	995	51,843
Region 07 Upper Mississippi	1,868	96,058	10,784	1,838	85,632	3,522	991	29,806	344	(D)	(D)	5,259	530,240
Region 08 Lower Mississippi	1,451	293,492	86,707	811	95,599	13,318	322	30,491	124	(D)	(D)	2,436	466,313
Region 09 Souris-Red-Rainy	171	60,713	610	107	78,591	1,500	51	7,840	61	(D)	(D)	302	22,843
Region 10 Missouri	6,386	3,305,459	169,871	17,270	41,040,349	656,944	2,325	1,398,745	1,865	453,878	51,235	15,683	905,181
Region 11 Arkansas-White-Red	3,838	2,861,964	238,709	5,996	7,122,786	210,763	1,271	241,882	962	343,971	43,644	4,384	483,020
Region 12 Texas-Gulf	3,230	1,938,960	295,254	5,764	5,198,989	364,563	1,618	396,345	922	200,514	117,195	4,373	339,379
Region 13 Rio Grande	1,563	304,436	118,077	3,192	6,572,174	114,086	489	27,853	553	82,461	19,469	2,608	225,217
Region 14 Upper Colorado	1,661	244,340	60,893	6,566	6,536,165	517,561	1,426	989,636	1,044	194,242	56,759	6,233	593,013
Region 15 Lower Colorado	975	199,042	130,430	1,838	8,487,820	61,277	70	12,539	341	470,658	30,198	2,033	384,163
Region 16 Great Basin	1,517	212,885	43,173	6,396	5,415,142	341,747	431	115,929	858	202,792	79,644	4,913	227,887
Region 17 Pacific Northwest	5,949	927,193	141,208	21,002	12,808,030	642,973	3,372	848,074	2,937	146,928	63,646	20,797	901,157
Region 18 California	6,172	522,380	280,592	7,123	5,680,309	442,361	1,680	721,391	1,185	123,278	21,587	18,214	864,901
Region 19 Alaska	95	4,470	(D)	31	671	57	44	405	16	(D)	(D)	224	6,033
Region 20 Hawaii	406	43,811	11,406	378	64,820	1,686	65	11,989	65	(D)	(D)	784	43,687

¹ Acres were rounded to the nearest whole acre for individual farms.

Table 3. Land Use on Farms with Irrigation: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Land in farms			Total cropland			Cropland harvested in the open			Nursery, greenhouse, and other horticulture, under protection ¹		
	Farms	Acres	Acres irrigated	Farms	Acres	Acres irrigated	Farms	Acres	Acres irrigated	Farms	Acres	Acres irrigated
United States	212,714	202,564,553	53,135,170	197,635	95,900,818	50,414,439	186,966	82,704,810	49,551,162	26,716	58,631	58,631
2018	231,474	222,028,954	55,938,795	210,508	100,895,082	52,518,832	199,694	88,362,432	51,500,526	24,876	52,325	52,325
2023 DATA												
Alabama	1,230	824,553	157,755	1,223	620,093	154,221	1,197	597,367	153,310	260	(D)	(D)
Alaska	359	9,035	1,677	359	2,797	(D)	292	1,955	(D)	251	(D)	(D)
Arizona	3,086	8,966,100	921,013	2,459	1,491,676	891,596	2,202	877,173	864,093	181	593	593
Arkansas	2,857	5,480,831	4,646,159	2,857	5,232,401	4,645,990	2,798	5,137,883	(D)	148	234	234
California	38,033	15,203,884	7,765,348	35,961	8,391,883	7,443,168	34,872	7,741,776	7,393,450	2,047	9,502	9,502
Colorado	12,865	12,385,374	2,368,208	11,652	4,158,916	2,028,471	11,037	2,873,899	1,939,110	556	826	826
Connecticut	622	29,102	4,448	622	13,464	4,424	511	10,344	3,602	368	803	803
Delaware	416	281,103	132,106	416	259,965	132,106	409	257,824	131,937	36	(D)	(D)
Florida	7,303	2,859,958	1,145,368	7,028	1,564,931	1,122,466	6,325	1,388,388	1,092,030	1,667	9,544	9,544
Georgia	4,234	3,225,793	1,222,368	4,207	2,218,326	1,221,649	4,043	2,096,884	1,209,084	465	736	736
Hawaii	1,850	179,956	36,166	1,844	87,793	35,475	1,642	37,049	30,810	519	(D)	(D)
Idaho	11,952	7,020,834	3,180,948	9,241	3,644,348	2,887,193	8,820	3,297,897	2,848,504	287	304	304
Illinois	2,141	1,851,591	680,392	2,141	1,778,649	679,857	2,025	1,739,087	678,482	574	991	991
Indiana	2,298	1,981,450	582,245	2,282	1,862,651	580,812	2,158	1,850,594	579,494	544	768	768
Iowa	1,176	1,003,247	235,413	1,176	961,203	235,383	1,099	942,013	234,814	323	527	527
Kansas	4,188	12,481,063	2,325,264	4,188	9,748,224	2,324,435	4,130	7,895,151	2,273,694	258	363	363
Kentucky	1,321	550,927	81,805	1,318	460,975	81,296	1,193	441,232	80,525	710	771	771
Louisiana	1,859	2,436,723	1,306,078	1,848	2,158,315	1,301,414	1,758	2,015,893	1,300,908	253	506	506
Maine	559	178,970	18,822	559	67,791	18,817	492	49,060	16,162	332	(D)	(D)
Maryland	916	344,822	130,707	916	296,141	130,492	831	285,607	129,833	335	(D)	(D)
Massachusetts	1,311	98,097	18,963	1,303	51,045	18,882	1,187	36,105	18,257	401	(D)	(D)
Michigan	4,602	2,209,871	750,576	4,584	1,947,303	747,308	3,954	1,882,686	740,366	1,615	4,334	4,334
Minnesota	2,446	1,441,468	558,507	2,446	1,311,906	558,315	2,300	1,286,830	556,618	483	737	737
Mississippi	1,671	2,259,054	1,713,436	1,653	2,107,301	1,712,855	1,585	2,069,922	1,712,594	193	261	261
Missouri	2,337	2,539,097	1,487,302	2,314	2,386,525	1,486,945	2,213	2,365,207	1,486,224	573	697	697
Montana	7,013	21,977,160	1,561,373	6,515	4,267,251	1,193,008	6,259	2,895,597	1,162,578	312	326	326
Nebraska	13,128	22,602,456	7,305,801	13,067	12,062,518	7,247,241	12,953	11,565,207	7,231,341	206	243	243
Nevada	1,604	3,843,498	767,374	1,425	721,529	607,111	1,398	538,766	513,352	80	80	80
New Hampshire	369	27,997	2,060	365	8,877	2,056	314	6,430	1,757	245	295	295
New Jersey	1,193	217,801	70,616	1,193	130,207	70,600	1,170	120,878	66,477	436	1,243	1,243
New Mexico	7,718	4,249,733	583,735	6,873	969,573	518,648	6,431	615,103	474,248	287	321	321
New York	2,439	346,014	49,251	2,421	237,241	49,251	2,132	217,066	47,005	1,446	2,133	2,133
North Carolina	2,907	889,074	152,023	2,884	621,678	149,733	2,722	603,547	147,975	1,202	1,758	1,758
North Dakota	601	1,689,371	246,363	601	1,344,041	246,363	580	1,250,906	246,019	53	62	62
Ohio	1,931	306,706	56,230	1,917	267,066	55,772	1,633	254,023	53,510	1,046	2,234	2,234
Oklahoma	1,734	3,963,086	539,181	1,664	1,607,354	507,925	1,490	970,053	498,577	164	247	247
Oregon	12,692	8,384,214	1,447,429	10,334	2,260,011	1,250,597	9,592	1,882,360	1,217,226	1,092	2,399	2,399
Pennsylvania	2,362	242,975	30,248	2,356	162,961	(D)	1,978	144,872	27,377	1,367	2,144	2,144
Rhode Island	225	11,147	3,931	223	5,083	3,863	195	4,412	3,608	132	(D)	(D)
South Carolina	1,572	809,212	187,519	1,522	569,049	186,106	1,363	541,697	184,297	432	(D)	(D)
South Dakota	1,352	2,565,748	379,630	1,352	1,996,427	375,102	1,326	1,975,492	374,548	116	145	145
Tennessee	1,388	792,210	174,162	1,388	726,332	174,162	1,238	704,369	173,528	527	634	634
Texas	10,896	19,762,913	3,724,195	10,241	9,060,691	3,443,966	9,781	5,847,500	3,217,292	653	3,217	3,217
Utah	10,432	4,127,787	986,166	8,826	1,069,596	761,510	8,526	897,355	740,989	179	303	303
Vermont	486	28,500	2,675	486	7,698	2,675	410	5,364	2,070	335	345	345
Virginia	1,350	380,489	55,802	1,334	272,364	54,530	1,261	260,605	53,324	631	(D)	(D)
Washington	9,988	6,190,535	1,706,118	8,751	2,301,562	1,656,848	8,345	2,017,971	1,634,288	878	1,240	1,240
West Virginia	505	65,210	2,179	505	20,688	2,179	373	16,691	1,775	374	404	404
Wisconsin	2,714	1,579,424	481,845	2,714	1,187,761	480,821	2,454	1,169,293	479,268	998	1,284	1,284
Wyoming	4,483	11,668,390	1,148,190	4,081	1,198,638	899,632	3,969	1,021,427	877,732	146	146	146
Water Resource Regions												
Region 01 New England	3,221	357,916	49,633	3,207	148,704	49,451	2,818	108,033	44,438	1,574	2,289	2,289
Region 02 Mid-Atlantic	6,918	1,483,813	444,120	6,896	1,139,994	(D)	6,167	1,085,489	432,815	3,156	5,705	5,705
Region 03 South Atlantic-Gulf	17,369	8,454,017	2,829,208	16,969	5,386,194	2,798,434	15,747	5,020,194	2,750,826	4,101	13,162	13,162
Region 04 Great Lakes	7,846	3,008,684	978,210	7,794	2,609,042	974,800	6,770	2,520,973	964,765	3,236	7,307	7,307
Region 05 Ohio	5,317	2,278,938	482,493	5,300	2,028,358	481,295	4,662	1,971,731	477,334	2,681	3,467	3,467
Region 06 Tennessee	1,279	490,417	85,450	1,279	429,623	(D)	1,147	414,198	(D)	531	(D)	(D)
Region 07 Upper Mississippi	7,863	5,614,417	1,846,988	7,851	4,983,179	1,844,099	7,424	4,897,381	1,839,623	2,079	(D)	(D)
Region 08 Lower Mississippi	6,170	11,316,795	8,377,798	6,148	10,788,950	8,372,770	6,009	10,523,134	8,372,021	383	(D)	(D)
Region 09 Souris-Red-Rainy	502	983,675	181,264	502	878,849	181,264	489	801,367	180,989	63	(D)	(D)
Region 10 Missouri	29,755	67,370,394	11,799,109	28,825	26,716,524	11,243,660	28,186	23,123,207	11,159,103	1,416	2,022	2,022
Region 11 Arkansas-White-Red	9,195	19,432,156	4,852,366	8,956	12,566,971	4,712,112	8,581	9,454,518	4,612,383	635	868	868
Region 12 Texas-Gulf	8,603	11,441,998	2,337,508	7,917	5,850,168	2,075,047	7,526	3,841,051	1,907,784	579	2,959	2,959
Region 13 Rio Grande	6,738	6,228,054	703,913	6,183	854,247	598,639	5,820	567,051	529,710	286	487	487
Region 14 Upper Colorado	10,851	9,292,022	1,293,636	9,354	1,433,937	955,181	8,801	1,006,816	893,709	274	295	295
Region 15 Lower Colorado	3,632	9,387,271	1,054,139	2,909	2,022,387	1,022,260	2,602	1,020,088	986,413	259	674	674
Region 16 Great Basin	10,533	7,253,125	1,609,059	9,134	1,806,369	1,301,600	8,816	1,400,945	1,197,838	179	297	297
Region 17 Pacific Northwest	36,245	22,585,239	6,394,164	29,947	8,182,430	5,822,487	28,335	7,210,247	5,721,427	2,445	4,131	4,131
Region 18 California	38,468	15,396,631	7,778,269	36,261	8,341,759	7,417,203	35,132	7,699,373	7,363,265	2,069	9,524	9,524
Region 19 Alaska	359	9,035	1,677	359	2,797	(D)	292	1,955	(D)	251	(D)	(D)
Region 20 Hawaii	1,850	179,956	36,166	1,844	87,793	35,475	1,642	37,049	30,810	519	(D)	(D)

See footnote(s) at end of table.

--continued

Table 3. Land Use on Farms with Irrigation: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Cropland not harvested or grazed			Permanent pasture and rangeland			Woodland pastured		Other pasture and grazing land that could have been used for crops without additional improvements			All other land	
	Farms	Acres	Acres irrigated	Farms	Acres	Acres irrigated	Farms	Acres	Farms	Acres	Acres irrigated	Farms	Acres
United States	2023 41,597	10,913,540 9,407,241	482,367 492,278	84,980 97,532	93,285,764 105,474,363	2,720,731 3,419,963	18,112 20,107	4,724,924 5,257,540	12,785 15,327	2,223,837 3,073,084	322,279 473,703	110,658 124,446	8,653,047 10,401,969
2023 DATA													
Alabama	306	16,370	(D)	465	44,015	3,534	285	14,318	98	(D)	-	692	146,127
Alaska	89	460		26	291	(D)	39	362	14	(D)	-	212	5,585
Arizona	721	175,691	13,410	1,336	7,307,935	29,417	23	10,820	219	438,219	13,500	1,523	155,669
Arkansas	533	93,320	(D)	424	63,148	169	203	16,331	32	964	-	971	168,951
California	5,778	530,047	27,757	6,281	5,307,267	322,180	1,544	674,412	1,041	110,558	12,459	17,484	830,322
Colorado	2,375	1,098,313	35,426	7,095	6,951,174	339,737	1,304	663,890	1,117	185,878	53,109	7,167	611,394
Connecticut	204	1,819	19	110	1,033	24	53	1,113	15	498	-	399	13,492
Delaware	60	1,969	(D)	44	730	-	18	367	3	(D)	-	238	20,041
Florida	1,034	131,900	20,892	1,698	505,212	22,902	561	293,126	278	35,099	-	3,635	496,689
Georgia	970	110,583	8,875	1,301	83,497	719	693	47,412	228	10,123	2,954	2,823	876,558
Hawaii	343	42,449	(D)	356	37,784	691	63	11,789	46	(D)	(D)	719	42,590
Idaho	1,218	243,824	20,513	7,239	3,115,601	293,755	292	61,843	880	102,323	17,872	6,321	199,404
Illinois	468	37,546	384	369	14,351	535	221	10,343	95	1,025	-	1,030	48,248
Indiana	484	8,969	(D)	584	21,445	1,433	159	7,696	151	2,320	(D)	1,438	89,658
Iowa	281	13,975	42	291	8,138	30	96	2,708	63	4,688	-	704	31,198
Kansas	2,134	1,773,255	32,391	2,298	2,561,051	829	341	21,306	283	79,455	17,987	2,080	150,482
Kentucky	408	15,110	-	733	43,265	509	361	8,847	204	585	-	885	37,840
Louisiana	472	131,630	-	380	75,132	4,664	128	12,322	90	10,286	-	948	190,954
Maine	192	18,196	(D)	189	1,767	5	62	2,810	47	(D)	-	498	106,602
Maryland	215	9,404	(D)	263	4,856	215	171	2,231	73	(D)	(D)	655	41,594
Massachusetts	343	14,160	(D)	302	3,368	81	167	986	55	(D)	-	995	42,698
Michigan	1,070	56,019	2,221	763	21,776	3,268	308	7,573	318	4,264	387	2,932	233,219
Minnesota	512	19,958	-	504	24,304	192	384	12,108	126	4,381	960	1,744	93,150
Mississippi	327	35,893	-	269	16,895	581	192	22,580	50	1,225	-	723	112,728
Missouri	337	15,711	24	790	66,495	357	388	17,282	188	4,910	-	1,309	68,795
Montana	1,014	1,115,117	3,359	5,094	16,499,104	368,365	1,082	855,576	627	256,211	26,745	3,683	355,229
Nebraska	2,413	418,471	13,369	5,467	10,081,643	58,560	588	193,166	462	78,597	2,288	6,059	265,129
Nevada	254	55,333	20,862	900	2,951,197	160,263	36	38,529	98	127,350	72,817	950	132,243
New Hampshire	96	796	4	71	843	4	58	3,180	29	1,356	-	234	15,097
New Jersey	408	7,042	2,880	296	1,105	16	200	31,335	100	1,044	-	775	55,154
New Mexico	1,578	305,106	13,540	3,501	2,796,832	65,087	545	122,403	634	49,043	30,539	3,255	360,925
New York	604	17,133	-	725	18,435	110	218	2,721	101	909	3	1,788	87,617
North Carolina	730	13,981	-	746	28,046	2,290	470	7,748	144	2,392	-	2,143	231,602
North Dakota	162	72,099	282	235	315,864	-	31	5,215	35	20,974	-	211	24,251
Ohio	526	8,796	28	604	9,406	458	320	2,114	114	2,013	-	1,425	28,120
Oklahoma	567	535,234	6,265	1,182	2,249,597	31,256	394	71,220	242	101,820	2,836	701	34,915
Oregon	2,340	327,270	16,007	7,691	5,062,342	196,632	1,624	609,775	908	47,982	14,965	7,263	452,086
Pennsylvania	568	12,295	80	1,081	20,190	(D)	347	3,686	222	3,650	(D)	1,686	56,138
Rhode Island	54	480	(D)	45	283	68	22	143	14	(D)	(D)	143	5,638
South Carolina	551	21,093	(D)	701	56,140	1,413	359	6,737	94	(D)	(D)	934	177,286
South Dakota	224	19,014	4	809	546,413	4,528	62	1,039	68	1,776	405	549	21,869
Tennessee	261	19,069	-	545	13,883	-	221	2,722	92	2,260	-	878	49,273
Texas	3,632	2,872,728	211,492	5,304	9,762,590	280,229	1,159	347,254	784	337,246	11,965	3,958	592,378
Utah	1,350	128,595	13,747	6,579	2,873,501	224,656	537	69,321	800	43,343	6,471	4,535	115,369
Vermont	138	1,194	-	163	2,452	-	36	904	32	795	260	398	17,446
Virginia	422	6,719	(D)	577	41,386	1,272	177	3,779	161	(D)	-	983	62,960
Washington	1,661	259,989	6,201	4,168	3,698,260	49,270	715	52,137	758	22,362	15,119	5,306	138,576
West Virginia	151	2,086	-	213	7,709	-	65	3,173	66	1,507	-	345	33,640
Wisconsin	682	14,690	(D)	623	22,493	1,024	335	7,585	115	2,494	(D)	2,043	361,585
Wyoming	495	82,639	4,288	3,550	9,945,520	248,558	455	358,887	371	94,426	17,466	2,288	165,345
Water Resource Regions													
Region 01 New England	940	35,856	(D)	757	9,310	182	383	8,422	173	2,526	(D)	2,385	191,480
Region 02 Mid-Atlantic	1,759	40,929	3,343	2,263	59,092	(D)	874	39,897	498	7,861	(D)	4,680	244,830
Region 03 South Atlantic-Gulf	3,652	292,312	31,492	5,071	727,684	30,774	2,360	375,796	908	60,526	2,954	10,369	1,964,343
Region 04 Great Lakes	1,916	73,527	2,233	1,734	41,371	3,410	647	12,946	536	7,235	495	5,328	345,325
Region 05 Ohio	1,350	42,424	494	2,126	65,372	1,198	967	21,753	542	10,736	-	3,681	163,455
Region 06 Tennessee	206	12,785	-	422	10,029	(D)	264	3,462	73	(D)	-	816	47,303
Region 07 Upper Mississippi	1,761	72,558	(D)	1,787	83,156	2,889	991	29,806	340	(D)	988	5,134	518,276
Region 08 Lower Mississippi	1,263	254,416	(D)	677	82,353	5,028	288	29,128	106	(D)	-	2,245	416,364
Region 09 Souris-Red-Rainy	156	58,433	(D)	107	78,591	-	35	6,320	45	(D)	-	286	19,915
Region 10 Missouri	5,807	3,139,580	42,137	16,212	38,602,684	555,449	2,162	1,230,490	1,802	451,715	40,398	14,826	820,696
Region 11 Arkansas-White-Red	3,476	2,777,290	69,413	5,247	6,215,317	140,254	1,025	190,339	819	334,295	29,448	4,046	459,529
Region 12 Texas-Gulf	2,683	1,832,108	154,522	4,146	4,955,733	262,461	1,027	320,923	609	174,050	9,782	3,371	315,174
Region 13 Rio Grande	1,387	264,139	49,481	3,018	5,151,342	105,274	435	20,644	437	22,570	18,961	2,432	201,821
Region 14 Upper Colorado	1,517	232,628	10,415	6,335	6,511,781	338,455	1,401	767,957	1,022	194,198	50,762	5,983	578,347
Region 15 Lower Colorado	810	194,437	13,413	1,706	7,330,732	31,879	52	11,729	292	449,731	21,760	1,832	379,880
Region 16 Great Basin	1,410	204,752	28,776	6,267	5,103,866	307,459	431	115,929	796	200,375	74,689	4,844	226,961
Region 17 Pacific Northwest	5,426	829,098	41,645	20,033	12,708,320	571,677	3,049	814,021	2,642	138,954	55,284	19,771	880,468
Region 18 California	5,804	513,359	28,955	6,690	5,510,956	361,066	1,619	713,211	1,085	119,503	15,459	17,698	830,705
Region 19 Alaska	89	460	-	26	291	(D)	39	362	14	(D)	-	212	5,585
Region 20 Hawaii	343	42,449	(D)	356	37,784	691	63	11,789	46	(D)	(D)	719	42,590

¹ Acres were rounded to the nearest whole acre for individual farms.

Table 4. Irrigated Farms by Size of Farm: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Total				1 to 49 acres				50 to 99 acres				
	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated	
United States	2023 2018	212,714 231,474	202,564,553 222,028,954	56,693,259 (NA) 55,938,795	53,135,170 104,018	1,519,487 1,646,070	894,721 (NA)	822,340 947,319	19,505 21,968	1,381,113 1,545,452	759,739 (NA)	700,116 783,385	
2023 DATA													
Alabama		1,230	824,553	171,246	157,755	547	12,828	4,243	3,294	131	10,358	2,482	2,242
Alaska		359	9,035	2,068	1,677	331	2,748	(D)	(D)	16	(D)	223	172
Arizona		3,086	8,966,100	1,047,889	921,013	1,770	23,355	14,441	13,688	177	12,340	5,008	4,732
Arkansas		2,857	5,480,831	4,736,388	4,646,159	329	6,704	1,965	1,824	133	8,950	4,313	4,180
California		38,033	15,223,884	8,212,686	7,765,348	22,103	327,109	243,436	233,815	4,224	293,798	213,943	203,809
Colorado		12,865	12,385,374	2,494,668	2,368,208	6,086	103,962	69,918	67,631	933	67,042	37,851	34,912
Connecticut		622	29,102	8,084	4,448	505	6,216	1,840	1,272	48	3,157	553	(D)
Delaware		416	281,103	133,991	132,106	64	819	334	287	24	1,748	689	629
Florida		7,303	2,859,958	1,284,667	1,145,368	5,035	65,754	36,876	34,817	571	42,550	27,806	27,686
Georgia		4,234	3,225,793	1,322,368	1,222,368	1,296	25,852	8,782	7,551	366	25,730	5,247	4,948
Hawaii		1,850	179,956	52,155	36,166	1,751	14,319	9,460	8,283	42	(D)	1,748	1,356
Idaho		11,952	7,020,834	3,276,397	3,180,948	6,624	96,794	76,876	73,074	1,294	92,958	65,194	62,567
Illinois		2,141	1,851,591	719,661	680,392	680	8,117	4,003	3,333	181	13,582	4,718	3,988
Indiana		2,298	1,981,450	601,616	582,245	669	10,310	2,497	2,144	164	12,491	5,758	4,730
Iowa		1,176	1,003,247	246,274	235,413	436	6,299	1,736	1,383	48	3,220	984	864
Kansas		4,188	12,481,063	2,445,492	2,325,264	393	7,931	1,601	1,355	107	7,193	2,974	2,374
Kentucky		1,321	550,927	94,472	81,805	650	11,609	2,734	1,381	264	19,146	3,830	1,239
Louisiana		1,859	2,436,723	1,472,596	1,306,078	459	7,853	3,437	2,893	86	6,288	4,294	4,170
Maine		559	178,970	30,980	18,822	296	5,723	736	588	109	8,237	(D)	(D)
Maryland		916	344,822	137,121	130,707	393	6,887	(D)	(D)	86	(D)	1,390	1,127
Massachusetts		1,311	98,097	26,466	18,963	901	15,497	5,448	4,340	156	10,581	(D)	(D)
Michigan		4,602	2,209,871	828,283	750,576	2,078	35,128	10,034	9,211	416	29,746	8,927	7,316
Minnesota		2,446	1,441,468	580,296	558,507	722	12,807	2,853	2,478	122	8,829	2,447	2,272
Mississippi		1,671	2,259,054	1,771,281	1,713,436	342	7,680	2,453	2,221	89	6,478	3,234	3,214
Missouri		2,337	2,539,097	1,516,094	1,487,302	650	12,394	2,614	2,203	293	21,283	5,697	4,775
Montana		7,013	21,977,160	1,621,908	1,561,373	2,731	53,036	38,517	35,745	641	45,976	31,357	30,721
Nebraska		13,128	22,602,456	7,470,798	7,305,801	542	9,855	5,855	5,347	472	37,248	29,646	29,402
Nevada		1,604	3,843,498	799,304	767,374	473	6,528	4,861	4,836	101	7,317	5,930	5,846
New Hampshire		369	27,997	4,330	2,060	215	2,211	618	402	56	4,364	657	484
New Jersey		1,193	217,801	88,936	70,616	762	11,940	(D)	(D)	154	(D)	4,888	4,386
New Mexico		7,718	4,249,733	684,787	583,735	5,099	58,986	37,934	35,506	521	38,376	23,965	21,764
New York		2,439	346,014	85,077	49,251	1,317	19,684	5,288	3,521	452	30,973	6,444	5,557
North Carolina		2,907	889,074	198,385	152,023	1,643	27,167	7,359	6,104	378	27,516	8,872	6,060
North Dakota		601	1,689,371	253,296	246,363	72	864	339	229	14	823	163	163
Ohio		1,931	306,706	68,845	56,230	1,292	20,874	6,667	4,835	218	16,668	4,488	2,927
Oklahoma		1,734	3,963,086	607,301	539,181	402	6,890	1,629	1,602	135	9,157	3,372	3,252
Oregon		12,692	8,384,214	1,697,649	1,447,429	7,379	111,333	68,672	61,042	1,013	69,638	40,033	34,057
Pennsylvania		2,362	242,975	45,010	30,248	1,358	22,088	(D)	(D)	442	(D)	6,247	3,276
Rhode Island		225	11,147	4,261	3,931	178	1,774	522	463	22	1,626	(D)	599
South Carolina		1,572	809,212	208,903	187,519	900	14,705	4,495	3,222	112	7,712	769	167
South Dakota		1,352	2,565,748	389,399	379,630	274	5,617	1,769	1,616	7	440	296	116
Tennessee		1,388	792,210	183,411	174,162	716	12,249	3,051	1,506	128	9,578	145	128
Texas		10,896	19,762,913	4,313,788	3,724,195	3,424	51,651	28,246	22,998	790	54,670	21,980	19,143
Utah		10,432	4,127,787	1,158,862	986,166	5,806	86,654	65,271	60,314	1,547	106,674	72,536	65,394
Vermont		486	28,500	4,347	2,675	297	3,824	844	574	85	5,708	1,834	884
Virginia		1,350	380,489	74,862	55,802	745	12,561	3,129	2,193	193	13,814	2,738	2,336
Washington		9,988	6,190,535	1,789,253	1,706,118	6,314	99,290	63,540	58,113	926	64,449	41,296	40,441
West Virginia		505	65,210	3,425	2,179	304	3,918	964	572	58	4,291	934	427
Wisconsin		2,714	1,579,424	514,470	481,845	1,084	18,235	4,827	3,840	284	19,520	2,739	2,599
Wyoming		4,483	11,668,390	1,205,323	1,148,190	971	23,058	17,803	17,587	676	47,736	35,004	34,106
Water Resource Regions													
Region 01 New England		3,221	357,916	76,022	49,633	2,161	32,015	9,361	7,149	414	29,340	5,956	4,228
Region 02 Mid-Atlantic		6,918	1,483,813	516,430	444,120	3,778	58,993	18,005	14,269	990	69,236	18,610	14,538
Region 03 South Atlantic-Gulf		17,369	8,454,017	3,156,882	2,829,208	9,376	146,749	62,166	55,520	1,583	115,660	45,212	41,107
Region 04 Great Lakes		7,846	3,008,684	1,093,009	978,210	3,751	59,742	17,503	13,757	878	61,620	17,730	13,192
Region 05 Ohio		5,317	2,278,938	516,081	482,493	2,693	46,614	12,074	7,944	710	52,961	10,375	5,730
Region 06 Tennessee		1,279	490,417	91,953	85,450	882	14,649	(D)	(D)	101	(D)	928	911
Region 07 Upper Mississippi		7,863	5,614,417	1,926,543	1,846,988	2,544	39,134	11,675	9,990	613	43,988	10,995	9,743
Region 08 Lower Mississippi		6,170	11,316,795	8,670,447	8,377,798	729	13,555	6,529	5,778	277	20,139	13,603	13,402
Region 09 Souris-Red-Rainy		502	983,675	197,336	181,264	82	1,332	395	283	27	1,912	311	311
Region 10 Missouri		29,755	67,370,394	12,219,140	11,799,109	5,175	103,941	61,523	57,720	1,869	138,179	90,788	87,240
Region 11 Arkansas-White-Red		9,195	19,432,156	5,217,760	4,852,366	1,748	31,143	11,116	10,132	466	32,147	9,235	8,406
Region 12 Texas-Gulf		8,603	11,441,998	2,729,426	2,337,508	2,868	43,936	24,453	19,539	699	48,160	21,244	18,439
Region 13 Rio Grande		6,738	6,228,054	777,504	703,913	4,115	46,377	29,908	28,242	513	38,225	23,056	20,415
Region 14 Upper Colorado		10,851	9,292,022	1,538,939	1,293,636	5,913	93,132	64,851	62,085	1,046	71,875	44,195	42,555
Region 15 Lower Colorado		3,632	9,387,271	1,220,091	1,054,139	2,047	30,080	16,813	16,014	251	17,650	6,962	6,466
Region 16 Great Basin		10,533	7,253,125	1,676,924	1,609,059	5,723	80,945	64,439	59,969	1,277	89,213	64,320	57,827
Region 17 Pacific Northwest		36,245	22,585,239	6,815,736	6,394,164	21,501	331,232	225,748	208,068	3,469	242,843	157,965	147,969
Region 18 California		38,468	15,396,631	8,198,813	7,778,269	22,240	328,851	244,954	235,293	4,264	296,678	216,283	206,109
Region 19 Alaska		359	9,035	2,068	1,677	331	2,748	(D)	(D)	16	(D)	223	172
Region 20 Hawaii		1,850	179,956	52,155	36,166	1,751	14,319	9,460	8,283	42	(D)	1,748	1,356

--continued

Table 4. Irrigated Farms by Size of Farm: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	100 to 219 acres				220 to 499 acres				500 to 999 acres				
	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated	
United States	2023 2018	22,299 23,513	3,363,235 3,482,482	1,892,475 (NA)	1,737,693 1,811,255	18,096 22,448	6,163,216 7,452,127	3,527,537 (NA)	3,285,437 3,862,174	15,753 18,022	11,330,788 12,976,618	5,949,749 (NA)	5,590,944 6,286,318
2023 DATA													
Alabama		136	21,433	4,862	4,820	82	22,447	5,151	4,261	119	86,519	27,542	22,388
Alaska		7	885	136	66	3	1,094	(D)	(D)	1	(D)	(D)	(D)
Arizona		217	34,869	15,324	12,373	198	65,095	49,391	39,019	272	204,116	179,681	149,084
Arkansas		180	26,220	15,183	14,091	228	76,522	46,664	45,022	369	280,462	205,548	192,380
California		3,956	596,958	464,866	452,902	3,234	1,095,095	880,879	856,599	1,696	1,162,831	963,059	915,732
Colorado		1,701	262,942	139,615	134,070	1,125	390,642	219,265	204,912	1,011	713,015	357,107	346,851
Connecticut		30	4,062	905	310	33	10,456	2,046	1,682	3	1,917	1,059	(D)
Delaware		64	9,276	4,967	4,159	92	28,971	15,003	14,977	69	48,983	24,449	24,337
Florida		629	90,695	49,236	41,144	370	120,160	86,654	75,860	308	217,286	78,945	77,402
Georgia		616	98,567	42,439	41,461	478	153,959	66,666	56,373	520	356,715	161,118	159,455
Hawaii		17	2,375	1,704	1,586	3	1,018	(D)	(D)	2	(D)	(D)	(D)
Idaho		815	128,981	89,521	85,043	1,026	346,953	242,628	237,318	725	508,679	362,283	355,943
Illinois		192	28,936	17,736	15,624	194	70,812	29,677	29,303	212	147,943	86,233	74,657
Indiana		293	44,574	14,286	11,547	318	120,289	46,744	45,775	187	143,909	42,764	41,409
Iowa		71	9,987	4,190	3,110	86	26,358	7,975	7,975	147	101,372	18,550	18,550
Kansas		168	26,141	10,629	10,398	305	98,245	45,249	42,213	320	237,770	68,301	67,305
Kentucky		195	27,501	4,260	2,252	79	26,273	2,769	2,229	27	20,669	6,195	2,668
Louisiana		84	13,672	7,750	7,063	175	62,036	37,479	32,517	289	197,308	132,846	111,061
Maine		86	13,310	1,351	1,079	43	13,318	1,201	523	9	(D)	2,187	854
Maryland		127	18,705	6,355	6,082	124	41,938	18,080	16,436	76	50,711	29,089	27,157
Massachusetts		163	22,579	5,884	4,770	67	19,680	4,147	2,534	15	(D)	(D)	1,279
Michigan		484	71,347	36,853	29,229	642	207,283	89,405	75,903	297	233,644	61,838	61,298
Minnesota		308	46,847	16,807	16,791	478	163,275	71,855	68,095	348	244,145	102,871	100,248
Mississippi		184	25,155	9,685	8,727	224	71,168	38,547	37,971	175	131,390	85,618	85,215
Missouri		284	41,593	15,090	13,740	123	45,724	19,747	17,950	205	152,680	74,877	72,506
Montana		499	78,215	43,364	41,628	601	205,422	100,996	98,444	477	364,462	129,612	117,306
Nebraska		2,075	326,308	257,200	243,726	1,914	695,352	426,597	413,712	2,592	1,945,049	1,221,934	1,190,766
Nevada		288	46,547	30,043	22,913	194	62,512	43,026	37,258	182	139,185	81,658	81,286
New Hampshire		72	10,848	1,194	596	21	7,162	1,135	567	5	3,412	726	11
New Jersey		50	6,947	5,512	4,612	87	25,999	11,062	8,772	79	48,904	26,955	16,709
New Mexico		669	102,295	44,037	41,227	370	120,299	60,678	52,646	353	246,835	50,507	44,809
New York		301	43,170	7,204	4,033	254	82,552	28,019	18,411	77	53,173	12,545	9,860
North Carolina		394	60,568	24,185	13,402	212	72,793	22,775	22,638	87	62,384	12,701	11,146
North Dakota		15	2,382	837	832	35	11,855	6,605	6,475	54	39,233	14,982	14,197
Ohio		246	37,301	11,025	6,384	54	15,597	2,173	1,788	33	23,034	7,144	6,260
Oklahoma		122	18,244	7,290	5,591	139	53,642	27,351	25,022	175	111,267	23,630	16,854
Oregon		1,473	219,871	122,407	101,659	785	267,615	161,530	129,953	854	590,045	269,609	223,405
Pennsylvania		316	43,393	6,366	3,233	179	61,672	13,257	8,158	43	31,219	6,658	6,217
Rhode Island		16	2,398	511	459	6	2,047	1,453	1,318	2	(D)	(D)	(D)
South Carolina		137	22,919	5,990	5,640	123	42,335	8,538	8,538	29	15,663	4,945	4,570
South Dakota		58	8,457	1,697	1,657	91	37,143	9,835	9,835	330	245,774	59,855	58,829
Tennessee		138	19,065	3,062	1,481	132	43,158	10,144	8,918	43	35,754	12,512	11,752
Texas		1,091	157,589	58,413	54,386	1,045	360,227	153,006	130,998	1,198	831,102	332,204	292,321
Utah		1,173	170,348	116,050	109,938	682	235,523	124,272	121,676	487	353,469	176,624	171,164
Vermont		85	12,025	516	321	16	4,780	1,117	860	3	2,163	36	36
Virginia		170	26,472	3,984	3,487	75	24,720	9,650	8,081	84	62,797	8,865	7,525
Washington		1,046	149,515	106,584	102,126	538	171,276	140,438	134,444	430	317,034	198,282	188,693
West Virginia		99	16,494	753	466	13	3,683	64	64	8	4,624	687	627
Wisconsin		283	43,372	14,498	9,357	265	92,236	37,059	33,574	239	204,754	62,688	50,758
Wyoming		476	70,882	40,119	36,102	535	184,805	98,023	87,011	487	337,053	157,362	155,199
Water Resource Regions													
Region 01 New England		385	55,271	9,867	7,232	198	61,223	11,014	7,365	34	23,310	6,856	3,725
Region 02 Mid-Atlantic		723	101,672	27,210	21,806	638	208,538	88,502	70,135	410	283,692	108,503	91,976
Region 03 South Atlantic-Gulf		2,026	309,310	129,338	107,900	1,325	430,859	194,903	172,219	1,053	733,957	277,019	268,868
Region 04 Great Lakes		983	145,999	58,644	41,462	907	298,126	110,550	93,275	414	320,426	95,831	90,806
Region 05 Ohio		738	109,170	18,766	13,665	362	126,910	26,480	23,528	168	127,220	33,248	29,321
Region 06 Tennessee		60	9,099	255	255	54	14,663	(D)	(D)	34	21,230	10,453	8,314
Region 07 Upper Mississippi		828	125,460	53,317	45,161	1,030	354,723	152,168	145,832	900	662,491	249,730	225,948
Region 08 Lower Mississippi		408	60,244	35,921	34,230	575	196,557	121,229	114,930	852	624,329	457,492	426,746
Region 09 Souris-Red-Rainy		58	9,839	1,701	1,701	42	16,006	9,276	9,146	61	47,009	16,815	16,030
Region 10 Missouri		3,539	542,715	377,243	355,783	3,267	1,178,849	659,299	626,981	4,268	3,165,818	1,707,430	1,659,292
Region 11 Arkansas-White-Red		833	127,579	54,348	48,416	814	279,756	134,505	121,365	1,001	732,729	248,959	215,002
Region 12 Texas-Gulf		880	127,540	47,354	44,891	845	294,318	125,313	109,785	962	663,590	257,880	231,452
Region 13 Rio Grande		630	91,782	48,701	45,834	372	125,880	71,400	69,885	376	260,400	85,935	82,327
Region 14 Upper Colorado		1,301	198,668	96,066	91,944	909	298,261	163,785	150,013	581	399,549	192,520	189,524
Region 15 Lower Colorado		320	54,356	18,154	15,203	243	83,805	57,511	47,134	294	216,612	192,177	161,580
Region 16 Great Basin		1,153	176,603	120,914	109,048	741	252,539	145,549	137,145	561	404,005	187,436	182,754
Region 17 Pacific Northwest		3,355	502,695	315,235	288,573	2,495	832,992	561,807	517,152	2,038	1,445,105	834,599	768,975
Region 18 California		4,055	611,973	477,601	462,937	3,273	1,107,099	892,636	868,014	1,743	1,196,962	984,882	937,020
Region 19 Alaska		7	885	136	66	3	1,094	(D)	(D)	1	(D)	(D)	(D)
Region 20 Hawaii		17	2,375	1,704	1,586	3	1,018	(D)	(D)	2	(D)	(D)	(D)

--continued

Table 4. Irrigated Farms by Size of Farm: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	1,000 to 1,999 acres				2,000 to 4,999 acres				5,000 acres or more			
	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated
United States	2023 2018	15,385 17,088	21,318,707 24,282,380	9,661,976 (NA) 10,634,755	14,329 15,301	43,225,299 47,213,071	16,475,586 (NA)	15,497,820 15,920,466	7,939 9,116	114,262,708 123,430,754	17,531,476 (NA)	16,314,616 15,693,123
2023 DATA												
Alabama	81	111,875	22,761	22,186	108	359,072	51,318	48,321	26	200,021	52,887	50,243
Alaska	-	-	-	-	1	(D)	(D)	(D)	-	-	-	-
Arizona	125	175,485	101,447	97,962	166	505,801	253,042	243,711	161	7,945,039	429,555	360,444
Arkansas	536	771,606	663,137	648,427	868	2,624,396	2,321,341	2,282,281	214	1,685,971	1,478,237	1,457,954
California	1,446	2,007,227	1,419,453	1,338,495	929	2,829,413	1,768,136	1,654,180	445	6,891,453	2,258,914	2,109,816
Colorado	888	1,191,804	479,256	463,405	692	2,117,944	606,702	560,548	429	7,538,023	584,954	555,879
Connecticut	3	3,294	1,681	(D)	-	-	-	-	-	-	-	-
Delaware	70	92,664	39,595	39,049	33	98,642	48,954	48,668	-	-	-	-
Florida	116	165,931	119,196	116,001	182	526,421	158,374	134,984	92	1,631,161	727,580	637,474
Georgia	569	771,625	296,072	289,026	288	846,398	406,716	362,445	101	946,947	338,878	300,909
Hawaii	20	20,520	20	20	11	33,530	15,575	11,047	4	103,955	21,346	12,272
Idaho	550	772,660	507,711	475,096	570	1,695,014	800,824	783,707	348	3,378,795	1,131,360	1,108,200
Illinois	364	466,318	181,582	178,354	294	931,100	292,814	292,814	24	184,783	1,478,237	82,587
Indiana	309	406,963	150,572	150,168	297	843,062	223,525	215,922	61	399,852	115,470	110,550
Iowa	231	324,584	111,643	105,929	133	363,155	87,524	83,930	24	168,272	13,672	13,672
Kansas	996	1,424,271	437,520	416,200	1,163	3,766,890	806,021	758,800	736	6,912,622	1,073,197	1,026,619
Kentucky	24	35,423	4,883	4,883	54	177,804	33,069	30,697	28	232,502	36,732	36,456
Louisiana	279	393,935	252,965	236,235	397	1,173,863	722,080	631,793	90	581,768	311,745	280,346
Maine	1	(D)	(D)	(D)	11	(D)	(D)	(D)	4	(D)	(D)	(D)
Maryland	70	100,121	37,730	36,204	38	110,019	40,813	40,448	2	(D)	(D)	(D)
Massachusetts	8	(D)	(D)	2,321	-	-	-	-	1	(D)	(D)	(D)
Michigan	400	520,625	198,090	161,306	230	659,645	226,402	210,704	55	452,453	197,274	195,609
Minnesota	288	380,589	150,671	150,351	161	433,782	158,250	155,730	19	151,194	74,542	62,542
Mississippi	233	314,280	221,763	217,401	305	908,559	703,250	673,969	119	794,344	706,713	684,718
Missouri	338	469,648	279,688	276,764	354	1,105,818	682,808	671,251	90	689,961	435,573	428,113
Montana	416	604,666	170,149	166,652	748	2,418,170	309,583	294,343	900	18,207,213	798,330	776,534
Nebraska	2,620	3,602,186	1,645,230	1,611,875	2,035	5,711,878	2,283,338	2,224,371	878	10,274,580	1,600,638	1,586,602
Nevada	131	204,570	57,753	54,648	51	154,931	104,051	104,051	184	3,221,908	471,982	456,536
New Hampshire	-	-	-	-	-	-	-	-	-	-	-	-
New Jersey	50	72,535	24,978	23,025	10	27,546	9,342	7,342	1	(D)	(D)	(D)
New Mexico	261	347,117	64,489	63,266	239	711,968	111,042	89,435	206	2,623,857	292,135	235,082
New York	27	40,977	14,133	1,833	4	9,256	5,000	1,040	7	66,229	6,444	4,996
North Carolina	72	106,733	16,283	15,695	95	312,941	58,678	45,250	26	218,972	47,532	31,728
North Dakota	102	137,612	31,041	29,786	204	630,958	94,597	92,532	105	865,844	104,732	102,149
Ohio	62	89,820	19,172	16,377	19	57,361	11,519	11,287	7	46,051	6,657	6,372
Oklahoma	156	229,159	90,269	75,492	408	1,369,933	203,416	162,126	197	2,164,794	250,344	249,242
Oregon	455	637,739	253,245	216,214	415	1,159,818	316,792	245,241	318	5,328,155	465,361	435,858
Pennsylvania	17	24,702	2,840	2,240	6	(D)	(D)	(D)	1	(D)	(D)	(D)
Rhode Island	-	-	-	-	1	(D)	(D)	(D)	-	-	-	-
South Carolina	137	197,094	43,967	43,886	123	426,442	107,696	96,803	11	82,342	32,503	24,693
South Dakota	233	307,882	93,095	93,095	273	772,609	108,378	100,008	86	1,187,826	114,474	114,474
Tennessee	88	128,720	26,956	26,956	112	315,266	63,811	61,281	31	228,420	63,730	62,145
Texas	1,117	1,598,430	551,030	468,254	1,408	4,308,044	1,466,990	1,311,445	823	12,401,200	1,701,919	1,424,650
Utah	359	488,687	188,191	178,262	137	390,404	77,802	77,802	241	2,296,028	338,116	201,616
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	31	39,299	12,725	12,525	47	153,120	24,661	13,545	5	47,706	9,110	6,110
Washington	322	474,345	349,772	341,514	247	714,659	344,629	308,875	165	4,199,967	544,712	531,912
West Virginia	23	32,200	23	23	-	-	-	-	-	-	-	-
Wisconsin	378	505,806	125,111	121,927	127	366,764	162,546	155,980	54	328,737	105,002	103,810
Wyoming	383	516,948	200,849	195,943	335	1,053,166	193,554	191,862	620	9,434,742	462,609	430,380
Water Resource Regions												
Region 01 New England	12	13,330	4,920	3,259	12	32,370	8,711	5,139	5	111,057	19,337	11,536
Region 02 Mid-Atlantic	256	359,135	129,697	113,172	116	352,217	117,135	109,456	7	50,330	8,768	8,768
Region 03 South Atlantic-Gulf	1,002	1,381,327	504,456	492,809	762	2,363,677	777,623	678,953	242	2,972,478	1,166,165	1,011,832
Region 04 Great Lakes	561	737,180	258,567	217,675	282	805,786	297,020	277,362	70	579,805	237,164	230,681
Region 05 Ohio	260	339,440	100,122	98,530	308	899,635	186,867	179,663	78	576,988	128,149	124,112
Region 06 Tennessee	60	86,220	14,875	14,875	73	(D)	(D)	(D)	15	122,465	34,815	33,915
Region 07 Upper Mississippi	1,201	1,606,081	546,534	541,654	604	1,767,700	608,130	597,719	143	1,014,840	293,994	270,941
Region 08 Lower Mississippi	1,082	1,521,840	1,209,873	1,182,312	1,752	5,284,121	4,028,087	3,871,063	495	3,596,010	2,797,713	2,729,337
Region 09 Souris-Red-Rainy	59	78,790	24,697	23,972	109	300,127	56,086	55,826	64	528,660	88,055	73,995
Region 10 Missouri	4,388	6,041,989	2,395,515	2,340,998	4,335	13,002,818	3,500,710	3,343,644	2,914	43,196,085	3,426,632	3,327,451
Region 11 Arkansas-White-Red	1,551	2,264,422	827,404	748,635	1,842	5,963,736	1,837,541	1,746,588	940	10,000,644	2,094,652	1,953,822
Region 12 Texas-Gulf	772	1,072,967	392,455	343,502	1,033	3,047,783	921,121	795,496	544	6,143,704	939,606	774,404
Region 13 Rio Grande	349	475,456	175,951	163,432	213	630,540	220,293	196,493	170	4,559,394	122,260	97,285
Region 14 Upper Colorado	401	524,210	194,588	194,588	341	996,619	168,881	147,471	359	6,709,708	614,053	415,456
Region 15 Lower Colorado	125	175,485	101,447	97,962	176	538,778	285,980	269,824	176	8,270,505	541,047	439,956
Region 16 Great Basin	496	697,213	215,833	202,799	211	621,907	210,837	207,367	371	4,930,700	667,596	652,150
Region 17 Pacific Northwest	1,304	1,869,419	1,122,263	1,050,943	1,194	3,470,716	1,435,159	1,315,827	889	13,890,237	2,162,960	2,096,657
Region 18 California	1,486	2,053,689	1,442,759	1,355,067	954	2,896,242	1,772,534	1,663,783	453	6,905,143	2,167,164	2,050,046
Region 19 Alaska	-	-	-	-	1	(D)	(D)	(D)	-	-	-	-
Region 20 Hawaii	20	20,520	20	20	11	33,530	15,575	11,047	4	103,955	21,346	12,272

Table 5. Irrigated Farms by Acres Equipped: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Total				1 to 49 acres			
	Farms	Land in farms (acres)	Acres equipped	Acres irrigated	Farms	Land in farms (acres)	Acres equipped	Acres irrigated
United States	212,714	202,564,553	56,693,259	53,135,170	124,654	11,557,160	1,372,678	1,243,575
Alabama	1,230	824,553	171,246	157,755	820	51,706	7,774	6,478
Alaska	359	9,035	2,068	1,677	353	5,098	1,028	762
Arizona	3,086	8,966,100	1,047,889	921,013	2,120	1,246,531	21,441	19,807
Arkansas	2,857	5,480,831	4,736,388	4,646,159	542	50,705	4,831	4,231
California	38,033	15,203,884	8,212,686	7,765,348	24,896	1,433,997	308,984	293,798
Colorado	12,865	12,385,374	2,494,668	2,368,208	7,533	483,698	104,511	101,007
Connecticut	622	29,102	8,084	4,448	594	18,860	2,760	1,918
Delaware	416	281,103	133,991	132,106	111	15,817	1,102	1,004
Florida	7,303	2,859,958	1,284,667	1,145,368	5,721	200,745	48,528	44,969
Georgia	4,234	3,225,793	1,325,918	1,222,368	2,107	171,611	22,143	19,898
Hawaii	1,850	179,956	52,155	36,166	1,805	37,125	10,690	9,111
Idaho	11,952	7,020,834	3,276,397	3,180,948	7,598	401,509	102,833	97,697
Illinois	2,141	1,851,591	719,661	680,392	918	53,138	8,127	6,761
Indiana	2,298	1,981,450	601,616	582,245	1,010	101,299	8,685	8,103
Iowa	1,176	1,003,247	246,274	235,413	547	28,736	3,234	2,761
Kansas	4,188	12,481,063	2,445,492	2,325,264	662	178,684	8,632	8,115
Kentucky	1,321	550,927	94,472	81,805	1,115	72,122	6,369	3,016
Louisiana	1,859	2,436,723	1,472,596	1,306,078	536	25,603	5,038	4,299
Maine	559	178,970	30,980	18,822	518	36,843	2,134	1,191
Maryland	916	344,822	137,121	130,707	581	33,326	4,877	4,080
Massachusetts	1,311	98,097	26,466	18,963	1,215	57,939	9,745	7,473
Michigan	4,602	2,209,871	828,823	750,576	2,828	175,153	23,360	21,312
Minnesota	2,446	1,441,468	580,296	558,570	1,045	60,899	7,365	6,799
Mississippi	1,671	2,259,054	1,771,281	1,713,436	579	64,270	6,182	5,652
Missouri	2,337	2,539,097	1,516,094	1,487,302	1,127	88,159	7,737	6,069
Montana	7,013	21,977,160	1,621,908	1,561,373	3,389	509,814	58,843	55,215
Nebraska	13,128	22,602,456	7,470,798	7,305,801	939	208,742	17,126	15,436
Nevada	1,604	3,843,498	799,304	767,374	541	35,396	6,593	6,568
New Hampshire	369	27,997	4,330	2,060	350	23,536	1,616	964
New Jersey	1,193	217,801	88,936	70,616	941	48,556	7,429	6,872
New Mexico	7,718	4,249,733	684,787	583,735	6,197	1,536,107	58,305	54,669
New York	2,439	346,014	85,077	49,251	2,108	165,813	12,103	7,508
North Carolina	2,907	889,074	198,385	152,023	2,309	176,524	23,412	16,545
North Dakota	601	1,689,371	253,296	246,363	117	49,384	789	674
Ohio	1,931	306,706	68,845	56,230	1,663	70,956	9,779	6,678
Oklahoma	1,734	3,963,086	607,301	539,181	662	188,827	7,475	7,177
Oregon	12,692	8,384,214	1,697,649	1,447,429	8,927	587,956	102,780	90,225
Pennsylvania	2,362	242,975	45,010	30,248	2,128	132,079	13,961	10,202
Rhode Island	225	11,147	4,261	3,931	208	4,926	924	729
South Carolina	1,572	809,212	208,903	187,519	1,224	77,796	11,504	9,279
South Dakota	1,352	2,565,748	389,399	379,630	345	24,550	3,338	3,165
Tennessee	1,388	792,210	183,411	174,162	1,049	61,522	6,557	2,463
Texas	10,896	19,762,913	4,313,788	3,724,195	5,357	1,154,380	60,946	51,910
Utah	10,432	4,127,787	1,158,862	986,166	6,969	344,298	94,294	86,861
Vermont	486	28,500	4,347	2,675	473	26,063	2,923	1,833
Virginia	1,350	380,489	74,862	55,802	1,143	89,054	7,008	5,391
Washington	9,988	6,190,535	1,789,253	1,706,118	7,073	279,604	79,953	73,932
West Virginia	505	65,210	3,425	2,179	490	61,656	1,954	1,200
Wisconsin	2,714	1,579,424	514,470	481,845	1,658	112,436	10,974	9,703
Wyoming	4,483	11,668,390	1,205,323	1,148,190	1,513	493,612	33,982	32,065
Water Resource Regions								
Region 01 New England	3,221	357,916	76,022	49,633	3,016	153,247	18,132	12,987
Region 02 Mid-Atlantic	6,918	1,483,813	516,430	444,120	5,398	340,764	34,906	28,649
Region 03 South Atlantic-Gulf	17,369	8,454,017	3,156,882	2,829,208	12,313	724,324	116,221	99,611
Region 04 Great Lakes	7,846	3,008,684	1,093,009	978,210	5,382	346,210	42,636	33,828
Region 05 Ohio	5,317	2,278,938	516,081	482,493	4,191	327,958	26,949	16,500
Region 06 Tennessee	1,279	490,417	91,953	85,450	1,087	44,921	3,793	2,526
Region 07 Upper Mississippi	7,863	5,614,417	1,926,543	1,846,988	3,725	250,699	27,132	23,914
Region 08 Lower Mississippi	6,170	11,316,795	8,670,447	8,377,798	1,042	71,978	11,943	11,026
Region 09 Souris-Red-Rainy	502	983,675	197,336	181,264	151	9,691	775	663
Region 10 Missouri	29,755	67,370,394	12,219,140	11,799,109	7,229	1,427,469	112,021	104,049
Region 11 Arkansas-White-Red	9,195	19,432,156	5,217,760	4,852,366	2,945	644,875	31,264	28,749
Region 12 Texas-Gulf	8,603	11,441,998	2,729,426	2,337,508	4,501	896,191	54,164	45,621
Region 13 Rio Grande	6,738	6,228,054	777,504	703,913	5,007	859,341	48,262	46,151
Region 14 Upper Colorado	10,851	9,292,022	1,538,939	1,293,636	7,283	1,062,299	97,600	93,195
Region 15 Lower Colorado	3,632	9,387,271	1,220,091	1,054,139	2,541	1,279,224	25,779	23,879
Region 16 Great Basin	10,533	7,253,125	1,676,924	1,609,059	6,695	389,284	90,104	83,550
Region 17 Pacific Northwest	36,245	22,585,239	6,815,736	6,394,164	24,957	1,250,723	308,777	283,528
Region 18 California	38,468	15,396,631	8,198,813	7,778,269	25,033	1,435,739	310,502	295,276
Region 19 Alaska	359	9,035	2,068	1,677	353	5,098	1,028	762
Region 20 Hawaii	1,850	179,956	52,155	36,166	1,805	37,125	10,690	9,111

--continued

Table 5. Irrigated Farms by Acres Equipped: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	50 to 99 acres				100 to 199 acres			
	Farms	Land in farms (acres)	Acres equipped	Acres irrigated	Farms	Land in farms (acres)	Acres equipped	Acres irrigated
United States	18,114	10,190,967	1,273,241	1,168,574	20,865	21,202,072	2,852,503	2,639,134
Alabama	96	60,934	8,120	8,005	86	83,495	12,529	11,704
Alaska	3	(D)	(D)	(D)	1	(D)	(D)	(D)
Arizona	109	181,399	7,757	7,301	157	330,110	21,515	19,085
Arkansas	129	51,270	9,776	9,030	147	48,843	20,605	18,087
California	3,547	537,404	245,280	236,268	2,945	1,295,991	400,772	387,066
Colorado	1,155	953,328	78,506	70,572	1,529	1,250,543	206,991	198,288
Connecticut	14	2,353	969	442	8	3,555	1,220	899
Delaware	53	12,937	3,734	3,514	69	21,114	10,002	9,404
Florida	478	87,385	35,595	30,931	368	173,995	47,956	45,875
Georgia	345	113,725	25,337	22,980	544	356,510	78,190	75,537
Hawaii	18	(D)	1,143	(D)	11	(D)	(D)	(D)
Idaho	990	463,947	70,924	68,135	886	401,540	118,182	110,152
Illinois	138	98,801	9,694	9,188	322	245,686	45,472	43,036
Indiana	378	186,685	24,647	21,052	181	156,758	25,704	25,605
Iowa	158	12,476	12,437	12,059	170	130,630	24,722	23,642
Kansas	412	974,517	30,249	27,174	861	2,010,478	118,640	113,538
Kentucky	73	102,699	5,569	3,453	42	44,468	5,803	3,670
Louisiana	111	27,971	7,607	6,715	112	31,972	17,750	17,080
Maine	17	14,224	966	521	3	(D)	(D)	(D)
Maryland	57	23,318	4,295	4,121	82	29,784	11,484	11,004
Massachusetts	45	8,192	3,232	2,621	32	(D)	(D)	(D)
Michigan	368	190,558	28,115	24,395	571	277,120	77,090	68,923
Minnesota	277	105,080	20,800	19,968	387	240,794	51,748	50,228
Mississippi	100	24,982	7,912	6,624	111	36,062	15,409	15,279
Missouri	115	42,735	8,503	8,147	197	101,431	27,731	23,839
Montana	904	625,953	64,380	62,302	687	1,671,791	90,309	88,401
Nebraska	1,088	467,920	79,600	76,352	3,265	3,883,826	442,478	419,534
Nevada	225	27,181	15,036	14,952	304	193,178	43,110	29,097
New Hampshire	15	2,399	1,198	834	-	-	-	-
New Jersey	70	(D)	(D)	(D)	66	39,315	9,584	6,716
New Mexico	539	248,633	35,687	31,451	443	402,264	61,587	52,938
New York	125	18,048	8,061	6,146	63	17,203	7,204	4,299
North Carolina	211	46,492	13,109	10,831	173	69,740	23,347	17,290
North Dakota	42	89,615	2,748	2,673	115	240,360	16,350	15,665
Ohio	115	52,607	7,757	6,731	83	50,040	10,846	6,175
Oklahoma	87	120,582	7,540	6,873	320	598,620	43,202	33,450
Oregon	1,013	365,635	68,398	55,146	1,078	1,763,569	153,001	129,250
Pennsylvania	136	28,850	9,641	3,807	62	34,985	7,950	6,193
Rhode Island	6	502	422	422	4	2,995	620	485
South Carolina	8	12,800	448	368	125	180,585	16,548	16,173
South Dakota	36	20,046	3,062	2,808	455	565,743	63,481	61,969
Tennessee	62	76,285	4,702	4,702	36	58,817	5,485	5,485
Texas	896	2,119,651	61,514	57,609	1,183	1,356,741	160,643	142,309
Utah	1,335	289,692	89,997	82,899	920	286,734	125,351	124,394
Vermont	10	1,242	568	146	1	(D)	(D)	(D)
Virginia	44	(D)	(D)	(D)	72	63,144	9,137	7,427
Washington	884	168,894	64,674	61,926	662	716,309	88,382	83,196
West Virginia	14	(D)	(D)	(D)	-	-	-	-
Wisconsin	169	124,606	11,887	9,901	362	314,629	52,777	46,596
Wyoming	894	811,947	61,973	57,005	564	1,404,164	75,188	65,680
Water Resource Regions								
Region 01 New England	98	27,935	6,879	4,841	48	16,715	6,724	4,569
Region 02 Mid-Atlantic	430	91,913	30,614	22,285	359	187,234	49,081	41,278
Region 03 South Atlantic-Gulf	1,169	345,608	85,074	74,292	1,290	827,278	177,511	165,390
Region 04 Great Lakes	564	242,006	40,824	33,287	824	410,595	114,102	96,898
Region 05 Ohio	372	221,012	26,182	20,964	166	248,428	22,218	20,791
Region 06 Tennessee	9	568	(D)	484	55	78,400	(D)	8,060
Region 07 Upper Mississippi	798	560,507	57,961	55,091	1,103	722,821	151,370	141,361
Region 08 Lower Mississippi	377	147,512	28,660	27,830	399	169,301	59,879	56,494
Region 09 Souris-Red-Rainy	31	41,550	1,910	1,910	64	97,647	8,772	8,542
Region 10 Missouri	3,203	2,749,259	229,028	211,516	5,765	9,395,810	785,614	741,969
Region 11 Arkansas-White-Red	721	853,113	53,038	49,211	1,404	2,346,920	187,868	166,096
Region 12 Texas-Gulf	696	1,915,560	47,733	44,565	928	1,040,359	127,006	114,083
Region 13 Rio Grande	517	343,322	33,784	29,263	506	236,396	68,881	65,774
Region 14 Upper Colorado	1,069	596,059	71,988	68,099	1,004	413,202	135,912	126,548
Region 15 Lower Colorado	164	189,028	11,015	10,559	157	330,110	21,515	19,085
Region 16 Great Basin	1,220	287,213	83,429	77,964	1,104	492,065	151,080	136,065
Region 17 Pacific Northwest	3,048	1,028,183	214,085	194,932	2,634	2,862,409	360,479	326,344
Region 18 California	3,607	542,584	249,260	240,208	3,043	1,320,106	414,907	398,501
Region 19 Alaska	3	(D)	(D)	(D)	1	(D)	(D)	(D)
Region 20 Hawaii	18	(D)	1,143	(D)	11	(D)	(D)	(D)

--continued

Table 5. Irrigated Farms by Acres Equipped: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	200 to 499 acres				500 to 999 acres			
	Farms	Land in farms (acres)	Acres equipped	Acres irrigated	Farms	Land in farms (acres)	Acres equipped	Acres irrigated
United States	21,932	44,818,420	6,958,987	6,555,987	13,298	35,391,209	9,223,528	8,676,078
Alabama	157	308,251	45,273	39,509	27	73,464	17,410	14,690
Alaska	2	(D)	(D)	(D)	-	-	-	-
Arizona	256	1,689,797	84,640	67,086	224	211,018	161,903	138,378
Arkansas	232	146,514	78,477	74,918	337	334,297	257,510	243,461
California	3,201	2,042,614	1,034,298	1,011,366	1,544	1,414,131	1,069,622	1,012,669
Colorado	1,337	2,800,351	436,446	413,920	756	2,386,530	505,399	495,771
Connecticut	3	1,499	1,104	1,104	3	2,835	2,031	85
Delaware	103	85,858	30,839	30,442	55	75,160	39,928	39,642
Florida	406	383,899	132,568	119,524	120	259,612	89,003	86,548
Georgia	628	967,403	198,033	186,097	290	375,406	202,407	202,407
Hawaii	2	(D)	(D)	(D)	3	4,514	2,014	1,314
Idaho	993	1,314,839	325,727	323,897	730	1,185,621	511,404	478,520
Illinois	362	512,400	120,076	116,286	212	311,757	150,438	141,078
Indiana	341	426,866	105,830	103,624	225	467,042	144,381	143,023
Iowa	133	40,617	40,617	34,716	113	194,808	77,679	74,650
Kansas	1,089	3,516,913	325,791	310,352	424	1,259,290	300,224	286,700
Kentucky	50	113,387	14,213	9,772	21	80,759	12,652	12,052
Louisiana	268	225,720	87,496	80,636	328	476,480	221,373	187,374
Maine	12	(D)	(D)	(D)	2	(D)	(D)	(D)
Maryland	113	97,054	38,300	35,231	58	90,203	38,651	36,852
Massachusetts	17	12,787	4,760	3,586	1	(D)	(D)	(D)
Michigan	446	460,748	141,536	115,016	224	485,808	150,136	126,832
Minnesota	466	420,887	145,157	140,026	140	182,024	99,224	98,276
Mississippi	174	108,551	51,378	50,975	189	227,452	141,345	139,065
Missouri	227	368,458	73,204	69,382	185	251,730	127,019	125,365
Montana	1,206	8,818,150	384,522	361,168	495	3,539,625	333,230	321,020
Nebraska	3,100	5,306,679	1,006,504	968,346	2,833	6,581,013	1,939,635	1,884,651
Nevada	130	44,067	34,414	32,097	252	945,641	187,422	187,422
New Hampshire	4	2,062	1,516	262	-	-	-	-
New Jersey	52	45,295	15,690	14,427	52	43,307	34,266	23,738
New Mexico	280	487,858	89,569	87,259	162	702,722	103,166	79,098
New York	109	48,331	31,100	21,697	25	35,334	15,367	3,667
North Carolina	143	237,968	42,726	38,706	24	92,614	14,957	14,267
North Dakota	198	719,933	63,652	60,307	86	310,216	58,148	56,235
Ohio	45	67,803	14,757	13,540	16	30,049	10,262	9,082
Oklahoma	409	1,089,025	129,095	107,865	81	481,162	61,370	57,370
Oregon	854	1,642,657	267,349	228,804	494	1,903,408	335,218	284,760
Pennsylvania	32	30,554	10,617	7,801	4	16,507	2,841	2,245
Rhode Island	7	2,724	2,295	2,295	-	-	-	-
South Carolina	107	204,298	27,972	27,684	53	118,929	40,640	40,340
South Dakota	300	1,071,794	95,724	95,724	152	468,715	106,344	98,514
Tennessee	152	207,582	48,935	46,805	40	101,664	29,136	27,696
Texas	1,272	2,809,442	393,151	356,176	1,080	3,795,270	753,092	669,643
Utah	670	1,610,099	210,792	204,141	381	739,669	265,934	251,877
Vermont	2	(D)	(D)	(D)	-	-	-	-
Virginia	50	51,430	14,397	12,619	27	77,407	17,792	11,012
Washington	648	705,508	208,840	203,477	321	2,906,119	234,517	223,920
West Virginia	1	(D)	(D)	(D)	-	-	-	-
Wisconsin	259	411,463	81,070	74,783	144	219,326	97,377	88,324
Wyoming	884	2,867,923	262,640	248,500	365	1,922,730	258,777	254,277
Water Resource Regions								
Region 01 New England	45	29,876	13,644	9,413	6	12,676	4,315	2,258
Region 02 Mid-Atlantic	443	339,920	136,900	119,343	216	312,794	145,035	116,502
Region 03 South Atlantic-Gulf	1,418	2,020,024	441,117	407,946	516	915,018	366,100	359,170
Region 04 Great Lakes	555	574,505	177,466	144,564	288	567,668	187,311	162,129
Region 05 Ohio	312	541,313	96,908	91,644	147	357,081	97,945	96,807
Region 06 Tennessee	84	172,473	22,111	19,822	22	49,983	14,860	12,940
Region 07 Upper Mississippi	1,187	1,490,787	374,014	362,888	588	952,050	407,052	387,683
Region 08 Lower Mississippi	738	636,213	241,830	230,587	927	1,149,203	670,334	623,721
Region 09 Souris-Red-Rainy	149	399,779	44,991	42,081	69	234,930	45,027	44,767
Region 10 Missouri	6,391	21,465,231	2,013,631	1,925,012	4,220	12,894,707	2,894,356	2,805,330
Region 11 Arkansas-White-Red	1,674	3,602,924	546,623	488,861	946	2,958,097	668,915	597,740
Region 12 Texas-Gulf	1,009	2,410,269	313,013	285,912	721	1,693,529	491,922	461,166
Region 13 Rio Grande	296	293,654	93,519	93,119	265	1,619,186	187,813	154,056
Region 14 Upper Colorado	827	2,002,484	261,874	254,946	410	1,680,838	272,049	269,339
Region 15 Lower Colorado	279	1,699,707	92,320	74,761	246	223,514	174,399	150,874
Region 16 Great Basin	692	864,170	196,904	187,941	514	1,814,940	373,540	360,633
Region 17 Pacific Northwest	2,533	4,072,106	826,185	775,679	1,609	6,451,119	1,121,136	1,027,732
Region 18 California	3,296	2,200,927	1,064,409	1,039,995	1,585	1,499,362	1,099,405	1,041,917
Region 19 Alaska	2	(D)	(D)	(D)	-	-	-	-
Region 20 Hawaii	2	(D)	(D)	(D)	3	4,514	2,014	1,314

--continued

Table 5. Irrigated Farms by Acres Equipped: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	1,000 to 1,999 acres				2,000 acres or more			
	Farms	Land in farms (acres)	Acres equipped	Acres irrigated	Farms	Land in farms (acres)	Acres equipped	Acres irrigated
United States	7,890	28,816,402	10,755,825	10,235,690	5,961	50,588,323	24,256,497	22,616,132
Alabama	27	125,156	33,705	33,578	17	121,547	46,435	43,791
Alaska	-	-	-	-	-	-	-	-
Arizona	91	217,836	123,962	120,587	129	5,089,409	626,671	548,769
Arkansas	532	915,958	758,467	746,030	938	3,933,244	3,606,722	3,550,402
California	1,127	3,972,308	1,517,077	1,408,782	773	4,507,439	3,636,653	3,415,399
Colorado	355	1,663,408	483,224	450,844	200	2,847,516	679,591	637,806
Connecticut	-	-	-	-	-	-	-	-
Delaware	13	30,341	19,109	18,923	12	39,876	29,277	29,177
Florida	126	606,123	156,863	146,175	84	1,148,199	774,154	671,346
Georgia	168	404,724	242,345	239,815	152	836,414	557,463	475,639
Hawaii	5	17,953	8,330	4,123	6	107,932	27,816	18,501
Idaho	421	1,118,611	573,635	561,852	334	2,134,767	1,573,692	1,540,695
Illinois	117	281,142	167,673	166,173	72	348,667	218,181	197,870
Indiana	126	438,331	168,345	159,961	37	204,469	124,024	120,877
Iowa	50	145,945	69,438	69,438	5	25,155	18,147	18,147
Kansas	465	1,663,249	633,888	597,744	275	2,877,932	1,028,068	981,641
Kentucky	4	14,647	5,165	5,165	16	122,845	44,701	44,677
Louisiana	245	580,020	328,845	315,245	259	1,068,957	804,487	694,729
Maine	4	22,306	5,891	3,429	3	(D)	(D)	(D)
Maryland	19	49,071	23,682	23,587	6	22,066	15,832	15,832
Massachusetts	-	-	-	-	1	(D)	(D)	(D)
Michigan	99	247,713	141,980	139,472	66	372,771	266,606	254,626
Minnesota	92	264,823	117,059	116,419	39	166,961	138,943	126,791
Mississippi	208	363,835	294,126	287,745	310	1,433,902	1,254,929	1,208,096
Missouri	221	459,294	300,324	292,864	265	1,227,290	971,576	961,636
Montana	217	3,020,171	276,647	276,020	115	3,791,656	413,977	397,247
Nebraska	1,212	2,621,179	1,662,820	1,629,587	691	3,533,097	2,322,635	2,311,895
Nevada	74	773,207	108,912	108,867	78	1,824,828	403,817	388,371
New Hampshire	-	-	-	-	-	-	-	-
New Jersey	9	26,428	10,922	10,387	3	(D)	(D)	(D)
New Mexico	68	528,503	92,909	88,765	29	343,646	243,564	189,555
New York	9	61,285	11,242	5,934	-	-	-	-
North Carolina	31	163,744	38,020	28,881	16	101,992	42,814	25,503
North Dakota	23	95,510	32,544	31,984	20	184,353	79,065	78,825
Ohio	6	22,880	7,611	6,476	3	12,371	7,833	7,548
Oklahoma	102	665,612	147,182	136,111	73	819,258	211,437	190,335
Oregon	196	630,437	259,370	223,036	130	1,490,552	511,533	436,208
Pennsylvania	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-
South Carolina	33	111,442	44,180	41,916	22	103,362	67,611	51,759
South Dakota	60	332,300	80,300	80,300	4	82,600	37,150	37,150
Tennessee	38	190,456	49,901	49,001	11	95,884	38,695	38,010
Texas	635	2,600,733	884,823	768,556	473	5,926,696	1,999,619	1,677,992
Utah	112	479,679	122,932	122,932	45	377,616	249,562	113,062
Vermont	-	-	-	-	-	-	-	-
Virginia	12	44,656	17,022	13,107	2	(D)	(D)	(D)
Washington	266	447,528	380,255	357,879	134	966,573	732,632	701,788
West Virginia	-	-	-	-	-	-	-	-
Wisconsin	84	216,129	110,540	107,121	38	180,835	149,845	145,417
Wyoming	188	2,181,729	244,560	240,879	75	1,986,285	268,203	249,784
Water Resource Regions								
Region 01 New England	4	22,306	5,891	3,429	4	95,161	20,437	12,136
Region 02 Mid-Atlantic	50	136,546	66,685	64,954	22	74,642	53,209	51,109
Region 03 South Atlantic-Gulf	381	1,384,716	509,597	481,976	282	2,237,049	1,461,262	1,240,823
Region 04 Great Lakes	151	408,405	207,585	199,769	82	459,295	323,085	307,735
Region 05 Ohio	100	350,576	139,277	132,494	29	232,570	106,602	103,293
Region 06 Tennessee	13	69,607	15,430	14,403	9	74,465	27,215	27,215
Region 07 Upper Mississippi	307	848,811	411,488	403,193	155	788,742	497,526	472,858
Region 08 Lower Mississippi	1,057	2,063,597	1,493,636	1,466,087	1,630	7,078,991	6,164,165	5,962,053
Region 09 Souris-Red-Rainy	22	78,760	28,514	27,954	16	121,318	67,347	55,347
Region 10 Missouri	1,930	9,039,953	2,610,676	2,547,205	1,017	10,397,965	3,573,814	3,464,028
Region 11 Arkansas-White-Red	829	3,097,899	1,144,161	1,095,983	676	5,928,328	2,585,891	2,425,726
Region 12 Texas-Gulf	487	2,011,478	671,761	564,094	261	1,474,612	1,023,827	822,067
Region 13 Rio Grande	79	175,269	108,394	104,094	68	2,700,886	236,851	211,456
Region 14 Upper Colorado	166	1,110,663	208,893	182,783	92	2,426,477	490,623	298,726
Region 15 Lower Colorado	96	433,986	131,912	128,537	149	5,231,702	763,151	646,444
Region 16 Great Basin	198	1,327,189	268,148	264,633	110	2,078,264	513,719	498,273
Region 17 Pacific Northwest	870	2,225,352	1,184,721	1,124,762	594	4,695,347	2,800,353	2,661,187
Region 18 California	1,145	4,013,336	1,540,726	1,425,217	759	4,384,577	3,519,604	3,337,155
Region 19 Alaska	-	-	-	-	-	-	-	-
Region 20 Hawaii	5	17,953	8,330	4,123	6	107,932	27,816	18,501

Table 6. Irrigated Farms by Acres Irrigated: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Total				1 to 49 acres			
	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated
United States .....2023	212,714	202,564,553	56,693,259	53,135,170	127,975	13,112,119	1,727,917	1,336,140
.....2018	231,474	222,028,954	(NA)	55,938,795	136,429	17,594,549	(NA)	1,535,201
2023 DATA								
Alabama	1,230	824,553	171,246	157,755	820	51,706	7,774	6,478
Alaska	359	9,035	2,068	1,677	354	5,298	1,128	792
Arizona	3,086	8,966,100	1,047,889	921,013	2,178	1,366,760	31,762	21,479
Arkansas	2,857	5,480,831	4,736,388	4,646,159	570	62,787	7,981	4,896
California	38,033	15,203,884	8,212,686	7,765,348	25,177	1,492,858	349,031	302,616
Colorado	12,865	12,385,374	2,494,668	2,368,208	7,711	712,062	135,837	105,105
Connecticut	622	29,102	8,084	4,448	607	24,516	5,689	2,136
Delaware	416	281,103	133,991	132,106	118	16,479	1,614	1,296
Florida	7,303	2,859,958	1,284,667	1,145,368	5,815	221,829	56,504	46,885
Georgia	4,234	3,225,793	1,325,918	1,222,368	2,194	206,051	34,365	22,232
Hawaii	1,850	179,956	52,155	36,166	1,806	37,215	10,750	9,151
Idaho	11,952	7,020,834	3,276,397	3,180,948	7,659	407,942	106,248	99,959
Illinois	2,141	1,851,591	719,661	680,392	942	55,828	10,777	7,631
Indiana	2,298	1,981,450	601,616	582,245	1,093	114,488	14,499	10,529
Iowa	1,176	1,003,247	246,274	235,413	567	30,856	5,234	3,681
Kansas	4,188	12,481,063	2,445,492	2,325,264	725	495,698	12,968	10,584
Kentucky	1,321	550,927	94,472	81,805	1,153	81,352	10,054	3,593
Louisiana	1,859	2,436,723	1,472,596	1,306,078	591	46,135	17,088	5,441
Maine	559	178,970	30,980	18,822	535	51,067	3,100	1,712
Maryland	916	344,822	137,121	130,707	588	34,719	5,589	4,240
Massachusetts	1,311	98,097	26,466	18,963	1,238	62,700	12,137	7,624
Michigan	4,602	2,209,871	828,823	750,576	2,966	195,535	39,058	25,667
Minnesota	2,446	1,441,468	580,296	558,507	1,061	64,659	8,709	7,455
Mississippi	1,671	2,259,054	1,771,281	1,713,436	597	67,536	7,808	5,860
Missouri	2,337	2,539,097	1,516,094	1,487,302	1,171	104,961	11,609	7,536
Montana	7,013	21,977,160	1,621,908	1,561,373	3,433	520,690	62,848	56,872
Nebraska	13,128	22,602,456	7,470,798	7,305,801	1,057	232,911	28,062	19,061
Nevada	1,604	3,843,498	799,304	767,374	605	50,400	15,329	7,792
New Hampshire	369	27,997	4,330	2,060	357	25,425	2,667	987
New Jersey	1,193	217,801	88,936	70,616	988	59,104	12,562	8,088
New Mexico	7,718	4,249,733	684,787	583,735	6,353	1,681,464	73,114	58,236
New York	2,439	346,014	85,077	49,251	2,197	217,606	32,030	9,241
North Carolina	2,907	889,074	198,385	152,023	2,396	191,522	31,951	18,787
North Dakota	601	1,689,371	253,296	246,363	117	49,384	789	674
Ohio	1,931	306,706	68,845	56,230	1,704	75,828	12,937	7,942
Oklahoma	1,734	3,963,086	607,301	539,181	699	199,097	11,215	7,925
Oregon	12,692	8,384,214	1,697,649	1,447,429	9,387	742,748	144,524	103,109
Pennsylvania	2,362	242,975	45,010	30,248	2,243	154,538	23,094	11,856
Rhode Island	225	11,147	4,261	3,931	209	(D)	(D)	(D)
South Carolina	1,572	809,212	208,903	187,519	1,232	90,596	11,952	9,647
South Dakota	1,352	2,565,748	389,399	379,630	353	26,348	3,804	3,377
Tennessee	1,388	792,210	183,411	174,162	1,050	61,907	6,859	2,490
Texas	10,896	19,762,913	4,313,788	3,724,195	5,495	1,179,519	72,377	57,407
Utah	10,432	4,127,787	1,158,862	986,166	7,169	358,660	106,334	94,005
Vermont	486	28,500	4,347	2,675	484	(D)	(D)	(D)
Virginia	1,350	380,489	74,862	55,802	1,153	93,120	8,396	5,599
Washington	9,988	6,190,535	1,789,253	1,706,118	7,189	339,868	88,586	78,246
West Virginia	505	65,210	3,425	2,179	496	62,136	2,374	1,320
Wisconsin	2,714	1,579,424	514,470	481,845	1,723	122,143	16,139	10,506
Wyoming	4,483	11,668,390	1,205,323	1,148,190	1,650	533,067	47,930	35,666
Water Resource Regions								
Region 01 New England	3,221	357,916	76,022	49,633	3,079	180,812	25,878	13,922
Region 02 Mid-Atlantic	6,918	1,483,813	516,430	444,120	5,634	425,287	67,905	32,956
Region 03 South Atlantic-Gulf	17,369	8,454,017	3,156,882	2,829,208	12,607	810,912	147,032	106,679
Region 04 Great Lakes	7,846	3,008,684	1,093,009	978,210	5,647	382,849	67,954	41,083
Region 05 Ohio	5,317	2,278,938	516,081	482,493	4,279	346,065	34,520	18,428
Region 06 Tennessee	1,279	490,417	91,953	85,450	1,087	44,921	3,793	2,526
Region 07 Upper Mississippi	7,863	5,614,417	1,926,543	1,846,988	3,846	269,123	38,161	27,766
Region 08 Lower Mississippi	6,170	11,316,795	8,670,447	8,377,798	1,111	97,640	25,785	12,420
Region 09 Souris-Red-Rainy	502	983,675	197,336	181,264	151	9,691	775	663
Region 10 Missouri	29,755	67,370,394	12,219,140	11,799,109	7,683	1,821,581	150,998	116,881
Region 11 Arkansas-White-Red	9,195	19,432,156	5,217,760	4,852,366	3,092	820,713	44,094	33,462
Region 12 Texas-Gulf	8,603	11,441,998	2,729,426	2,337,508	4,604	914,494	63,155	49,415
Region 13 Rio Grande	6,738	6,228,054	777,504	703,913	5,123	987,339	55,491	49,107
Region 14 Upper Colorado	10,851	9,292,022	1,538,939	1,293,636	7,433	1,175,886	131,668	96,908
Region 15 Lower Colorado	3,632	9,387,271	1,220,091	1,054,139	2,599	1,399,453	36,100	25,551
Region 16 Great Basin	10,533	7,253,125	1,676,924	1,609,059	6,915	414,668	108,592	90,906
Region 17 Pacific Northwest	36,245	22,585,239	6,815,736	6,394,164	25,591	1,470,812	360,989	303,030
Region 18 California	38,468	15,396,631	8,198,813	7,778,269	25,334	1,497,360	353,149	304,494
Region 19 Alaska	359	9,035	2,068	1,677	354	5,298	1,128	792
Region 20 Hawaii	1,850	179,956	52,155	36,166	1,806	37,215	10,750	9,151

--continued

Table 6. Irrigated Farms by Acres Irrigated: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	50 to 99 acres				100 to 199 acres			
	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated
United States .....2023	17,867	10,403,925	1,443,508	1,250,694	20,156	24,052,539	3,132,467	2,761,643
.....2018	19,825	12,949,629	(NA)	1,383,478	22,259	28,476,787	(NA)	3,026,351
2023 DATA								
Alabama	96	60,934	8,120	8,005	92	91,511	13,969	12,604
Alaska	3	(D)	(D)	(D)	-	-	-	-
Arizona	106	73,165	8,369	7,919	180	354,583	41,939	26,164
Arkansas	136	56,317	12,509	10,118	127	43,148	18,002	17,522
California	3,589	599,437	261,604	249,281	2,832	1,257,850	414,877	393,803
Colorado	1,087	837,003	80,135	74,164	1,578	1,279,421	228,449	211,142
Connecticut	7	1,218	462	410	5	1,869	829	798
Delaware	55	13,763	4,342	3,792	60	19,626	8,882	8,834
Florida	452	86,265	41,805	32,361	367	182,135	54,769	50,223
Georgia	312	134,689	23,915	22,158	526	316,127	77,398	75,645
Hawaii	23	10,798	1,721	1,553	5	806	786	786
Idaho	1,051	486,623	82,272	74,166	766	372,911	103,899	102,159
Illinois	142	100,829	10,348	9,942	308	252,308	46,676	43,680
Indiana	296	173,709	18,975	18,669	198	192,720	29,262	28,432
Iowa	158	160,756	12,437	12,059	171	150,644	29,001	25,956
Kansas	390	675,016	30,993	27,970	921	2,405,173	142,150	126,698
Kentucky	67	110,223	8,029	4,219	31	59,984	6,026	4,260
Louisiana	84	23,359	6,237	6,237	125	38,354	22,452	18,813
Maine	2	(D)	(D)	(D)	10	5,083	2,395	1,057
Maryland	58	25,432	4,965	4,551	78	27,695	11,364	10,704
Massachusetts	41	(D)	(D)	(D)	17	5,164	2,618	2,618
Michigan	367	238,970	37,582	26,454	590	360,032	113,328	81,682
Minnesota	281	106,680	23,536	20,832	371	237,194	49,188	49,028
Mississippi	84	21,966	6,496	6,496	110	36,360	15,672	15,299
Missouri	118	48,796	10,600	8,895	161	126,968	24,842	23,604
Montana	925	633,821	70,554	64,821	768	2,649,569	120,572	103,866
Nebraska	1,348	804,969	128,041	97,869	3,124	3,933,026	442,336	423,043
Nevada	307	120,151	25,896	20,768	192	94,504	32,180	28,613
New Hampshire	10	(D)	(D)	(D)	2	(D)	(D)	(D)
New Jersey	48	(D)	3,720	3,720	50	37,842	9,034	7,007
New Mexico	476	126,557	33,123	31,480	350	378,983	49,342	49,342
New York	100	9,398	5,961	5,656	54	23,390	11,675	6,075
North Carolina	187	41,944	13,179	11,141	125	105,544	19,867	16,922
North Dakota	47	95,965	3,653	3,123	120	281,405	18,975	16,460
Ohio	128	67,043	12,786	8,437	36	36,241	4,706	4,047
Oklahoma	215	308,192	31,509	16,522	275	764,370	70,373	36,703
Oregon	799	301,511	65,144	55,375	1,069	1,917,535	231,847	148,511
Pennsylvania	44	15,905	4,880	3,188	52	46,343	8,202	6,551
Rhode Island	6	(D)	(D)	(D)	3	(D)	(D)	(D)
South Carolina	-	-	-	-	125	180,585	16,548	16,173
South Dakota	28	18,248	2,596	2,596	455	565,743	63,481	61,969
Tennessee	62	76,285	4,702	4,702	61	80,567	10,485	9,735
Texas	1,039	2,294,070	106,223	71,933	1,173	1,967,163	191,595	154,646
Utah	1,160	280,180	82,807	77,363	939	300,254	129,301	127,626
Vermont	-	-	-	-	-	-	-	-
Virginia	56	(D)	5,105	4,072	61	71,429	11,709	7,664
Washington	843	124,172	65,403	61,788	613	707,230	85,045	82,265
West Virginia	8	(D)	(D)	(D)	-	-	-	-
Wisconsin	169	142,123	14,823	12,938	349	321,177	66,771	52,511
Wyoming	857	834,217	61,545	58,118	531	1,768,453	78,366	69,673
Water Resource Regions								
Region 01 New England	66	(D)	6,067	4,634	37	15,636	7,126	5,203
Region 02 Mid-Atlantic	310	75,133	25,332	21,879	326	182,118	53,780	43,180
Region 03 South Atlantic-Gulf	1,065	352,006	88,743	74,981	1,231	849,889	184,486	170,822
Region 04 Great Lakes	541	297,547	54,402	38,250	755	486,989	142,843	106,505
Region 05 Ohio	307	221,433	23,767	20,090	177	296,085	25,588	23,703
Region 06 Tennessee	9	568	(D)	(D)	55	78,400	8,060	8,060
Region 07 Upper Mississippi	800	580,393	63,401	57,723	1,041	725,524	159,037	145,510
Region 08 Lower Mississippi	369	148,041	29,682	28,357	413	205,339	68,470	62,317
Region 09 Souris-Red-Rainy	31	41,550	1,910	1,910	74	145,042	12,302	9,787
Region 10 Missouri	3,364	2,842,966	283,078	238,330	5,679	10,997,323	828,548	770,755
Region 11 Arkansas-White-Red	926	970,402	105,098	67,818	1,403	2,767,414	260,019	189,189
Region 12 Texas-Gulf	758	2,023,717	68,106	52,054	939	1,619,019	139,659	124,114
Region 13 Rio Grande	453	223,554	32,367	29,892	455	239,166	63,429	62,369
Region 14 Upper Colorado	1,022	595,187	70,510	68,137	967	401,907	134,540	129,441
Region 15 Lower Colorado	161	80,794	11,627	11,177	181	355,033	42,139	26,359
Region 16 Great Basin	1,173	375,133	89,727	79,446	1,008	405,981	143,560	138,428
Region 17 Pacific Northwest	2,837	940,437	221,752	200,608	2,476	2,945,908	421,433	336,167
Region 18 California	3,649	604,617	265,584	253,221	2,934	1,334,960	436,662	408,948
Region 19 Alaska	3	(D)	(D)	(D)	-	-	-	-
Region 20 Hawaii	23	10,798	1,721	1,553	5	806	786	786

--continued

Table 6. Irrigated Farms by Acres Irrigated: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	200 to 499 acres				500 to 999 acres			
	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated
United States .....2023	21,059	43,181,962	7,239,087	6,742,615	12,661	40,904,855	9,386,917	8,792,402
.....2018	24,749	52,671,371	(NA)	7,669,292	13,790	34,638,796	(NA)	9,503,359
2023 DATA								
Alabama	157	319,069	46,953	39,809	21	54,630	14,290	13,490
Alaska	2	(D)	(D)	(D)	-	-	-	-
Arizona	218	1,681,429	81,383	69,061	192	4,573,618	164,003	131,754
Arkansas	244	158,554	93,967	82,700	330	335,183	261,660	250,242
California	3,138	2,071,297	1,053,134	1,024,910	1,606	3,287,456	1,248,331	1,145,260
Colorado	1,238	2,787,454	424,228	408,070	748	2,532,495	518,605	507,328
Connecticut	3	1,499	1,104	1,104	-	-	-	-
Delaware	103	85,858	30,839	30,442	55	75,160	39,928	39,642
Florida	358	388,739	131,718	119,076	112	262,182	89,068	84,295
Georgia	592	952,382	188,025	184,477	336	589,306	272,557	245,872
Hawaii	6	(D)	5,612	2,174	3	10,984	5,575	1,532
Idaho	1,104	1,578,804	404,573	369,159	631	945,921	450,448	442,473
Illinois	378	520,692	133,488	123,178	182	292,125	132,518	131,918
Indiana	339	417,203	115,578	107,434	217	460,402	140,381	140,143
Iowa	129	317,217	44,062	38,537	96	172,674	67,955	67,595
Kansas	1,009	3,247,505	312,573	304,175	454	1,241,290	347,627	315,377
Kentucky	32	88,317	9,525	8,919	18	73,559	10,972	10,972
Louisiana	332	310,463	143,671	118,205	241	455,595	193,596	160,808
Maine	5	(D)	3,678	(D)	2	(D)	(D)	(D)
Maryland	114	104,484	40,006	37,131	53	81,355	35,683	34,662
Massachusetts	13	11,289	3,634	3,431	1	(D)	(D)	(D)
Michigan	336	364,981	110,033	105,313	188	447,869	136,236	125,312
Minnesota	466	422,527	145,637	140,758	136	178,624	97,224	97,224
Mississippi	181	116,923	56,785	54,475	190	233,220	144,573	143,853
Missouri	216	320,058	70,124	67,402	196	301,692	140,087	131,173
Montana	1,087	7,881,802	360,418	352,690	469	3,492,701	319,879	310,664
Nebraska	2,978	5,140,637	1,007,361	983,871	2,747	6,400,176	1,913,444	1,869,330
Nevada	96	34,767	25,748	25,541	252	945,641	187,422	187,422
New Hampshire	-	-	-	-	-	-	-	-
New Jersey	71	56,788	29,796	21,140	26	27,267	(D)	(D)
New Mexico	333	577,376	128,867	102,489	113	659,572	69,472	66,428
New York	79	40,870	26,474	20,690	6	23,621	4,902	4,047
North Carolina	146	285,212	63,217	42,777	28	99,863	22,751	17,323
North Dakota	188	672,538	60,122	59,062	86	310,216	58,148	56,235
Ohio	43	72,454	15,418	14,326	13	23,568	10,149	8,914
Oklahoma	314	787,445	108,815	102,095	86	483,661	70,731	63,240
Oregon	748	1,777,235	259,415	232,045	430	1,634,606	323,916	285,502
Pennsylvania	20	23,522	6,599	6,538	3	2,667	2,235	2,115
Rhode Island	7	(D)	(D)	2,295	-	-	-	-
South Carolina	107	204,298	27,972	27,684	61	159,346	59,415	46,760
South Dakota	300	1,071,794	95,724	95,724	152	468,715	106,344	98,514
Tennessee	126	185,447	43,633	42,528	41	117,164	30,736	28,396
Texas	1,281	2,668,899	538,392	415,200	966	3,705,323	803,957	680,691
Utah	672	1,635,728	231,179	219,909	335	695,670	236,747	231,269
Vermont	2	(D)	(D)	(D)	-	-	-	-
Virginia	60	102,652	24,792	17,522	10	21,533	(D)	(D)
Washington	622	699,045	202,815	200,232	350	2,975,563	279,475	247,339
West Virginia	1	(D)	(D)	(D)	-	-	-	-
Wisconsin	231	397,846	73,383	70,383	128	217,571	92,569	89,369
Wyoming	834	2,569,409	254,442	244,893	351	1,825,230	254,777	251,577
Water Resource Regions								
Region 01 New England	30	31,734	11,401	8,736	3	9,841	(D)	(D)
Region 02 Mid-Atlantic	428	384,784	146,288	128,866	151	210,703	106,788	103,283
Region 03 South Atlantic-Gulf	1,331	2,056,103	452,685	409,832	562	1,167,870	459,680	409,339
Region 04 Great Lakes	442	480,740	149,887	136,629	244	541,015	170,460	158,581
Region 05 Ohio	290	516,026	99,986	92,736	145	339,734	98,384	97,009
Region 06 Tennessee	90	191,307	(D)	(D)	17	46,649	(D)	(D)
Region 07 Upper Mississippi	1,184	1,492,961	384,206	367,822	538	927,263	382,324	378,516
Region 08 Lower Mississippi	799	712,083	309,962	273,309	825	1,120,352	640,035	601,343
Region 09 Souris-Red-Rainy	139	352,384	41,461	40,836	69	234,930	45,027	44,767
Region 10 Missouri	6,038	19,830,083	1,972,324	1,924,074	4,132	12,819,719	2,906,059	2,809,017
Region 11 Arkansas-White-Red	1,519	3,451,049	565,558	505,497	833	2,583,160	625,195	589,467
Region 12 Texas-Gulf	992	2,052,190	414,735	320,983	722	1,917,346	616,585	503,271
Region 13 Rio Grande	351	378,172	134,002	108,919	213	1,530,708	153,370	141,276
Region 14 Upper Colorado	796	1,997,124	260,196	255,272	400	1,702,778	269,009	265,759
Region 15 Lower Colorado	240	1,690,889	88,863	76,541	214	4,586,114	176,499	144,250
Region 16 Great Basin	661	880,949	208,825	197,348	473	1,780,986	352,223	344,425
Region 17 Pacific Northwest	2,507	4,494,421	888,580	821,355	1,464	5,995,614	1,079,564	1,006,778
Region 18 California	3,214	2,179,355	1,078,495	1,049,929	1,653	3,379,089	1,284,516	1,179,176
Region 19 Alaska	2	(D)	(D)	(D)	-	-	-	-
Region 20 Hawaii	6	(D)	5,612	2,174	3	10,984	5,575	1,532

--continued

Table 6. Irrigated Farms by Acres Irrigated: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	1,000 to 1,999 acres				2,000 acres or more				
	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated	Farms	Land in farms (acres)	Acres equipped (see text)	Acres irrigated	
United States	2023 2018	7,565 9,170	29,176,556 33,445,785	10,987,395 (NA)	10,347,675 12,245,392	5,431 5,252	41,732,597 42,252,037	22,775,968 (NA)	21,904,001 20,575,722
2023 DATA									
Alabama		29	137,156	38,505	35,734	15	109,547	41,635	41,635
Alaska		-	-	-	-	-	-	-	-
Arizona		89	217,036	123,157	120,887	123	699,509	597,276	543,749
Arkansas		555	992,246	832,929	811,345	895	3,832,596	3,509,340	3,469,336
California		988	2,171,607	1,409,336	1,343,439	703	4,323,379	3,476,373	3,306,039
Colorado		303	1,389,423	427,823	424,593	200	2,847,516	679,591	637,806
Connecticut		-	-	-	-	-	-	-	-
Delaware		13	30,341	19,109	18,923	12	39,876	29,277	29,177
Florida		123	603,302	159,008	149,737	76	1,115,506	751,795	662,791
Georgia		174	476,358	294,046	261,231	100	550,880	435,612	410,753
Hawaii		3	(D)	10,471	3,971	4	49,596	17,240	16,999
Idaho		420	1,131,646	585,794	576,311	321	2,096,987	1,543,163	1,516,721
Illinois		122	318,642	196,673	175,643	67	311,167	189,181	188,400
Indiana		118	418,459	158,897	156,161	37	204,469	124,024	120,877
Iowa		50	145,945	69,438	69,438	5	25,155	18,147	18,147
Kansas		435	1,623,151	622,656	587,739	254	2,793,230	976,525	952,721
Kentucky		4	14,647	5,165	5,165	16	122,845	44,701	44,677
Louisiana		297	732,453	467,628	402,301	189	830,364	621,924	594,273
Maine		3	(D)	(D)	(D)	2	(D)	(D)	(D)
Maryland		19	49,071	23,682	23,587	6	22,066	15,832	15,832
Massachusetts		1	(D)	(D)	(D)	-	-	-	-
Michigan		96	247,313	142,068	139,660	59	355,171	250,518	246,488
Minnesota		92	264,823	117,059	116,419	39	166,961	138,943	126,791
Mississippi		219	419,507	336,778	313,037	290	1,363,542	1,203,169	1,174,416
Missouri		217	444,395	303,496	300,636	258	1,192,227	955,336	948,056
Montana		220	3,040,535	282,647	279,920	111	3,758,042	404,990	392,540
Nebraska		1,203	2,602,440	1,672,639	1,640,612	671	3,488,297	2,278,915	2,272,015
Nevada		74	773,207	108,912	108,867	78	1,824,828	403,817	388,371
New Hampshire		-	-	-	-	-	-	-	-
New Jersey		9	29,228	12,887	10,887	1	(D)	(D)	(D)
New Mexico		65	492,135	89,305	87,705	28	333,646	241,564	188,055
New York		3	31,129	4,035	3,542	-	-	-	-
North Carolina		19	126,497	25,026	24,286	6	38,492	22,394	20,787
North Dakota		25	99,930	36,544	35,824	18	179,933	75,065	74,985
Ohio		4	19,201	5,016	5,016	3	12,371	7,833	7,548
Oklahoma		82	640,113	124,221	123,361	63	780,208	190,437	189,335
Oregon		165	611,099	241,243	212,248	94	1,399,480	431,560	410,639
Pennsylvania		-	-	-	-	-	-	-	-
Rhode Island		-	-	-	-	-	-	-	-
South Carolina		31	91,791	40,521	40,401	16	82,596	52,495	46,854
South Dakota		60	332,300	80,300	80,300	4	82,600	37,150	37,150
Tennessee		37	174,956	48,301	48,301	11	95,884	38,695	38,010
Texas		543	4,721,963	844,430	746,996	399	3,225,976	1,756,814	1,597,322
Utah		133	645,579	288,832	152,332	24	211,716	83,662	83,662
Vermont		-	-	-	-	-	-	-	-
Virginia		9	49,006	15,450	12,450	1	(D)	(D)	(D)
Washington		252	435,076	372,937	353,340	119	909,581	694,992	682,908
West Virginia		-	-	-	-	-	-	-	-
Wisconsin		76	197,729	100,940	100,721	38	180,835	149,845	145,417
Wyoming		185	2,151,729	240,060	238,479	75	1,986,285	268,203	249,784
Water Resource Regions									
Region 01 New England		4	(D)	9,431	6,130	2	(D)	(D)	(D)
Region 02 Mid-Atlantic		49	136,146	67,128	64,847	20	69,642	49,209	49,109
Region 03 South Atlantic-Gulf		369	1,394,681	547,540	501,950	204	1,822,556	1,276,716	1,155,605
Region 04 Great Lakes		142	377,849	200,466	197,565	75	441,695	306,997	299,597
Region 05 Ohio		91	348,525	131,234	128,234	28	211,070	102,602	102,293
Region 06 Tennessee		12	(D)	13,830	13,703	9	(D)	(D)	(D)
Region 07 Upper Mississippi		304	867,911	430,888	406,263	150	751,242	468,526	463,388
Region 08 Lower Mississippi		1,144	2,354,813	1,737,367	1,631,615	1,509	6,678,527	5,859,146	5,768,437
Region 09 Souris-Red-Rainy		22	78,760	28,514	27,954	16	121,318	67,347	55,347
Region 10 Missouri		1,883	8,798,491	2,600,401	2,542,451	976	10,260,231	3,477,732	3,397,601
Region 11 Arkansas-White-Red		797	3,094,642	1,152,044	1,109,123	625	5,744,776	2,465,752	2,357,810
Region 12 Texas-Gulf		382	1,680,840	584,119	522,944	206	1,234,392	843,067	764,727
Region 13 Rio Grande		79	2,568,229	121,994	104,894	64	300,886	216,851	207,456
Region 14 Upper Colorado		162	1,158,563	348,293	208,793	71	2,260,577	324,723	269,326
Region 15 Lower Colorado		94	433,186	131,107	128,837	143	841,802	733,756	641,424
Region 16 Great Basin		193	1,317,144	260,278	260,233	110	2,078,264	513,719	498,273
Region 17 Pacific Northwest		840	2,228,544	1,191,207	1,133,462	530	4,509,503	2,652,211	2,592,764
Region 18 California		995	2,200,733	1,421,083	1,354,706	689	4,200,517	3,359,324	3,227,795
Region 19 Alaska		-	-	-	-	-	-	-	-
Region 20 Hawaii		3	(D)	10,471	3,971	4	49,596	17,240	16,999

Table 7. Estimated Quantity of Water Applied By Source: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Water applied from all sources									
	Total area ¹				Acres in the open			Area under protection		
	Farms	Acres irrigated	Acre-feet applied ²	Average acre-feet per acre	Acres irrigated	Acre-feet applied	Average acre-feet per acre	Farms	Square feet irrigated	Gallons applied (1,000)
United States 2023	212,714	53,135,170	81,005,833	1.5	53,076,539	80,937,415	1.5	26,716	1,721,886,383	22,294,226
..... 2018	231,474	55,938,795	83,380,955	1.5	55,886,470	83,332,760	1.5	24,876	1,525,130,873	15,704,320
2023 DATA										
Alabama	1,230	157,755	114,953	0.7	(D)	114,339	(D)	260	12,859,190	200,197
Alaska	359	1,677	1,183	0.7	(D)	1,159	(D)	251	1,627,816	7,939
Arizona	3,086	921,013	3,927,853	4.3	920,420	3,927,289	4.3	181	21,992,426	183,734
Arkansas	2,857	4,646,159	5,165,875	1.1	4,645,925	5,165,689	1.1	148	5,447,084	60,762
California	38,033	7,765,348	22,612,479	2.9	7,755,846	22,599,562	2.9	2,047	363,330,842	4,209,171
Colorado	12,865	2,368,208	3,741,792	1.6	2,367,382	3,740,814	1.6	556	18,382,301	318,828
Connecticut	622	4,448	5,527	1.2	3,645	4,646	1.3	368	24,099,129	286,959
Delaware	416	132,106	85,840	0.6	(D)	85,821	(D)	36	1,322,428	6,265
Florida	7,303	1,145,368	1,196,361	1.0	1,135,824	1,177,858	1.0	1,667	378,982,374	6,029,258
Georgia	4,234	1,222,368	1,299,133	1.1	1,221,632	1,298,711	1.1	465	16,878,623	137,489
Hawaii	1,850	36,166	56,495	1.6	(D)	55,589	(D)	519	28,096,748	295,374
Idaho	11,952	3,180,948	5,406,650	1.7	3,180,644	5,406,523	1.7	287	2,421,911	41,237
Illinois	2,141	680,392	410,707	0.6	679,401	409,679	0.6	574	25,293,626	334,917
Indiana	2,298	582,245	304,742	0.5	581,477	303,886	0.5	544	16,455,770	278,972
Iowa	1,176	235,413	126,121	0.5	234,886	125,420	0.5	323	11,172,960	228,548
Kansas	4,188	2,325,264	2,570,702	1.1	2,324,901	2,570,383	1.1	258	6,600,028	104,091
Kentucky	1,321	81,805	44,917	0.5	81,034	44,674	0.6	710	9,170,047	79,314
Louisiana	1,859	1,306,078	1,404,077	1.1	1,305,572	1,403,444	1.1	253	14,312,290	206,357
Maine	559	18,822	5,505	0.3	(D)	5,407	(D)	332	5,257,816	31,813
Maryland	916	130,707	63,301	0.5	(D)	62,740	(D)	335	13,938,928	182,662
Massachusetts	1,311	18,963	13,638	0.7	(D)	13,147	(D)	401	10,798,622	159,903
Michigan	4,602	750,576	422,884	0.6	746,242	417,925	0.6	1,615	141,161,153	1,615,952
Minnesota	2,446	558,507	394,240	0.7	557,770	393,326	0.7	483	16,470,436	297,987
Mississippi	1,671	1,713,436	1,465,904	0.9	1,713,175	1,465,708	0.9	193	5,535,045	64,009
Missouri	2,337	1,487,302	1,192,693	0.8	1,486,605	1,192,401	0.8	573	12,075,602	95,233
Montana	7,013	1,561,373	1,879,594	1.2	1,561,047	1,879,427	1.2	312	2,997,212	54,576
Nebraska	13,128	7,305,801	6,813,963	0.9	7,305,558	6,813,805	0.9	206	3,396,228	51,527
Nevada	1,604	767,374	2,248,818	2.9	767,294	2,248,790	2.9	80	674,134	9,199
New Hampshire	369	2,060	1,166	0.6	1,765	1,013	0.6	245	5,548,723	49,933
New Jersey	1,193	70,616	39,608	0.6	69,373	38,099	0.5	436	41,977,776	491,552
New Mexico	7,718	583,735	1,211,104	2.1	583,414	1,210,959	2.1	287	2,987,464	47,271
New York	2,439	49,251	24,324	0.5	47,118	22,607	0.5	1,446	46,271,926	559,335
North Carolina	2,907	152,023	121,203	0.8	150,265	120,223	0.8	1,202	33,056,546	319,482
North Dakota	601	246,363	167,812	0.7	246,301	167,778	0.7	53	653,150	10,977
Ohio	1,931	56,230	36,762	0.7	53,996	35,017	0.6	1,046	65,745,243	568,670
Oklahoma	1,734	539,181	665,465	1.2	538,934	665,291	1.2	164	5,305,060	56,718
Oregon	12,692	1,447,429	2,481,338	1.7	1,445,030	2,478,499	1.7	1,092	69,493,438	925,065
Pennsylvania	2,362	30,248	20,437	0.7	28,104	19,392	0.7	1,367	53,793,143	340,352
Rhode Island	225	3,931	3,018	0.8	(D)	2,965	(D)	132	1,797,847	17,253
South Carolina	1,572	187,519	147,623	0.8	(D)	147,461	(D)	432	6,301,189	52,817
South Dakota	1,352	379,630	257,779	0.7	379,485	257,704	0.7	116	2,182,771	24,425
Tennessee	1,388	174,162	81,066	0.5	173,528	80,834	0.5	527	10,027,549	75,693
Texas	10,896	3,724,195	4,606,066	1.2	3,720,978	4,599,571	1.2	653	125,179,812	2,116,398
Utah	10,432	986,166	2,221,874	2.3	985,863	2,221,470	2.3	179	7,309,038	131,794
Vermont	486	2,675	2,854	1.1	2,330	2,775	1.2	335	3,389,171	25,750
Virginia	1,350	55,802	35,605	0.6	(D)	34,365	(D)	631	22,777,843	404,177
Washington	9,988	1,706,118	3,637,714	2.1	1,704,878	3,636,947	2.1	878	22,191,094	249,958
West Virginia	505	2,179	1,154	0.5	1,775	1,068	0.6	374	3,062,923	28,095
Wisconsin	2,714	481,845	441,152	0.9	480,561	440,473	0.9	998	21,662,418	221,319
Wyoming	4,483	1,148,190	1,824,757	1.6	1,148,044	1,824,742	1.6	146	421,490	4,913
Water Resource Regions										
Region 01 New England	3,221	49,633	30,956	0.6	47,344	29,267	0.6	1,574	48,060,313	550,221
Region 02 Mid-Atlantic	6,918	444,120	254,441	0.6	438,415	249,422	0.6	3,156	154,628,160	1,635,336
Region 03 South Atlantic-Gulf	17,369	2,829,208	2,864,560	1.0	2,816,046	2,843,508	1.0	4,101	453,114,544	6,859,727
Region 04 Great Lakes	7,846	978,210	560,578	0.6	970,903	553,119	0.6	3,236	219,295,359	2,430,675
Region 05 Ohio	5,317	482,493	273,208	0.6	479,026	271,137	0.6	2,681	60,263,258	674,690
Region 06 Tennessee	1,279	85,450	51,282	0.6	(D)	51,102	(D)	531	7,601,730	58,520
Region 07 Upper Mississippi	7,863	1,846,988	1,285,771	0.7	(D)	1,283,578	(D)	2,079	54,232,136	714,484
Region 08 Lower Mississippi	6,170	8,377,798	8,419,014	1.0	(D)	8,418,276	(D)	383	17,662,010	240,399
Region 09 Souris-Red-Rainy	502	181,264	127,859	0.7	(D)	127,799	(D)	63	1,732,290	19,464
Region 10 Missouri	29,755	11,799,109	12,353,301	1.0	11,797,087	12,351,441	1.0	1,416	40,101,510	606,199
Region 11 Arkansas-White-Red	9,195	4,852,366	6,138,048	1.3	4,851,498	6,137,419	1.3	635	17,229,218	204,830
Region 12 Texas-Gulf	8,603	2,337,508	2,656,502	1.1	2,334,549	2,650,201	1.1	579	115,153,422	2,053,191
Region 13 Rio Grande	6,738	703,913	1,394,898	2.0	703,426	1,394,677	2.0	286	10,149,020	72,089
Region 14 Upper Colorado	10,851	1,293,636	2,174,334	1.7	1,293,341	2,174,034	1.7	274	4,286,644	97,871
Region 15 Lower Colorado	3,632	1,054,139	4,527,976	4.3	1,053,465	4,527,355	4.3	259	22,748,554	202,439
Region 16 Great Basin	10,533	1,609,059	4,053,103	2.5	1,608,762	4,052,734	2.5	179	7,032,422	120,110
Region 17 Pacific Northwest	36,245	6,394,164	11,469,055	1.8	6,390,033	11,465,253	1.8	2,445	95,321,425	1,238,778
Region 18 California	38,468	7,778,269	22,313,271	2.9	7,768,745	22,300,345	2.9	2,069	363,549,794	4,211,888
Region 19 Alaska	359	1,677	1,183	0.7	(D)	1,159	(D)	251	1,627,816	7,939
Region 20 Hawaii	1,850	36,166	56,495	1.6	(D)	55,589	(D)	519	28,096,748	295,374

See footnote(s) at end of table.

--continued

Table 7. Estimated Quantity of Water Applied By Source: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Ground water from wells											
	Applied in the open						Applied under protection					
	Total			Only source			Total			Only source		
	Farms	Acres irrigated	Acre-feet applied	Farms	Acres irrigated	Average acre-feet applied	Farms	Square feet irrigated	Gallons applied (1,000)	Farms	Square feet irrigated	Gallons applied (1,000)
United States 2023	107,126	35,658,101	43,899,332	90,220	27,890,224	1.2	17,360	1,178,279,052	14,994,073	16,375	993,055,594	13,346,581
..... 2018	111,913	36,158,867	41,503,077	89,956	27,309,018	1.1	16,362	1,025,109,884	9,912,941	15,252	803,985,687	8,098,759
2023 DATA												
Alabama	638	79,578	69,814	583	56,086	0.9	206	9,831,070	139,152	206	9,831,070	139,152
Alaska	154	1,270	1,047	150	1,266	0.8	146	1,008,796	5,305	146	1,008,796	5,305
Arizona	1,287	437,355	1,767,949	1,101	337,748	4.3	106	12,299,790	88,686	105	11,899,790	80,338
Arkansas	2,431	4,120,114	4,539,882	1,779	3,051,474	1.1	71	3,583,038	40,714	68	3,480,138	39,796
California	22,288	3,897,665	8,615,797	16,435	1,613,804	2.4	1,084	275,780,928	3,134,763	895	183,284,789	2,323,382
Colorado	1,977	893,769	1,217,278	1,354	664,994	1.4	166	5,370,305	59,532	143	4,330,805	48,860
Connecticut	279	1,367	822	252	1,094	0.6	305	13,556,129	108,572	300	11,025,209	97,627
Delaware	382	122,843	79,547	342	103,029	0.7	29	1,235,772	5,656	29	1,235,772	5,656
Florida	6,017	681,350	707,596	5,706	508,389	1.1	1,518	339,134,436	5,037,055	1,441	316,502,150	4,702,798
Georgia	3,316	1,010,259	1,078,793	2,686	780,503	1.2	371	13,549,327	113,637	366	13,128,443	111,467
Hawaii	112	3,937	8,408	107	1,695	0.9	24	4,410,984	19,110	24	4,410,984	19,110
Idaho	2,691	1,206,812	2,009,780	1,760	621,345	1.7	161	2,005,318	36,474	155	1,986,218	36,270
Illinois	1,714	668,988	403,092	1,700	666,188	0.6	428	13,450,430	176,280	425	13,427,930	176,153
Indiana	1,748	534,229	262,712	1,589	454,110	0.5	369	9,750,886	105,839	340	9,344,986	105,000
Iowa	849	223,695	118,461	801	220,972	0.5	164	1,875,081	(D)	155	1,552,784	32,951
Kansas	3,605	2,238,851	2,502,416	3,315	2,048,013	1.1	91	1,650,750	26,431	75	1,441,950	24,271
Kentucky	248	45,614	22,612	236	39,554	0.5	189	2,291,096	24,610	170	2,241,096	24,410
Louisiana	1,485	1,123,415	1,190,186	1,278	941,387	1.1	141	9,411,076	137,433	134	8,369,174	119,965
Maine	269	8,348	2,014	259	2,194	0.4	252	1,117,352	9,302	250	1,072,285	9,247
Maryland	596	104,939	48,126	499	79,909	0.5	238	7,747,596	64,367	215	5,285,372	58,176
Massachusetts	359	2,822	1,537	319	1,337	0.6	287	6,715,256	66,050	275	6,120,520	89,736
Michigan	3,036	619,989	342,410	2,596	419,363	0.6	1,182	62,311,471	930,095	1,099	53,012,631	574,048
Minnesota	2,056	530,346	360,031	1,941	498,043	0.7	412	13,491,680	234,174	401	9,457,720	147,796
Mississippi	1,397	1,669,191	1,395,230	1,169	1,354,865	0.8	123	4,873,038	54,707	116	4,520,888	48,316
Missouri	1,567	1,441,727	1,164,966	1,449	1,416,738	0.8	303	7,524,528	59,463	292	7,314,128	59,159
Montana	906	51,347	49,937	477	23,713	0.9	233	2,121,070	39,388	221	1,993,890	37,338
Nebraska	12,023	6,882,216	6,382,707	10,647	5,812,320	0.9	159	2,709,532	36,506	126	2,614,132	36,248
Nevada	579	237,105	707,578	468	170,377	2.9	54	362,692	5,424	52	358,292	5,397
New Hampshire	159	618	253	141	331	0.6	188	4,313,031	43,467	186	4,284,231	43,409
New Jersey	820	51,037	30,028	689	41,134	0.6	325	40,099,142	471,711	324	31,499,142	430,593
New Mexico	2,763	303,337	662,368	2,071	257,355	2.1	162	1,831,584	26,248	140	1,768,240	25,978
New York	795	23,792	11,581	707	22,721	0.5	893	22,826,048	244,316	804	22,379,380	234,856
North Carolina	1,237	75,774	58,126	1,109	66,604	0.8	877	12,865,896	113,132	875	12,793,896	112,470
North Dakota	378	183,085	124,148	341	153,699	0.7	17	290,700	7,739	14	275,300	(D)
Ohio	805	36,969	21,728	739	28,776	0.6	557	13,569,586	79,529	508	11,758,246	79,038
Oklahoma	1,268	502,645	626,680	1,261	483,949	1.2	96	2,867,300	16,383	96	2,867,300	16,383
Oregon	4,923	570,163	914,870	3,988	399,381	1.7	731	50,191,498	546,198	691	33,724,598	454,257
Pennsylvania	979	9,648	5,455	915	8,374	0.6	1,006	35,949,533	270,940	976	35,051,289	264,510
Rhode Island	114	1,817	1,182	109	1,374	0.6	97	1,267,790	13,619	89	1,159,590	13,366
South Carolina	1,040	162,182	130,417	957	133,164	0.8	310	5,881,759	49,675	302	5,705,759	49,275
South Dakota	860	299,333	191,948	805	285,908	0.6	77	1,529,311	16,765	77	1,529,311	16,765
Tennessee	715	157,687	73,418	713	157,407	0.5	290	5,796,480	46,099	272	4,884,760	38,692
Texas	8,029	3,112,664	3,772,259	7,715	2,933,261	1.2	379	102,604,476	1,846,536	346	92,125,236	1,772,872
Utah	1,261	243,868	746,876	1,003	211,936	3.1	25	2,091,200	35,312	24	1,221,200	26,328
Vermont	262	815	658	206	437	0.7	259	2,498,543	13,155	246	2,393,804	12,852
Virginia	729	8,230	5,261	679	6,422	0.7	497	14,430,451	321,199	474	12,297,599	305,834
Washington	3,621	548,572	994,116	3,118	387,355	1.7	572	8,530,792	99,279	569	8,096,092	96,017
West Virginia	134	887	578	128	815	0.7	217	1,268,115	(D)	217	1,268,115	(D)
Wisconsin	1,840	447,562	365,010	1,615	381,930	0.8	881	18,258,130	195,734	829	15,572,304	179,036
Wyoming	385	78,275	111,644	213	37,381	1.8	92	148,260	1,296	92	148,260	1,296
Water Resource Regions												
Region 01 New England	1,250	15,327	6,138	1,132	6,411	0.5	1,206	27,457,466	274,910	1,177	24,149,743	257,287
Region 02 Mid-Atlantic	3,886	314,726	177,174	3,455	257,021	0.6	2,438	115,436,414	1,187,719	2,335	101,160,594	1,113,353
Region 03 South Atlantic-Gulf	12,385	1,994,033	2,036,969	11,179	1,537,519	1.1	3,324	385,969,783	5,547,579	3,228	362,318,713	5,203,704
Region 04 Great Lakes	4,386	814,050	456,279	3,801	567,090	0.6	1,139	81,817,172	874,071	1,983	68,491,009	799,016
Region 05 Ohio	2,223	414,729	223,942	2,049	380,776	0.5	1,321	25,030,068	246,117	1,209	24,321,668	243,964
Region 06 Tennessee	593	35,792	29,663	547	27,112	1.0	342	4,583,350	39,931	324	3,671,630	32,524
Region 07 Upper Mississippi	6,007	1,749,398	1,162,858	5,610	1,641,623	0.7	1,625	39,603,111	531,595	1,562	34,638,104	436,639
Region 08 Lower Mississippi	5,581	7,681,651	7,566,094	4,620	6,272,004	1.0	188	10,889,830	151,229	175	9,742,778	132,838
Region 09 Souris-Red-Rainy	376	154,112	99,806	355	128,469	0.6	40	1,409,040	15,621	39	1,394,640	15,498
Region 10 Missouri	17,082	8,705,033	8,125,406	14,737	7,380,319	0.9	748	14,820,930	176,398	679	13,470,830	165,114
Region 11 Arkansas-White-Red	6,013	4,353,784	5,295,686	5,540	3,872,138	1.2	346	8,632,526	80,435	333	8,423,806	78,248
Region 12 Texas-Gulf	6,478	1,817,286	2,001,294	6,310	1,754,969	1.1	367	94,201,036	1,803,434	334	83,721,796	1,729,769
Region 13 Rio Grande	3,136	411,024	843,272	2,215	278,216	2.1	156	9,723,444	67,764	137	9,673,680	67,534
Region 14 Upper Colorado	186	4,175	4,627	153	1,142	2.6	39	865,420	6,674	34	860,420	6,658
Region 15 Lower Colorado	1,525	468,225	1,864,382	1,332	368,557	4.2	158	12,479,630	92,263	152	12,070,270	83,882
Region 16 Great Basin	1,720	521,358	1,515,268	1,351	422,035	2.9	47	2,305,400	37,399	44	1,431,000	28,388
Region 17 Pacific Northwest	11,555	2,255,235	3,793,641	9,037	1,347,733	1.7	1,600	61,634,772	699,039	1,543	44,591,392	601,651
Region 18 California	22,478	3,942,956	8,687,378	16,540	1,644,129	2.3	1,106	275,999,880	3,137,480	917	183,503,741	2,326,099
Region 19 Alaska	154	1,270	1,047	150	1,266	0.8	146	1,008,796	5,305	146	1,008,796	5,305
Region 20 Hawaii	112	3,937	8,408	107	1,695	0.9	24	4,410,984	19,110	24	4,410,984	19,110

See footnote(s) at end of table.

--continued

Table 7. Estimated Quantity of Water Applied By Source: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	On-farm surface water											
	Applied in the open						Applied under protection					
	Total			Only source			Total			Only source		
	Farms	Acres irrigated	Acre-feet applied	Farms	Acres irrigated	Average acre-feet applied	Farms	Square feet irrigated	Gallons applied (1,000)	Farms	Square feet irrigated	Gallons applied (1,000)
United States 2023	30,648	5,898,323	8,588,538	21,328	3,101,347	1.5	3,537	271,436,059	2,889,131	2,682	139,115,735	1,871,345
..... 2018	35,179	6,286,005	8,272,467	23,080	3,184,852	1.4	3,564	271,338,773	1,909,476	2,637	109,927,686	1,119,162
2023 DATA												
Alabama	319	66,944	36,209	288	38,699	0.5	-	-	-	-	-	-
Alaska	38	115	79	36	113	0.7	26	197,960	2,089	24	196,760	2,088
Arizona	324	84,945	317,556	234	67,420	3.4	-	-	-	-	-	-
Arkansas	851	531,628	603,787	202	44,670	1.3	24	705,736	6,438	21	419,336	2,493
California	3,315	1,070,618	2,256,263	1,533	316,942	2.5	117	44,889,520	297,258	43	6,701,040	87,629
Colorado	2,462	418,448	697,055	2,000	300,584	1.6	80	1,075,220	23,713	75	1,046,220	23,503
Connecticut	115	1,976	3,601	85	1,288	1.9	22	8,627,760	(D)	19	(D)	(D)
Delaware	56	10,965	6,264	16	830	0.6	-	-	-	-	-	-
Florida	683	250,122	163,909	446	163,983	0.7	152	21,466,166	382,269	75	10,316,600	248,602
Georgia	1,184	228,334	190,452	578	64,865	0.8	34	3,150,360	(D)	29	76,500	(D)
Hawaii	90	8,620	13,183	63	5,768	1.7	54	1,445,980	18,820	53	1,097,500	16,127
Idaho	2,006	522,021	823,460	1,554	322,937	1.6	17	76,180	612	13	65,680	591
Illinois	121	5,242	4,264	111	5,232	0.8	60	6,224,240	119,737	57	6,215,240	119,697
Indiana	332	53,306	27,842	173	8,442	0.3	49	4,697,180	164,100	37	4,337,180	161,368
Iowa	134	7,758	5,188	106	5,822	0.6	40	480,000	(D)	40	480,000	(D)
Kansas	439	74,381	39,468	250	36,621	0.6	37	2,769,320	42,776	31	2,642,120	40,769
Kentucky	321	29,983	14,441	315	23,983	0.5	183	2,498,617	17,770	153	2,056,849	12,895
Louisiana	298	133,692	165,864	122	52,147	1.4	30	3,494,282	44,721	21	1,599,780	16,291
Maine	74	5,891	2,100	66	4,571	0.4	42	3,770,764	20,861	41	3,727,764	20,845
Maryland	243	24,666	13,375	155	7,718	0.4	65	7,821,900	105,055	37	5,367,176	79,588
Massachusetts	564	14,252	10,535	536	12,730	0.7	23	(D)	10,795	20	(D)	(D)
Michigan	1,005	122,106	63,714	600	41,871	0.4	218	19,518,600	119,300	108	531,900	8,544
Minnesota	168	14,541	16,698	86	6,520	1.4	28	2,961,844	26,198	17	(D)	1,970
Mississippi	249	70,659	69,101	47	8,178	0.5	10	308,980	5,268	6	140,880	2,462
Missouri	414	39,147	24,806	304	23,339	0.7	120	2,252,648	17,840	104	2,008,616	17,529
Montana	1,354	490,981	613,523	1,107	436,631	1.3	33	93,228	511	29	89,928	507
Nebraska	835	73,818	50,918	173	11,195	0.8	29	(D)	341	-	-	-
Nevada	299	189,539	473,872	189	117,916	2.3	8	101,240	970	6	88,200	925
New Hampshire	80	968	626	52	559	0.8	24	840,208	(D)	22	811,408	1,029
New Jersey	314	18,809	7,872	183	12,468	0.4	40	2,267,600	12,355	23	66,000	631
New Mexico	471	26,452	54,277	392	23,548	2.2	52	99,920	852	34	72,600	657
New York	629	16,824	6,662	536	14,447	0.4	265	19,083,822	262,506	173	18,433,574	257,255
North Carolina	1,157	72,466	59,196	1,051	59,372	0.9	285	17,422,970	183,609	285	17,422,970	183,609
North Dakota	62	6,577	3,865	44	5,498	0.6	9	203,250	626	7	202,250	608
Ohio	433	15,115	10,388	344	7,149	0.5	300	29,869,738	302,959	249	17,106,458	218,131
Oklahoma	203	16,184	7,144	198	12,932	0.4	13	1,170,520	26,292	3	1,066,520	23,856
Oregon	2,426	328,513	515,885	1,806	205,005	1.7	155	20,052,684	160,884	106	1,364,084	17,922
Pennsylvania	584	12,764	8,984	537	10,945	0.8	275	12,705,200	58,609	248	12,569,324	57,570
Rhode Island	26	1,139	1,189	23	575	1.4	8	292,400	(D)	5	278,400	1,692
South Carolina	312	23,326	15,875	257	8,740	0.3	16	229,360	(D)	16	229,360	(D)
South Dakota	86	13,439	6,605	59	9,524	0.4	-	-	-	-	-	-
Tennessee	196	9,566	5,798	194	8,816	0.6	79	1,873,300	7,405	62	1,852,900	7,301
Texas	992	153,652	184,074	745	76,298	1.5	66	13,579,620	174,600	41	6,481,300	50,238
Utah	904	86,687	113,280	807	76,522	1.2	9	91,630	1,647	9	91,630	1,647
Vermont	113	1,552	2,086	58	990	1.7	54	(D)	1,300	38	171,268	1,252
Virginia	365	38,967	25,018	296	35,279	0.6	96	7,331,930	66,131	75	(D)	14,545
Washington	1,406	179,154	310,659	1,140	116,090	2.1	71	744,670	4,932	60	728,320	4,821
West Virginia	63	714	276	57	654	0.4	101	549,920	(D)	101	549,920	(D)
Wisconsin	656	38,172	72,491	393	20,332	2.7	95	2,647,626	8,134	45	189,192	775
Wyoming	877	292,585	468,761	781	264,589	1.6	23	27,788	129	21	25,988	97
Water Resource Regions												
Region 01 New England	878	25,183	19,806	763	20,380	0.8	138	15,038,290	182,033	126	11,707,410	168,125
Region 02 Mid-Atlantic	1,693	112,334	61,823	1,286	72,561	0.5	407	33,629,872	393,442	303	26,467,912	322,586
Region 03 South Atlantic-Gulf	3,593	627,208	460,877	2,535	335,080	0.7	510	43,092,586	605,060	407	28,191,060	436,448
Region 04 Great Lakes	1,750	147,818	80,404	1,154	54,261	0.4	482	55,725,074	483,931	297	22,052,402	280,852
Region 05 Ohio	1,110	56,744	26,171	940	34,206	0.4	756	23,650,415	322,815	648	21,030,547	305,324
Region 06 Tennessee	231	35,571	17,019	224	21,284	0.4	57	666,800	2,213	40	646,400	2,109
Region 07 Upper Mississippi	1,118	92,966	109,984	754	46,731	1.7	217	6,684,922	73,465	163	3,242,428	47,482
Region 08 Lower Mississippi	1,135	681,277	783,698	212	82,228	1.4	60	3,759,968	45,767	49	1,864,066	17,238
Region 09 Souris-Red-Rainy	53	9,163	8,179	38	3,403	0.7	16	(D)	2,498	16	(D)	2,498
Region 10 Missouri	3,628	857,613	1,152,245	2,425	654,634	1.4	183	3,035,680	27,236	127	2,672,548	26,322
Region 11 Arkansas-White-Red	1,273	292,126	349,730	900	126,693	1.4	55	3,545,190	64,876	35	3,022,270	56,549
Region 12 Texas-Gulf	630	56,664	69,124	473	37,153	1.6	59	13,567,440	174,335	34	6,469,120	49,973
Region 13 Rio Grande	638	64,506	105,887	478	47,076	1.8	44	83,840	(D)	34	72,600	(D)
Region 14 Upper Colorado	1,755	297,006	428,745	1,576	281,176	1.5	67	1,012,530	23,012	67	1,012,530	23,012
Region 15 Lower Colorado	361	98,676	364,927	264	81,036	3.4	7	(D)	(D)	2	(D)	(D)
Region 16 Great Basin	1,160	272,118	612,931	955	190,440	2.1	14	116,440	1,184	12	103,400	1,139
Region 17 Pacific Northwest	6,110	1,090,634	1,695,152	4,684	694,574	1.6	268	20,947,942	166,811	202	2,229,492	23,716
Region 18 California	3,404	1,071,981	2,228,574	1,568	312,550	2.5	117	44,889,520	297,258	43	6,701,040	87,629
Region 19 Alaska	38	115	79	36	113	0.7	26	197,960	2,089	24	196,760	2,088
Region 20 Hawaii	90	8,620	13,183	63	5,768	1.7	54	1,445,980	18,820	53	1,097,500	16,127

See footnote(s) at end of table.

--continued

Table 7. Estimated Quantity of Water Applied By Source: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Off-farm water from all suppliers											
	Applied in the open						Applied under protection					
	Total			Only source			Total			Only source		
	Farms	Acres irrigated	Acres-foot applied	Farms	Acres irrigated	Average acre-foot applied	Farms	Square feet irrigated	Gallons applied (1,000)	Farms	Square feet irrigated	Gallons applied (1,000)
United States 2023	82,710	13,664,899	28,449,545	71,582	9,648,852	2.1	6,985	393,085,107	4,411,022	6,516	316,808,640	3,837,908
..... 2018	98,490	15,923,220	33,557,216	83,643	11,279,603	2.1	6,310	391,322,140	3,881,903	5,671	286,425,822	3,050,366
2023 DATA												
Alabama	200	12,927	8,316	175	12,499	0.6	54	3,028,120	61,046	54	3,028,120	61,046
Alaska	33	(D)	33	27	(D)	0.9	81	422,260	546	79	421,060	545
Arizona	1,614	442,011	1,841,784	1,439	360,425	4.5	76	9,692,636	95,048	75	(D)	(D)
Arkansas	159	14,513	22,020	134	1,027	0.6	57	1,158,310	13,610	55	954,810	11,718
California	18,197	4,118,571	11,727,502	12,944	2,034,159	3.2	1,057	108,234,452	777,150	912	68,096,434	547,666
Colorado	9,180	1,171,854	1,826,481	8,579	943,770	1.5	333	12,127,276	235,583	315	11,941,776	233,859
Connecticut	83	316	223	75	276	0.8	46	4,398,160	(D)	44	4,328,160	31,145
Delaware	3	(D)	10	3	(D)	0.6	7	86,656	608	7	86,656	608
Florida	209	311,831	306,353	131	259,812	1.0	74	26,267,338	609,934	74	26,267,338	609,934
Georgia	209	19,924	29,466	185	19,180	1.5	65	382,020	(D)	65	382,020	(D)
Hawaii	1,413	22,915	33,998	1,383	19,758	1.5	442	22,239,784	257,445	441	20,845,864	246,674
Idaho	8,238	1,489,490	2,573,283	7,495	1,067,391	1.7	117	350,913	4,151	111	336,913	3,983
Illinois	139	5,181	2,323	115	3,197	0.6	89	5,627,956	38,900	89	5,627,956	38,900
Indiana	197	14,931	13,332	129	7,706	0.6	155	2,413,604	9,033	138	2,367,704	8,854
Iowa	105	3,455	1,771	83	3,409	0.5	128	8,817,879	173,016	119	7,923,251	161,091
Kansas	353	45,269	28,499	246	22,311	0.6	147	2,311,158	34,884	136	2,001,986	32,045
Kentucky	322	5,437	7,621	316	5,431	1.4	375	4,380,334	36,934	350	3,142,842	31,114
Louisiana	189	51,725	47,394	147	23,699	1.3	91	1,406,932	24,204	89	1,403,932	24,138
Maine	25	(D)	1,293	23	2,164	0.4	40	379,767	1,651	39	334,100	(D)
Maryland	33	1,669	1,239	11	856	0.8	60	811,656	13,240	55	774,156	12,479
Massachusetts	221	1,609	1,075	209	1,561	0.7	106	(D)	53,059	94	2,448,548	52,232
Michigan	313	23,121	11,801	276	9,498	0.2	325	61,642,102	866,557	298	59,289,862	861,331
Minnesota	60	13,429	16,597	27	8,032	1.6	55	3,402,800	37,616	53	702,080	5,630
Mississippi	148	1,525	1,377	116	423	0.7	67	353,027	4,034	64	347,777	4,023
Missouri	277	5,751	2,629	219	4,308	0.5	168	2,473,426	17,930	159	2,319,586	15,924
Montana	5,170	1,025,696	1,215,967	4,842	963,693	1.1	58	833,914	14,677	50	680,514	11,429
Nebraska	1,653	404,858	380,180	832	136,588	0.9	51	688,696	14,680	47	686,696	14,652
Nevada	867	350,573	1,067,340	797	231,060	2.9	20	210,202	2,805	20	210,202	2,805
New Hampshire	39	416	134	28	28	1.2	35	424,284	(D)	35	424,284	(D)
New Jersey	87	243	199	87	243	0.8	88	1,812,634	7,486	72	1,611,034	6,471
New Mexico	5,142	286,236	494,314	4,451	243,597	1.7	101	1,119,304	20,171	85	1,079,680	20,012
New York	428	6,605	4,364	423	6,555	0.7	380	4,623,824	52,512	377	4,620,224	52,482
North Carolina	216	2,025	2,901	192	1,717	1.5	42	2,767,680	22,741	40	(D)	(D)
North Dakota	184	56,639	39,765	150	46,473	0.7	30	(D)	2,613	29	(D)	2,489
Ohio	281	10,254	2,901	225	2,519	0.4	241	35,154,199	186,182	238	23,996,759	169,550
Oklahoma	178	23,105	31,467	175	19,593	1.5	65	1,371,240	14,043	55	1,267,240	13,613
Oregon	6,136	604,365	1,047,744	5,517	458,009	1.7	260	12,620,061	217,983	242	2,809,672	28,372
Pennsylvania	166	5,765	4,953	141	5,611	0.9	116	5,166,810	10,803	113	4,942,050	9,203
Rhode Island	34	830	594	32	828	0.7	35	(D)	(D)	30	239,657	(D)
South Carolina	151	2,603	1,169	123	778	0.3	114	366,070	(D)	106	190,070	1,902
South Dakota	407	66,728	59,151	379	65,667	0.9	39	653,460	7,660	39	653,460	7,660
Tennessee	163	6,275	1,618	163	6,275	0.3	176	2,357,769	22,188	175	2,029,469	20,329
Texas	1,883	564,172	643,238	1,789	505,562	1.2	244	12,145,924	95,262	233	12,015,236	92,969
Utah	8,563	657,536	1,361,314	8,308	629,055	2.1	146	5,996,208	94,835	145	3,996,208	75,539
Vermont	22	(D)	31	13	18	0.9	39	796,999	11,296	34	717,440	11,130
Virginia	116	(D)	4,086	85	6,688	0.5	80	1,015,462	16,846	40	(D)	2,095
Washington	5,366	1,010,793	2,332,172	5,012	803,031	2.2	247	12,916,682	145,747	237	12,688,032	143,975
West Virginia	38	174	214	38	174	1.2	56	(D)	(D)	56	(D)	(D)
Wisconsin	122	4,043	2,972	55	1,609	1.0	74	2,989,096	17,452	72	2,988,096	17,446
Wyoming	3,378	785,651	1,244,337	3,238	702,544	1.6	33	245,442	3,488	31	243,042	3,439
Water Resource Regions												
Region 01 New England	406	7,342	3,323	371	4,861	0.6	262	8,184,304	93,278	242	7,774,749	91,671
Region 02 Mid-Atlantic	472	15,157	10,425	419	13,405	0.7	439	10,230,018	54,174	390	9,520,916	49,187
Region 03 South Atlantic-Gulf	948	342,534	345,662	759	287,183	1.0	380	32,316,825	707,087	353	31,558,825	693,500
Region 04 Great Lakes	767	33,959	16,436	673	17,918	0.4	804	99,076,104	1,072,672	768	85,484,185	1,050,629
Region 05 Ohio	824	24,259	21,024	708	(D)	1.2	736	12,120,675	105,758	692	10,729,383	99,130
Region 06 Tennessee	285	(D)	4,420	246	13,469	0.3	150	2,351,580	16,375	149	2,023,280	14,516
Region 07 Upper Mississippi	397	18,238	10,736	281	10,854	0.5	301	11,648,241	109,424	290	8,052,893	65,514
Region 08 Lower Mississippi	243	62,857	68,484	185	23,962	1.3	150	3,012,212	43,403	144	2,815,462	41,638
Region 09 Souris-Red-Rainy	53	(D)	19,814	37	14,477	1.2	8	(D)	1,345	7	(D)	1,222
Region 10 Missouri	11,106	2,386,895	3,073,790	9,582	1,858,970	1.3	563	22,695,900	402,566	532	22,190,400	397,189
Region 11 Arkansas-White-Red	2,093	333,222	492,003	1,954	256,056	1.5	259	5,289,422	59,520	243	4,988,110	57,108
Region 12 Texas-Gulf	1,405	493,092	579,783	1,375	469,752	1.2	189	10,535,164	75,422	178	10,404,476	73,129
Region 13 Rio Grande	3,874	271,299	445,518	3,035	181,289	1.6	111	391,500	(D)	90	(D)	3,389
Region 14 Lower Colorado	9,090	1,005,312	1,740,662	8,883	960,007	1.7	173	2,413,694	68,185	168	2,408,694	68,138
Region 15 Upper Colorado	1,878	530,460	2,298,046	1,703	448,874	4.6	100	(D)	(D)	99	9,588,924	96,117
Region 16 Great Basin	8,087	827,416	1,924,535	7,760	674,482	2.2	121	5,480,582	81,527	120	3,480,582	62,231
Region 17 Pacific Northwest	20,868	3,171,925	5,976,460	19,072	2,403,653	1.8	659	26,172,066	372,927	619	16,008,027	178,715
Region 18 California	18,468	4,086,571	11,384,393	13,129	1,979,279	3.1	1,057	108,234,452	777,150	912	68,096,434	547,666
Region 19 Alaska	33	(D)	33	27	(D)	0.9	81	422,260	546	79	421,060	545
Region 20 Hawaii	1,413	22,915	33,998	1,383	19,758	1.5	442	22,239,784	257,445	441	20,845,864	246,674

¹ Irrigated square feet under protection were converted to acres for each operation, rounded to the nearest whole acre, and added to acres irrigated for the Total area columns.

² Total gallons were converted to acre-feet. May not add due to rounding.

Table 8. Farms Using Off-Farm Water: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms using any off-farm water											
	Acres in the open						Area under protection					
	Farms	Acres irrigated with off-farm water	Acre-feet applied	Supplier of off-farm water ¹			Farms	Square feet irrigated	Gallons applied (1,000)	Supplier of off-farm water ¹		
				Bureau of Reclamation	Other Federal agencies	All other suppliers				Bureau of Reclamation	Other Federal agencies	All other suppliers
United States .....2023 2018	82,710 98,490	13,664,899 15,923,220	28,449,545 33,557,216	20,866 29,630	5,875 6,903	40,512 47,765	6,985 6,310	393,085,107 391,322,140	4,411,022 3,881,903	282 219	167 183	5,296 4,940
2023 DATA												
Alabama	200	12,927	8,316	-	-	135	54	3,028,120	61,046	-	-	53
Alaska	33	(D)	33	-	-	33	81	422,260	546	-	-	81
Arizona	1,614	442,011	1,841,784	276	178	781	76	9,692,636	95,048	9	-	52
Arkansas	159	14,513	22,020	-	7	133	57	1,158,310	13,610	-	7	55
California	18,197	4,118,571	11,727,502	4,371	1,344	11,772	1,057	108,234,452	777,150	128	-	718
Colorado	9,180	1,171,854	1,826,481	2,213	585	3,897	333	12,127,276	235,583	35	44	195
Connecticut	83	316	223	-	-	72	46	4,398,160	(D)	-	-	46
Delaware	3	(D)	10	-	-	2	7	86,656	608	-	-	6
Florida	209	311,831	306,353	-	-	165	74	26,267,338	609,934	-	-	70
Georgia	209	19,924	29,466	-	6	176	65	382,020	(D)	-	-	55
Hawaii	1,413	22,915	33,998	-	3	1,293	442	22,239,784	257,445	-	1	386
Idaho	8,238	1,489,490	2,573,283	3,074	625	3,160	117	350,913	4,151	20	2	72
Illinois	139	5,181	2,323	-	56	59	89	5,627,956	38,900	-	16	63
Indiana	197	14,931	13,332	-	-	130	155	2,413,604	9,033	-	-	111
Iowa	105	3,455	1,771	-	-	64	128	8,817,879	173,016	-	-	66
Kansas	353	45,269	28,499	101	-	191	147	2,311,158	34,884	-	4	137
Kentucky	322	5,437	7,621	-	-	281	375	4,380,334	36,934	-	11	324
Louisiana	189	51,725	47,394	-	20	132	91	1,406,932	24,204	-	-	91
Maine	25	(D)	1,293	-	-	17	40	379,767	1,651	-	-	7
Maryland	33	1,669	1,239	-	5	30	60	811,656	13,240	-	-	34
Massachusetts	221	1,609	1,075	-	3	153	106	(D)	53,059	-	10	93
Michigan	313	23,121	11,801	-	27	187	325	61,642,102	866,557	-	-	251
Minnesota	60	13,429	16,597	-	-	60	55	3,402,800	37,616	-	-	55
Mississippi	148	1,525	1,377	-	6	108	67	353,027	4,034	-	-	55
Missouri	277	5,751	2,629	-	22	215	168	2,473,426	17,930	-	17	136
Montana	5,170	1,025,696	1,215,967	1,027	477	1,979	58	833,914	14,677	3	8	23
Nebraska	1,653	404,858	380,180	1,031	49	487	51	688,696	14,680	-	-	51
Nevada	867	350,573	1,067,340	333	129	327	20	210,202	2,805	-	-	20
New Hampshire	39	416	134	-	-	32	35	424,284	(D)	-	-	28
New Jersey	87	243	199	-	-	71	88	1,812,634	7,486	-	-	63
New Mexico	5,142	286,236	494,314	964	358	2,482	101	1,119,304	20,171	6	1	85
New York	428	6,605	4,364	-	19	351	380	4,623,824	52,512	-	-	302
North Carolina	216	2,025	2,901	-	-	154	42	2,767,680	22,741	-	-	3
North Dakota	184	56,639	39,765	76	7	73	30	(D)	2,613	-	2	28
Ohio	281	10,254	2,901	-	3	250	241	35,154,199	186,182	-	3	207
Oklahoma	178	23,105	31,467	-	12	157	65	1,371,240	14,043	-	-	65
Oregon	6,136	604,365	1,047,744	1,767	517	2,593	260	12,620,061	217,983	34	20	156
Pennsylvania	166	5,765	4,953	-	22	89	116	5,166,810	10,803	-	-	56
Rhode Island	34	830	594	-	-	27	35	(D)	(D)	-	-	26
South Carolina	151	2,603	1,169	-	-	115	114	366,070	(D)	-	-	70
South Dakota	407	66,728	59,151	274	7	109	39	653,460	7,660	-	-	39
Tennessee	163	6,275	1,618	-	-	108	176	2,357,769	22,188	-	-	127
Texas	1,883	564,172	643,238	309	86	1,099	244	12,145,924	95,262	-	-	235
Utah	8,563	657,536	1,361,314	1,467	815	3,685	146	5,996,208	94,835	18	4	109
Vermont	22	(D)	31	-	4	9	39	796,999	11,296	-	-	38
Virginia	116	(D)	4,086	-	-	81	80	1,015,462	16,846	-	16	47
Washington	5,366	1,010,793	2,332,172	2,290	251	1,800	247	12,916,682	145,747	25	-	158
West Virginia	38	174	214	-	-	38	56	(D)	(D)	-	-	56
Wisconsin	122	4,043	2,972	-	-	122	74	2,989,096	17,452	-	-	74
Wyoming	3,378	785,651	1,244,337	1,293	232	1,028	33	245,442	3,488	4	1	18
Water Resource Regions												
Region 01 New England	406	7,342	3,323	-	7	301	262	8,184,304	93,278	-	10	200
Region 02 Mid-Atlantic	472	15,157	10,425	-	27	302	439	10,230,018	54,174	-	16	329
Region 03 South Atlantic-Gulf	948	342,534	345,662	-	6	739	380	32,316,825	707,087	-	-	263
Region 04 Great Lakes	767	33,959	16,436	-	31	594	804	99,076,104	1,072,672	-	3	621
Region 05 Ohio	824	24,259	21,024	-	32	687	736	12,120,675	105,758	-	11	619
Region 06 Tennessee	285	(D)	4,420	-	-	165	150	2,351,580	16,375	-	-	101
Region 07 Upper Mississippi	397	18,238	10,736	-	52	290	301	11,648,241	109,424	-	33	196
Region 08 Lower Mississippi	243	62,857	68,484	-	26	157	150	3,012,212	43,403	-	7	140
Region 09 Souris-Red-Rainy	53	(D)	19,814	-	-	48	8	(D)	1,345	-	-	8
Region 10 Missouri	11,106	2,386,895	3,073,790	3,780	548	4,468	563	22,695,900	402,566	13	32	480
Region 11 Arkansas-White-Red	2,093	333,222	492,003	178	201	1,056	259	5,289,422	59,520	-	-	242
Region 12 Texas-Gulf	1,405	493,092	579,783	161	35	908	189	10,535,164	75,422	-	-	180
Region 13 Rio Grande	3,874	271,299	445,518	990	424	2,102	111	391,500	(D)	6	22	80
Region 14 Upper Colorado	9,090	1,005,312	1,740,662	2,211	630	2,832	173	2,413,694	68,185	35	3	89
Region 15 Lower Colorado	1,878	530,460	2,298,046	289	200	947	100	(D)	(D)	9	-	74
Region 16 Great Basin	8,087	827,416	1,924,535	1,619	706	3,722	121	5,480,582	81,527	12	2	96
Region 17 Pacific Northwest	20,868	3,171,925	5,976,460	7,086	1,608	8,066	659	26,172,066	372,927	79	27	393
Region 18 California	18,468	4,086,571	11,384,393	4,552	1,339	11,802	1,057	108,234,452	777,150	128	-	718
Region 19 Alaska	33	(D)	33	-	-	33	81	422,260	546	-	-	81
Region 20 Hawaii	1,413	22,915	33,998	-	3	1,293	442	22,239,784	257,445	-	1	386

¹ Counts include only farms reporting a source of off-farm water.

Table 9. Farms Using Recycled or Reclaimed Water: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Recycled water used				Reclaimed water used									
	Acres in the open		Area under protection		Acres in the open		Area under protection		Total acre-feet applied	Source of reclaimed water ³				
	Farms	Acres irrigated	Farms	Square feet irrigated	Farms ¹	Acres irrigated ²	Farms ¹	Square feet irrigated ²		Municipal	Industrial	On-farm livestock operation	Off-farm livestock operation	Other
United States .....2023	5,163	1,181,694	726	130,658,301	2,705	784,757	123	19,299,310	1,075,438	886	106	1,155	173	688
.....2018	4,829	975,941	456	126,777,377	2,556	519,735	95	22,140,886	640,491	688	70	1,059	229	413
2023 DATA														
Alabama	46	782	-	-	29	3,392	-	-	1,934	-	6	23	-	-
Alaska	7	7	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	68	5,794	-	-	91	43,170	5	1,089,000	146,802	45	3	19	-	24
Arkansas	577	436,311	8	433,080	23	4,742	-	-	3,340	2	-	7	-	14
California	879	296,277	34	25,413,800	1,034	374,324	50	10,965,040	599,451	477	80	311	25	324
Colorado	303	36,579	5	7,500	152	55,393	5	500	55,119	67	-	29	44	83
Connecticut	14	736	5	3,020,400	-	-	1	(D)	(D)	1	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	(D)	-	-	-	-	-
Florida	227	33,940	100	3,644,000	51	25,374	-	-	19,112	10	1	40	-	-
Georgia	150	24,471	5	(D)	27	7,425	-	-	1,647	-	-	27	-	-
Hawaii	18	(D)	-	-	30	465	12	960,000	887	1	-	-	-	29
Idaho	166	29,299	2	(D)	99	21,031	-	-	17,538	9	6	25	20	39
Illinois	36	802	12	1,633,920	14	2,100	-	-	1,050	14	-	-	-	-
Indiana	40	1,207	10	3,860,000	17	4,760	12	24,000	794	-	-	17	-	12
Iowa	1	(D)	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	143	31,461	2	(D)	46	15,671	-	-	6,715	-	-	44	2	-
Kentucky	14	14	12	207,768	-	-	6	720	6	6	-	-	-	-
Louisiana	74	40,822	12	2,668,380	-	-	-	-	-	-	-	-	-	-
Maine	6	(D)	2	(D)	-	-	-	-	-	-	-	-	-	-
Maryland	18	223	20	1,902,740	1	(D)	-	-	(D)	-	-	1	-	-
Massachusetts	182	6,094	1	(D)	11	(D)	-	-	(D)	-	-	11	-	-
Michigan	39	820	68	7,710,140	25	3,700	21	6,174,000	859	21	-	20	-	5
Minnesota	18	1,079	11	(D)	1	(D)	-	-	(D)	1	-	-	-	-
Mississippi	97	24,065	3	130,680	3	3	-	-	3	-	-	3	-	-
Missouri	41	7,306	14	15,400	37	1,444	-	-	258	12	-	25	-	-
Montana	85	18,823	21	63,000	25	710	-	-	(D)	3	-	-	22	-
Nebraska	311	27,600	-	-	137	28,123	-	-	12,888	-	-	108	29	-
Nevada	51	28,028	-	-	4	(D)	-	-	(D)	4	-	-	-	-
New Hampshire	9	160	2	(D)	-	-	-	-	-	-	-	-	-	-
New Jersey	91	4,046	1	(D)	-	-	-	-	-	-	-	-	-	-
New Mexico	68	192	4	8,000	35	2,013	-	-	413	-	-	4	-	31
New York	81	261	50	14,222,342	36	36	-	-	108	-	-	36	-	-
North Carolina	160	9,518	45	5,084,370	122	6,228	-	-	23,990	-	-	122	-	-
North Dakota	7	137	2	(D)	-	-	-	-	-	-	-	-	-	-
Ohio	46	2,279	43	16,824,360	20	3,688	-	-	647	-	-	13	7	-
Oklahoma	31	1,030	2	(D)	29	29	-	-	29	29	-	-	-	-
Oregon	244	13,209	58	14,936,066	73	18,107	-	-	14,818	1	6	28	-	39
Pennsylvania	32	132	22	(D)	20	500	-	-	40	-	-	20	-	-
Rhode Island	1	(D)	-	-	2	(D)	-	-	(D)	2	-	-	-	-
South Carolina	2	(D)	-	-	6	450	-	-	150	-	-	6	-	-
South Dakota	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tennessee	26	92	18	(D)	-	-	-	-	-	-	-	-	-	-
Texas	206	37,147	23	6,267,467	106	75,507	-	-	51,967	25	-	78	3	1
Utah	66	10,136	-	-	155	10,505	2	(D)	55,829	110	-	45	-	-
Vermont	1	(D)	5	20,000	-	-	-	-	-	-	-	-	-	-
Virginia	65	451	62	4,187,115	6	(D)	-	-	24	3	-	3	-	-
Washington	146	23,396	7	(D)	158	37,747	7	1,050	19,496	-	4	73	21	67
West Virginia	23	23	23	69,000	-	-	-	-	-	-	-	-	-	-
Wisconsin	203	14,637	12	2,306,000	-	-	-	-	-	-	-	-	-	-
Wyoming	44	6,790	-	-	80	34,000	2	(D)	32,768	43	-	17	-	20
Water Resource Regions														
Region 01 New England	212	7,136	10	6,708,240	13	246	1	(D)	302	3	-	11	-	-
Region 02 Mid-Atlantic	215	4,908	90	16,622,004	63	1,315	-	-	312	3	-	60	-	-
Region 03 South Atlantic-Gulf	621	72,813	211	12,521,970	215	42,780	-	-	46,744	10	7	198	-	-
Region 04 Great Lakes	99	3,261	116	31,598,026	43	6,620	21	6,174,000	1,230	21	-	33	5	5
Region 05 Ohio	96	1,469	63	6,681,948	19	5,528	18	24,720	1,076	6	-	17	2	12
Region 06 Tennessee	23	(D)	17	(D)	23	92	-	-	92	-	-	23	-	-
Region 07 Upper Mississippi	274	24,652	25	4,914,980	39	3,353	-	-	1,226	27	-	12	-	-
Region 08 Lower Mississippi	691	466,537	14	2,669,780	14	4,452	-	-	3,052	-	-	7	-	7
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Region 10 Missouri	498	62,660	17	(D)	297	101,205	2	(D)	99,625	61	-	160	51	30
Region 11 Arkansas-White-Red	332	95,930	9	1,292,200	101	95,478	5	500	47,749	36	-	49	2	14
Region 12 Texas-Gulf	103	11,057	23	6,267,467	86	11,382	-	-	10,972	25	-	58	3	1
Region 13 Rio Grande	75	2,412	4	8,000	35	2,013	-	-	413	-	-	4	-	31
Region 14 Upper Colorado	243	19,967	5	7,500	88	1,144	-	-	1,518	44	-	22	22	66
Region 15 Lower Colorado	68	5,794	-	-	94	45,270	5	1,089,000	153,102	45	3	19	-	27
Region 16 Great Basin	95	37,966	-	-	159	13,595	2	(D)	61,919	114	-	45	-	-
Region 17 Pacific Northwest	594	68,037	88	15,175,066	355	77,595	7	1,050	52,068	13	16	126	63	145
Region 18 California	899	296,677	34	25,413,800	1,031	372,224	50	10,965,040	593,151	477	80	311	25	321
Region 19 Alaska	7	7	-	-	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	18	(D)	-	-	30	465	12	960,000	887	1	-	-	-	29

¹ Respondents could report reclaimed water for both acres in the open and area under protection.

² Area irrigated with both on-farm and off-farm reclaimed sources are counted twice.

³ Respondents could report more than one source of reclaimed water.

Table 10. Irrigation by Estimated Quantity of Water Applied: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Acres in the open											
	Total			Less than 100 acre-feet			100 to 199 acre-feet			200 to 499 acre-feet		
	Farms	Acres irrigated	Acres of water applied	Farms	Acres irrigated	Acres of water applied	Farms	Acres irrigated	Acres of water applied	Farms	Acres irrigated	Acres of water applied
United States .....2023	201,429	53,076,539	80,937,415	133,829	3,315,615	2,770,009	17,732	2,726,281	2,506,749	20,150	6,176,888	6,352,712
.....2018	220,566	55,886,470	83,332,760	145,428	4,501,839	2,979,498	20,832	3,487,471	2,908,005	22,748	7,484,890	7,209,250
2023 DATA												
Alabama	1,101	(D)	114,339	938	42,387	19,212	54	(D)	7,073	62	29,116	21,226
Alaska	219	(D)	1,159	217	(D)	(D)	-	-	-	2	(D)	(D)
Arizona	2,998	920,420	3,927,289	1,986	19,004	37,324	157	9,722	20,497	154	16,838	52,090
Arkansas	2,771	4,645,925	5,165,689	648	20,712	12,159	135	22,505	20,411	227	104,104	77,105
California	37,159	7,755,846	22,599,562	24,515	353,269	531,587	2,811	187,113	403,556	3,389	467,357	1,075,302
Colorado	12,764	2,367,382	3,740,814	8,235	166,289	183,415	1,535	171,018	218,792	1,205	268,072	376,562
Connecticut	444	3,645	4,646	436	2,181	1,655	2	(D)	(D)	4	608	1,070
Delaware	401	(D)	85,821	202	16,809	6,110	90	21,983	12,925	51	28,122	14,936
Florida	6,594	1,135,824	1,177,858	5,517	78,687	70,531	383	65,632	53,756	345	116,191	105,370
Georgia	4,079	1,221,632	1,298,711	2,831	123,011	59,214	303	80,783	42,371	413	166,437	134,177
Hawaii	1,584	(D)	55,589	1,546	9,104	8,822	20	(D)	(D)	5	(D)	1,730
Idaho	11,864	3,180,644	5,406,523	8,272	170,767	176,534	820	100,603	113,710	885	211,043	286,592
Illinois	1,950	679,401	409,679	1,212	68,082	31,496	247	74,069	37,047	281	164,554	74,578
Indiana	2,084	581,477	303,886	1,468	88,788	29,563	227	88,160	35,199	216	155,788	64,707
Iowa	1,039	234,886	125,420	735	39,406	20,404	135	33,459	17,695	112	80,505	40,371
Kansas	4,104	2,324,901	2,570,383	1,401	99,432	54,624	808	156,125	116,842	835	275,319	258,296
Kentucky	879	81,034	44,674	819	16,329	7,241	21	(D)	(D)	17	6,060	5,573
Louisiana	1,754	1,305,572	1,403,444	566	16,201	7,503	195	38,506	26,983	235	112,271	74,594
Maine	358	(D)	5,407	349	3,394	1,207	2	(D)	(D)	3	1,900	810
Maryland	767	(D)	62,740	602	29,713	10,475	87	31,152	(D)	54	34,912	16,855
Massachusetts	1,104	(D)	13,147	1,080	12,991	6,076	9	(D)	(D)	13	2,562	3,493
Michigan	3,912	746,242	417,925	3,250	153,917	61,789	310	118,222	41,193	179	115,701	57,260
Minnesota	2,169	557,770	393,326	1,398	78,924	40,988	300	76,794	42,209	284	124,424	80,848
Mississippi	1,560	1,713,175	1,465,708	655	26,424	13,463	128	33,992	17,821	201	113,971	67,258
Missouri	2,115	1,486,605	1,192,401	1,198	44,760	17,647	189	50,014	26,379	242	162,667	79,918
Montana	6,913	1,561,047	1,879,427	4,278	137,199	106,540	772	113,311	109,720	961	314,438	314,230
Nebraska	13,057	7,305,558	6,813,805	3,776	323,052	190,133	2,340	461,762	336,029	3,260	1,389,366	1,048,378
Nevada	1,598	767,294	2,248,790	650	12,049	23,050	128	8,073	15,386	286	31,137	96,509
New Hampshire	249	1,765	1,013	249	1,765	1,013	-	-	-	-	-	-
New Jersey	1,090	69,373	38,099	1,002	26,471	11,762	30	(D)	(D)	48	21,412	13,571
New Mexico	7,645	583,414	1,210,959	6,492	84,756	126,317	353	28,188	49,692	395	60,109	121,396
New York	1,759	47,118	22,607	1,718	32,549	13,664	33	(D)	(D)	4	3,031	1,255
North Carolina	2,481	150,265	120,223	2,256	49,085	31,927	97	17,015	12,738	86	30,781	25,346
North Dakota	577	246,301	167,778	246	23,464	9,075	125	34,568	17,597	128	54,350	37,160
Ohio	1,401	53,996	35,017	1,331	22,235	10,809	16	(D)	(D)	46	12,023	12,942
Oklahoma	1,641	538,934	665,291	948	44,378	25,915	157	30,366	21,748	275	84,644	84,378
Oregon	12,366	1,445,030	2,478,499	9,814	175,791	158,711	710	94,237	103,860	744	148,387	231,592
Pennsylvania	1,661	28,104	19,392	1,640	20,341	12,752	12	3,536	1,843	6	2,112	2,046
Rhode Island	169	(D)	2,965	160	1,335	772	3	(D)	464	6	1,880	1,729
South Carolina	1,420	(D)	147,461	1,180	28,706	12,660	82	(D)	11,635	85	30,575	24,909
South Dakota	1,298	379,485	257,704	648	50,735	24,216	222	54,101	32,837	338	142,119	102,486
Tennessee	1,072	173,528	80,834	929	41,655	12,335	59	22,009	8,319	46	38,865	15,041
Texas	10,572	3,720,978	4,599,571	6,260	157,776	140,828	1,080	156,363	147,663	1,260	462,809	411,116
Utah	10,401	985,863	2,221,470	7,438	125,478	179,062	989	72,800	134,932	1,024	160,481	300,546
Vermont	337	2,330	2,775	334	1,611	1,229	1	(D)	(D)	-	-	-
Virginia	1,131	(D)	34,365	1,058	21,241	8,946	24	(D)	(D)	34	11,241	9,287
Washington	9,824	1,704,878	3,636,947	7,260	111,514	140,971	694	65,369	97,122	808	167,546	250,673
West Virginia	229	1,775	1,068	228	(D)	(D)	-	-	-	1	(D)	(D)
Wisconsin	2,330	480,561	440,473	1,637	53,546	25,459	284	69,849	40,760	232	91,001	72,693
Wyoming	4,435	1,148,044	1,824,742	2,221	86,243	91,591	553	60,839	74,922	683	157,597	203,714
Water Resource Regions												
Region 01 New England	2,399	47,344	29,267	2,347	22,288	11,374	16	(D)	(D)	26	6,950	7,102
Region 02 Mid-Atlantic	5,604	438,415	249,422	5,031	131,403	55,972	276	81,216	40,195	187	97,535	55,029
Region 03 South Atlantic-Gulf	15,697	2,816,046	2,843,508	12,758	319,803	192,587	899	189,828	123,988	1,008	373,793	315,637
Region 04 Great Lakes	6,264	970,903	553,119	5,333	201,246	82,376	434	158,030	58,901	264	152,438	81,512
Region 05 Ohio	3,911	479,026	271,137	3,445	85,528	35,128	151	52,665	23,185	177	136,075	53,285
Region 06 Tennessee	1,063	(D)	51,102	993	(D)	(D)	29	(D)	4,486	22	17,671	(D)
Region 07 Upper Mississippi	7,073	(D)	1,283,578	4,730	(D)	114,488	880	244,504	126,904	831	407,817	246,721
Region 08 Lower Mississippi	5,978	(D)	8,418,276	1,485	(D)	38,927	505	112,228	70,088	763	418,296	258,894
Region 09 Souris-Red-Rainy	456	(D)	127,799	216	(D)	5,984	95	30,225	15,287	91	40,448	27,067
Region 10 Missouri	29,233	11,797,087	12,351,441	12,439	677,033	455,164	4,505	827,763	643,135	6,051	2,306,180	1,911,664
Region 11 Arkansas-White-Red	8,878	4,851,498	6,137,419	3,854	146,751	104,407	1,238	197,116	176,673	1,296	398,628	410,564
Region 12 Texas-Gulf	8,331	2,334,549	2,650,201	5,166	128,083	116,651	820	120,461	111,345	1,057	396,798	352,154
Region 13 Rio Grande	6,688	703,426	1,394,677	5,305	71,654	108,420	457	45,242	68,104	321	53,176	103,868
Region 14 Upper Colorado	10,819	1,293,341	2,174,034	7,859	146,693	169,584	1,143	108,533	154,200	800	159,206	247,316
Region 15 Lower Colorado	3,530	1,053,465	4,527,355	2,369	22,176	45,049	236	13,800	31,680	154	16,838	52,090
Region 16 Great Basin	10,493	1,608,762	4,052,734	7,145	120,202	165,605	901	68,677	122,688	1,227	180,002	368,804
Region 17 Pacific Northwest	35,615	6,390,033	11,465,253	26,880	498,667	511,585	2,271	273,624	322,653	2,355	518,644	735,719
Region 18 California	37,594	7,768,745	22,300,345	24,711	359,360	537,357	2,856	189,693	408,496	3,513	494,331	1,116,639
Region 19 Alaska	219	(D)	1,159	217	(D)	(D)	-	-	-	2	(D)	(D)
Region 20 Hawaii	1,584	(D)	55,589	1,546	9,104	8,822	20	(D)	(D)	5	(D)	1,730

--continued

Table 10. Irrigation by Estimated Quantity of Water Applied: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Acres in the open - con.								
	500 to 999 acre-feet			1,000 to 1,999 acre-feet			2,000 acre-feet or more		
	Farms	Acres irrigated	Acres-foot of water applied	Farms	Acres irrigated	Acres-foot of water applied	Farms	Acres irrigated	Acres-foot of water applied
United States .....2023	12,208	7,252,199	8,581,878	8,801	8,911,011	12,137,434	8,709	24,694,545	48,588,633
.....2018	13,631	8,532,800	9,563,173	9,222	9,250,342	12,832,775	8,705	22,629,128	47,840,059
2023 DATA									
Alabama	22	22,847	14,869	14	30,874	18,419	11	22,232	33,540
Alaska	-	-	-	-	-	-	-	-	-
Arizona	169	40,491	104,567	182	67,385	256,769	350	766,980	3,456,042
Arkansas	374	348,818	281,611	428	649,911	623,275	959	3,499,875	4,151,128
California	2,143	658,687	1,530,190	1,819	908,698	2,479,838	2,482	5,180,722	16,579,089
Colorado	851	427,704	628,926	559	442,145	737,283	379	892,154	1,595,836
Connecticut	2	(D)	(D)	-	-	-	-	-	-
Delaware	47	39,644	31,650	7	16,943	10,854	4	(D)	9,346
Florida	151	87,283	98,972	125	171,220	175,559	73	616,811	673,670
Georgia	274	247,058	177,701	157	194,192	219,007	101	410,151	666,241
Hawaii	4	1,753	2,646	2	(D)	(D)	7	20,970	37,643
Idaho	754	354,477	553,745	545	478,161	775,255	588	1,865,593	3,500,687
Illinois	117	120,327	80,329	85	159,276	112,133	28	93,093	74,096
Indiana	125	128,617	85,109	36	65,844	47,144	12	54,280	42,164
Iowa	44	51,494	27,526	10	17,567	12,581	3	12,455	6,843
Kansas	293	189,678	197,806	463	590,801	631,727	304	1,013,546	1,311,088
Kentucky	9	15,516	6,534	11	26,264	13,681	2	(D)	(D)
Louisiana	258	192,902	179,131	287	407,809	387,126	213	537,883	728,107
Maine	3	(D)	1,871	1	(D)	(D)	-	-	-
Maryland	20	27,194	14,223	3	(D)	3,928	1	(D)	(D)
Massachusetts	1	(D)	(D)	1	(D)	(D)	-	-	-
Michigan	96	98,389	67,661	49	97,729	75,008	28	162,284	115,014
Minnesota	105	94,273	76,081	66	111,689	90,140	16	71,666	63,060
Mississippi	142	159,806	106,393	193	333,256	283,380	241	1,045,726	977,393
Missouri	107	147,773	79,235	204	384,178	295,231	175	697,213	693,991
Montana	495	324,756	342,060	255	253,498	331,460	152	417,845	675,417
Nebraska	2,119	1,636,368	1,481,093	971	1,466,965	1,323,591	591	2,028,045	2,434,581
Nevada	100	23,240	71,356	208	141,916	327,045	226	550,879	1,715,444
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	8	7,930	5,336	2	(D)	(D)	-	-	-
New Mexico	206	94,602	145,294	123	57,400	193,247	76	258,359	575,013
New York	3	3,143	2,177	1	(D)	(D)	-	-	-
North Carolina	25	19,910	19,018	13	16,974	15,948	4	16,500	15,246
North Dakota	47	37,630	29,011	20	39,198	28,389	11	57,091	46,546
Ohio	4	4,878	2,343	3	7,547	4,189	1	(D)	(D)
Oklahoma	78	41,680	52,225	77	83,161	100,843	106	254,705	380,182
Oregon	605	262,372	389,538	271	194,828	378,473	222	569,415	1,216,325
Pennsylvania	3	2,115	2,751	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	38	35,336	25,067	19	28,356	26,736	16	43,532	46,454
South Dakota	67	72,580	46,260	19	22,800	19,950	4	37,150	31,955
Tennessee	24	35,302	16,196	5	15,412	6,987	9	20,285	21,956
Texas	862	567,699	617,882	627	731,763	854,458	483	1,644,568	2,427,624
Utah	431	176,529	313,874	295	174,857	405,010	224	275,718	888,046
Vermont	2	(D)	(D)	-	-	-	-	-	-
Virginia	13	14,897	10,099	2	(D)	(D)	-	-	-
Washington	411	156,968	283,277	271	185,938	379,621	380	1,017,543	2,485,283
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	85	73,255	55,589	64	72,887	86,389	28	120,023	159,583
Wyoming	471	197,593	320,909	308	249,404	394,774	199	396,368	738,832
Water Resource Regions									
Region 01 New England	8	8,685	5,618	2	(D)	(D)	-	-	-
Region 02 Mid-Atlantic	90	90,780	63,292	15	24,931	21,588	5	12,550	13,346
Region 03 South Atlantic-Gulf	508	408,761	334,124	320	420,800	444,301	204	1,103,061	1,432,871
Region 04 Great Lakes	128	132,864	88,328	71	136,857	105,505	34	189,468	136,497
Region 05 Ohio	84	77,099	56,924	36	64,595	50,481	18	63,064	52,134
Region 06 Tennessee	5	5,773	3,557	7	19,050	10,308	7	11,841	16,464
Region 07 Upper Mississippi	355	346,427	245,290	218	351,897	286,521	59	251,149	263,654
Region 08 Lower Mississippi	794	787,373	584,077	968	1,580,200	1,394,689	1,463	5,385,219	6,071,601
Region 09 Souris-Red-Rainy	22	18,255	13,759	24	38,602	31,653	8	37,979	34,049
Region 10 Missouri	3,368	2,402,907	2,373,670	1,752	2,198,046	2,330,188	1,118	3,385,158	4,637,620
Region 11 Arkansas-White-Red	762	446,685	541,717	891	1,029,274	1,198,090	837	2,633,044	3,705,968
Region 12 Texas-Gulf	674	457,343	482,569	390	505,599	532,991	224	726,265	1,054,491
Region 13 Rio Grande	294	126,237	201,330	212	152,782	303,634	99	254,335	609,321
Region 14 Upper Colorado	484	226,127	337,741	337	235,584	462,588	196	417,198	802,605
Region 15 Lower Colorado	170	40,685	105,092	226	87,361	330,425	375	872,605	3,963,019
Region 16 Great Basin	392	135,953	292,879	410	274,397	592,472	418	829,531	2,510,286
Region 17 Pacific Northwest	1,888	866,370	1,297,037	1,065	850,585	1,509,042	1,156	3,382,143	7,089,217
Region 18 California	2,178	672,122	1,552,228	1,855	934,274	2,527,778	2,481	5,118,965	16,157,847
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	4	1,753	2,646	2	(D)	(D)	7	20,970	37,643

--continued

Table 10. Irrigation by Estimated Quantity of Water Applied: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Area under protection											
	Total			Less than 250,000 gallons			250,000 to 499,999 gallons			500,000 to 999,999 gallons		
	Farms	Square feet irrigated	Gallons applied (1,000)	Farms	Square feet irrigated	Gallons applied (1,000)	Farms	Square feet irrigated	Gallons applied (1,000)	Farms	Square feet irrigated	Gallons applied (1,000)
United States .....2023	26,716	1,721,886,383	22,294,226	20,284	152,911,461	974,908	2,131	97,740,806	752,742	1,487	93,846,549	1,053,170
.....2018	24,876	(NA)	15,704,320	19,413	(NA)	961,973	1,911	(NA)	667,078	1,412	(NA)	973,475
2023 DATA												
Alabama	260	12,859,190	200,197	177	670,250	5,167	17	671,500	8,486	45	2,845,080	32,125
Alaska	251	1,627,816	7,939	247	1,126,696	4,102	-	-	-	3	(D)	(D)
Arizona	181	21,992,426	183,734	71	313,270	3,896	54	3,569,580	17,366	25	864,240	17,691
Arkansas	148	5,447,084	60,762	119	802,194	4,994	3	(D)	887	13	1,229,850	8,657
California	2,047	363,330,842	4,209,171	1,217	13,028,683	73,990	203	9,471,344	71,984	158	9,824,590	119,168
Colorado	556	18,382,301	318,828	413	1,837,278	17,155	54	2,323,600	19,280	11	633,800	8,119
Connecticut	368	24,099,129	286,959	269	3,340,029	17,225	41	1,162,400	12,430	17	785,900	10,411
Delaware	36	1,322,428	6,265	28	(D)	(D)	2	(D)	(D)	5	540,080	2,824
Florida	1,667	378,982,374	6,029,258	819	5,175,978	36,242	134	8,500,780	50,650	204	8,384,620	153,836
Georgia	465	16,878,623	137,489	395	3,418,439	18,853	38	1,795,264	14,914	-	-	-
Hawaii	519	28,096,748	295,374	303	2,401,728	(D)	65	(D)	18,954	75	4,987,120	46,067
Idaho	287	2,421,911	41,237	265	1,051,735	10,691	3	111,000	1,402	12	394,680	8,309
Illinois	574	25,293,626	334,917	440	3,348,310	35,304	28	1,765,776	8,878	37	2,778,660	31,593
Indiana	544	16,455,770	278,972	450	4,083,486	18,288	50	1,389,044	15,761	-	-	-
Iowa	323	11,172,960	228,548	286	1,184,220	14,187	-	-	-	20	(D)	15,053
Kansas	258	6,600,028	104,091	195	1,065,648	11,834	32	635,400	9,646	13	505,740	9,145
Kentucky	710	9,170,047	79,314	644	4,761,895	26,681	31	826,500	9,395	19	1,992,940	10,142
Louisiana	253	14,312,290	206,357	170	1,044,610	10,207	5	87,000	1,798	27	3,767,980	21,161
Maine	332	5,257,816	31,813	327	1,587,349	11,313	3	(D)	(D)	-	-	-
Maryland	335	13,938,928	182,662	257	1,865,672	16,185	33	1,876,848	(D)	21	1,297,896	17,161
Massachusetts	401	10,798,622	159,903	282	2,063,418	21,019	7	(D)	(D)	84	2,698,564	59,494
Michigan	1,615	141,161,153	1,615,952	1,065	12,228,826	41,448	156	5,337,220	51,408	95	7,200,622	67,402
Minnesota	483	16,470,436	297,987	381	2,885,424	23,306	50	968,320	20,736	24	988,480	13,342
Mississippi	193	5,535,045	64,009	139	1,292,305	(D)	23	(D)	9,103	16	941,160	10,257
Missouri	573	12,075,602	95,233	500	4,215,562	29,128	55	3,181,520	19,259	5	480,000	4,424
Montana	312	2,997,212	54,576	256	837,762	(D)	29	843,240	11,115	14	531,480	10,200
Nebraska	206	3,396,228	51,527	167	920,180	12,813	17	265,728	5,729	16	369,480	10,049
Nevada	80	674,134	9,199	68	227,434	2,240	6	196,020	1,990	3	120,000	1,905
New Hampshire	245	5,548,723	49,933	200	2,245,363	11,433	10	435,600	(D)	31	1,670,800	20,184
New Jersey	436	41,977,776	491,552	338	3,393,874	25,765	1	(D)	(D)	1	(D)	(D)
New Mexico	287	2,987,464	47,271	259	829,622	7,766	15	292,842	4,421	-	-	-
New York	1,446	46,271,926	559,335	1,127	6,805,882	68,934	158	9,834,320	64,386	48	4,139,920	30,196
North Carolina	1,202	33,056,546	319,482	1,117	11,133,062	44,039	29	1,482,680	10,441	39	2,100,754	32,214
North Dakota	53	653,150	10,977	42	(D)	(D)	6	252,000	1,622	3	(D)	2,653
Ohio	1,046	65,745,243	568,670	806	7,727,202	39,700	96	5,880,222	33,202	16	1,294,240	10,986
Oklahoma	164	5,305,060	56,718	112	729,040	5,296	39	2,854,220	12,315	8	138,240	4,147
Oregon	1,092	69,493,438	925,065	803	3,663,634	28,555	79	4,479,560	30,156	90	7,906,520	65,255
Pennsylvania	1,367	53,793,143	340,352	1,089	13,689,049	64,513	141	5,190,054	52,016	77	6,124,090	52,816
Rhode Island	132	1,797,847	17,253	118	894,847	4,347	7	(D)	(D)	4	344,000	2,326
South Carolina	432	6,301,189	52,817	399	1,630,820	(D)	-	-	-	23	(D)	12,206
South Dakota	116	2,182,771	24,425	111	831,571	6,369	-	-	-	-	-	-
Tennessee	527	10,027,549	75,693	430	2,473,129	21,832	69	2,096,520	20,705	19	(D)	(D)
Texas	653	125,179,812	2,116,398	342	3,493,796	13,165	105	5,941,656	38,708	76	5,203,166	52,680
Utah	179	7,309,038	131,794	119	686,016	6,790	28	929,062	10,071	15	1,083,360	10,236
Vermont	335	3,389,171	25,750	300	1,849,252	7,038	18	778,999	5,650	17	760,920	13,063
Virginia	631	22,777,843	404,177	549	3,913,951	26,859	7	(D)	(D)	1	(D)	(D)
Washington	878	22,191,094	249,958	757	3,335,784	26,771	62	1,574,000	20,182	21	2,085,080	17,497
West Virginia	374	3,062,923	28,095	370	1,688,936	8,093	1	(D)	(D)	1	(D)	(D)
Wisconsin	998	21,662,418	221,319	804	4,497,942	43,384	119	6,102,880	40,438	33	3,150,316	22,329
Wyoming	146	421,490	4,913	142	(D)	(D)	2	(D)	(D)	2	(D)	(D)
Water Resource Regions												
Region 01 New England	1,574	48,060,313	550,221	1,292	10,689,182	69,696	68	2,347,667	22,719	136	5,499,264	92,415
Region 02 Mid-Atlantic	3,156	154,628,160	1,635,336	2,486	24,902,462	157,897	271	16,523,326	103,743	129	11,683,386	92,074
Region 03 South Atlantic-Gulf	4,101	453,114,544	6,859,727	2,910	23,155,839	120,105	231	12,952,264	90,236	327	15,273,494	240,639
Region 04 Great Lakes	3,236	219,295,359	2,430,675	2,270	22,481,146	101,164	363	14,387,545	128,610	168	11,434,282	114,589
Region 05 Ohio	2,681	60,263,258	674,690	2,325	15,194,163	90,789	156	4,843,316	48,158	52	4,467,927	30,100
Region 06 Tennessee	531	7,601,730	58,520	481	2,603,830	16,639	44	1,342,520	14,051	1	(D)	(D)
Region 07 Upper Mississippi	2,079	54,232,136	714,484	1,767	10,979,992	109,021	96	5,796,936	36,292	87	4,938,956	64,746
Region 08 Lower Mississippi	383	17,662,010	240,399	252	1,537,330	12,476	43	1,009,000	12,665	27	3,781,980	20,871
Region 09 Souris-Red-Rainy	63	1,732,290	19,464	51	187,850	(D)	6	(D)	1,622	3	147,000	(D)
Region 10 Missouri	1,416	40,101,510	606,199	1,152	6,695,159	64,147	147	5,723,128	49,544	45	1,891,700	31,070
Region 11 Arkansas-White-Red	635	17,229,218	204,830	500	3,948,048	23,982	66	3,694,400	21,671	45	2,399,530	29,847
Region 12 Texas-Gulf	579	115,153,432	2,053,191	304	2,565,216	10,772	96	5,730,096	35,628	52	4,157,720	35,927
Region 13 Rio Grande	286	10,149,020	72,089	265	862,722	8,476	10	225,498	3,118	-	-	-
Region 14 Upper Colorado	274	4,286,644	97,871	197	735,840	6,436	18	459,484	6,002	8	198,000	4,840
Region 15 Lower Colorado	259	22,748,554	202,439	130	419,038	5,457	62	3,757,260	20,150	30	1,064,240	21,067
Region 16 Great Basin	179	7,032,422	120,110	131	797,140	7,409	24	891,322	8,740	10	865,360	7,184
Region 17 Pacific Northwest	2,445	95,321,425	1,238,778	1,982	8,380,445	69,148	162	6,657,200	58,854	131	10,655,080	97,700
Region 18 California	2,069	363,549,794	4,211,888	1,239	13,247,635	76,707	203	9,471,344	71,984	158	9,824,590	119,168
Region 19 Alaska	251	1,627,816	7,939	247	1,126,696	4,102	-	-	-	3	(D)	(D)
Region 20 Hawaii	519	28,096,748	295,374	303	2,401,728	(D)	65	(D)	18,954	75	4,987,120	46,067

--continued

Table 10. Irrigation by Estimated Quantity of Water Applied: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Area under protection - con.								
	1,000,000 to 1,999,999 gallons			2,000,000 to 4,999,999 gallons			5,000,000 gallons or more		
	Farms	Square feet irrigated	Gallons applied (1,000)	Farms	Square feet irrigated	Gallons applied (1,000)	Farms	Square feet irrigated	Gallons applied (1,000)
United States 2023	1,083	142,083,094	1,479,349	977	282,635,285	2,966,080	754	952,669,188	15,067,977
..... 2018	959	(NA)	1,297,353	572	(NA)	1,724,090	609	(NA)	10,080,351
2023 DATA									
Alabama	-	-	-	16	2,720,280	58,750	5	5,952,080	95,669
Alaska	-	-	-	1	(D)	(D)	-	-	-
Arizona	7	1,245,816	11,400	14	4,356,000	52,506	10	11,643,520	80,874
Arkansas	3	(D)	4,500	4	922,800	11,176	6	2,090,880	30,547
California	137	19,383,048	187,955	162	54,850,864	557,299	170	256,772,313	3,198,775
Colorado	52	3,111,820	75,804	19	4,530,040	47,171	7	5,945,763	151,300
Connecticut	11	2,655,360	15,374	26	6,239,240	67,006	4	9,916,200	164,513
Delaware	1	(D)	(D)	-	-	-	-	-	-
Florida	103	12,475,320	140,138	174	58,506,800	509,561	233	285,938,876	5,138,830
Georgia	22	2,935,440	27,233	4	714,420	9,618	6	8,015,060	66,871
Hawaii	22	5,310,000	36,970	53	11,979,000	161,954	1	(D)	(D)
Idaho	1	(D)	(D)	5	509,496	11,640	1	(D)	(D)
Illinois	41	4,858,000	55,126	20	3,918,000	46,736	8	8,624,880	157,281
Indiana	14	2,524,880	14,134	19	2,951,560	45,168	11	5,506,800	185,621
Iowa	8	1,045,440	(D)	2	(D)	(D)	7	8,164,189	180,476
Kansas	10	520,000	12,869	3	1,263,240	12,877	5	2,610,000	47,720
Kentucky	14	953,112	19,364	1	(D)	(D)	1	(D)	(D)
Louisiana	16	1,030,920	18,101	28	5,234,420	90,288	7	3,147,360	64,802
Maine	-	-	-	-	-	-	2	(D)	(D)
Maryland	13	(D)	19,518	2	(D)	(D)	9	6,573,288	109,221
Massachusetts	3	(D)	(D)	24	(D)	61,189	1	(D)	(D)
Michigan	81	11,352,285	109,030	123	47,966,760	398,739	95	57,075,440	947,925
Minnesota	-	-	-	19	2,106,936	58,555	9	9,521,276	182,048
Mississippi	11	780,060	14,561	3	770,480	9,855	1	(D)	(D)
Missouri	10	713,920	13,427	-	-	-	3	3,484,600	28,995
Montana	11	(D)	14,668	2	(D)	(D)	-	-	-
Nebraska	3	142,000	4,849	1	(D)	(D)	2	(D)	(D)
Nevada	3	130,680	3,065	-	-	-	-	-	-
New Hampshire	-	-	-	4	1,196,960	(D)	-	-	-
New Jersey	66	7,271,760	104,576	24	6,795,360	67,723	6	24,399,382	292,545
New Mexico	4	320,000	6,480	9	1,545,000	28,604	-	-	-
New York	71	5,037,920	102,365	21	4,137,342	71,995	21	16,316,542	221,458
North Carolina	5	656,000	5,514	6	2,330,370	22,712	6	15,353,680	204,561
North Dakota	-	-	-	2	(D)	(D)	-	-	-
Ohio	91	16,308,659	105,318	26	8,548,480	59,923	11	25,986,440	319,542
Oklahoma	1	(D)	(D)	1	(D)	(D)	3	1,240,760	30,753
Oregon	73	9,684,510	110,861	14	3,039,250	40,439	33	40,719,964	649,799
Pennsylvania	45	12,842,510	51,430	6	8,900,200	20,306	9	7,047,240	99,271
Rhode Island	1	(D)	(D)	2	(D)	(D)	-	-	-
South Carolina	-	-	-	9	3,067,080	24,148	1	(D)	(D)
South Dakota	2	(D)	(D)	2	(D)	(D)	1	(D)	(D)
Tennessee	2	(D)	(D)	7	2,647,100	20,253	-	-	-
Texas	54	5,896,160	76,010	49	10,266,440	132,816	27	94,378,600	1,803,019
Utah	5	663,360	7,138	6	432,000	15,795	6	3,515,240	81,764
Vermont	-	-	-	-	-	-	-	-	-
Virginia	25	2,413,920	35,131	38	6,596,432	116,169	11	8,964,000	223,115
Washington	8	(D)	(D)	21	4,971,400	53,830	9	(D)	(D)
West Virginia	1	(D)	(D)	-	-	-	1	(D)	(D)
Wisconsin	32	4,049,240	36,784	5	1,117,944	16,038	5	2,744,096	62,348
Wyoming	-	-	-	-	-	-	-	-	-
Water Resource Regions									
Region 01 New England	15	3,013,360	20,174	56	11,977,280	149,534	7	14,533,560	195,683
Region 02 Mid-Atlantic	166	21,894,334	244,465	51	20,034,000	142,624	53	59,590,652	894,533
Region 03 South Atlantic-Gulf	155	17,562,580	208,051	228	69,573,942	691,351	250	314,596,425	5,509,345
Region 04 Great Lakes	150	21,372,884	183,910	172	61,062,046	538,464	113	88,557,456	1,363,938
Region 05 Ohio	109	18,741,412	134,944	25	6,003,640	66,543	14	11,012,800	304,156
Region 06 Tennessee	-	-	-	3	(D)	8,824	2	(D)	(D)
Region 07 Upper Mississippi	66	8,786,320	87,453	43	6,724,047	115,296	20	17,005,885	301,676
Region 08 Lower Mississippi	22	1,585,840	27,047	32	6,600,500	102,537	7	3,147,360	64,802
Region 09 Souris-Red-Rainy	-	-	-	2	(D)	(D)	1	(D)	(D)
Region 10 Missouri	29	2,172,420	41,593	27	6,626,680	78,187	16	16,992,423	341,657
Region 11 Arkansas-White-Red	6	487,800	9,155	4	757,800	11,155	14	5,941,640	109,020
Region 12 Texas-Gulf	54	5,896,160	76,010	49	10,266,440	132,816	24	86,537,800	1,762,039
Region 13 Rio Grande	4	320,000	6,480	4	900,000	13,034	3	7,840,800	40,981
Region 14 Upper Colorado	46	2,248,320	65,024	5	645,000	15,570	-	-	-
Region 15 Lower Colorado	10	1,376,496	14,465	17	4,488,000	60,426	10	11,643,520	80,874
Region 16 Great Basin	5	663,360	7,138	3	300,000	7,875	6	3,515,240	81,764
Region 17 Pacific Northwest	87	11,268,760	128,514	40	8,520,146	105,909	43	49,839,794	778,653
Region 18 California	137	19,383,048	187,955	162	54,850,864	557,299	170	256,772,313	3,198,775
Region 19 Alaska	-	-	-	1	(D)	(D)	-	-	-
Region 20 Hawaii	22	5,310,000	36,970	53	11,979,000	161,954	1	(D)	(D)

Table 11. Irrigation Wells Used on Farms: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms	Number	With flow meters				With backflow prevention devices			
			Farms	Number	Acres irrigated in the open	Square feet under protection irrigated	Farms	Number	Acres irrigated in the open	Square feet under protection irrigated
United States	114,889	456,058	40,642	165,909	16,407,423	514,121,525	83,061	337,420	27,134,112	992,896,997
Alabama	765	1,493	77	234	16,891	218,000	578	1,031	54,527	6,732,260
Alaska	234	320	33	33	144	123,216	149	171	586	379,329
Arizona	1,343	4,066	351	1,534	183,442	3,773,140	733	2,068	172,470	4,582,220
Arkansas	2,470	43,421	634	7,519	821,883	2,223,920	1,419	20,299	2,051,332	3,121,064
California	22,736	63,186	9,023	27,671	2,288,772	184,435,166	17,750	49,321	3,175,440	244,637,286
Colorado	2,022	8,509	1,318	6,122	691,833	4,473,033	1,452	7,155	808,105	3,793,583
Connecticut	464	700	76	148	498	7,282,580	434	666	1,360	13,282,029
Delaware	394	1,879	79	407	25,278	(D)	338	1,595	100,603	1,214,772
Florida	6,691	18,853	1,668	8,363	427,493	163,933,721	5,252	15,630	530,876	307,737,736
Georgia	3,443	11,852	1,789	7,580	771,761	5,132,180	2,627	9,399	811,506	12,430,907
Hawaii	136	145	122	128	3,803	60,984	132	138	3,602	4,410,984
Idaho	2,759	8,044	1,254	4,129	830,296	628,369	1,911	6,047	1,061,730	1,846,508
Illinois	1,853	7,474	177	1,029	1,662,465	52,141	1,252	5,040	501,149	8,416,525
Indiana	1,894	5,794	266	833	80,341	2,007,120	1,180	3,889	409,591	6,676,214
Iowa	901	2,505	69	163	10,021	288,000	627	1,940	166,526	1,136,037
Kansas	3,632	18,502	3,110	17,017	2,081,148	1,249,000	3,005	16,559	2,035,774	793,250
Kentucky	374	781	33	84	5,392	72,000	241	507	34,894	1,075,048
Louisiana	1,536	10,537	125	363	37,934	1,164,728	969	5,916	665,873	8,556,076
Maine	414	474	30	50	6,908	78,200	225	259	7,579	631,863
Maryland	720	1,889	140	292	15,571	2,670,188	552	1,485	78,476	6,223,484
Massachusetts	545	950	52	88	197	1,104,360	283	460	1,070	2,483,096
Michigan	3,543	9,949	762	2,080	121,622	37,053,157	2,723	7,944	512,795	49,375,155
Minnesota	2,282	6,464	720	1,985	205,462	3,743,520	1,626	4,856	428,656	10,395,100
Mississippi	1,463	15,211	815	5,001	580,026	438,886	1,076	10,937	1,265,145	4,088,966
Missouri	1,713	14,824	234	1,307	153,988	516,200	1,010	7,198	708,751	3,520,548
Montana	986	1,579	174	321	29,210	138,990	579	961	34,122	1,546,454
Nebraska	12,059	65,690	7,321	33,940	3,845,098	191,865	9,899	54,988	5,931,134	1,151,043
Nevada	584	1,885	456	1,499	219,051	345,700	404	1,615	222,460	358,292
New Hampshire	259	366	33	65	263	1,212,390	233	336	583	3,449,231
New Jersey	945	1,828	196	360	12,061	5,628,702	640	1,337	42,332	36,740,532
New Mexico	2,824	7,354	1,588	3,789	162,392	570,684	1,727	4,346	189,122	1,565,374
New York	1,326	2,222	198	287	5,834	969,000	840	1,287	10,640	13,973,314
North Carolina	1,601	3,463	252	602	15,775	1,557,220	1,186	2,328	40,322	11,643,692
North Dakota	385	1,795	251	1,294	128,338	147,000	294	1,536	147,301	281,900
Ohio	1,056	1,516	118	252	12,603	7,440,700	528	810	24,403	9,964,456
Oklahoma	1,306	5,585	245	1,379	122,106	89,500	865	4,572	399,455	493,620
Oregon	5,179	10,123	1,481	2,925	264,743	20,616,440	3,011	5,946	334,134	46,610,050
Pennsylvania	1,509	2,173	203	293	2,062	10,361,664	1,034	1,590	7,795	29,275,005
Rhode Island	155	235	9	17	80	175,200	106	132	1,214	1,020,204
South Carolina	1,112	3,058	163	531	45,309	26,040	732	2,176	132,726	3,950,920
South Dakota	898	2,577	104	218	31,826	36,096	633	2,029	243,942	437,096
Tennessee	926	2,049	169	368	33,826	598,000	597	1,260	85,314	2,740,680
Texas	8,216	66,715	2,546	18,452	1,481,978	20,949,352	6,172	57,281	2,660,913	87,596,293
Utah	1,266	2,659	243	845	121,859	(D)	726	1,848	201,817	175,400
Vermont	364	478	32	32	66	108,276	287	339	600	1,772,994
Virginia	926	1,117	77	124	1,420	3,016,352	521	641	4,248	9,785,654
Washington	3,751	6,698	1,095	2,033	279,992	4,645,289	2,382	4,038	390,624	4,191,542
West Virginia	295	335	31	33	-	228,076	160	188	381	702,448
Wisconsin	2,197	5,735	561	1,712	149,505	9,792,648	1,768	4,770	387,542	15,909,759
Wyoming	437	1,001	139	378	29,181	(D)	193	556	52,572	21,000
Water Resource Regions										
Region 01 New England	1,953	2,888	201	369	7,956	9,864,730	1,383	1,995	12,150	21,180,681
Region 02 Mid-Atlantic	5,087	10,187	861	1,718	61,710	21,873,914	3,478	7,373	240,277	93,176,568
Region 03 South Atlantic-Gulf	13,814	39,089	3,961	17,349	1,273,326	170,925,361	10,509	30,817	1,555,944	345,093,559
Region 04 Great Lakes	5,385	13,380	1,079	2,561	157,157	45,794,133	3,940	10,350	663,375	64,412,995
Region 05 Ohio	2,976	6,173	377	998	74,241	9,665,896	1,679	4,005	311,003	19,321,135
Region 06 Tennessee	735	1,080	132	206	9,493	520,000	452	576	23,120	3,336,600
Region 07 Upper Mississippi	6,620	20,945	1,237	4,331	367,164	7,717,933	4,760	15,183	1,380,349	25,884,951
Region 08 Lower Mississippi	5,650	75,795	1,623	13,335	1,505,943	1,750,094	3,609	41,001	4,383,337	9,415,022
Region 09 Souris-Red-Rainy	414	1,705	215	1,107	103,657	147,000	309	1,475	129,587	261,400
Region 10 Missouri	17,372	83,188	9,828	43,637	4,892,553	4,710,374	13,792	69,121	7,490,205	8,191,966
Region 11 Arkansas-White-Red	6,165	44,248	3,342	24,805	2,863,874	3,320,480	4,700	36,357	3,555,128	5,194,144
Region 12 Texas-Gulf	6,660	50,757	1,763	8,996	538,284	13,108,551	4,921	41,972	1,499,387	79,265,492
Region 13 Rio Grande	3,186	8,145	1,827	5,391	333,630	8,446,465	1,843	5,198	291,126	9,429,295
Region 14 Upper Colorado	197	197	33	33	3,046	582,800	93	93	3,683	855,800
Region 15 Lower Colorado	1,591	4,655	476	1,880	205,990	3,919,320	966	2,640	203,039	4,748,560
Region 16 Great Basin	1,737	4,437	647	2,260	355,515	1,139,520	993	3,319	439,670	375,560
Region 17 Pacific Northwest	12,051	25,181	3,760	8,980	1,332,641	26,015,588	7,518	16,200	1,755,928	53,106,718
Region 18 California	22,926	63,543	9,125	27,792	2,317,296	184,435,166	17,835	49,436	3,192,616	244,856,238
Region 19 Alaska	234	320	33	33	144	123,216	149	171	586	379,329
Region 20 Hawaii	136	145	122	128	3,803	60,984	132	138	3,602	4,410,984

--continued

Table 11. Irrigation Wells Used on Farms: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms by number of wells used									
	1 well	2 wells	3 wells	4 wells	5 wells	6 wells	7 to 9 wells	10 to 14 wells	15 to 19 wells	20 wells or more
United States	61,387	18,680	8,284	5,135	3,502	2,565	4,903	4,087	1,865	4,481
Alabama	438	197	51	28	26	2	14	5	2	2
Alaska	190	22	2	20	-	-	-	-	-	-
Arizona	745	217	143	48	58	29	56	24	1	22
Arkansas	318	134	155	69	72	77	249	425	144	827
California	13,643	4,024	1,666	739	525	436	676	431	153	443
Colorado	874	282	200	192	74	97	138	69	19	77
Connecticut	332	83	15	30	1	1	1	-	-	-
Delaware	120	66	47	35	25	20	18	39	11	13
Florida	3,588	1,655	390	400	187	102	174	33	47	115
Georgia	1,733	591	332	337	50	67	97	117	28	91
Hawaii	131	1	4	-	-	-	-	-	-	-
Idaho	1,753	320	223	133	66	58	62	71	19	54
Illinois	886	361	210	62	24	57	95	71	29	58
Indiana	907	358	188	101	73	45	94	97	18	13
Iowa	564	104	72	48	-	14	48	21	17	13
Kansas	1,242	590	424	230	275	124	229	257	92	169
Kentucky	239	70	25	6	12	3	9	6	2	2
Louisiana	343	241	197	91	101	70	172	129	59	133
Maine	383	23	3	-	4	-	-	-	1	-
Maryland	384	149	44	46	24	15	18	32	3	5
Massachusetts	336	174	17	-	7	5	-	-	-	6
Michigan	2,082	655	147	173	125	130	82	51	18	80
Minnesota	1,251	414	183	140	69	49	85	40	35	31
Mississippi	444	150	71	66	62	33	175	126	71	265
Missouri	826	113	56	115	35	50	66	121	47	284
Montana	748	114	52	25	24	-	1	22	-	-
Nebraska	3,477	1,791	1,314	951	752	638	1,304	774	503	555
Nevada	216	224	18	21	41	10	33	13	-	8
New Hampshire	184	56	11	7	-	-	1	-	-	-
New Jersey	631	202	18	12	42	5	6	16	10	3
New Mexico	2,006	254	160	46	75	63	98	38	39	45
New York	899	288	52	9	47	2	3	26	-	-
North Carolina	1,010	264	168	40	6	1	51	39	14	8
North Dakota	162	87	38	9	17	11	30	13	3	15
Ohio	774	190	78	4	5	1	1	2	-	1
Oklahoma	640	347	81	-	29	1	42	33	77	56
Oregon	3,817	574	300	66	75	48	178	68	21	32
Pennsylvania	1,148	210	106	5	6	26	3	4	1	-
Rhode Island	107	31	7	6	3	1	-	-	-	-
South Carolina	740	153	56	12	16	17	21	77	4	16
South Dakota	465	93	71	124	19	19	103	2	-	2
Tennessee	571	187	61	23	15	27	10	19	8	5
Texas	3,491	1,124	407	431	352	139	345	595	356	976
Utah	850	236	45	45	23	1	-	64	1	1
Vermont	271	75	15	3	-	-	-	-	-	-
Virginia	804	88	23	5	3	-	2	-	1	-
Washington	2,752	600	144	77	32	35	27	59	1	24
West Virginia	259	33	2	1	-	-	-	-	-	-
Wisconsin	1,372	371	160	100	14	27	63	54	6	30
Wyoming	241	94	32	19	11	9	23	4	3	1
Water Resource Regions										
Region 01 New England	1,411	414	53	43	15	7	2	-	2	6
Region 02 Mid-Atlantic	3,410	857	286	107	147	67	50	117	25	21
Region 03 South Atlantic-Gulf	7,704	2,828	1,008	823	297	189	367	269	95	234
Region 04 Great Lakes	3,298	1,076	233	207	159	131	83	86	21	91
Region 05 Ohio	1,990	490	223	43	39	29	75	54	6	27
Region 06 Tennessee	552	143	26	-	2	1	4	1	6	-
Region 07 Upper Mississippi	3,682	1,071	584	334	119	155	269	204	98	104
Region 08 Lower Mississippi	894	605	415	310	252	208	602	720	283	1,361
Region 09 Souris-Red-Rainy	150	131	17	14	14	27	32	18	3	8
Region 10 Missouri	6,059	2,606	1,863	1,399	948	774	1,613	909	547	654
Region 11 Arkansas-White-Red	2,203	940	459	326	307	158	405	516	257	594
Region 12 Texas-Gulf	2,928	966	357	328	250	107	266	398	314	746
Region 13 Rio Grande	2,291	249	208	49	90	95	81	60	12	51
Region 14 Upper Colorado	197	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	878	283	143	48	80	29	78	29	1	22
Region 16 Great Basin	1,001	396	63	71	64	22	33	77	1	9
Region 17 Pacific Northwest	8,680	1,518	650	271	195	130	258	198	41	110
Region 18 California	13,738	4,084	1,690	742	524	436	685	431	153	443
Region 19 Alaska	190	22	2	20	-	-	-	-	-	-
Region 20 Hawaii	131	1	4	-	-	-	-	-	-	-

Table 12. Characteristics of Irrigation Wells Used on Farms: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All wells used		All pumped wells		Flowing wells used		Change in average depth to water over the last five years					
	Farms	Number	Farms	Number	Farms	Number	Did not change		Increased		Decreased	
							Farms	Number of wells	Farms	Number of wells	Farms	Number of wells
United States	114,889	456,058	114,337	452,461	2,228	3,597	90,376	309,978	9,609	60,558	14,904	85,522
Alabama	765	1,493	765	1,465	25	28	722	1,368	1	(D)	42	(D)
Alaska	234	320	234	(D)	20	(D)	230	(D)	2	(D)	2	(D)
Arizona	1,343	4,066	1,306	3,898	93	168	829	1,926	229	803	285	1,337
Arkansas	2,470	43,421	2,470	43,421	-	-	2,001	35,093	168	2,514	301	5,814
California	22,736	63,186	22,623	62,506	447	680	15,346	36,030	3,072	14,259	4,318	12,897
Colorado	2,022	8,509	2,022	8,441	41	68	1,108	3,159	477	3,141	437	2,209
Connecticut	464	700	464	700	-	-	376	575	51	55	37	70
Delaware	394	1,879	394	(D)	2	(D)	363	1,738	11	77	20	64
Florida	6,691	18,853	6,660	18,396	322	457	6,300	17,763	191	437	200	653
Georgia	3,443	11,852	3,416	11,609	108	243	3,207	10,838	109	438	127	576
Hawaii	136	145	136	145	-	-	135	(D)	-	-	1	(D)
Idaho	2,759	8,044	2,759	7,899	53	145	2,314	5,537	130	435	315	2,072
Illinois	1,853	7,474	1,853	7,435	39	39	1,734	6,963	16	224	103	287
Indiana	1,894	5,794	1,894	5,774	16	20	1,892	(D)	1	(D)	1	(D)
Iowa	901	2,505	901	2,505	-	-	661	1,499	73	233	167	773
Kansas	3,632	18,502	3,632	18,502	-	-	2,171	9,467	559	3,508	902	5,527
Kentucky	374	781	374	774	7	7	360	753	12	(D)	2	(D)
Louisiana	1,536	10,537	1,536	10,537	-	-	1,288	8,708	41	599	207	1,230
Maine	414	474	399	459	15	15	351	411	37	37	26	26
Maryland	720	1,889	707	1,867	13	22	700	1,846	18	(D)	2	(D)
Massachusetts	545	950	511	908	42	42	497	883	46	(D)	2	(D)
Michigan	3,543	9,949	3,543	9,930	19	19	3,395	9,416	117	280	31	253
Minnesota	2,282	6,464	2,266	6,392	36	72	2,115	5,769	88	360	79	335
Mississippi	1,463	15,211	1,463	15,211	-	-	1,207	11,960	185	2,330	71	921
Missouri	1,713	14,824	1,702	14,805	17	19	1,643	14,440	-	-	70	384
Montana	986	1,579	986	1,579	-	-	853	1,428	58	74	75	77
Nebraska	12,059	65,690	12,059	65,690	-	-	8,411	42,458	1,483	11,037	2,165	12,195
Nevada	584	1,885	584	1,854	31	31	426	953	103	364	55	568
New Hampshire	259	366	259	366	-	-	246	332	10	(D)	3	(D)
New Jersey	945	1,828	945	1,792	36	36	889	1,756	16	32	40	40
New Mexico	2,824	7,354	2,793	7,318	36	36	1,787	3,872	355	1,380	682	2,102
New York	1,326	2,222	1,326	2,150	24	72	1,203	2,056	60	80	63	86
North Carolina	1,601	3,463	1,601	3,436	27	27	1,575	3,437	-	-	26	26
North Dakota	385	1,795	385	1,795	-	-	343	1,575	19	133	23	87
Ohio	1,056	1,516	1,056	1,502	14	14	1,040	1,499	1	(D)	15	(D)
Oklahoma	1,306	5,585	1,306	5,493	42	92	980	3,932	87	885	239	768
Oregon	5,179	10,123	5,179	10,045	51	78	4,648	8,860	171	428	360	835
Pennsylvania	1,509	2,173	1,450	2,085	82	88	1,455	2,021	11	49	43	103
Rhode Island	155	235	155	225	7	10	137	188	8	25	10	22
South Carolina	1,112	3,058	1,112	2,840	56	218	1,032	2,852	1	(D)	79	(D)
South Dakota	898	2,577	898	2,577	-	-	758	1,979	92	344	48	254
Tennessee	926	2,049	926	2,007	42	42	810	1,758	66	191	50	100
Texas	8,216	66,715	8,164	66,395	137	320	4,692	21,266	951	14,163	2,573	31,286
Utah	1,266	2,659	1,201	2,496	93	163	794	1,649	243	658	229	352
Vermont	364	478	361	451	24	27	329	421	19	41	16	16
Virginia	926	1,117	926	1,085	32	32	887	1,068	10	10	29	39
Washington	3,751	6,698	3,744	6,581	103	117	3,387	5,661	135	555	229	482
West Virginia	295	335	291	325	10	10	288	320	-	-	7	15
Wisconsin	2,197	5,735	2,180	5,694	41	41	2,026	5,264	76	193	95	278
Wyoming	437	1,001	420	943	25	58	435	(D)	-	-	2	(D)
Water Resource Regions												
Region 01 New England	1,953	2,888	1,901	2,815	70	73	1,710	2,526	165	237	78	125
Region 02 Mid-Atlantic	5,087	10,187	5,011	9,945	179	242	4,780	9,572	103	249	204	366
Region 03 South Atlantic-Gulf	13,814	39,089	13,756	38,133	521	956	13,033	36,632	338	953	443	1,504
Region 04 Great Lakes	5,385	13,380	5,385	13,306	71	74	5,099	12,655	167	348	119	377
Region 05 Ohio	2,976	6,173	2,976	6,101	72	72	2,940	5,944	19	203	17	26
Region 06 Tennessee	735	1,080	735	(D)	17	(D)	622	893	22	22	91	165
Region 07 Upper Mississippi	6,620	20,945	6,603	20,833	86	112	6,195	19,242	166	647	259	1,056
Region 08 Lower Mississippi	5,650	75,795	5,650	75,784	11	11	4,731	62,761	370	5,231	549	7,803
Region 09 Souris-Red-Rainy	414	1,705	398	1,673	16	32	373	1,469	19	133	22	103
Region 10 Missouri	17,372	83,188	17,344	83,107	43	81	12,191	53,293	2,187	13,730	2,994	16,165
Region 11 Arkansas-White-Red	6,165	44,248	6,165	44,058	95	190	3,762	19,805	810	9,525	1,593	14,918
Region 12 Texas-Gulf	6,660	50,757	6,608	50,491	106	266	3,915	18,448	774	9,984	1,971	22,325
Region 13 Rio Grande	3,186	8,145	3,155	8,095	50	50	2,113	4,454	320	1,669	753	2,022
Region 14 Upper Colorado	197	197	197	197	-	-	182	182	5	(D)	10	(D)
Region 15 Lower Colorado	1,591	4,655	1,554	4,487	93	168	1,046	2,429	238	867	307	1,359
Region 16 Great Basin	1,737	4,437	1,672	4,243	124	194	1,113	2,501	346	1,022	278	914
Region 17 Pacific Northwest	12,051	25,181	12,044	24,853	198	328	10,717	20,425	476	1,452	858	3,304
Region 18 California	22,926	63,543	22,813	62,851	456	629	15,489	36,289	3,082	14,279	4,355	12,975
Region 19 Alaska	234	320	234	(D)	20	(D)	230	(D)	2	(D)	2	(D)
Region 20 Hawaii	136	145	136	145	-	-	135	(D)	-	-	1	(D)

Table 13. Irrigation Pumps on Farms: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms	Total pumps	Farms with -									
			1 pump	2 pumps	3 pumps	4 pumps	5 pumps	6 or 7 pumps	8 or 9 pumps	10 to 19 pumps	20 to 29 pumps	30 pumps or more
United States	159,445	614,674	81,538	29,058	12,521	7,774	4,751	6,340	3,761	8,218	2,750	2,734
Alabama	1,082	2,240	627	261	63	51	29	13	3	32	2	1
Alaska	318	459	226	63	9	20	-	-	-	-	-	-
Arizona	1,560	5,197	772	302	181	55	102	42	34	45	11	16
Arkansas	2,707	48,260	420	164	155	84	55	215	107	591	398	518
California	28,635	103,336	14,196	5,901	2,412	1,561	766	1,050	577	1,340	458	374
Colorado	6,153	17,250	3,470	1,099	467	199	199	306	158	171	33	51
Connecticut	584	1,013	382	108	48	28	10	2	2	1	1	1
Delaware	408	1,979	134	61	41	37	19	32	21	50	10	3
Florida	7,163	21,183	3,816	1,708	493	402	123	211	183	99	39	89
Georgia	4,062	14,543	2,001	715	357	231	123	288	61	191	22	73
Hawaii	390	593	339	16	16	2	-	-	15	2	-	-
Idaho	7,255	25,007	3,984	1,321	478	346	151	290	166	339	87	93
Illinois	2,010	8,106	954	360	261	77	24	120	47	100	28	39
Indiana	2,092	6,779	976	416	182	138	90	71	68	133	9	9
Iowa	1,032	2,790	619	167	72	49	7	22	42	39	13	2
Kansas	3,990	19,589	1,324	776	421	280	278	206	173	348	108	76
Kentucky	712	1,287	495	116	52	10	12	11	2	12	-	2
Louisiana	1,717	11,567	368	303	241	117	82	116	109	246	91	44
Maine	477	890	407	34	19	4	2	3	1	4	2	1
Maryland	844	2,483	389	178	77	62	46	30	17	34	11	-
Massachusetts	1,067	2,478	561	352	33	30	25	16	17	22	4	7
Michigan	4,262	12,431	2,323	923	207	202	194	163	60	96	52	42
Minnesota	2,376	6,701	1,290	437	190	145	88	69	42	83	20	12
Mississippi	1,539	16,046	468	175	61	85	70	97	71	247	99	166
Missouri	2,107	15,953	1,011	236	69	168	43	82	38	165	143	152
Montana	4,283	10,713	2,078	1,071	424	172	171	143	30	183	9	2
Nebraska	12,752	70,764	3,636	1,941	1,260	1,214	706	1,220	753	1,398	399	225
Nevada	916	2,585	445	313	23	21	35	22	15	33	4	5
New Hampshire	331	517	218	85	15	7	-	3	-	3	-	-
New Jersey	1,105	2,591	732	156	56	25	19	40	20	51	6	-
New Mexico	3,438	8,726	2,205	592	199	81	75	140	-	95	32	19
New York	1,857	3,348	1,094	456	159	29	71	14	29	4	1	-
North Carolina	2,585	5,846	1,519	534	216	113	34	39	39	79	6	6
North Dakota	548	2,213	226	134	70	15	16	41	10	21	3	12
Ohio	1,508	2,780	1,003	303	132	9	7	15	2	32	2	3
Oklahoma	1,534	5,866	847	358	90	-	29	23	21	109	33	24
Oregon	10,115	21,611	6,787	1,459	731	202	197	279	186	197	56	21
Pennsylvania	2,100	3,344	1,454	365	157	42	39	30	5	7	-	1
Rhode Island	186	282	133	33	6	7	5	2	-	-	-	-
South Carolina	1,369	3,927	858	199	59	58	19	49	12	94	15	6
South Dakota	1,207	3,201	665	153	101	80	63	36	103	3	1	2
Tennessee	1,113	2,491	626	261	98	23	32	31	9	27	3	3
Texas	9,060	70,371	3,871	1,236	580	579	323	216	247	985	475	548
Utah	4,185	7,616	2,846	682	293	94	89	93	21	65	1	1
Vermont	437	672	309	76	21	14	13	3	1	-	-	-
Virginia	1,278	2,307	986	126	85	26	12	14	3	23	1	2
Washington	8,096	21,644	4,980	1,283	607	295	132	230	179	289	43	58
West Virginia	417	540	311	97	1	8	-	-	-	-	-	-
Wisconsin	2,624	7,709	1,350	498	285	131	88	112	26	104	8	22
Wyoming	1,859	4,850	807	455	248	146	38	90	36	25	11	3
Water Resource Regions												
Region 01 New England	2,777	5,394	1,784	641	134	80	42	29	20	31	7	9
Region 02 Mid-Atlantic	6,290	13,927	3,845	1,096	522	218	182	153	91	149	28	6
Region 03 South Atlantic-Gulf	16,424	48,227	8,962	3,399	1,207	844	334	604	309	504	86	175
Region 04 Great Lakes	6,867	17,464	3,998	1,528	333	250	266	180	65	137	60	50
Region 05 Ohio	4,054	8,668	2,615	718	320	82	70	72	50	95	24	8
Region 06 Tennessee	941	1,648	590	250	39	28	15	4	-	14	1	-
Region 07 Upper Mississippi	7,490	24,332	3,857	1,327	753	425	194	312	138	359	55	70
Region 08 Lower Mississippi	5,952	81,975	958	633	450	378	228	408	317	1,141	611	828
Region 09 Souris-Red-Rainy	469	1,857	197	116	25	14	15	61	10	23	3	5
Region 10 Missouri	23,529	103,926	8,672	4,089	2,311	1,839	1,207	1,769	1,099	1,774	477	292
Region 11 Arkansas-White-Red	7,345	47,638	2,893	1,251	460	408	314	348	231	817	337	286
Region 12 Texas-Gulf	7,256	53,510	3,142	1,023	536	449	222	167	207	732	378	400
Region 13 Rio Grande	3,581	9,252	2,359	495	252	49	102	174	-	95	23	32
Region 14 Upper Colorado	3,875	6,531	2,528	747	420	27	80	29	34	5	-	5
Region 15 Lower Colorado	1,869	6,035	946	376	181	55	124	64	34	58	15	16
Region 16 Great Basin	4,389	8,924	2,826	947	161	120	82	109	35	98	5	6
Region 17 Pacific Northwest	26,614	70,101	16,418	4,403	1,892	919	506	762	509	847	186	172
Region 18 California	29,015	104,213	14,383	5,940	2,500	1,567	768	1,095	597	1,337	454	374
Region 19 Alaska	318	459	226	63	9	20	-	-	-	-	-	-
Region 20 Hawaii	390	593	339	16	16	2	-	-	15	2	-	-

Table 14. Characteristics of Pumped Wells and Irrigation Well Pumps on Farms: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms	Pumps	Average well depth (feet)	Average depth to water at start of irrigation season (feet)	Average depth to bowls or impellers (feet)	Average pumping capacity (GPM)	Average operating pressure (PSI)	Average engine size (HP)
United States	114,337	452,461	241	96	167	742	41	62
Alabama	765	1,465	266	39	149	391	50	58
Alaska	234	(D)	132	81	113	97	55	15
Arizona	1,306	3,898	616	257	401	730	30	126
Arkansas	2,470	43,421	118	55	87	1,532	24	69
California	22,623	62,506	387	115	232	677	44	68
Colorado	2,022	8,441	192	94	150	665	36	61
Connecticut	464	700	266	50	176	147	58	18
Delaware	394	(D)	92	14	62	572	40	50
Florida	6,660	18,396	367	66	132	743	43	71
Georgia	3,416	11,609	335	120	192	577	48	62
Hawaii	136	145	190	85	136	191	36	16
Idaho	2,759	7,899	317	170	238	1,144	74	127
Illinois	1,853	7,435	143	32	89	907	42	56
Indiana	1,894	5,774	86	25	65	597	44	46
Iowa	901	2,505	114	29	65	658	38	41
Kansas	3,632	18,502	240	139	214	531	28	88
Kentucky	374	774	160	55	121	650	55	46
Louisiana	1,536	10,537	120	56	90	1,388	24	60
Maine	399	459	188	37	135	174	55	35
Maryland	707	1,867	149	39	102	377	42	47
Massachusetts	511	908	242	41	184	119	47	31
Michigan	3,543	9,930	124	40	88	458	62	48
Minnesota	2,266	6,392	142	42	90	546	44	40
Mississippi	1,463	15,211	114	41	75	1,657	24	60
Missouri	1,702	14,805	119	29	65	1,638	38	69
Montana	986	1,579	152	53	108	187	53	32
Nebraska	12,059	65,690	187	75	138	746	42	73
Nevada	584	1,854	416	118	254	954	52	101
New Hampshire	259	366	475	94	319	68	48	22
New Jersey	945	1,792	147	52	97	493	73	46
New Mexico	2,793	7,318	291	121	201	745	31	69
New York	1,326	2,150	143	60	110	118	85	24
North Carolina	1,601	3,436	226	105	186	162	61	35
North Dakota	385	1,795	81	29	66	659	45	51
Ohio	1,056	1,502	113	34	90	253	51	24
Oklahoma	1,306	5,493	236	100	208	417	33	92
Oregon	5,179	10,045	231	64	164	384	87	38
Pennsylvania	1,450	2,085	247	54	170	69	51	16
Rhode Island	155	225	217	98	172	104	57	21
South Carolina	1,112	2,840	377	81	193	524	46	38
South Dakota	898	2,577	130	47	86	600	40	49
Tennessee	926	2,007	198	77	149	568	39	43
Texas	8,164	66,395	302	189	261	199	33	38
Utah	1,201	2,496	407	97	203	769	46	77
Vermont	361	451	252	56	161	85	46	17
Virginia	926	1,085	308	93	258	90	83	22
Washington	3,744	6,581	267	117	183	415	90	60
West Virginia	291	325	155	25	133	50	53	20
Wisconsin	2,180	5,694	173	43	109	594	57	63
Wyoming	420	943	150	59	117	569	38	48
Water Resource Regions								
Region 01 New England	1,901	2,815	267	55	190	124	52	26
Region 02 Mid-Atlantic	5,011	9,945	174	48	125	310	59	35
Region 03 South Atlantic-Gulf	13,756	38,133	339	86	160	602	47	61
Region 04 Great Lakes	5,385	13,306	129	41	91	442	61	46
Region 05 Ohio	2,976	6,101	102	30	77	534	47	41
Region 06 Tennessee	735	(D)	221	85	178	344	48	36
Region 07 Upper Mississippi	6,603	20,833	148	38	92	680	45	51
Region 08 Lower Mississippi	5,650	75,784	117	49	82	1,575	26	67
Region 09 Souris-Red-Rainy	398	1,673	87	31	69	588	47	41
Region 10 Missouri	17,344	83,107	185	79	139	713	41	70
Region 11 Arkansas-White-Red	6,165	44,058	289	186	261	586	29	80
Region 12 Texas-Gulf	6,608	50,491	260	145	216	192	34	28
Region 13 Rio Grande	3,155	8,095	277	99	171	711	32	61
Region 14 Upper Colorado	197	197	156	32	119	435	39	24
Region 15 Lower Colorado	1,554	4,487	586	245	388	700	32	118
Region 16 Great Basin	1,672	4,243	415	111	226	896	50	93
Region 17 Pacific Northwest	12,044	24,853	263	111	189	615	83	71
Region 18 California	22,813	62,851	387	115	232	678	44	68
Region 19 Alaska	234	(D)	132	81	113	97	55	15
Region 20 Hawaii	136	145	190	85	136	191	36	16

--continued

Table 14. Characteristics of Pumped Wells and Irrigation Well Pumps on Farms: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Average well depth				Number of wells with an average well depth of-					
	For all pumped wells (feet)	For farms with 1 well (feet)	For farms with 2 wells (feet)	For farms with 3 wells (feet)	Under 50 feet	50 to 99 feet	100 to 199 feet	200 to 299 feet	300 to 499 feet	500 feet or more
United States	241	250	252	269	18,706	66,248	169,910	69,425	85,563	42,609
Alabama	266	235	147	223	35	146	520	348	307	109
Alaska	132	134	136	(D)	(D)	96	101	45	10	-
Arizona	616	354	516	388	24	81	381	545	443	2,424
Arkansas	118	144	131	121	27	12,045	30,106	936	307	-
California	387	330	337	382	265	1,592	9,528	11,237	24,511	15,373
Colorado	192	254	143	214	355	2,289	2,317	1,203	2,032	245
Connecticut	266	210	393	148	34	83	98	200	220	65
Delaware	92	115	86	98	(D)	1,268	579	5	-	(D)
Florida	367	267	269	511	3,662	1,216	4,020	2,571	1,290	5,637
Georgia	335	395	361	435	20	969	2,620	1,373	4,372	2,255
Hawaii	190	205	(D)	(D)	30	(D)	71	-	36	(D)
Idaho	317	270	237	354	165	407	1,554	1,401	3,538	834
Illinois	143	196	189	177	175	2,940	3,575	340	139	266
Indiana	86	93	99	88	952	2,611	2,149	50	12	-
Iowa	114	162	183	93	135	1,314	798	120	94	44
Kansas	240	160	167	163	586	3,157	4,699	5,666	2,652	1,742
Kentucky	160	148	130	146	43	(D)	336	185	44	(D)
Louisiana	120	160	137	122	48	4,132	5,613	673	71	-
Maine	188	195	145	136	80	29	161	82	76	31
Maryland	149	214	163	132	87	711	557	314	184	14
Massachusetts	242	300	217	231	70	124	230	280	129	75
Michigan	124	139	135	135	1,956	2,000	4,348	1,218	375	33
Minnesota	142	174	134	158	517	2,045	2,540	669	596	25
Mississippi	114	168	116	120	42	1,915	12,893	287	74	-
Missouri	119	367	136	138	258	4,466	9,361	180	233	307
Montana	152	162	185	142	141	477	698	138	85	40
Nebraska	187	178	199	191	2,998	8,148	27,669	19,407	7,353	115
Nevada	416	336	301	581	64	13	272	14	881	610
New Hampshire	475	390	420	1,385	31	27	55	42	95	116
New Jersey	147	149	157	110	(D)	342	1,046	310	45	(D)
New Mexico	291	177	239	237	230	617	2,185	961	2,283	1,042
New York	143	154	152	116	298	532	997	58	184	81
North Carolina	226	223	211	189	278	179	1,004	1,226	632	117
North Dakota	81	102	106	82	397	872	505	21	-	-
Ohio	113	105	100	148	143	517	714	128	-	-
Oklahoma	236	234	245	186	497	1,596	668	840	742	1,150
Oregon	231	231	265	257	1,246	969	3,023	2,026	1,945	836
Pennsylvania	247	204	296	261	131	158	508	547	692	49
Rhode Island	217	197	234	220	25	(D)	42	99	51	(D)
South Carolina	377	306	350	374	32	121	414	393	1,047	833
South Dakota	130	230	187	146	329	1,056	953	147	9	83
Tennessee	198	193	163	226	-	168	1,010	439	342	48
Texas	302	326	373	315	492	2,168	23,888	9,682	24,604	5,561
Utah	407	318	296	413	23	63	255	437	602	1,116
Vermont	252	257	321	35	55	(D)	58	126	169	(D)
Virginia	308	310	222	561	57	6	325	174	327	196
Washington	267	222	234	414	1,298	746	1,219	852	943	943
West Virginia	155	139	(D)	(D)	-	(D)	168	6	42	(D)
Wisconsin	173	174	216	225	170	1,316	2,320	1,030	775	83
Wyoming	150	227	209	103	116	231	455	27	61	53
Water Resource Regions										
Region 01 New England	267	252	279	477	240	283	629	726	646	291
Region 02 Mid-Atlantic	174	207	205	208	323	2,942	3,715	1,337	1,321	307
Region 03 South Atlantic-Gulf	339	291	278	408	4,046	2,679	8,890	5,833	7,748	8,937
Region 04 Great Lakes	129	146	138	141	2,353	2,697	5,885	1,690	584	97
Region 05 Ohio	102	125	94	95	520	2,989	2,155	323	106	8
Region 06 Tennessee	221	210	240	307	23	(D)	401	257	146	(D)
Region 07 Upper Mississippi	148	186	178	178	1,443	6,892	8,701	1,760	1,537	500
Region 08 Lower Mississippi	117	152	123	125	(D)	18,998	53,637	2,267	580	(D)
Region 09 Souris-Red-Rainy	87	120	(D)	(D)	349	719	565	40	-	-
Region 10 Missouri	185	193	189	173	4,083	12,442	32,918	23,889	9,364	411
Region 11 Arkansas-White-Red	289	240	242	171	1,121	7,926	8,975	4,529	15,263	6,244
Region 12 Texas-Gulf	260	344	359	319	394	1,426	24,061	8,620	13,984	2,006
Region 13 Rio Grande	277	179	237	295	254	1,920	2,210	1,100	1,162	1,449
Region 14 Upper Colorado	156	156	-	-	27	77	31	18	44	-
Region 15 Lower Colorado	586	363	485	388	24	85	416	545	817	2,600
Region 16 Great Basin	415	336	280	461	90	51	497	472	1,472	1,661
Region 17 Pacific Northwest	263	229	237	321	2,816	2,271	6,482	4,687	6,048	2,549
Region 18 California	387	330	338	382	247	1,599	9,570	11,287	24,695	15,453
Region 19 Alaska	132	134	136	(D)	(D)	96	101	45	10	-
Region 20 Hawaii	190	205	(D)	(D)	30	(D)	71	-	36	(D)

--continued

Table 14. Characteristics of Pumped Wells and Irrigation Well Pumps on Farms: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Average depth to water at start of irrigation season				Number of wells with an average depth to water of-					
	For all pumped wells (feet)	For farms with 1 well (feet)	For farms with 2 wells (feet)	For farms with 3 wells (feet)	Under 50 feet	50 to 99 feet	100 to 199 feet	200 to 299 feet	300 to 499 feet	500 feet or more
United States	96	91	86	95	179,680	116,971	97,965	31,617	23,578	2,650
Alabama	39	45	43	36	1,007	360	98	-	-	-
Alaska	81	77	97	(D)	98	123	39	15	(D)	-
Arizona	257	143	205	150	430	564	409	583	1,573	339
Arkansas	55	62	61	57	17,247	23,362	2,728	84	-	-
California	115	116	105	131	15,118	17,501	21,552	5,595	2,107	633
Colorado	94	99	79	98	3,739	1,316	2,269	972	136	9
Connecticut	50	44	22	70	416	227	35	22	-	-
Delaware	14	23	(D)	18	1,826	(D)	-	-	-	-
Florida	66	57	46	120	11,548	3,726	1,942	181	878	121
Georgia	120	158	146	151	2,471	2,076	5,676	809	501	76
Hawaii	85	91	(D)	(D)	36	72	(D)	-	-	(D)
Idaho	170	131	127	213	1,266	1,204	2,433	1,755	1,159	82
Illinois	32	49	57	61	6,501	603	158	73	100	-
Indiana	25	28	30	28	5,106	622	46	-	-	-
Iowa	29	60	34	21	2,261	71	152	21	-	-
Kansas	139	89	94	81	6,219	1,878	4,406	5,135	843	21
Kentucky	55	76	65	45	419	165	183	7	-	-
Louisiana	56	72	65	49	5,321	4,669	523	24	-	-
Maine	37	40	16	43	265	144	50	-	-	-
Maryland	39	66	35	33	1,477	216	147	14	13	-
Massachusetts	41	62	34	23	774	77	24	25	-	8
Michigan	40	44	37	34	7,286	1,658	986	-	-	-
Minnesota	42	63	35	38	4,963	742	623	64	-	-
Mississippi	41	65	43	35	10,978	3,787	438	8	-	-
Missouri	29	124	31	36	14,168	187	226	90	123	11
Montana	53	58	61	55	961	468	(D)	65	(D)	-
Nebraska	75	71	84	73	22,696	25,201	16,018	1,663	112	-
Nevada	118	83	64	103	356	566	628	304	-	-
New Hampshire	94	99	101	86	140	108	87	14	9	8
New Jersey	52	60	54	11	928	458	-	-	-	-
New Mexico	121	66	49	120	1,991	1,645	2,699	427	524	32
New York	60	63	64	43	1,175	767	101	66	18	23
North Carolina	105	118	109	93	1,372	(D)	1,505	367	(D)	-
North Dakota	29	44	37	34	1,535	240	10	10	-	-
Ohio	34	34	31	40	1,131	322	49	-	-	-
Oklahoma	100	99	103	74	2,574	488	1,132	1,195	104	-
Oregon	64	65	70	69	5,510	2,791	1,148	523	73	-
Pennsylvania	54	56	50	49	1,187	632	225	38	3	-
Rhode Island	98	90	108	98	68	63	64	30	-	-
South Carolina	81	120	68	83	1,052	806	865	25	92	-
South Dakota	47	62	99	43	1,761	712	(D)	-	82	(D)
Tennessee	77	81	50	71	599	844	506	58	-	-
Texas	189	179	203	156	5,109	10,970	23,970	10,658	14,713	975
Utah	97	76	77	96	542	720	1,138	90	6	-
Vermont	56	42	108	6	334	63	16	8	26	4
Virginia	93	95	43	115	413	327	242	44	51	8
Washington	117	102	89	164	2,768	1,342	1,374	505	299	293
West Virginia	25	20	38	(D)	303	(D)	(D)	-	-	-
Wisconsin	43	54	40	48	3,791	1,474	376	31	22	-
Wyoming	59	84	80	37	444	360	120	19	-	-
Water Resource Regions										
Region 01 New England	55	59	48	67	1,753	670	270	97	9	16
Region 02 Mid-Atlantic	48	65	53	44	6,437	2,294	999	125	67	23
Region 03 South Atlantic-Gulf	86	92	73	119	17,691	7,370	10,066	1,333	1,474	199
Region 04 Great Lakes	41	44	41	34	9,780	2,302	1,128	(D)	(D)	(D)
Region 05 Ohio	30	45	28	27	5,152	579	327	43	-	-
Region 06 Tennessee	85	85	81	110	292	354	322	89	-	(D)
Region 07 Upper Mississippi	38	59	44	49	16,594	2,727	1,202	177	133	-
Region 08 Lower Mississippi	49	62	56	51	41,598	30,287	3,784	115	-	-
Region 09 Souris-Red-Rainy	31	47	(D)	(D)	1,391	160	122	-	-	-
Region 10 Missouri	79	74	83	67	30,685	27,927	20,112	4,111	255	17
Region 11 Arkansas-White-Red	186	121	134	90	13,146	4,979	5,334	8,125	11,861	613
Region 12 Texas-Gulf	145	183	180	165	4,860	10,490	23,744	7,117	3,894	386
Region 13 Rio Grande	99	65	56	115	3,583	1,691	1,396	804	616	5
Region 14 Upper Colorado	32	32	-	-	187	-	(D)	(D)	-	-
Region 15 Lower Colorado	245	150	185	150	443	595	922	583	1,573	371
Region 16 Great Basin	111	90	60	98	835	1,296	1,604	502	6	-
Region 17 Pacific Northwest	111	89	90	138	9,903	5,407	4,902	2,733	1,533	375
Region 18 California	115	116	104	130	15,216	17,648	21,652	5,595	2,107	633
Region 19 Alaska	81	77	97	(D)	98	123	39	15	(D)	-
Region 20 Hawaii	85	91	(D)	(D)	36	72	(D)	-	-	(D)

--continued

Table 14. Characteristics of Pumped Wells and Irrigation Well Pumps on Farms: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Average depth to bowls or impellers				Number of wells with an average depth to bowls of-					
	For all pumped wells (feet)	For farms with 1 well (feet)	For farms with 2 wells (feet)	For farms with 3 wells (feet)	Under 50 feet	50 to 99 feet	100 to 199 feet	200 to 299 feet	300 to 499 feet	500 feet or more
United States	167	171	166	174	42,573	133,450	147,933	63,610	53,797	11,098
Alabama	149	135	102	170	210	240	587	364	64	-
Alaska	113	113	119	(D)	60	116	(D)	48	7	-
Arizona	401	233	328	309	96	328	508	403	1,014	1,549
Arkansas	87	107	93	87	2,594	30,124	10,536	163	4	-
California	232	224	214	235	766	6,300	21,774	17,235	13,520	2,911
Colorado	150	180	118	152	945	2,694	2,287	2,002	447	66
Connecticut	176	104	296	121	124	147	120	189	120	-
Delaware	62	68	(D)	60	360	1,397	(D)	-	-	-
Florida	132	112	103	178	4,701	5,147	5,451	1,361	814	922
Georgia	192	236	222	226	120	2,693	4,214	3,321	1,077	184
Hawaii	136	146	(D)	(D)	33	35	39	(D)	-	(D)
Idaho	238	200	188	284	388	598	2,319	1,926	2,415	253
Illinois	89	109	122	136	1,042	5,386	773	49	40	145
Indiana	65	69	77	69	2,015	2,943	772	44	-	-
Iowa	65	91	91	70	1,221	850	379	41	14	-
Kansas	214	137	148	139	1,321	4,586	3,884	4,377	3,610	724
Kentucky	121	126	119	96	64	248	401	38	(D)	(D)
Louisiana	90	114	104	94	543	7,445	2,466	83	-	-
Maine	135	141	95	89	98	87	205	28	41	-
Maryland	102	147	109	91	278	872	590	91	36	-
Massachusetts	184	240	165	122	120	103	319	226	107	33
Michigan	88	98	91	95	3,223	2,591	3,571	545	-	-
Minnesota	90	113	96	86	1,422	2,795	1,997	178	-	-
Mississippi	75	109	80	85	164	13,587	1,393	67	-	-
Missouri	65	217	86	74	3,912	10,055	248	311	201	78
Montana	108	109	126	104	266	481	736	61	35	-
Nebraska	138	124	145	143	6,590	13,443	33,990	9,894	1,773	-
Nevada	254	228	245	252	70	156	389	580	656	3
New Hampshire	319	274	265	973	58	48	42	91	65	62
New Jersey	97	106	104	70	288	738	707	(D)	(D)	-
New Mexico	201	128	136	181	484	921	2,470	2,018	1,393	32
New York	110	120	117	84	443	908	608	5	145	41
North Carolina	186	197	166	151	328	408	1,535	732	418	15
North Dakota	66	81	80	71	579	928	276	12	-	-
Ohio	90	86	77	111	278	718	457	49	-	-
Oklahoma	208	208	192	171	636	1,793	546	824	1,664	30
Oregon	164	181	180	177	1,765	1,656	3,592	1,878	1,005	149
Pennsylvania	170	133	208	186	251	370	893	333	195	43
Rhode Island	172	162	196	173	31	38	66	58	(D)	(D)
South Carolina	193	191	214	225	327	244	1,084	764	403	18
South Dakota	86	127	127	102	633	1,306	508	43	56	31
Tennessee	149	140	139	163	40	567	1,067	285	16	32
Texas	261	251	288	238	614	3,514	27,922	10,053	21,045	3,247
Utah	203	203	196	157	137	139	1,028	957	207	28
Vermont	161	148	243	24	87	114	54	143	(D)	(D)
Virginia	258	266	152	433	63	85	372	248	247	70
Washington	183	159	148	248	1,553	963	2,184	797	700	384
West Virginia	133	118	172	(D)	45	80	149	(D)	(D)	-
Wisconsin	109	112	104	131	982	2,162	1,934	573	43	-
Wyoming	117	190	150	64	205	303	321	(D)	71	(D)
Water Resource Regions										
Region 01 New England	190	175	203	336	431	493	761	668	363	99
Region 02 Mid-Atlantic	125	153	147	148	1,331	4,191	3,052	651	592	128
Region 03 South Atlantic-Gulf	160	160	139	192	5,682	8,929	13,029	6,574	2,778	1,141
Region 04 Great Lakes	91	100	93	99	3,949	3,939	4,526	782	77	33
Region 05 Ohio	77	99	72	72	1,727	3,033	1,194	122	25	-
Region 06 Tennessee	178	167	193	271	103	103	587	184	(D)	(D)
Region 07 Upper Mississippi	92	113	107	116	4,420	10,724	4,569	855	120	145
Region 08 Lower Mississippi	82	104	93	89	5,693	55,422	14,263	383	(D)	(D)
Region 09 Souris-Red-Rainy	69	95	(D)	(D)	481	904	288	-	-	-
Region 10 Missouri	139	134	140	131	9,448	17,978	38,670	14,635	2,262	114
Region 11 Arkansas-White-Red	261	195	204	150	3,026	11,854	4,372	5,043	16,524	3,239
Region 12 Texas-Gulf	216	261	268	239	492	2,702	28,165	8,349	10,111	672
Region 13 Rio Grande	171	126	131	198	757	2,600	2,117	1,284	1,167	170
Region 14 Upper Colorado	119	119	-	-	61	58	(D)	(D)	(D)	-
Region 15 Lower Colorado	388	245	327	309	96	332	575	637	1,266	1,581
Region 16 Great Basin	226	221	198	184	189	291	1,386	1,471	856	50
Region 17 Pacific Northwest	189	171	167	227	3,846	3,439	8,338	4,474	3,989	767
Region 18 California	232	224	213	234	748	6,307	21,923	17,387	13,575	2,911
Region 19 Alaska	113	113	119	(D)	60	116	(D)	48	7	-
Region 20 Hawaii	136	146	(D)	(D)	33	35	39	(D)	-	(D)

--continued

Table 14. Characteristics of Pumped Wells and Irrigation Well Pumps on Farms: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Average pumping capacity for-				Well pumps with average pumping capacity of-						2,000 or more GPM	
	All pumped wells (GPM)	Farms with 1 well (GPM)	Farms with 2 wells (GPM)	Farms with 3 wells (GPM)	Less than 500 GPM	500 to 749 GPM	750 to 999 GPM	1,000 to 1,499 GPM	1,500 to 1,999 GPM	2,000 or more GPM		
										Well pumps	Average GPM	
United States	742	326	468	624	180,982	73,604	76,294	62,262	36,056	23,263	2,394	
Alabama	391	181	391	425	988	184	134	142	12	5	2,457	
Alaska	97	58	181	(D)	(D)	(D)	-	-	-	-	-	
Arizona	730	397	603	583	1,321	1,089	322	758	352	56	2,746	
Arkansas	1,532	583	894	1,063	278	1,402	3,954	14,279	15,092	8,416	2,306	
California	677	332	503	663	28,401	9,032	8,336	12,145	3,385	1,207	2,410	
Colorado	665	523	624	626	2,663	2,282	2,270	1,025	(D)	(D)	(D)	
Connecticut	147	67	67	146	593	98	(D)	(D)	-	-	-	
Delaware	572	357	641	499	541	974	320	(D)	-	(D)	2,100	
Florida	743	445	552	719	7,619	3,873	2,293	2,924	651	1,036	2,619	
Georgia	577	215	368	594	4,931	2,123	3,164	1,391	-	-	-	
Hawaii	191	123	(D)	(D)	136	-	-	9	-	-	-	
Idaho	1,144	433	863	1,105	1,687	717	518	2,591	1,631	755	2,407	
Illinois	907	658	726	1,061	581	1,324	2,841	2,551	88	50	4,352	
Indiana	597	390	433	654	1,881	2,199	940	714	40	-	-	
Iowa	658	438	725	606	707	519	854	407	18	-	-	
Kansas	531	455	400	387	8,646	6,065	3,442	349	-	-	-	
Kentucky	650	208	285	1,571	355	78	206	107	(D)	(D)	4,000	
Louisiana	1,388	725	798	1,480	740	489	1,660	3,095	3,215	1,338	2,534	
Maine	174	85	116	1,495	417	5	(D)	(D)	-	(D)	(D)	
Maryland	377	220	254	411	1,227	507	(D)	47	(D)	(D)	(D)	
Massachusetts	119	151	133	298	899	9	-	-	-	-	-	
Michigan	458	249	295	374	5,140	2,844	1,412	481	53	-	-	
Minnesota	546	329	553	574	2,252	2,683	1,306	143	-	8	2,100	
Mississippi	1,657	625	799	1,100	696	142	459	3,633	6,184	4,097	2,259	
Missouri	1,638	375	627	905	810	354	1,605	3,994	2,809	5,233	2,517	
Montana	187	119	458	129	1,483	(D)	(D)	(D)	52	-	-	
Nebraska	746	646	650	644	5,342	25,079	29,675	5,594	-	-	-	
Nevada	954	349	449	1,577	614	125	282	452	261	120	2,158	
New Hampshire	68	72	62	60	366	-	-	-	-	-	-	
New Jersey	493	348	318	297	1,178	333	123	69	-	89	3,153	
New Mexico	745	493	781	751	2,840	1,174	1,762	468	705	369	2,447	
New York	118	76	74	139	2,095	55	-	-	-	-	-	
North Carolina	162	74	74	70	3,169	94	103	(D)	(D)	-	-	
North Dakota	659	699	690	673	447	640	594	109	-	5	2,000	
Ohio	253	217	231	206	1,281	118	84	(D)	(D)	-	-	
Oklahoma	417	454	421	474	4,340	699	289	11	30	124	2,320	
Oregon	384	205	355	356	7,519	716	824	848	93	45	2,427	
Pennsylvania	69	61	60	115	2,074	11	-	-	-	-	-	
Rhode Island	104	45	203	215	218	7	-	-	-	-	-	
South Carolina	524	395	531	380	1,348	523	690	193	38	48	2,435	
South Dakota	600	537	368	762	902	438	1,237	-	-	-	-	
Tennessee	568	169	265	864	775	471	503	200	(D)	(D)	(D)	
Texas	199	230	212	254	61,103	2,212	1,100	1,290	644	46	2,598	
Utah	769	250	638	534	881	483	46	761	294	31	(D)	
Vermont	85	90	68	100	432	6	13	-	-	-	-	
Virginia	90	73	106	33	(D)	-	-	(D)	-	-	-	
Washington	415	201	343	816	4,932	146	663	574	139	127	2,223	
West Virginia	50	43	(D)	(D)	325	-	-	-	-	-	-	
Wisconsin	594	208	458	573	2,210	852	1,930	702	-	-	-	
Wyoming	569	545	451	690	244	423	244	32	-	-	-	
Water Resource Regions												
Region 01 New England	124	87	112	256	2,650	119	(D)	25	-	(D)	(D)	
Region 02 Mid-Atlantic	310	154	204	228	7,286	1,874	518	157	6	104	3,001	
Region 03 South Atlantic-Gulf	602	319	445	528	18,509	6,809	6,371	4,649	711	1,084	2,611	
Region 04 Great Lakes	442	216	303	420	7,102	3,658	1,870	623	53	-	-	
Region 05 Ohio	534	252	265	612	2,794	1,380	980	825	101	21	4,000	
Region 06 Tennessee	344	181	(D)	532	721	(D)	(D)	93	12	(D)	(D)	
Region 07 Upper Mississippi	680	394	577	745	5,945	5,012	6,374	3,396	56	50	4,352	
Region 08 Lower Mississippi	1,575	770	813	1,295	1,274	2,398	6,433	23,001	25,217	17,461	2,342	
Region 09 Souris-Red-Rainy	588	478	696	514	454	918	248	45	-	8	2,100	
Region 10 Missouri	713	561	617	613	12,550	28,942	34,295	7,108	205	7	2,143	
Region 11 Arkansas-White-Red	586	406	427	512	25,492	7,394	4,659	2,633	2,116	1,764	2,646	
Region 12 Texas-Gulf	192	218	197	262	46,090	753	1,987	1,053	562	46	2,598	
Region 13 Rio Grande	711	505	752	686	3,395	1,624	1,410	495	802	369	2,447	
Region 14 Upper Colorado	435	435	-	-	(D)	67	(D)	6	-	-	-	
Region 15 Lower Colorado	700	346	495	583	1,578	1,357	322	762	412	56	2,746	
Region 16 Great Basin	896	321	624	832	1,303	589	347	1,248	605	151	2,305	
Region 17 Pacific Northwest	615	227	451	709	14,741	1,529	1,972	3,930	1,783	898	2,385	
Region 18 California	678	337	504	660	28,564	9,080	8,352	12,204	3,415	1,236	2,407	
Region 19 Alaska	97	58	181	(D)	(D)	(D)	(D)	-	-	-	-	
Region 20 Hawaii	191	123	(D)	(D)	136	-	-	9	-	-	-	

--continued

Table 14. Characteristics of Pumped Wells and Irrigation Well Pumps on Farms: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Average operating pressure for-				Well pumps with average operating pressure of-					100 or more PSI	
	All pumped wells (PSI)	Farms with 1 well (PSI)	Farms with 2 wells (PSI)	Farms with 3 wells (PSI)	Under 30 PSI	30 to 59 PSI	60 to 79 PSI	80 to 99 PSI	Well pumps	Average PSI	
United States	41	57	49	47	136,130	257,064	41,783	7,757	9,727	170	
Alabama	50	48	47	60	(D)	1,158	245	(D)	-	-	
Alaska	55	55	(D)	(D)	(D)	186	80	(D)	10	124	
Arizona	30	42	33	32	2,015	1,800	49	19	15	120	
Arkansas	24	33	27	26	34,287	9,037	(D)	(D)	-	-	
California	44	49	44	46	10,601	42,229	6,851	921	1,904	160	
Colorado	36	38	41	36	2,335	5,839	252	5	10	103	
Connecticut	58	57	52	56	15	403	224	19	39	118	
Delaware	40	50	46	41	(D)	1,681	88	17	11	111	
Florida	43	46	44	40	1,875	15,094	1,055	270	102	152	
Georgia	48	48	49	53	252	9,977	1,270	75	35	118	
Hawaii	36	35	(D)	(D)	34	111	-	-	-	-	
Idaho	74	93	97	69	36	2,635	3,908	635	685	215	
Illinois	42	48	40	41	402	6,507	483	43	-	-	
Indiana	44	49	50	47	704	4,329	479	133	129	104	
Iowa	38	47	39	45	525	1,882	77	-	21	110	
Kansas	28	33	30	29	11,602	6,636	261	-	3	100	
Kentucky	55	74	48	41	108	415	197	11	43	184	
Louisiana	24	35	33	28	8,770	1,658	109	-	-	-	
Maine	55	51	41	112	47	298	73	9	32	115	
Maryland	42	48	46	45	341	1,263	218	30	15	130	
Massachusetts	47	56	44	61	178	539	145	8	38	107	
Michigan	62	57	65	57	101	4,287	3,942	903	697	111	
Minnesota	44	51	43	48	281	5,173	769	137	32	110	
Mississippi	24	38	29	31	12,353	2,172	686	-	-	-	
Missouri	38	49	46	40	3,429	10,556	406	202	212	134	
Montana	53	51	57	61	33	1,191	281	26	48	110	
Nebraska	42	46	49	42	4,588	57,182	3,322	508	90	100	
Nevada	52	56	61	44	108	1,108	553	9	76	120	
New Hampshire	48	48	44	57	23	253	79	7	4	102	
New Jersey	73	61	96	54	16	579	719	271	207	162	
New Mexico	31	42	33	29	4,051	2,932	272	63	-	-	
New York	85	93	83	70	110	629	748	157	506	178	
North Carolina	61	60	86	65	142	2,020	942	98	234	173	
North Dakota	45	46	45	45	129	1,337	324	5	-	-	
Ohio	51	50	48	63	75	1,052	254	79	42	110	
Oklahoma	33	30	37	33	2,425	2,960	108	-	-	-	
Oregon	87	106	63	107	120	3,512	3,601	1,133	1,679	219	
Pennsylvania	51	49	47	52	163	1,395	442	43	42	114	
Rhode Island	57	49	65	70	13	134	54	12	12	101	
South Carolina	46	52	47	37	300	1,992	523	25	-	-	
South Dakota	40	45	46	56	597	1,602	372	(D)	(D)	(D)	
Tennessee	39	50	40	38	509	1,212	268	18	-	-	
Texas	33	45	36	33	31,465	31,306	1,894	213	1,517	109	
Utah	46	48	49	48	134	1,967	369	26	-	-	
Vermont	46	44	44	64	16	350	73	12	-	-	
Virginia	83	82	73	89	30	482	387	32	154	242	
Washington	90	111	86	71	94	2,126	2,484	1,081	796	286	
West Virginia	53	44	95	(D)	(D)	-	278	(D)	(D)	110	
Wisconsin	57	55	59	60	471	2,776	1,749	453	245	103	
Wyoming	38	39	39	30	100	824	(D)	(D)	-	-	
Water Resource Regions											
Region 01 New England	52	53	47	63	276	1,762	590	62	125	112	
Region 02 Mid-Atlantic	59	63	69	55	688	5,597	2,335	491	834	162	
Region 03 South Atlantic-Gulf	47	50	49	49	2,763	30,414	4,069	484	403	175	
Region 04 Great Lakes	61	59	60	60	312	6,265	4,685	1,062	982	121	
Region 05 Ohio	47	51	55	48	740	4,400	660	168	133	154	
Region 06 Tennessee	48	50	55	33	123	687	(D)	16	-	-	
Region 07 Upper Mississippi	45	52	46	48	1,606	15,651	2,825	571	180	110	
Region 08 Lower Mississippi	26	39	32	30	54,177	20,068	1,143	(D)	(D)	133	
Region 09 Souris-Red-Rainy	47	53	44	52	(D)	1,195	325	(D)	(D)	100	
Region 10 Missouri	41	44	46	41	10,261	67,836	4,317	536	157	105	
Region 11 Arkansas-White-Red	29	34	32	26	27,149	16,286	623	-	-	-	
Region 12 Texas-Gulf	34	46	37	34	21,244	25,869	1,651	210	1,517	109	
Region 13 Rio Grande	32	41	35	31	3,242	4,525	294	34	-	-	
Region 14 Upper Colorado	39	39	-	-	(D)	165	(D)	-	-	-	
Region 15 Lower Colorado	32	44	37	32	2,289	1,992	140	51	15	120	
Region 16 Great Basin	50	55	56	47	240	2,947	909	35	112	152	
Region 17 Pacific Northwest	83	102	79	84	250	8,780	9,945	2,863	3,015	239	
Region 18 California	44	49	44	47	10,604	42,328	6,953	950	2,016	158	
Region 19 Alaska	55	55	(D)	(D)	(D)	186	80	(D)	10	124	
Region 20 Hawaii	36	35	(D)	(D)	34	111	-	-	-	-	

Table 15. Irrigation Pumps Used on Farms Other Than for Wells: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Pumps for discharging water from tailwater pits							
	Farms	Pumps	Average pumping lift (feet)	Average operating pressure (PSI)	Pumps by average discharge operating pressure			
					Less than 15 PSI	15 to 29 PSI	30 to 59 PSI	60 PSI or more
United States	2,934	6,942	13	32	849	2,567	2,833	693
Alabama	-	-	-	-	-	-	-	-
Alaska	7	7	25	30	-	-	7	-
Arizona	46	129	18	23	18	57	54	-
Arkansas	433	1,675	15	23	245	1,048	382	-
California	732	1,712	13	24	358	843	437	74
Colorado	221	282	9	33	-	103	179	-
Connecticut	6	(D)	9	35	-	-	(D)	-
Delaware	-	-	-	-	-	-	-	-
Florida	42	68	17	24	(D)	(D)	(D)	-
Georgia	63	63	14	66	9	-	27	27
Hawaii	2	(D)	(D)	(D)	-	-	(D)	-
Idaho	173	369	7	59	-	-	145	224
Illinois	-	-	-	-	-	-	-	-
Indiana	1	(D)	(D)	(D)	-	-	(D)	-
Iowa	-	-	-	-	-	-	-	-
Kansas	104	150	13	30	20	30	100	-
Kentucky	7	7	13	31	-	-	7	-
Louisiana	39	155	15	28	(D)	(D)	98	-
Maine	5	5	15	(D)	-	-	5	-
Maryland	7	67	16	31	-	-	(D)	(D)
Massachusetts	107	266	9	42	18	12	220	16
Michigan	-	-	-	-	-	-	-	-
Minnesota	28	51	14	35	(D)	(D)	(D)	18
Mississippi	49	106	15	29	-	49	57	-
Missouri	12	12	11	64	-	-	-	12
Montana	48	147	28	24	-	84	63	-
Nebraska	240	290	17	17	114	136	40	-
Nevada	5	24	18	34	-	(D)	(D)	-
New Hampshire	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-
New Mexico	-	-	-	-	-	-	-	-
New York	21	21	16	34	-	-	21	-
North Carolina	-	-	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-	-	-
Ohio	27	88	27	35	-	-	(D)	(D)
Oklahoma	29	29	4	70	-	-	-	29
Oregon	173	383	13	54	-	15	248	120
Pennsylvania	3	3	60	15	-	3	-	-
Rhode Island	1	(D)	(D)	(D)	-	-	(D)	-
South Carolina	2	(D)	(D)	(D)	-	-	(D)	(D)
South Dakota	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-	-
Texas	72	146	13	54	-	-	91	55
Utah	66	111	14	61	-	-	-	111
Vermont	1	(D)	(D)	(D)	-	-	(D)	-
Virginia	25	271	9	40	-	-	271	-
Washington	92	201	11	32	-	86	115	-
West Virginia	-	-	-	-	-	-	-	-
Wisconsin	21	42	4	10	42	-	-	-
Wyoming	24	41	12	36	-	7	34	-
Water Resource Regions								
Region 01 New England	119	282	9	42	18	12	236	16
Region 02 Mid-Atlantic	10	70	18	30	-	(D)	66	(D)
Region 03 South Atlantic-Gulf	134	408	11	42	13	34	332	29
Region 04 Great Lakes	25	(D)	15	41	-	-	(D)	(D)
Region 05 Ohio	32	80	28	32	-	-	80	-
Region 06 Tennessee	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	49	93	10	23	59	(D)	(D)	(D)
Region 08 Lower Mississippi	479	1,838	14	24	240	1,116	482	-
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-
Region 10 Missouri	395	573	18	24	114	262	185	12
Region 11 Arkansas-White-Red	207	375	12	34	29	110	207	29
Region 12 Texas-Gulf	39	69	13	67	-	-	14	55
Region 13 Rio Grande	5	10	(D)	(D)	-	-	10	-
Region 14 Upper Colorado	132	154	10	34	-	22	132	-
Region 15 Lower Colorado	46	129	18	23	18	57	54	-
Region 16 Great Basin	71	135	15	56	-	(D)	(D)	111
Region 17 Pacific Northwest	430	945	10	51	-	101	520	324
Region 18 California	752	1,732	13	25	358	843	437	94
Region 19 Alaska	7	7	25	30	-	-	7	-
Region 20 Hawaii	2	(D)	(D)	(D)	-	-	(D)	-

--continued

Table 15. Irrigation Pumps Used on Farms Other Than for Wells: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Pumps for discharging water from tailwater pits - con.								
	Average discharge capacity (GPM)	Pumps by discharge capacity						3,000 or more GPM	
		Less than 500 GPM	500 to 999 GPM	1,000 to 1,499 GPM	1,500 to 1,999 GPM	2,000 to 2,999 GPM	Pumps	Average GPM	
United States	1,048	2,102	1,713	1,131	1,063	794	139	6,286	
Alabama	-	-	-	-	-	-	-	-	
Alaska	20	7	-	-	-	-	-	-	
Arizona	1,801	-	-	54	-	75	-	-	
Arkansas	1,647	-	104	312	936	323	-	-	
California	782	554	602	393	38	79	46	3,500	
Colorado	1,346	66	(D)	81	(D)	101	-	-	
Connecticut	455	(D)	(D)	(D)	-	-	-	-	
Delaware	-	-	-	-	-	-	-	-	
Florida	5,120	30	(D)	(D)	(D)	-	(D)	18,333	
Georgia	1,629	9	-	27	-	27	-	-	
Hawaii	(D)	(D)	-	-	-	-	-	-	
Idaho	378	202	167	-	-	-	-	-	
Illinois	-	-	-	-	-	-	-	-	
Indiana	(D)	(D)	-	-	-	-	-	-	
Iowa	-	-	-	-	-	-	-	-	
Kansas	590	32	103	15	-	-	-	-	
Kentucky	288	7	-	-	-	-	-	-	
Louisiana	1,071	58	33	(D)	(D)	(D)	-	-	
Maine	(D)	5	-	-	-	-	-	-	
Maryland	996	-	(D)	(D)	-	-	-	-	
Massachusetts	1,665	63	(D)	(D)	49	(D)	33	6,242	
Michigan	-	-	-	-	-	-	-	-	
Minnesota	310	(D)	(D)	-	-	-	-	-	
Mississippi	1,682	(D)	(D)	18	(D)	60	-	-	
Missouri	560	(D)	(D)	-	-	-	-	-	
Montana	714	84	39	-	-	12	12	3,321	
Nebraska	546	90	179	21	-	-	-	-	
Nevada	201	(D)	(D)	-	-	-	-	-	
New Hampshire	-	-	-	-	-	-	-	-	
New Jersey	-	-	-	-	-	-	-	-	
New Mexico	-	-	-	-	-	-	-	-	
New York	197	21	-	-	-	-	-	-	
North Carolina	-	-	-	-	-	-	-	-	
North Dakota	-	-	-	-	-	-	-	-	
Ohio	(D)	(D)	(D)	-	-	(D)	-	-	
Oklahoma	300	29	-	-	-	-	-	-	
Oregon	775	232	(D)	(D)	-	-	(D)	(D)	
Pennsylvania	10	3	-	-	-	-	-	-	
Rhode Island	(D)	-	-	-	-	(D)	-	-	
South Carolina	(D)	-	(D)	-	-	-	-	-	
South Dakota	-	-	-	-	-	-	-	-	
Tennessee	-	-	-	-	-	-	-	-	
Texas	723	49	53	40	-	-	4	3,000	
Utah	616	21	90	-	-	-	-	-	
Vermont	(D)	(D)	-	-	-	-	-	-	
Virginia	59	271	-	-	-	-	-	-	
Washington	412	87	(D)	(D)	-	-	-	-	
West Virginia	-	-	-	-	-	-	-	-	
Wisconsin	2,300	-	-	-	-	42	-	-	
Wyoming	479	34	7	-	-	-	-	-	
Water Resource Regions									
Region 01 New England	1,605	72	70	30	49	28	33	6,242	
Region 02 Mid-Atlantic	954	(D)	(D)	66	-	-	-	-	
Region 03 South Atlantic-Gulf	1,154	310	18	(D)	(D)	27	(D)	18,333	
Region 04 Great Lakes	921	(D)	(D)	-	-	(D)	-	-	
Region 05 Ohio	(D)	80	-	-	-	-	-	-	
Region 06 Tennessee	-	-	-	-	-	-	-	-	
Region 07 Upper Mississippi	1,209	(D)	(D)	-	-	(D)	-	-	
Region 08 Lower Mississippi	1,600	62	152	287	941	396	-	-	
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	
Region 10 Missouri	562	233	289	26	-	25	-	-	
Region 11 Arkansas-White-Red	955	59	130	127	(D)	24	(D)	3,000	
Region 12 Texas-Gulf	575	49	5	15	-	-	-	-	
Region 13 Rio Grande	1,256	-	-	10	-	-	-	-	
Region 14 Upper Colorado	1,679	44	-	22	-	88	-	-	
Region 15 Lower Colorado	1,801	-	-	54	-	75	-	-	
Region 16 Great Basin	542	39	96	-	-	-	-	-	
Region 17 Pacific Northwest	574	521	316	(D)	-	-	(D)	4,336	
Region 18 California	783	554	622	393	38	79	46	3,500	
Region 19 Alaska	20	7	-	-	-	-	-	-	
Region 20 Hawaii	(D)	(D)	-	-	-	-	-	-	

--continued

Table 15. Irrigation Pumps Used on Farms Other Than for Wells: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Pumps for discharging water from ponds, lakes, reservoirs, rivers, canals, etc.							
	Farms	Pumps	Average pumping lift (feet)	Average operating pressure (PSI)	Pumps by average discharge operating pressure			
					Less than 15 PSI	15 to 29 PSI	30 to 59 PSI	60 PSI or more
United States	47,206	108,229	29	57	1,675	7,566	62,494	36,494
Alabama	328	644	23	71	46	24	293	281
Alaska	59	67	13	44	(D)	(D)	29	(D)
Arizona	239	518	39	67	(D)	(D)	214	260
Arkansas	603	1,834	17	36	101	826	595	312
California	6,236	21,532	44	47	402	1,694	14,011	5,425
Colorado	3,569	6,453	25	43	32	331	5,661	429
Connecticut	111	188	23	57	3	11	97	77
Delaware	56	98	21	67	-	10	30	58
Florida	804	1,902	15	45	-	76	1,549	277
Georgia	1,171	2,413	28	56	54	27	1,342	990
Hawaii	157	173	25	53	-	(D)	106	(D)
Idaho	4,256	12,480	25	60	130	302	6,064	5,984
Illinois	128	288	23	49	-	20	170	98
Indiana	312	794	11	45	40	53	478	223
Iowa	157	209	16	37	-	67	121	21
Kansas	409	708	17	43	-	95	552	61
Kentucky	317	451	35	48	33	104	220	94
Louisiana	314	636	20	35	31	277	238	90
Maine	89	381	30	136	5	21	36	319
Maryland	234	458	23	63	12	49	213	184
Massachusetts	529	1,155	11	63	9	43	623	480
Michigan	1,043	1,979	18	76	-	114	641	1,224
Minnesota	153	202	13	54	21	-	129	52
Mississippi	203	572	17	36	9	238	242	83
Missouri	494	750	24	44	40	106	415	189
Montana	3,323	7,667	34	50	63	421	5,665	1,518
Nebraska	1,325	2,936	20	42	62	383	2,051	440
Nevada	404	431	12	45	(D)	(D)	323	68
New Hampshire	84	136	21	50	4	14	49	69
New Jersey	259	418	10	71	-	-	237	181
New Mexico	536	1,013	16	39	-	117	829	67
New York	696	1,018	26	55	-	129	498	391
North Carolina	936	2,022	33	96	46	106	765	1,105
North Dakota	179	357	31	41	5	83	200	69
Ohio	506	933	17	46	65	107	460	301
Oklahoma	174	254	22	43	-	9	208	37
Oregon	4,917	8,854	24	80	57	149	3,396	5,252
Pennsylvania	676	912	37	65	3	129	327	453
Rhode Island	34	49	10	61	-	(D)	28	(D)
South Carolina	333	548	18	62	25	32	253	238
South Dakota	278	405	46	47	-	32	288	85
Tennessee	202	259	16	50	25	19	113	102
Texas	926	1,625	27	48	24	248	937	416
Utah	2,610	3,995	20	45	44	49	3,202	700
Vermont	136	178	31	42	13	(D)	110	(D)
Virginia	372	730	39	79	(D)	(D)	247	433
Washington	4,190	12,017	27	78	14	586	5,454	5,963
West Virginia	109	168	39	50	24	-	60	84
Wisconsin	697	1,505	17	62	20	31	643	811
Wyoming	1,333	2,914	26	42	154	319	2,082	359
Water Resource Regions								
Region 01 New England	884	1,965	18	75	25	92	878	970
Region 02 Mid-Atlantic	1,737	2,888	28	68	36	232	1,210	1,410
Region 03 South Atlantic-Gulf	3,513	7,348	25	63	127	330	4,204	2,687
Region 04 Great Lakes	1,916	3,209	18	67	39	279	1,192	1,699
Region 05 Ohio	1,197	2,023	27	48	144	240	1,113	526
Region 06 Tennessee	199	467	18	91	46	-	142	279
Region 07 Upper Mississippi	1,197	2,339	17	55	46	120	1,078	1,095
Region 08 Lower Mississippi	881	2,469	18	35	119	1,149	846	355
Region 09 Souris-Red-Rainy	85	178	29	43	13	43	69	53
Region 10 Missouri	6,668	15,014	27	45	267	1,224	11,538	1,985
Region 11 Arkansas-White-Red	1,186	2,123	23	42	46	384	1,408	285
Region 12 Texas-Gulf	641	1,211	29	50	-	103	762	346
Region 13 Rio Grande	488	728	19	39	(D)	(D)	618	55
Region 14 Upper Colorado	2,799	5,057	23	43	7	373	4,202	475
Region 15 Lower Colorado	277	656	35	60	(D)	(D)	351	260
Region 16 Great Basin	2,596	3,588	20	46	108	58	2,587	835
Region 17 Pacific Northwest	14,318	34,859	26	71	201	1,174	16,000	17,484
Region 18 California	6,408	21,867	43	48	402	1,694	14,161	5,610
Region 19 Alaska	59	67	13	44	(D)	(D)	29	(D)
Region 20 Hawaii	157	173	25	53	-	(D)	106	(D)

--continued

Table 15. Irrigation Pumps Used on Farms Other Than for Wells: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Pumps for discharging water from ponds, lakes, reservoirs, rivers, canals, etc. - con.								
	Average discharge capacity (GPM)	Pumps by discharge capacity						3,000 or more GPM	
		Less than 500 GPM	500 to 999 GPM	1,000 to 1,499 GPM	1,500 to 1,999 GPM	2,000 to 2,999 GPM	Pumps	Average GPM	
United States	1,016	42,917	27,022	16,893	8,719	6,868	5,810	5,067	
Alabama	1,829	187	193	129	14	34	87	8,657	
Alaska	122	(D)	(D)	-	-	-	-	-	
Arizona	1,093	151	201	69	-	(D)	(D)	(D)	
Arkansas	1,620	72	144	328	755	446	89	3,000	
California	1,259	3,942	6,392	3,491	3,571	2,162	1,974	3,311	
Colorado	708	3,267	1,344	1,393	328	31	90	5,551	
Connecticut	601	81	63	23	8	13	-	-	
Delaware	937	(D)	(D)	13	-	-	5	5,425	
Florida	2,072	601	617	103	206	130	245	11,052	
Georgia	807	912	862	303	105	231	-	-	
Hawaii	759	37	106	(D)	17	-	(D)	(D)	
Idaho	1,316	4,483	2,618	2,328	676	1,468	907	6,219	
Illinois	597	180	-	108	-	-	-	-	
Indiana	1,138	137	291	58	245	12	51	3,000	
Iowa	509	153	15	41	-	-	-	-	
Kansas	697	154	426	(D)	(D)	-	-	-	
Kentucky	633	248	88	62	(D)	(D)	7	3,000	
Louisiana	1,419	158	54	98	109	202	15	3,136	
Maine	953	61	256	(D)	-	(D)	(D)	(D)	
Maryland	641	234	111	93	-	(D)	(D)	(D)	
Massachusetts	1,071	381	330	172	135	93	44	6,227	
Michigan	648	941	667	245	36	54	36	5,000	
Minnesota	1,183	76	58	8	16	8	36	3,667	
Mississippi	1,720	41	41	101	164	210	15	3,000	
Missouri	626	381	217	87	22	7	36	3,000	
Montana	878	2,564	2,667	1,652	378	105	301	4,233	
Nebraska	692	777	1,607	437	115	-	-	-	
Nevada	607	323	51	5	-	13	39	3,421	
New Hampshire	145	126	10	-	-	-	-	-	
New Jersey	704	113	218	38	32	17	-	-	
New Mexico	832	624	141	148	(D)	(D)	62	5,387	
New York	234	826	132	60	-	-	-	-	
North Carolina	772	1,042	432	208	206	46	88	3,872	
North Dakota	960	67	146	85	38	(D)	(D)	4,000	
Ohio	461	736	42	(D)	(D)	-	(D)	(D)	
Oklahoma	1,100	138	28	32	27	-	29	5,491	
Oregon	678	5,935	1,216	975	319	221	188	8,503	
Pennsylvania	166	847	65	-	-	-	-	-	
Rhode Island	1,062	25	(D)	-	-	(D)	(D)	(D)	
South Carolina	972	354	130	38	-	-	26	14,077	
South Dakota	1,359	70	158	(D)	4	112	(D)	(D)	
Tennessee	717	154	75	(D)	-	(D)	(D)	4,374	
Texas	862	622	441	280	159	101	22	5,727	
Utah	967	1,942	795	740	88	195	235	4,985	
Vermont	207	164	(D)	(D)	-	-	(D)	(D)	
Virginia	822	363	257	36	-	35	39	5,342	
Washington	1,006	6,592	1,725	2,138	460	382	720	6,314	
West Virginia	96	188	-	-	-	-	-	-	
Wisconsin	953	450	442	180	225	166	42	3,000	
Wyoming	1,116	945	1,060	219	229	207	254	4,255	
Water Resource Regions									
Region 01 New England	912	730	673	233	143	116	70	5,570	
Region 02 Mid-Atlantic	509	1,746	783	234	32	45	48	5,243	
Region 03 South Atlantic-Gulf	1,157	2,954	2,250	796	541	422	385	9,245	
Region 04 Great Lakes	548	1,906	803	344	52	54	50	5,589	
Region 05 Ohio	584	1,236	260	210	246	64	7	3,000	
Region 06 Tennessee	2,009	253	(D)	(D)	-	(D)	84	8,439	
Region 07 Upper Mississippi	881	857	667	304	244	174	93	3,000	
Region 08 Lower Mississippi	1,676	197	141	513	666	833	119	3,017	
Region 09 Souris-Red-Rainy	1,136	(D)	(D)	(D)	-	-	36	3,667	
Region 10 Missouri	908	4,403	5,913	2,785	938	381	594	4,164	
Region 11 Arkansas-White-Red	875	707	617	326	407	25	41	4,762	
Region 12 Texas-Gulf	818	539	244	207	159	(D)	(D)	(D)	
Region 13 Rio Grande	1,087	376	136	37	47	81	51	5,173	
Region 14 Upper Colorado	908	2,597	1,048	823	136	135	318	5,142	
Region 15 Lower Colorado	983	182	306	69	-	(D)	(D)	(D)	
Region 16 Great Basin	826	1,895	309	1,068	71	162	83	3,984	
Region 17 Pacific Northwest	1,000	18,103	6,147	5,379	1,390	2,045	1,795	6,505	
Region 18 California	1,256	4,068	6,458	3,533	3,630	2,186	1,992	3,332	
Region 19 Alaska	122	(D)	(D)	-	-	-	-	-	
Region 20 Hawaii	759	37	106	(D)	17	-	(D)	(D)	

--continued

Table 15. Irrigation Pumps Used on Farms Other Than for Wells: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Relifting or boosting water within systems							
	Farms	Pumps	Average pumping lift (feet)	Average operating pressure (PSI)	Pumps by average discharge operating pressure			
					Less than 15 PSI	15 to 29 PSI	30 to 59 PSI	60 PSI or more
United States	19,517	47,042	35	48	1,486	4,039	32,131	9,386
Alabama	82	131	47	53	-	-	114	17
Alaska	43	104	24	46	-	-	104	-
Arizona	219	652	13	55	-	(D)	344	(D)
Arkansas	286	1,330	19	31	218	335	754	23
California	6,698	17,586	39	49	260	1,301	13,049	2,976
Colorado	1,170	2,074	18	45	3	69	1,809	193
Connecticut	80	116	14	47	7	-	78	31
Delaware	4	4	101	20	-	4	-	-
Florida	201	817	20	44	-	(D)	784	(D)
Georgia	160	458	19	41	(D)	-	436	(D)
Hawaii	109	271	26	42	-	(D)	228	(D)
Idaho	1,524	4,259	46	54	44	24	2,684	1,507
Illinois	137	383	24	62	-	(D)	270	(D)
Indiana	66	210	23	44	-	33	159	18
Iowa	35	76	12	45	-	26	21	29
Kansas	176	229	42	35	20	62	139	8
Kentucky	48	55	24	38	7	7	41	-
Louisiana	98	239	16	38	-	105	56	78
Maine	6	45	11	38	-	(D)	3	(D)
Maryland	47	91	22	37	10	(D)	68	(D)
Massachusetts	83	149	10	40	12	14	123	-
Michigan	214	522	13	95	-	38	56	428
Minnesota	48	56	12	60	8	16	16	16
Mississippi	82	157	15	33	8	52	97	-
Missouri	95	386	30	51	-	-	354	32
Montana	567	1,320	26	50	-	132	902	286
Nebraska	607	1,848	18	42	-	231	1,320	297
Nevada	96	276	85	50	-	3	199	74
New Hampshire	12	15	20	52	-	-	(D)	(D)
New Jersey	83	381	13	46	-	-	285	96
New Mexico	262	395	12	31	36	124	230	5
New York	140	159	12	38	-	60	96	3
North Carolina	285	388	21	58	-	34	198	156
North Dakota	37	61	22	47	-	-	52	9
Ohio	116	257	23	53	-	-	116	141
Oklahoma	46	90	14	36	-	55	35	-
Oregon	1,286	2,329	34	59	34	73	1,298	924
Pennsylvania	259	344	43	49	-	60	200	84
Rhode Island	6	6	9	40	-	-	6	-
South Carolina	74	535	99	12	492	(D)	(D)	(D)
South Dakota	129	219	8	43	-	-	211	8
Tennessee	155	225	28	40	-	51	111	63
Texas	838	2,205	48	40	93	708	1,250	154
Utah	749	1,014	25	44	66	157	611	180
Vermont	27	42	22	41	-	-	(D)	(D)
Virginia	34	221	8	42	(D)	-	199	(D)
Washington	1,294	2,845	47	56	21	40	1,848	936
West Virginia	24	47	10	31	-	-	(D)	(D)
Wisconsin	259	468	9	40	63	38	346	21
Wyoming	421	952	27	39	68	93	720	71
Water Resource Regions								
Region 01 New England	188	332	12	43	19	(D)	221	(D)
Region 02 Mid-Atlantic	410	1,024	22	45	16	91	741	176
Region 03 South Atlantic-Gulf	814	2,338	39	39	510	70	1,531	227
Region 04 Great Lakes	422	911	15	73	8	118	257	528
Region 05 Ohio	345	464	20	46	7	40	300	117
Region 06 Tennessee	91	118	43	47	-	-	90	28
Region 07 Upper Mississippi	435	1,067	24	49	63	19	811	174
Region 08 Lower Mississippi	442	1,884	18	36	170	525	1,066	123
Region 09 Souris-Red-Rainy	3	6	8	60	-	-	-	6
Region 10 Missouri	2,120	5,232	21	43	71	516	4,019	626
Region 11 Arkansas-White-Red	471	1,082	21	32	68	477	527	10
Region 12 Texas-Gulf	723	1,739	57	42	91	433	1,061	154
Region 13 Rio Grande	202	419	11	36	38	44	337	-
Region 14 Upper Colorado	909	1,123	21	48	-	59	899	165
Region 15 Lower Colorado	250	763	15	55	-	(D)	415	(D)
Region 16 Great Basin	602	958	43	44	66	138	522	232
Region 17 Pacific Northwest	4,115	9,444	43	56	99	137	5,958	3,250
Region 18 California	6,823	17,763	39	49	260	1,301	13,044	3,158
Region 19 Alaska	43	104	24	46	-	-	104	-
Region 20 Hawaii	109	271	26	42	-	(D)	228	(D)

--continued

Table 15. Irrigation Pumps Used on Farms Other Than for Wells: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Relifting or boosting water within systems - con.								
	Average discharge capacity (GPM)	Pumps by discharge capacity						3,000 or more GPM	
		Less than 500 GPM	500 to 999 GPM	1,000 to 1,499 GPM	1,500 to 1,999 GPM	2,000 to 2,999 GPM	Pumps	Average GPM	
United States	875	20,358	12,140	5,765	3,759	3,181	1,839	4,390	
Alabama	499	79	(D)	(D)	-	17	(D)	(D)	
Alaska	12	104	-	-	-	-	-	-	
Arizona	1,165	184	84	62	196	126	-	-	
Arkansas	2,014	69	44	265	323	410	219	3,711	
California	974	6,588	4,225	2,788	1,543	1,629	813	3,924	
Colorado	637	883	739	415	22	-	15	3,500	
Connecticut	128	116	-	-	-	-	-	-	
Delaware	500	-	4	-	-	-	-	-	
Florida	1,620	31	349	194	124	14	105	6,334	
Georgia	706	(D)	373	(D)	-	-	-	-	
Hawaii	266	214	(D)	20	(D)	-	-	-	
Idaho	938	1,808	801	514	747	217	172	3,582	
Illinois	761	100	220	-	63	-	-	-	
Indiana	165	210	-	-	-	-	-	-	
Iowa	279	(D)	-	-	-	(D)	-	-	
Kansas	451	102	127	-	-	-	-	-	
Kentucky	662	(D)	-	(D)	-	-	(D)	(D)	
Louisiana	2,148	14	(D)	(D)	152	24	36	5,000	
Maine	166	(D)	(D)	-	-	-	-	-	
Maryland	208	91	-	-	-	-	-	-	
Massachusetts	1,961	(D)	(D)	-	9	52	31	4,226	
Michigan	427	401	88	33	-	-	-	-	
Minnesota	40	56	-	-	-	-	-	-	
Mississippi	1,547	24	-	34	40	41	18	3,000	
Missouri	659	100	286	-	-	-	-	-	
Montana	823	483	384	180	111	162	-	-	
Nebraska	647	894	834	-	-	120	-	-	
Nevada	723	41	220	3	12	-	-	-	
New Hampshire	75	15	-	-	-	-	-	-	
New Jersey	646	210	-	96	70	5	-	-	
New Mexico	763	199	118	47	-	-	31	4,000	
New York	134	156	-	3	-	-	-	-	
North Carolina	224	353	26	9	-	-	-	-	
North Dakota	957	(D)	37	5	(D)	(D)	-	-	
Ohio	493	233	(D)	-	(D)	-	(D)	(D)	
Oklahoma	530	55	35	-	-	-	-	-	
Oregon	620	1,351	713	93	55	62	55	4,344	
Pennsylvania	46	344	-	-	-	-	-	-	
Rhode Island	39	6	-	-	-	-	-	-	
South Carolina	56	517	(D)	-	9	(D)	-	-	
South Dakota	1,177	36	132	-	-	51	-	-	
Tennessee	661	192	(D)	-	-	-	(D)	4,271	
Texas	861	1,242	588	228	71	-	76	10,754	
Utah	533	548	335	104	(D)	-	(D)	(D)	
Vermont	21	42	-	-	-	-	-	-	
Virginia	18	221	-	-	-	-	-	-	
Washington	884	1,251	686	442	166	219	81	5,743	
West Virginia	52	47	-	-	-	-	-	-	
Wisconsin	1,417	201	21	95	-	21	130	3,762	
Wyoming	555	334	539	68	11	-	-	-	
Water Resource Regions									
Region 01 New England	952	200	40	-	9	52	31	4,226	
Region 02 Mid-Atlantic	282	846	4	99	70	5	-	-	
Region 03 South Atlantic-Gulf	782	1,022	773	269	133	36	105	6,334	
Region 04 Great Lakes	388	761	(D)	(D)	-	-	(D)	(D)	
Region 05 Ohio	179	443	(D)	(D)	(D)	-	(D)	(D)	
Region 06 Tennessee	1,238	72	12	-	-	5	29	4,262	
Region 07 Upper Mississippi	1,006	417	351	84	63	22	130	3,762	
Region 08 Lower Mississippi	1,846	165	202	298	509	437	273	3,834	
Region 09 Souris-Red-Rainy	70	6	-	-	-	-	-	-	
Region 10 Missouri	697	2,033	2,298	481	127	293	-	-	
Region 11 Arkansas-White-Red	783	295	523	206	28	30	-	-	
Region 12 Texas-Gulf	953	997	378	217	71	-	76	10,754	
Region 13 Rio Grande	670	281	68	39	-	-	31	4,000	
Region 14 Upper Colorado	473	776	223	86	23	-	15	3,500	
Region 15 Lower Colorado	1,153	184	146	111	196	126	-	-	
Region 16 Great Basin	530	404	512	(D)	(D)	-	(D)	(D)	
Region 17 Pacific Northwest	831	4,473	2,166	1,043	928	546	288	4,306	
Region 18 California	974	6,665	4,313	2,740	1,583	1,629	833	3,926	
Region 19 Alaska	12	104	-	-	-	-	-	-	
Region 20 Hawaii	266	214	(D)	20	(D)	-	-	-	

Table 16. Energy Expenses for Pumps by Type of Energy Used: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Total energy expenses for pumping ¹						Expenses (\$1,000)
	Farms	Pumps powered	Acres in the open by water source ²		Square feet under protection by water source ²		
			Water from wells	Surface water	Water from wells	Surface water	
United States	157,530	608,288	36,092,779	13,030,215	1,183,998,473	363,639,012	3,260,634
Alabama	1,068	2,220	79,890	72,770	10,503,770	(D)	6,343
Alaska	295	430	1,270	119	949,796	179,449	339
Arizona	1,420	5,001	444,418	159,100	12,289,290	5,379,680	82,372
Arkansas	2,691	48,235	4,120,110	541,993	3,582,438	909,556	187,695
California	27,879	100,089	3,987,589	3,816,261	273,691,571	94,350,845	1,122,896
Colorado	6,129	17,194	893,417	770,799	5,370,305	6,519,175	76,657
Connecticut	544	969	1,498	2,169	13,722,349	3,648,248	1,239
Delaware	408	1,979	126,563	10,803	1,235,772	-	9,313
Florida	7,161	20,889	692,760	520,174	348,536,036	47,726,704	83,342
Georgia	4,048	14,519	1,023,028	229,200	13,581,411	(D)	54,397
Hawaii	332	531	3,822	19,039	4,410,984	6,348,520	1,406
Idaho	7,195	24,921	1,186,778	1,471,045	1,932,118	115,805	183,827
Illinois	2,010	8,092	671,605	9,246	13,450,430	3,364,404	24,941
Indiana	2,092	6,767	552,257	47,595	9,747,510	4,543,340	16,737
Iowa	1,032	2,790	224,255	7,784	1,875,081	7,892,540	9,669
Kansas	3,986	19,582	2,269,852	110,887	1,643,150	3,675,840	123,526
Kentucky	666	1,241	45,593	21,364	2,274,896	1,882,517	2,562
Louisiana	1,717	11,563	1,123,411	179,500	9,411,076	4,262,018	39,561
Maine	451	859	8,260	8,648	1,043,577	3,715,967	1,291
Maryland	833	2,460	109,048	23,655	7,832,696	7,072,082	7,280
Massachusetts	1,050	2,450	2,993	16,520	6,751,616	717,090	4,331
Michigan	4,186	12,255	627,061	117,259	62,303,871	27,337,752	39,194
Minnesota	2,368	6,669	530,609	22,541	13,426,880	775,044	17,211
Mississippi	1,528	16,016	1,700,611	57,017	4,873,038	232,100	46,994
Missouri	2,082	15,918	1,469,688	41,707	7,272,928	1,075,464	52,220
Montana	4,278	10,703	56,070	937,187	2,118,070	333,168	32,950
Nebraska	12,752	70,757	6,933,127	375,398	2,720,932	101,760	362,879
Nevada	851	2,451	235,174	172,406	345,092	70,788	18,819
New Hampshire	324	496	603	1,307	4,290,631	1,089,608	396
New Jersey	1,105	2,591	64,528	16,936	40,100,123	3,061,494	10,564
New Mexico	3,436	8,566	319,831	131,116	1,831,584	229,764	32,984
New York	1,817	3,230	23,522	18,197	22,944,528	16,668,716	4,234
North Carolina	2,548	5,809	75,737	62,903	12,688,296	14,705,206	9,962
North Dakota	548	2,213	183,277	56,195	290,900	219,590	7,911
Ohio	1,462	2,720	38,627	19,403	13,569,586	30,205,984	4,156
Oklahoma	1,504	5,686	526,329	34,098	2,867,300	844,528	32,686
Oregon	10,075	21,454	573,118	618,609	50,191,498	27,118,756	72,844
Pennsylvania	2,062	3,304	10,025	14,634	35,743,453	9,179,582	6,676
Rhode Island	180	274	1,126	1,905	1,220,936	291,438	451
South Carolina	1,369	3,435	163,741	23,457	5,876,839	226,168	8,249
South Dakota	1,176	3,170	300,349	78,219	1,525,311	200,000	9,790
Tennessee	1,071	2,432	157,662	15,046	5,076,360	1,856,334	6,589
Texas	8,974	70,223	3,189,488	283,218	102,547,048	8,573,358	285,544
Utah	4,157	7,588	243,021	330,247	2,089,200	2,308,550	31,902
Vermont	437	669	841	1,597	2,492,041	208,727	317
Virginia	1,267	2,277	8,093	44,709	13,789,059	4,403,018	3,736
Washington	8,089	21,601	557,322	1,065,264	8,499,092	3,149,563	82,633
West Virginia	413	536	883	713	1,268,115	650,720	330
Wisconsin	2,605	7,615	454,624	43,381	18,051,630	2,548,546	21,729
Wyoming	1,859	4,849	78,275	406,815	148,260	(D)	16,964
Water Resource Regions							
Region 01 New England	2,681	5,262	15,832	31,509	27,510,567	9,532,619	7,792
Region 02 Mid-Atlantic	6,228	13,754	335,757	116,581	114,820,863	27,944,811	40,345
Region 03 South Atlantic-Gulf	16,383	47,367	2,020,083	890,199	396,071,247	66,954,912	161,870
Region 04 Great Lakes	6,777	17,245	832,755	145,363	81,801,144	62,434,485	48,157
Region 05 Ohio	3,941	8,555	420,776	52,975	24,991,508	17,300,706	17,524
Region 06 Tennessee	862	1,552	35,730	45,473	3,685,630	(D)	3,923
Region 07 Upper Mississippi	7,456	24,185	1,761,570	107,097	39,383,011	5,963,236	68,473
Region 08 Lower Mississippi	5,945	81,964	7,740,159	711,536	10,889,830	4,916,048	295,283
Region 09 Souris-Red-Rainy	469	1,857	154,304	25,734	1,357,840	270,650	6,058
Region 10 Missouri	23,463	103,837	8,767,995	2,004,443	14,576,930	15,559,672	489,943
Region 11 Arkansas-White-Red	7,248	47,379	4,474,908	470,409	8,623,878	3,041,798	297,621
Region 12 Texas-Gulf	7,217	53,412	1,826,254	131,599	94,141,036	8,573,358	163,213
Region 13 Rio Grande	3,579	9,089	415,206	78,923	9,726,464	144,700	40,277
Region 14 Upper Colorado	3,847	6,476	4,154	517,043	865,420	1,364,909	15,505
Region 15 Lower Colorado	1,665	5,713	480,205	206,741	12,453,630	5,531,688	88,685
Region 16 Great Basin	4,374	8,887	500,502	387,143	2,301,300	(D)	50,079
Region 17 Pacific Northwest	26,509	69,827	2,266,997	3,276,956	61,526,872	30,528,272	338,426
Region 18 California	28,259	100,966	4,034,500	3,811,333	273,910,523	94,350,845	1,125,713
Region 19 Alaska	295	430	1,270	119	949,796	179,449	339
Region 20 Hawaii	332	531	3,822	19,039	4,410,984	6,348,520	1,406

See footnote(s) at end of table.

--continued

Table 16. Energy Expenses for Pumps by Type of Energy Used: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Total energy expenses for pumping ¹ - con.					
	Expenses per irrigated acre for operations with only acres in the open ² (dollars)		Expenses per irrigated acre for operations with only horticulture in the open ² (dollars)		Expenses per 10,000 sq ft for operations with only irrigated horticulture under protection ² (dollars)	
	Water from wells only	Surface water only	Water from wells only	Surface water only	Water from wells only	Surface water only
United States	61.95	56.56	142.95	101.06	493.26	164.53
Alabama	42.74	29.44	8.85	63.75	1,076.12	-
Alaska	59.66	96.17	117.90	51.56	643.54	2,709.10
Arizona	150.97	39.29	149.32	-	1,280.12	538.63
Arkansas	35.33	39.84	135.35	177.66	206.88	479.97
California	197.25	110.04	453.12	246.70	459.90	231.90
Colorado	56.21	40.35	85.50	105.56	855.79	898.98
Connecticut	189.40	74.87	259.24	36.45	459.38	-
Delaware	49.06	53.97	122.85	-	1,548.62	-
Florida	119.33	9.75	362.52	30.85	215.43	4.08
Georgia	42.95	31.16	80.50	202.74	644.00	1,025.42
Hawaii	50.95	27.76	(D)	(D)	466.60	802.08
Idaho	71.51	56.53	161.37	237.51	1,263.22	-
Illinois	33.79	70.26	42.02	66.26	739.90	267.65
Indiana	27.56	27.79	44.16	(D)	1,161.62	560.00
Iowa	39.95	17.88	60.10	-	79.92	109.79
Kansas	54.15	29.68	284.76	32.10	2,245.81	188.09
Kentucky	31.32	37.68	(D)	358.62	2,709.32	176.39
Louisiana	30.85	36.34	112.15	192.00	224.87	-
Maine	91.86	87.53	163.20	(D)	3,193.16	155.22
Maryland	49.70	64.38	268.48	36.17	628.39	(D)
Massachusetts	258.76	163.65	287.70	150.34	2,242.35	9,823.53
Michigan	53.49	29.49	39.40	77.27	356.73	22.07
Minnesota	29.54	12.12	73.12	250.00	160.61	833.33
Mississippi	25.91	39.36	70.31	12.38	481.38	125.00
Missouri	33.96	35.10	73.17	59.59	1,214.98	342.92
Montana	42.02	31.80	384.06	28.01	1,307.81	(D)
Nebraska	50.65	34.50	128.72	-	739.89	-
Nevada	79.12	7.11	354.50	-	826.45	-
New Hampshire	203.03	64.71	269.00	(D)	654.09	129.50
New Jersey	93.68	71.77	179.01	(D)	959.86	-
New Mexico	98.89	33.05	45.19	488.85	1,821.58	897.32
New York	101.82	86.57	156.08	201.38	415.56	18.27
North Carolina	63.09	59.29	79.96	155.53	1,338.71	139.99
North Dakota	35.03	26.12	59.94	60.00	654.17	(D)
Ohio	35.35	86.70	94.32	191.49	2,288.53	189.85
Oklahoma	60.19	26.96	53.39	123.75	380.71	-
Oregon	62.93	44.06	136.00	157.00	701.30	211.75
Pennsylvania	84.52	59.29	263.73	17.22	781.08	91.99
Rhode Island	35.97	68.56	17.08	78.72	1,604.15	(D)
South Carolina	35.91	96.76	31.95	246.67	6,333.41	-
South Dakota	20.86	31.31	97.52	(D)	3,326.59	(D)
Tennessee	33.92	32.15	67.31	58.47	1,646.31	447.76
Texas	86.92	39.48	66.49	88.88	199.81	249.38
Utah	73.07	46.10	102.44	91.22	333.33	(D)
Vermont	113.12	8.56	297.41	-	2,182.63	(D)
Virginia	102.90	43.10	68.15	59.44	874.81	15.98
Washington	50.90	49.70	234.02	112.58	5,680.19	1,503.29
West Virginia	23.82	28.13	(D)	20.45	1,199.02	167.48
Wisconsin	33.09	146.92	32.52	380.00	250.57	354.57
Wyoming	53.59	31.40	-	-	4,737.47	362.32
Water Resource Regions						
Region 01 New England	122.68	127.19	83.79	78.34	1,045.10	157.65
Region 02 Mid-Atlantic	62.34	56.19	166.05	83.75	702.64	73.92
Region 03 South Atlantic-Gulf	67.86	20.63	222.49	74.60	288.85	30.67
Region 04 Great Lakes	46.55	45.81	39.84	184.41	379.04	102.69
Region 05 Ohio	31.85	39.99	77.02	152.61	1,643.91	80.27
Region 06 Tennessee	67.81	28.13	159.66	27.31	2,617.23	(D)
Region 07 Upper Mississippi	32.21	80.94	54.57	70.48	601.11	207.81
Region 08 Lower Mississippi	32.16	34.63	72.44	313.95	1,118.22	625.58
Region 09 Souris-Red-Rainy	33.35	23.65	106.25	60.00	(D)	(D)
Region 10 Missouri	48.15	34.47	82.97	42.21	1,107.02	152.90
Region 11 Arkansas-White-Red	64.95	27.79	70.36	136.63	439.25	361.76
Region 12 Texas-Gulf	86.68	40.20	66.47	88.88	334.64	249.38
Region 13 Rio Grande	92.52	54.89	41.63	(D)	99.89	902.78
Region 14 Upper Colorado	235.94	33.47	(D)	111.47	(D)	650.17
Region 15 Lower Colorado	148.18	40.56	149.32	-	1,276.64	538.63
Region 16 Great Basin	75.93	39.79	106.35	101.60	1,594.05	(D)
Region 17 Pacific Northwest	63.35	49.60	158.85	156.70	1,356.07	943.00
Region 18 California	194.41	111.09	453.72	246.70	459.90	231.90
Region 19 Alaska	59.66	96.17	117.90	51.56	643.54	2,709.10
Region 20 Hawaii	50.95	27.76	(D)	(D)	466.60	802.08

See footnote(s) at end of table.

--continued

Table 16. Energy Expenses for Pumps by Type of Energy Used: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Total energy expenses for pumping ¹ - con.						
	Farms with energy expenses of-						
	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$4,999	\$5,000 to \$9,999	\$10,000 to \$19,999	\$20,000 to \$49,999	\$50,000 or more
United States	36,848	22,482	33,672	19,628	16,999	14,592	13,309
Alabama	463	179	136	119	115	42	14
Alaska	221	48	13	6	7	-	-
Arizona	211	229	256	255	82	204	183
Arkansas	268	97	217	150	251	555	1,153
California	3,202	4,108	5,973	4,031	3,549	3,306	3,710
Colorado	1,294	962	1,539	835	551	556	392
Connecticut	339	107	49	29	16	1	3
Delaware	62	32	87	74	85	42	26
Florida	2,013	1,410	1,778	869	395	352	344
Georgia	895	320	1,038	533	636	438	188
Hawaii	139	62	80	4	39	5	3
Idaho	1,575	1,117	1,558	864	751	674	656
Illinois	227	282	581	376	267	165	112
Indiana	639	293	415	293	214	157	81
Iowa	386	155	175	83	117	64	52
Kansas	186	297	1,050	535	815	406	697
Kentucky	337	55	150	76	23	18	7
Louisiana	266	131	183	204	276	442	215
Maine	347	51	35	1	7	7	3
Maryland	211	176	181	99	82	54	30
Massachusetts	464	126	277	102	55	19	7
Michigan	1,737	649	660	493	380	97	170
Minnesota	632	194	748	403	226	109	56
Mississippi	267	195	205	122	256	186	297
Missouri	393	247	463	284	248	206	241
Montana	1,088	763	1,074	577	411	280	85
Nebraska	402	707	2,326	2,217	2,427	2,855	1,818
Nevada	90	166	295	113	8	117	62
New Hampshire	234	50	26	8	2	2	-
New Jersey	322	204	258	89	97	88	47
New Mexico	1,323	474	833	289	162	183	172
New York	1,239	208	201	83	53	30	3
North Carolina	1,079	522	613	144	80	85	25
North Dakota	49	56	148	135	99	31	30
Ohio	942	158	209	17	69	64	3
Oklahoma	357	299	267	226	157	51	147
Oregon	3,802	1,389	2,148	1,260	777	445	254
Pennsylvania	1,001	421	447	67	75	29	22
Rhode Island	107	28	28	9	6	-	2
South Carolina	342	244	378	252	76	48	29
South Dakota	79	216	365	135	238	138	5
Tennessee	421	91	276	116	78	76	13
Texas	1,545	1,269	1,844	996	1,061	862	1,397
Utah	827	995	955	440	494	399	47
Vermont	303	103	30	1	-	-	-
Virginia	594	307	215	62	65	15	9
Washington	2,241	1,660	1,948	896	562	451	331
West Virginia	340	39	28	6	-	-	-
Wisconsin	1,030	293	385	377	291	131	98
Wyoming	317	298	528	273	266	107	70
Water Resource Regions							
Region 01 New England	1,599	378	422	150	88	29	15
Region 02 Mid-Atlantic	2,583	1,076	1,264	464	453	254	134
Region 03 South Atlantic-Gulf	4,858	2,812	3,922	1,911	1,328	959	593
Region 04 Great Lakes	3,222	1,030	1,024	688	452	176	185
Region 05 Ohio	2,090	450	676	283	233	134	75
Region 06 Tennessee	429	103	181	61	65	10	13
Region 07 Upper Mississippi	1,883	972	1,801	1,150	890	468	292
Region 08 Lower Mississippi	549	325	705	527	823	1,300	1,716
Region 09 Souris-Red-Rainy	92	23	99	127	75	31	22
Region 10 Missouri	2,063	2,115	5,363	3,760	3,927	3,885	2,350
Region 11 Arkansas-White-Red	981	740	1,225	1,029	1,052	791	1,430
Region 12 Texas-Gulf	1,233	1,071	1,680	760	838	621	1,014
Region 13 Rio Grande	1,286	489	817	351	239	265	132
Region 14 Upper Colorado	1,001	924	1,054	504	253	91	20
Region 15 Lower Colorado	305	312	259	255	91	208	235
Region 16 Great Basin	789	869	1,146	515	461	474	120
Region 17 Pacific Northwest	8,280	4,516	5,857	3,014	2,061	1,543	1,238
Region 18 California	3,245	4,167	6,084	4,069	3,624	3,348	3,722
Region 19 Alaska	221	48	13	6	7	-	-
Region 20 Hawaii	139	62	80	4	39	5	3

See footnote(s) at end of table.

--continued

Table 16. Energy Expenses for Pumps by Type of Energy Used: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Electricity								
	Farms	Pumps powered	Acres in the open by water source		Square feet under protection by water source		Expenses (\$1,000)	Expenses per irrigated acre for operations with only acres in the open (dollars)	
			Water from wells	Surface water	Water from wells	Surface water		Water from wells only	Surface water only
United States	135,742	470,936	24,952,594	10,228,450	967,619,854	323,323,126	2,530,368	66.83	57.65
Alabama	864	1,688	64,029	37,224	(D)	(D)	3,980	40.80	23.53
Alaska	248	374	607	13	940,044	(D)	307	189.99	(D)
Arizona	1,351	4,488	413,053	101,571	12,289,290	(D)	74,770	147.41	30.61
Arkansas	2,095	24,938	2,087,329	194,300	3,582,438	711,928	86,474	32.75	44.65
California	26,534	90,710	3,550,631	3,019,750	273,497,213	(D)	1,018,510	207.77	117.87
Colorado	5,691	16,192	869,056	724,215	5,370,305	5,911,265	73,251	55.05	41.24
Connecticut	491	812	1,288	1,173	13,014,329	(D)	1,016	191.49	38.80
Delaware	315	1,317	80,472	4,307	1,124,780	-	7,047	96.45	-
Florida	5,425	11,450	337,138	157,472	186,693,915	43,081,138	31,177	86.16	16.08
Georgia	3,735	12,762	905,319	195,695	(D)	(D)	46,604	40.70	29.39
Hawaii	280	470	1,565	17,478	4,410,984	6,348,520	1,171	93.85	21.14
Idaho	7,061	24,621	1,179,737	1,458,479	1,932,118	113,303	183,034	71.97	56.74
Illinois	1,310	5,233	357,775	7,596	12,303,050	2,875,510	15,853	39.61	76.08
Indiana	1,739	5,100	428,538	19,910	8,890,150	4,480,940	11,394	24.01	29.03
Iowa	861	2,284	167,433	5,582	1,845,081	(D)	7,927	43.58	13.79
Kansas	2,338	8,013	780,164	30,957	1,643,150	(D)	36,913	47.83	19.65
Kentucky	367	724	31,302	11,843	1,679,896	76,808	1,756	33.56	33.84
Louisiana	1,271	6,258	497,443	68,431	9,367,876	2,839,838	17,118	31.95	33.82
Maine	307	845	374	98	865,577	3,627,967	394	110.57	(D)
Maryland	579	1,509	53,879	8,510	7,338,368	6,529,447	4,149	56.74	43.21
Massachusetts	544	1,055	1,931	3,014	3,103,596	(D)	1,393	309.55	125.29
Michigan	3,677	10,075	514,425	56,945	61,420,479	26,932,752	32,438	55.91	43.83
Minnesota	2,203	6,247	488,644	19,690	13,426,880	(D)	15,911	29.93	11.17
Mississippi	1,198	7,724	713,807	24,001	4,861,538	205,100	22,106	29.84	40.76
Missouri	1,298	7,783	744,786	18,132	6,623,648	277,602	27,461	35.37	27.22
Montana	3,912	9,796	45,028	835,119	2,115,070	(D)	28,809	44.59	31.56
Nebraska	9,640	47,475	4,709,030	249,669	2,646,016	87,000	228,120	46.78	23.26
Nevada	836	2,337	179,935	170,102	345,092	70,788	13,689	72.88	7.11
New Hampshire	278	392	573	448	3,684,151	626,768	253	241.44	26.79
New Jersey	805	1,387	28,385	1,524	(D)	-	5,742	118.38	54.79
New Mexico	3,115	7,510	264,868	58,339	1,831,584	(D)	28,795	106.33	29.90
New York	1,322	2,027	10,408	1,448	12,909,047	12,660,644	1,919	121.34	114.32
North Carolina	1,861	4,257	70,710	26,816	12,182,296	13,584,370	6,138	55.46	32.00
North Dakota	480	2,015	170,860	46,320	(D)	(D)	7,153	34.74	24.57
Ohio	1,079	1,830	31,368	6,865	12,829,888	24,886,143	3,188	25.99	180.61
Oklahoma	990	3,915	292,925	14,789	2,867,300	844,528	17,785	59.72	11.40
Oregon	9,710	20,674	555,790	593,678	50,021,130	27,105,876	71,225	64.68	43.48
Pennsylvania	1,276	2,221	6,569	3,886	32,519,053	8,404,219	5,447	55.69	71.41
Rhode Island	141	211	728	612	972,296	(D)	295	237.53	(D)
South Carolina	1,290	3,190	147,592	16,866	(D)	(D)	7,415	36.08	110.98
South Dakota	1,096	2,845	281,413	66,074	1,525,311	200,000	7,967	20.83	26.96
Tennessee	930	1,892	116,748	1,497	5,076,360	1,564,900	4,595	32.37	69.75
Texas	7,975	63,886	2,513,027	193,929	85,099,311	7,521,915	224,312	86.51	36.13
Utah	3,774	6,955	239,833	316,555	2,089,200	(D)	30,635	73.02	44.76
Vermont	350	534	661	1,053	2,450,041	(D)	218	127.06	(D)
Virginia	1,049	1,727	5,338	12,045	13,598,503	4,292,438	1,953	135.02	22.36
Washington	7,727	20,676	528,392	1,032,446	7,892,072	3,148,947	80,954	52.75	49.66
West Virginia	401	512	883	134	1,268,115	600,320	311	23.82	(D)
Wisconsin	2,183	5,915	406,119	19,623	17,814,702	2,546,170	15,894	32.88	173.62
Wyoming	1,740	4,556	74,215	372,227	148,260	(D)	15,401	49.83	30.95
Water Resource Regions									
Region 01 New England	1,871	3,018	5,682	6,149	22,121,407	8,215,085	3,422	218.54	92.29
Region 02 Mid-Atlantic	4,447	8,843	181,740	27,473	92,760,751	20,052,930	25,503	89.86	38.25
Region 03 South Atlantic-Gulf	13,450	33,999	1,509,857	433,103	(D)	59,829,724	95,667	50.30	26.69
Region 04 Great Lakes	5,593	13,832	689,469	67,252	78,538,408	56,867,043	38,924	47.56	73.85
Region 05 Ohio	2,884	5,783	286,535	19,099	23,590,030	14,402,081	11,968	31.55	38.55
Region 06 Tennessee	679	991	27,206	11,776	3,685,630	(D)	1,741	51.13	34.64
Region 07 Upper Mississippi	6,103	18,687	1,333,793	58,849	38,163,723	5,290,020	50,274	32.80	66.86
Region 08 Lower Mississippi	4,576	42,154	3,746,281	256,832	10,821,370	3,309,006	141,525	32.65	33.87
Region 09 Souris-Red-Rainy	426	1,754	150,612	19,596	1,357,840	216,650	5,631	32.84	(D)
Region 10 Missouri	18,704	75,177	6,176,425	1,694,278	13,971,994	13,604,210	333,142	44.97	33.07
Region 11 Arkansas-White-Red	4,941	27,940	2,136,609	302,048	8,566,278	2,871,088	148,653	67.42	26.54
Region 12 Texas-Gulf	6,663	51,414	1,636,385	90,840	76,706,591	7,521,915	142,549	84.71	41.84
Region 13 Rio Grande	3,234	8,028	378,371	75,070	(D)	109,500	35,451	89.82	29.17
Region 14 Upper Colorado	3,445	5,838	3,174	422,279	865,420	1,239,795	14,361	231.63	33.63
Region 15 Lower Colorado	1,568	5,048	436,344	135,774	12,453,630	(D)	80,326	147.90	38.52
Region 16 Great Basin	4,025	8,201	442,415	367,861	2,301,300	(D)	43,765	73.23	38.43
Region 17 Pacific Northwest	25,685	67,799	2,214,802	3,195,429	60,746,484	30,507,666	334,536	64.75	49.90
Region 18 California	26,920	91,586	3,594,722	3,027,251	273,716,165	(D)	1,021,454	204.75	118.36
Region 19 Alaska	248	374	607	13	940,044	(D)	307	189.99	(D)
Region 20 Hawaii	280	470	1,565	17,478	4,410,984	6,348,520	1,171	93.85	21.14

See footnote(s) at end of table.

--continued

Table 16. Energy Expenses for Pumps by Type of Energy Used: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Electricity - con.						
	Farms with energy expenses of-						
	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$4,999	\$5,000 to \$9,999	\$10,000 to \$19,999	\$20,000 to \$49,999	\$50,000 or more
United States	31,973	20,559	30,876	17,077	13,579	11,896	9,782
Alabama	362	185	100	101	95	14	7
Alaska	186	42	7	6	7	-	-
Arizona	175	229	255	236	120	169	167
Arkansas	195	117	209	182	323	554	515
California	2,983	3,883	5,854	4,025	3,159	3,168	3,462
Colorado	1,065	935	1,398	818	555	566	354
Connecticut	307	94	49	26	12	1	2
Delaware	37	22	97	72	46	28	13
Florida	1,876	1,184	1,381	473	190	201	120
Georgia	777	347	1,007	507	501	450	146
Hawaii	121	48	66	4	36	3	2
Idaho	1,507	1,113	1,541	828	745	683	644
Illinois	195	194	379	196	190	93	63
Indiana	501	217	463	288	102	122	46
Iowa	365	114	145	52	103	32	50
Kansas	140	290	833	379	260	262	174
Kentucky	111	22	138	60	18	15	3
Louisiana	255	143	208	188	180	263	34
Maine	220	47	37	-	1	2	-
Maryland	166	144	130	66	34	19	20
Massachusetts	283	54	136	50	15	3	3
Michigan	1,527	608	615	445	239	105	138
Minnesota	595	162	700	394	199	102	51
Mississippi	265	195	208	174	125	129	102
Missouri	249	197	290	173	164	125	100
Montana	1,086	710	975	513	356	187	85
Nebraska	399	597	2,061	1,874	1,894	1,701	1,114
Nevada	89	166	295	112	14	117	43
New Hampshire	198	49	28	2	1	-	-
New Jersey	285	141	211	42	73	23	30
New Mexico	1,215	412	768	262	139	180	139
New York	986	184	125	3	-	24	-
North Carolina	857	404	441	66	41	35	17
North Dakota	31	58	136	115	86	26	28
Ohio	666	110	180	39	22	59	3
Oklahoma	325	221	202	65	64	42	71
Oregon	3,637	1,337	2,140	1,152	747	444	253
Pennsylvania	518	292	310	51	55	29	21
Rhode Island	90	21	25	1	2	-	2
South Carolina	317	245	379	205	78	39	27
South Dakota	79	216	338	152	238	68	5
Tennessee	336	91	268	117	59	54	5
Texas	1,379	1,226	1,730	893	824	701	1,222
Utah	665	971	912	286	494	399	47
Vermont	260	84	5	1	-	-	-
Virginia	528	293	173	31	17	4	3
Washington	2,078	1,580	1,961	802	535	440	331
West Virginia	337	30	28	6	-	-	-
Wisconsin	867	271	411	284	180	109	61
Wyoming	282	264	528	260	241	106	59
Water Resource Regions							
Region 01 New England	1,191	278	278	80	31	6	7
Region 02 Mid-Atlantic	1,975	821	945	268	225	126	87
Region 03 South Atlantic-Gulf	4,310	2,507	3,318	1,338	925	737	315
Region 04 Great Lakes	2,591	894	917	571	297	173	150
Region 05 Ohio	1,381	397	558	287	115	108	38
Region 06 Tennessee	344	87	146	61	35	4	2
Region 07 Upper Mississippi	1,714	739	1,651	858	614	337	190
Region 08 Lower Mississippi	498	344	729	633	661	1,023	688
Region 09 Souris-Red-Rainy	66	21	99	120	74	26	20
Region 10 Missouri	1,828	1,843	4,647	3,249	3,065	2,489	1,583
Region 11 Arkansas-White-Red	794	686	1,095	583	563	606	614
Region 12 Texas-Gulf	1,184	1,052	1,521	775	638	545	948
Region 13 Rio Grande	1,159	427	781	322	217	206	122
Region 14 Upper Colorado	825	897	913	452	248	91	19
Region 15 Lower Colorado	247	312	258	236	127	191	197
Region 16 Great Basin	648	845	1,125	368	467	471	101
Region 17 Pacific Northwest	7,885	4,358	5,876	2,803	1,998	1,540	1,225
Region 18 California	3,026	3,961	5,946	4,063	3,236	3,214	3,474
Region 19 Alaska	186	42	7	6	7	-	-
Region 20 Hawaii	121	48	66	4	36	3	2

See footnote(s) at end of table.

--continued

Table 16. Energy Expenses for Pumps by Type of Energy Used: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Natural gas								
	Farms	Pumps powered	Acres in the open by water source		Square feet under protection by water source		Expenses (\$1,000)	Expenses per irrigated acre for operations with only acres in the open (dollars)	
			Water from wells	Surface water	Water from wells	Surface water		Water from wells only	Surface water only
United States	5,425	21,290	2,524,877	100,102	1,701,008	32,760	169,914	65.77	67.89
Alabama	38	61	(D)	513	-	-	18	(D)	6.20
Alaska	-	-	-	-	-	-	-	-	-
Arizona	32	113	9,437	3,420	-	-	4,071	419.10	33.87
Arkansas	149	987	76,981	7,163	-	-	4,577	54.44	53.40
California	204	620	81,557	17,573	-	-	8,231	75.64	31.44
Colorado	37	138	16,971	240	-	-	1,564	91.46	50.00
Connecticut	-	-	-	-	-	-	-	-	-
Delaware	2	(D)	(D)	-	-	-	(D)	(D)	-
Florida	38	118	5,344	(D)	-	-	572	101.95	128.57
Georgia	27	54	8,154	-	-	-	229	28.12	-
Hawaii	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-
Illinois	19	19	2,410	-	-	-	61	25.18	-
Indiana	40	40	2,504	-	-	-	208	82.99	-
Iowa	1	(D)	(D)	-	-	-	(D)	(D)	-
Kansas	1,375	7,179	1,044,954	16,041	-	-	61,540	59.69	58.44
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	28	76	7,548	-	-	-	597	79.13	-
Maine	17	19	(D)	-	-	-	(D)	39.16	-
Maryland	18	25	1,564	-	170,448	5,760	207	96.18	-
Massachusetts	133	219	(D)	562	1,133,280	-	540	-	195.29
Michigan	1	(D)	(D)	(D)	-	-	(D)	-	-
Minnesota	8	8	680	-	-	-	11	16.41	-
Mississippi	4	21	(D)	-	-	27,000	(D)	(D)	-
Missouri	-	-	-	-	-	-	-	-	-
Montana	-	-	-	-	-	-	-	-	-
Nebraska	1,671	4,637	455,989	6,085	-	-	24,710	53.55	48.09
Nevada	-	-	-	-	-	-	-	-	-
New Hampshire	2	(D)	(D)	-	-	-	(D)	(D)	-
New Jersey	69	113	814	-	(D)	-	572	661.23	-
New Mexico	238	546	41,997	-	-	-	2,594	61.76	-
New York	36	(D)	18	6,750	-	-	280	177.00	41.00
North Carolina	8	8	-	1,200	-	-	95	-	79.27
North Dakota	-	-	-	-	-	-	-	-	-
Ohio	18	(D)	190	-	167,280	-	(D)	-	-
Oklahoma	390	1,353	211,345	-	-	-	13,106	62.01	-
Oregon	7	7	49	-	-	-	(D)	138.57	-
Pennsylvania	19	19	95	-	-	-	12	126.60	-
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	1	(D)	(D)	-	-	-	(D)	(D)	-
South Dakota	-	-	-	-	-	-	-	-	-
Tennessee	1	(D)	(D)	-	-	-	(D)	(D)	-
Texas	723	4,709	550,362	34,560	(D)	-	45,508	82.38	611.57
Utah	22	22	-	110	-	-	11	-	98.00
Vermont	27	(D)	21	-	(D)	-	49	(D)	-
Virginia	-	-	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	3	3	(D)	-	-	-	5	35.49	-
Wyoming	19	37	(D)	5,530	-	-	219	-	41.63
Water Resource Regions									
Region 01 New England	161	249	1,027	562	(D)	-	577	41.25	195.29
Region 02 Mid-Atlantic	126	217	3,553	6,750	220,448	5,760	1,095	200.26	41.00
Region 03 South Atlantic-Gulf	89	198	14,148	1,578	-	-	931	57.15	77.66
Region 04 Great Lakes	74	76	2,324	(D)	40,000	-	286	94.30	-
Region 05 Ohio	18	22	190	-	167,280	-	32	-	-
Region 06 Tennessee	23	46	-	345	-	-	3	-	8.00
Region 07 Upper Mississippi	34	34	3,738	-	-	-	88	23.48	-
Region 08 Lower Mississippi	148	752	65,786	5,963	-	27,000	4,100	58.30	53.40
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	2,054	6,250	630,251	13,415	-	-	33,212	52.58	45.11
Region 11 Arkansas-White-Red	1,934	11,380	1,598,665	48,561	-	-	107,396	67.70	58.44
Region 12 Texas-Gulf	263	614	81,248	-	(D)	-	6,127	75.09	-
Region 13 Rio Grande	211	596	20,408	1,440	-	-	3,174	112.39	611.57
Region 14 Upper Colorado	3	6	-	240	-	-	(D)	-	50.00
Region 15 Lower Colorado	54	201	21,933	3,420	-	-	4,632	205.92	33.87
Region 16 Great Basin	22	22	-	(D)	-	-	11	-	98.00
Region 17 Pacific Northwest	7	7	49	-	-	-	(D)	138.57	-
Region 18 California	204	620	81,557	17,573	-	-	8,231	75.64	31.44
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 16. Energy Expenses for Pumps by Type of Energy Used: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Natural gas - con.						
	Farms with energy expenses of-						
	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$4,999	\$5,000 to \$9,999	\$10,000 to \$19,999	\$20,000 to \$49,999	\$50,000 or more
United States	307	233	961	1,302	1,079	742	801
Alabama	37	-	-	-	1	-	-
Alaska	-	-	-	-	-	-	-
Arizona	-	-	-	19	-	-	13
Arkansas	7	19	33	31	21	13	25
California	10	25	13	46	60	9	41
Colorado	-	-	3	-	4	27	3
Connecticut	-	-	-	-	-	-	-
Delaware	-	-	-	-	2	-	-
Florida	30	-	-	-	-	-	8
Georgia	-	-	-	27	-	-	-
Hawaii	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-
Illinois	-	5	14	-	-	-	-
Indiana	-	-	36	-	4	-	-
Iowa	-	-	1	-	-	-	-
Kansas	-	21	228	238	267	236	385
Kentucky	-	-	-	-	-	-	-
Louisiana	-	-	12	-	-	16	-
Maine	16	-	-	-	-	1	-
Maryland	3	-	2	6	2	5	-
Massachusetts	53	-	36	35	9	-	-
Michigan	-	-	-	-	-	1	-
Minnesota	-	8	-	-	-	-	-
Mississippi	3	-	-	-	-	-	1
Missouri	-	-	-	-	-	-	-
Montana	-	-	-	-	-	-	-
Nebraska	-	58	264	577	457	293	22
Nevada	-	-	-	-	-	-	-
New Hampshire	2	-	-	-	-	-	-
New Jersey	-	-	25	16	24	4	-
New Mexico	31	-	146	22	1	23	15
New York	18	-	-	-	18	-	-
North Carolina	-	-	-	-	8	-	-
North Dakota	-	-	-	-	-	-	-
Ohio	14	2	-	-	2	-	-
Oklahoma	4	58	60	128	63	11	66
Oregon	7	-	-	-	-	-	-
Pennsylvania	19	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-
South Carolina	-	-	-	-	1	-	-
South Dakota	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	1	-
Texas	15	27	74	157	127	102	221
Utah	22	-	-	-	-	-	-
Vermont	13	-	14	-	-	-	-
Virginia	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-
Wisconsin	-	3	-	-	-	-	-
Wyoming	3	7	-	-	8	-	1
Water Resource Regions							
Region 01 New England	80	-	36	35	9	1	-
Region 02 Mid-Atlantic	22	-	27	22	46	9	-
Region 03 South Atlantic-Gulf	44	-	-	27	10	-	8
Region 04 Great Lakes	22	-	47	-	4	1	-
Region 05 Ohio	14	2	-	-	2	-	-
Region 06 Tennessee	23	-	-	-	-	-	-
Region 07 Upper Mississippi	-	16	18	-	-	-	-
Region 08 Lower Mississippi	3	19	39	31	21	27	8
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-
Region 10 Missouri	3	85	346	632	573	344	71
Region 11 Arkansas-White-Red	26	83	234	396	308	286	601
Region 12 Texas-Gulf	-	3	105	48	45	18	44
Region 13 Rio Grande	31	-	93	46	1	25	15
Region 14 Upper Colorado	-	-	3	-	-	-	-
Region 15 Lower Colorado	-	-	-	19	-	22	13
Region 16 Great Basin	22	-	-	-	-	-	-
Region 17 Pacific Northwest	7	-	-	-	-	-	-
Region 18 California	10	25	13	46	60	9	41
Region 19 Alaska	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 16. Energy Expenses for Pumps by Type of Energy Used: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	LP gas, propane, and butane								
	Farms	Pumps powered	Acres in the open by water source		Square feet under protection by water source		Expenses (\$1,000)	Expenses per irrigated acre for operations with only acres in the open (dollars)	
			Water from wells	Surface water	Water from wells	Surface water		Water from wells only	Surface water only
United States	4,010	10,995	743,846	131,447	10,008,580	387,142	39,449	46.27	49.36
Alabama	24	24	(D)	-	-	-	117	211.17	-
Alaska	-	-	-	-	-	-	-	-	-
Arizona	37	38	(D)	4,169	-	-	125	100.00	27.27
Arkansas	176	1,536	133,593	11,256	-	(D)	4,563	33.30	48.44
California	466	776	35,775	37,090	-	-	4,836	157.64	41.39
Colorado	86	86	5,820	1,549	-	-	333	46.22	41.02
Connecticut	3	6	(D)	(D)	(D)	-	(D)	(D)	-
Delaware	4	(D)	(D)	-	-	-	(Z)	40.00	-
Florida	206	523	17,041	3,419	9,813,360	-	3,224	157.01	(D)
Georgia	27	27	-	675	-	-	41	-	60.00
Hawaii	-	-	-	-	-	-	-	-	-
Idaho	2	(D)	(D)	-	-	-	(D)	(D)	-
Illinois	45	110	11,997	420	-	-	328	26.13	33.33
Indiana	80	107	5,895	297	(D)	-	167	26.16	40.00
Iowa	21	(D)	-	1,365	-	-	38	-	27.69
Kansas	330	593	49,958	9,243	-	(D)	1,508	29.17	32.89
Kentucky	9	18	3,460	-	-	-	51	14.69	-
Louisiana	27	174	11,133	(D)	-	-	733	36.67	-
Maine	-	-	-	-	-	-	-	-	-
Maryland	4	6	(D)	(D)	-	-	20	9.99	(D)
Massachusetts	193	463	(D)	5,387	-	(D)	787	33.63	(D)
Michigan	6	(D)	552	(D)	-	-	(D)	29.60	-
Minnesota	-	-	-	-	-	-	-	-	-
Mississippi	209	1,140	124,894	2,985	(D)	-	3,384	25.30	-
Missouri	171	1,346	106,398	-	-	-	5,125	48.17	-
Montana	131	131	3,014	6,918	-	-	555	12.60	74.73
Nebraska	1,432	3,279	198,314	25,713	-	-	11,822	58.75	44.86
Nevada	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	16	16	-	80	-	-	19	-	240.00
New Mexico	53	97	4,070	(D)	-	-	314	54.38	150.00
New York	1	(D)	(D)	-	-	-	(D)	(D)	-
North Carolina	3	3	-	60	-	-	24	-	400.00
North Dakota	-	-	-	-	-	-	-	-	-
Ohio	1	(D)	-	(D)	-	(D)	(D)	-	-
Oklahoma	94	173	11,818	5,969	-	-	406	27.77	12.98
Oregon	3	(D)	(D)	(D)	-	-	(D)	(D)	-
Pennsylvania	19	19	-	-	111,720	-	38	-	-
Rhode Island	4	4	(D)	(D)	-	(D)	(D)	(D)	(D)
South Carolina	1	(D)	(D)	-	-	-	(D)	(D)	-
South Dakota	-	-	-	-	-	-	-	-	-
Tennessee	1	(D)	(D)	-	-	-	(D)	(D)	-
Texas	23	23	2,300	-	-	-	35	15.03	-
Utah	-	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-	-	-
Washington	53	102	-	(D)	-	120	303	-	133.49
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	29	29	720	105	-	-	47	50.00	100.00
Wyoming	20	84	(D)	10,503	-	-	368	-	(D)
Water Resource Regions									
Region 01 New England	200	473	637	5,557	(D)	(D)	805	19.71	136.47
Region 02 Mid-Atlantic	44	54	(D)	200	111,720	-	96	(D)	116.00
Region 03 South Atlantic-Gulf	261	581	18,393	4,154	(D)	-	3,424	152.57	40.75
Region 04 Great Lakes	20	36	1,938	(D)	42,000	(D)	74	32.94	-
Region 05 Ohio	67	107	9,024	(D)	(D)	-	186	20.43	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	131	234	21,502	2,140	-	-	550	22.20	33.79
Region 08 Lower Mississippi	515	3,896	352,097	14,759	1,500	-	13,119	35.67	48.44
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	1,760	3,712	209,743	48,327	-	(D)	13,181	56.92	46.30
Region 11 Arkansas-White-Red	333	808	72,657	10,573	-	(D)	2,207	30.84	12.98
Region 12 Texas-Gulf	23	23	(D)	-	-	-	35	15.03	-
Region 13 Rio Grande	35	79	(D)	-	-	-	325	52.90	-
Region 14 Upper Colorado	60	60	-	1,619	-	-	(D)	-	76.85
Region 15 Lower Colorado	37	38	(D)	4,169	-	-	125	100.00	27.27
Region 16 Great Basin	-	-	-	-	-	-	-	-	-
Region 17 Pacific Northwest	58	118	(D)	2,255	-	120	(D)	(D)	133.49
Region 18 California	466	776	35,775	37,090	-	-	4,836	157.64	41.39
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 16. Energy Expenses for Pumps by Type of Energy Used: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	LP gas, propane, and butane - con.						
	Farms with energy expenses of-						
	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$4,999	\$5,000 to \$9,999	\$10,000 to \$19,999	\$20,000 to \$49,999	\$50,000 or more
United States	344	514	1,250	1,036	545	212	109
Alabama	-	-	24	-	-	-	-
Alaska	-	-	-	-	-	-	-
Arizona	18	-	-	19	-	-	-
Arkansas	14	10	24	12	58	42	16
California	24	25	231	103	28	33	22
Colorado	25	22	4	35	-	-	-
Connecticut	2	-	-	-	1	-	-
Delaware	4	-	-	-	-	-	-
Florida	-	8	40	95	32	30	1
Georgia	-	27	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-
Idaho	-	2	-	-	-	-	-
Illinois	-	14	19	10	-	-	2
Indiana	30	27	21	-	1	1	-
Iowa	-	21	-	-	-	-	-
Kansas	-	60	181	49	40	-	-
Kentucky	-	7	-	-	1	1	-
Louisiana	-	-	12	-	-	13	2
Maine	-	-	-	-	-	-	-
Maryland	-	-	3	-	1	-	-
Massachusetts	39	36	75	25	17	-	1
Michigan	-	-	5	1	-	-	-
Minnesota	-	-	-	-	-	-	-
Mississippi	12	9	37	29	77	37	8
Missouri	-	19	30	56	20	23	23
Montana	-	43	45	43	-	-	-
Nebraska	108	134	429	457	244	30	30
Nevada	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-
New Jersey	-	16	-	-	-	-	-
New Mexico	-	-	31	-	22	-	-
New York	-	-	-	-	1	-	-
North Carolina	-	-	-	3	-	-	-
North Dakota	-	-	-	-	-	-	-
Ohio	-	-	-	1	-	-	-
Oklahoma	29	9	9	45	-	2	-
Oregon	-	-	2	-	-	-	1
Pennsylvania	-	-	19	-	-	-	-
Rhode Island	2	1	1	-	-	-	-
South Carolina	-	-	-	-	1	-	-
South Dakota	-	-	-	-	-	-	-
Tennessee	-	1	-	-	-	-	-
Texas	-	23	-	-	-	-	-
Utah	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-
Washington	-	-	-	53	-	-	-
West Virginia	-	-	-	-	-	-	-
Wisconsin	21	-	8	-	-	-	-
Wyoming	16	-	-	-	1	-	3
Water Resource Regions							
Region 01 New England	43	37	76	25	18	-	1
Region 02 Mid-Atlantic	4	16	22	-	2	-	-
Region 03 South Atlantic-Gulf	-	35	64	98	33	30	1
Region 04 Great Lakes	12	-	5	2	-	1	-
Region 05 Ohio	18	17	26	5	-	1	-
Region 06 Tennessee	-	-	-	-	-	-	-
Region 07 Upper Mississippi	21	45	33	29	1	-	2
Region 08 Lower Mississippi	26	34	86	73	145	102	49
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-
Region 10 Missouri	124	250	578	500	245	30	33
Region 11 Arkansas-White-Red	29	30	92	116	51	15	-
Region 12 Texas-Gulf	-	23	-	-	-	-	-
Region 13 Rio Grande	-	-	-	13	22	-	-
Region 14 Upper Colorado	25	-	35	-	-	-	-
Region 15 Lower Colorado	18	-	-	19	-	-	-
Region 16 Great Basin	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	2	2	53	-	-	1
Region 18 California	24	25	231	103	28	33	22
Region 19 Alaska	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 16. Energy Expenses for Pumps by Type of Energy Used: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Diesel and biodiesel fuel									
	Farms	Pumps powered	Acres in the open by water source		Square feet under protection by water source		Expenses (\$1,000)	Expenses per irrigated acre for operations with only acres in the open (dollars)		
			Water from wells	Surface water	Water from wells	Surface water		Water from wells only	Surface water only	
United States	25,912	95,810	7,741,630	2,482,154	200,346,563	25,425,525	514,152	50.70	51.47	
Alabama	172	353	14,909	34,581	(D)	-	2,210	39.93	36.45	
Alaska	26	26	648	55	3,600	-	28	(D)	(D)	
Arizona	37	273	(D)	49,022	-	(D)	3,040	103.66	54.02	
Arkansas	1,918	20,281	1,796,329	324,004	-	(D)	91,422	39.71	31.38	
California	2,447	7,582	308,851	734,755	4,458	(D)	91,044	158.55	81.87	
Colorado	300	397	1,570	37,218	-	35,200	1,290	51.14	35.25	
Connecticut	34	78	(D)	545	447,420	(D)	181	(D)	223.44	
Delaware	154	612	42,342	6,416	89,000	-	2,216	50.22	48.82	
Florida	2,098	8,528	332,457	358,683	152,028,761	4,645,566	48,214	149.48	8.86	
Georgia	582	1,524	109,541	32,432	(D)	(D)	7,496	57.49	40.40	
Hawaii	20	26	2,107	788	-	-	203	38.54	154.39	
Idaho	101	146	6,950	11,464	-	-	730	17.22	36.10	
Illinois	903	2,674	298,657	1,120	1,118,880	359,890	8,657	27.26	150.00	
Indiana	510	1,343	115,089	27,112	(D)	(D)	4,944	39.06	27.85	
Iowa	215	464	(D)	597	30,000	(D)	1,694	(D)	-	
Kansas	1,365	3,727	394,716	52,328	-	(D)	23,550	56.15	34.98	
Kentucky	151	286	10,817	8,936	365,000	90,000	684	30.39	41.95	
Louisiana	818	4,877	593,580	104,392	43,200	1,422,180	20,548	29.77	32.65	
Maine	42	355	6,425	8,207	-	-	844	146.59	95.30	
Maryland	251	680	51,660	14,353	53,952	270,010	2,789	41.03	61.47	
Massachusetts	251	591	512	7,214	2,514,740	330,500	1,567	219.50	212.27	
Michigan	750	1,908	111,539	57,571	724,632	405,000	6,613	43.47	27.00	
Minnesota	242	369	41,177	2,812	-	-	1,276	26.63	64.01	
Mississippi	784	6,697	821,561	27,869	(D)	(D)	20,167	23.10	24.21	
Missouri	1,046	6,486	618,433	23,109	578,580	211,497	19,549	29.77	48.16	
Montana	364	543	6,312	90,465	-	(D)	3,379	102.57	31.00	
Nebraska	5,551	15,275	1,567,006	91,611	66,516	14,760	98,136	61.00	44.68	
Nevada	23	(D)	(D)	2,304	(D)	(D)	(D)	(D)	-	
New Hampshire	27	(D)	(D)	497	(D)	288,600	109	-	89.27	
New Jersey	356	1,009	33,653	14,832	(D)	(D)	4,149	55.12	100.90	
New Mexico	67	247	8,741	(D)	-	(D)	1,086	91.50	22.22	
New York	292	524	12,706	9,272	9,205,333	240,000	1,903	46.66	123.38	
North Carolina	539	1,037	4,775	34,088	506,000	636	3,414	126.50	81.28	
North Dakota	90	158	12,410	9,750	-	-	753	37.36	29.75	
Ohio	187	420	6,110	10,695	222,382	2,671,445	812	105.04	32.55	
Oklahoma	180	216	10,241	11,455	-	-	1,381	74.97	53.51	
Oregon	285	438	10,726	17,246	-	-	1,299	19.86	67.56	
Pennsylvania	349	445	(D)	(D)	2,486,640	59,600	921	139.25	62.60	
Rhode Island	22	37	(D)	1,143	(D)	(D)	136	(D)	71.06	
South Carolina	94	189	(D)	6,494	(D)	(D)	770	36.42	41.65	
South Dakota	118	325	18,936	12,145	-	-	1,823	22.15	68.27	
Tennessee	91	386	(D)	6,735	-	-	1,860	38.41	46.53	
Texas	673	1,342	123,682	51,157	(D)	3	15,596	119.51	28.14	
Utah	240	240	1,870	9,751	-	-	984	100.00	81.69	
Vermont	13	(D)	133	227	(D)	(D)	16	72.06	41.99	
Virginia	210	440	2,699	32,108	(D)	76,080	1,762	(D)	52.85	
Washington	209	367	17,110	24,131	600,000	492	1,040	15.86	31.81	
West Virginia	12	(D)	-	573	-	-	(D)	-	(D)	
Wisconsin	604	1,538	46,569	23,047	47,520	2,376	5,744	40.74	138.13	
Wyoming	99	153	2,130	18,519	-	-	975	158.33	36.86	
Water Resource Regions										
Region 01 New England	380	1,116	7,635	17,751	3,693,520	(D)	2,839	110.54	149.52	
Region 02 Mid-Atlantic	1,501	3,520	143,162	76,993	20,405,404	2,554,784	13,106	49.17	68.41	
Region 03 South Atlantic-Gulf	3,467	11,603	476,558	448,576	154,069,254	6,158,978	61,319	117.98	18.98	
Region 04 Great Lakes	1,113	2,438	137,353	73,148	2,027,208	3,033,365	8,673	42.04	34.26	
Region 05 Ohio	643	1,694	123,247	31,420	(D)	290,014	5,095	32.24	38.62	
Region 06 Tennessee	94	312	8,524	27,059	-	-	2,058	106.77	30.76	
Region 07 Upper Mississippi	1,941	4,994	402,338	45,500	1,148,880	440,176	17,497	31.70	108.82	
Region 08 Lower Mississippi	3,702	34,160	3,502,073	422,760	66,960	1,423,142	134,182	32.04	31.31	
Region 09 Souris-Red-Rainy	27	62	3,692	6,040	-	-	423	(D)	(D)	
Region 10 Missouri	7,218	18,090	1,748,696	242,541	563,736	978,733	110,042	57.88	40.16	
Region 11 Arkansas-White-Red	1,633	6,967	662,558	101,811	57,600	-	39,303	51.72	34.29	
Region 12 Texas-Gulf	567	1,190	106,319	38,797	(D)	3	14,423	129.80	36.49	
Region 13 Rio Grande	128	232	(D)	1,106	(D)	35,200	1,134	94.58	214.04	
Region 14 Upper Colorado	156	232	980	85,831	-	(D)	795	240.00	26.36	
Region 15 Lower Colorado	65	337	(D)	62,460	-	(D)	3,236	103.66	45.34	
Region 16 Great Basin	196	291	56,767	15,341	-	-	6,031	98.11	70.84	
Region 17 Pacific Northwest	570	937	31,966	61,851	600,000	5,100	2,848	17.49	33.60	
Region 18 California	2,465	7,583	311,671	722,326	4,458	(D)	90,918	157.45	83.42	
Region 19 Alaska	26	26	648	55	3,600	-	28	(D)	(D)	
Region 20 Hawaii	20	26	2,107	788	-	-	203	38.54	154.39	

See footnote(s) at end of table.

--continued

Table 16. Energy Expenses for Pumps by Type of Energy Used: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Diesel and biodiesel fuel - con.						
	Farms with energy expenses of-						
	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$4,999	\$5,000 to \$9,999	\$10,000 to \$19,999	\$20,000 to \$49,999	\$50,000 or more
United States	2,197	2,362	5,812	5,243	3,963	4,084	2,251
Alabama	23	13	60	12	33	24	7
Alaska	13	7	6	-	-	-	-
Arizona	-	-	1	4	2	22	8
Arkansas	47	73	137	232	310	499	620
California	126	185	397	458	402	559	320
Colorado	70	5	160	19	41	5	-
Connecticut	19	3	3	7	1	-	1
Delaware	15	21	32	36	22	23	5
Florida	309	343	454	347	214	212	219
Georgia	54	42	128	199	122	31	6
Hawaii	-	14	-	-	3	2	1
Idaho	-	-	21	71	3	6	-
Illinois	42	120	308	208	110	81	34
Indiana	89	75	106	79	81	73	7
Iowa	21	20	71	59	14	28	2
Kansas	90	82	382	262	280	144	125
Kentucky	89	14	16	22	3	4	3
Louisiana	22	11	51	145	220	276	93
Maine	23	4	1	1	6	4	3
Maryland	8	23	73	56	53	30	8
Massachusetts	64	57	70	22	25	9	4
Michigan	74	188	178	182	72	37	19
Minnesota	20	45	106	50	11	9	1
Mississippi	27	38	114	99	208	176	122
Missouri	46	52	332	220	120	153	123
Montana	23	51	105	83	6	96	-
Nebraska	117	242	1,214	1,317	1,082	1,198	381
Nevada	-	-	1	-	3	9	10
New Hampshire	14	-	4	4	5	-	-
New Jersey	57	47	78	66	49	41	18
New Mexico	-	31	-	-	5	30	1
New York	89	-	79	81	34	6	3
North Carolina	114	67	164	93	55	41	5
North Dakota	10	5	34	19	18	-	4
Ohio	48	49	35	28	22	5	-
Oklahoma	-	38	75	55	-	3	9
Oregon	2	102	104	64	9	1	3
Pennsylvania	115	71	131	15	16	-	1
Rhode Island	6	-	4	9	3	-	-
South Carolina	-	24	9	50	-	9	2
South Dakota	-	-	47	1	-	70	-
Tennessee	-	-	18	12	47	6	8
Texas	78	3	193	212	46	95	46
Utah	43	-	109	88	-	-	-
Vermont	5	7	1	-	-	-	-
Virginia	49	13	57	25	52	8	6
Washington	21	66	56	45	17	4	-
West Virginia	3	9	-	-	-	-	-
Wisconsin	111	68	86	170	94	52	23
Wyoming	1	34	1	16	44	3	-
Water Resource Regions							
Region 01 New England	130	64	82	43	40	13	8
Region 02 Mid-Atlantic	282	170	409	275	222	105	38
Region 03 South Atlantic-Gulf	502	504	793	701	420	313	234
Region 04 Great Lakes	165	264	274	255	85	48	22
Region 05 Ohio	189	42	174	102	60	63	13
Region 06 Tennessee	-	12	31	-	34	6	11
Region 07 Upper Mississippi	189	293	480	473	268	174	64
Region 08 Lower Mississippi	100	82	389	488	773	1,006	864
Region 09 Souris-Red-Rainy	-	2	-	14	8	-	3
Region 10 Missouri	254	400	1,902	1,647	1,233	1,399	383
Region 11 Arkansas-White-Red	78	116	351	316	311	234	227
Region 12 Texas-Gulf	30	3	169	188	46	91	40
Region 13 Rio Grande	27	31	24	-	19	26	1
Region 14 Upper Colorado	44	5	49	52	5	-	1
Region 15 Lower Colorado	22	-	1	4	4	26	8
Region 16 Great Basin	-	-	88	83	3	12	10
Region 17 Pacific Northwest	46	168	169	144	29	11	3
Region 18 California	126	185	421	458	400	555	320
Region 19 Alaska	13	7	6	-	-	-	-
Region 20 Hawaii	-	14	-	-	3	2	1

See footnote(s) at end of table.

--continued

Table 16. Energy Expenses for Pumps by Type of Energy Used: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Gasoline, ethanol, and blends								
	Farms	Pumps powered	Acres in the open by water source		Square feet under protection by water source		Expenses (\$1,000)	Expenses per irrigated acre for operations with only acres in the open (dollars)	
			Water from wells	Surface water	Water from wells	Surface water		Water from wells only	Surface water only
United States	6,084	9,257	129,832	88,062	4,322,468	14,470,459	6,751	29.96	36.17
Alabama	47	94	-	452	-	-	19	-	41.81
Alaska	22	30	15	51	6,152	(D)	3	(D)	61.86
Arizona	25	89	(D)	918	-	-	366	(D)	53.24
Arkansas	122	493	25,878	5,270	-	(D)	660	26.96	46.64
California	247	401	10,775	7,093	189,900	35,500	275	138.17	65.63
Colorado	249	381	-	7,577	-	572,710	219	-	27.42
Connecticut	51	73	23	(D)	(D)	-	(D)	(D)	59.31
Delaware	33	40	2,661	80	21,992	-	(D)	7.89	5.00
Florida	210	270	780	(D)	-	-	157	184.61	87.40
Georgia	125	152	14	398	-	10	26	37.50	57.14
Hawaii	32	35	150	773	-	-	33	21.60	38.14
Idaho	99	(D)	(D)	1,102	-	2,502	(D)	(D)	75.39
Illinois	36	56	766	110	28,500	129,004	43	37.97	(D)
Indiana	125	177	231	276	541,600	(D)	24	(D)	24.42
Iowa	20	(D)	-	240	-	-	(D)	-	29.17
Kansas	47	70	60	2,318	-	-	14	44.59	4.55
Kentucky	180	213	14	585	230,000	1,715,709	70	-	107.72
Louisiana	43	178	13,707	(D)	-	-	565	31.23	58.60
Maine	94	111	(D)	343	178,000	88,000	(D)	75.81	15.58
Maryland	118	240	(D)	(D)	269,928	266,865	115	159.84	109.65
Massachusetts	106	122	(D)	343	-	-	43	90.25	101.73
Michigan	210	263	(D)	(D)	158,760	-	88	64.94	25.27
Minnesota	37	45	108	39	-	(D)	12	(D)	133.33
Mississippi	69	434	(D)	2,162	-	-	(D)	31.31	42.99
Missouri	181	303	71	466	70,700	586,365	84	237.86	70.55
Montana	158	233	1,716	4,685	3,000	-	206	6.54	40.99
Nebraska	91	91	2,788	2,320	8,400	-	92	27.81	4.73
Nevada	2	(D)	(D)	-	-	-	(D)	(D)	-
New Hampshire	36	58	(D)	362	(D)	174,240	(D)	(D)	81.18
New Jersey	58	66	1,676	500	-	(D)	81	11.33	-
New Mexico	166	166	155	(D)	-	-	195	180.00	116.34
New York	386	598	(D)	727	830,148	3,768,072	(D)	55.38	35.73
North Carolina	331	504	252	739	-	1,120,200	291	249.39	140.86
North Dakota	30	40	7	125	(D)	(D)	6	10.00	47.11
Ohio	312	447	959	(D)	350,036	(D)	119	22.24	32.13
Oklahoma	29	29	-	1,885	-	-	9	-	4.62
Oregon	259	(D)	(D)	(D)	170,368	12,880	(D)	(D)	38.91
Pennsylvania	501	600	(D)	(D)	626,040	715,763	257	95.90	42.74
Rhode Island	20	22	(D)	(D)	(D)	-	(D)	(D)	92.00
South Carolina	49	(D)	-	97	-	-	(D)	-	257.73
South Dakota	-	-	-	-	-	-	-	-	-
Tennessee	108	(D)	-	6,814	-	291,434	(D)	-	13.27
Texas	230	263	117	3,572	(D)	1,051,440	94	40.00	23.98
Utah	231	371	1,318	3,831	-	(D)	272	43.32	55.95
Vermont	72	84	26	317	-	53,820	33	(D)	36.70
Virginia	73	110	56	556	(D)	34,500	21	25.00	35.84
Washington	284	456	11,820	(D)	7,020	4	336	10.93	27.13
West Virginia	6	(D)	-	6	-	50,400	(D)	-	-
Wisconsin	105	130	(D)	606	189,408	-	39	(D)	35.06
Wyoming	19	19	-	36	-	(D)	1	-	(D)
Water Resource Regions									
Region 01 New England	323	406	851	1,490	(D)	262,240	149	47.96	68.29
Region 02 Mid-Atlantic	853	1,120	(D)	5,165	1,322,540	5,331,337	545	21.68	50.29
Region 03 South Atlantic-Gulf	733	986	1,127	2,788	-	966,210	528	187.42	74.70
Region 04 Great Lakes	643	863	1,671	(D)	1,153,528	(D)	201	25.50	24.61
Region 05 Ohio	683	949	1,780	(D)	818,992	2,608,611	243	33.83	32.57
Region 06 Tennessee	90	203	-	6,293	-	(D)	121	-	15.29
Region 07 Upper Mississippi	154	236	199	608	70,408	233,040	66	(D)	62.69
Region 08 Lower Mississippi	191	1,002	73,922	11,222	-	156,900	2,357	30.27	65.04
Region 09 Souris-Red-Rainy	31	41	-	98	-	54,000	5	-	61.20
Region 10 Missouri	433	608	2,880	5,882	41,200	(D)	366	31.98	40.38
Region 11 Arkansas-White-Red	167	284	4,419	7,416	-	(D)	62	13.27	6.41
Region 12 Texas-Gulf	161	171	(D)	1,962	(D)	1,051,440	80	-	38.96
Region 13 Rio Grande	154	154	270	1,307	-	-	193	120.37	122.74
Region 14 Upper Colorado	230	340	-	7,074	-	(D)	213	-	28.22
Region 15 Lower Colorado	25	89	(D)	918	-	-	366	(D)	53.24
Region 16 Great Basin	233	373	1,320	(D)	-	(D)	272	43.32	55.95
Region 17 Pacific Northwest	679	966	(D)	17,421	180,388	15,386	672	10.29	30.36
Region 18 California	247	401	10,775	7,093	189,900	35,500	275	138.17	65.63
Region 19 Alaska	22	30	15	51	6,152	(D)	3	(D)	61.86
Region 20 Hawaii	32	35	150	773	-	-	33	21.60	38.14

See footnote(s) at end of table.

--continued

Table 16. Energy Expenses for Pumps by Type of Energy Used: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Gasoline, ethanol, and blends - con.						
	Farms with energy expenses of-						
	\$1 to \$999	\$1,000 to \$1,999	\$2,000 to \$4,999	\$5,000 to \$9,999	\$10,000 to \$19,999	\$20,000 to \$49,999	\$50,000 or more
United States	4,650	821	422	101	37	44	9
Alabama	47	-	-	-	-	-	-
Alaska	22	-	-	-	-	-	-
Arizona	21	-	-	-	3	-	1
Arkansas	57	-	22	22	8	13	-
California	159	75	-	10	3	-	-
Colorado	161	22	66	-	-	-	-
Connecticut	44	4	3	-	-	-	-
Delaware	27	6	-	-	-	-	-
Florida	150	60	-	-	-	-	-
Georgia	125	-	-	-	-	-	-
Hawaii	18	-	14	-	-	-	-
Idaho	76	-	23	-	-	-	-
Illinois	20	5	11	-	-	-	-
Indiana	115	10	-	-	-	-	-
Iowa	20	-	-	-	-	-	-
Kansas	43	4	-	-	-	-	-
Kentucky	168	12	-	-	-	-	-
Louisiana	8	-	12	11	-	10	2
Maine	89	5	-	-	-	-	-
Maryland	73	29	14	2	-	-	-
Massachusetts	98	8	-	-	-	-	-
Michigan	190	18	-	-	2	-	-
Minnesota	37	-	-	-	-	-	-
Mississippi	11	1	18	2	10	21	6
Missouri	146	35	-	-	-	-	-
Montana	91	24	43	-	-	-	-
Nebraska	33	58	-	-	-	-	-
Nevada	2	-	-	-	-	-	-
New Hampshire	32	2	-	-	2	-	-
New Jersey	32	-	25	1	-	-	-
New Mexico	103	31	32	-	-	-	-
New York	340	46	-	-	-	-	-
North Carolina	175	97	59	-	-	-	-
North Dakota	30	-	-	-	-	-	-
Ohio	284	28	-	-	-	-	-
Oklahoma	29	-	-	-	-	-	-
Oregon	191	40	8	20	-	-	-
Pennsylvania	431	70	-	-	-	-	-
Rhode Island	13	7	-	-	-	-	-
South Carolina	25	24	-	-	-	-	-
South Dakota	-	-	-	-	-	-	-
Tennessee	102	-	-	-	6	-	-
Texas	202	26	-	-	2	-	-
Utah	140	24	45	22	-	-	-
Vermont	63	5	4	-	-	-	-
Virginia	69	4	-	-	-	-	-
Washington	211	41	21	11	-	-	-
West Virginia	6	-	-	-	-	-	-
Wisconsin	102	-	2	-	1	-	-
Wyoming	19	-	-	-	-	-	-
Water Resource Regions							
Region 01 New England	288	30	3	-	2	-	-
Region 02 Mid-Atlantic	674	133	43	3	-	-	-
Region 03 South Atlantic-Gulf	505	161	67	-	-	-	-
Region 04 Great Lakes	609	31	-	-	3	-	-
Region 05 Ohio	616	58	9	-	-	-	-
Region 06 Tennessee	62	22	-	-	6	-	-
Region 07 Upper Mississippi	145	5	4	-	-	-	-
Region 08 Lower Mississippi	48	1	38	34	18	44	8
Region 09 Souris-Red-Rainy	31	-	-	-	-	-	-
Region 10 Missouri	274	116	43	-	-	-	-
Region 11 Arkansas-White-Red	158	2	6	1	-	-	-
Region 12 Texas-Gulf	133	26	-	-	2	-	-
Region 13 Rio Grande	91	31	32	-	-	-	-
Region 14 Upper Colorado	142	22	66	-	-	-	-
Region 15 Lower Colorado	21	-	-	-	3	-	1
Region 16 Great Basin	142	24	45	22	-	-	-
Region 17 Pacific Northwest	512	84	52	31	-	-	-
Region 18 California	159	75	-	10	3	-	-
Region 19 Alaska	22	-	-	-	-	-	-
Region 20 Hawaii	18	-	14	-	-	-	-

¹ Energy expenses for solar-powered pumps are not included.

² The same area may be counted multiple times when irrigated by pumps with different power sources.

Table 17. Solar Pumps and Other Pumps Without Direct Energy Expense: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms	Pumps powered	Total acres irrigated ¹	Pumped well water only			Pumped surface water only		
				Farms ²	Pumps powered	Acres irrigated	Farms ²	Pumps powered	Acres irrigated
United States	3,278	6,386	302,238	2,337	3,951	141,654	758	1,166	54,015
Water Resource Regions									
Region 01 New England	110	132	246	103	125	(D)	7	7	(D)
Region 02 Mid-Atlantic	100	173	751	80	153	731	20	20	20
Region 03 South Atlantic-Gulf	164	860	4,966	103	590	2,794	31	240	2,052
Region 04 Great Lakes	132	219	3,774	132	219	3,774	-	-	-
Region 05 Ohio	113	113	280	39	39	43	74	74	237
Region 06 Tennessee	79	96	83	62	62	(D)	-	-	-
Region 07 Upper Mississippi	105	147	205	71	89	155	26	26	(D)
Region 08 Lower Mississippi	11	11	25	11	11	25	-	-	-
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	89	89	466	26	26	20	63	63	446
Region 11 Arkansas-White-Red	129	259	4,834	90	211	4,766	37	44	58
Region 12 Texas-Gulf	67	98	2,082	64	95	2,079	3	3	3
Region 13 Rio Grande	128	163	1,924	34	38	123	94	125	1,801
Region 14 Upper Colorado	55	55	318	21	21	21	34	34	297
Region 15 Lower Colorado	241	322	2,482	220	301	2,461	21	21	21
Region 16 Great Basin	19	37	30,628	12	30	20,015	7	7	10,613
Region 17 Pacific Northwest	204	274	4,427	36	46	986	166	226	3,431
Region 18 California	1,446	3,247	244,569	1,174	1,836	103,294	148	244	34,897
Region 19 Alaska	25	29	8	21	21	3	4	8	4
Region 20 Hawaii	61	62	169	38	38	115	23	24	54

¹ Total may include areas irrigated by both surface and ground water, which can result in double counting.

² Farm counts exclude farms with both well water and surface water used. The sum of the individuals may not equal the total as a result.

Table 18. Expenses for Irrigation Water from Off-Farm Suppliers: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms irrigating with off-farm water	Farms reporting cost for off-farm water									
		Farms reporting cost for off-farm water	Total cost (\$1,000)	Average cost per acre in the open ¹ (dollars)	Average cost per acre-foot ¹ (dollars)	Average cost per 10,000 sq ft under protection ² (dollars)	Farms by average cost per acre-foot in the open ¹				
							\$1 to \$9	\$10 to \$19	\$20 to \$29	\$30 to \$59	\$60 or more
United States	86,375	60,161	1,138,030	123.80	54.22	1,047	5,372	6,663	5,465	10,450	26,390
Alabama	202	162	104	71.15	55.52	(D)	-	23	-	-	87
Alaska	89	85	23	366.67	550.00	366	-	-	-	-	4
Arizona	1,647	1,079	58,697	155.38	37.57	967	84	92	182	344	327
Arkansas	198	150	549	47.03	27.24	2,698	-	2	-	9	86
California	18,754	16,675	767,961	204.20	71.98	1,294	1,059	1,282	1,013	2,447	9,934
Colorado	9,251	5,224	23,177	39.36	24.12	1,279	570	841	706	1,247	1,611
Connecticut	89	80	660	501.08	1,204.09	(D)	-	-	-	-	34
Delaware	8	6	24	-	-	4,388	-	-	-	-	-
Florida	279	107	226	47.60	42.15	4,638	-	-	-	11	30
Georgia	227	173	180	299.77	229.64	(D)	-	-	-	9	109
Hawaii	1,613	1,556	9,478	316.02	216.27	869	3	15	-	18	1,079
Idaho	8,278	5,456	37,942	41.14	23.35	4,336	962	768	736	1,101	1,831
Illinois	193	127	1,009	383.62	383.62	1,607	-	-	-	-	48
Indiana	280	155	202	123.82	324.74	766	-	10	-	-	45
Iowa	179	137	335	1,229.00	1,229.00	259	-	-	-	-	30
Kansas	412	338	909	26.98	35.65	1,261	20	20	-	41	110
Kentucky	619	566	718	222.47	177.22	1,139	11	-	18	28	171
Louisiana	249	158	293	793.49	882.55	1,540	-	-	-	-	69
Maine	58	19	118	403.33	605.00	(D)	-	-	-	6	6
Maryland	82	48	44	329.09	905.00	419	-	-	-	-	8
Massachusetts	254	165	489	300.23	353.21	2,712	-	-	-	-	93
Michigan	497	280	4,341	538.01	2,301.05	863	-	-	-	-	50
Minnesota	111	98	12,210	1,482.52	936.69	579	-	-	-	-	43
Mississippi	194	157	140	123.37	173.45	2,389	-	-	2	17	85
Missouri	353	202	439	403.24	381.68	1,220	-	-	-	11	73
Montana	5,208	2,417	11,667	22.27	17.90	709	418	502	169	582	717
Nebraska	1,694	1,520	26,622	69.58	72.03	1,712	4	117	224	500	624
Nevada	870	531	5,947	26.43	8.57	878	126	228	95	-	63
New Hampshire	48	33	42	87.50	583.33	2,033	-	-	-	-	3
New Jersey	153	153	1,468	132.67	132.67	2,970	-	-	-	-	65
New Mexico	5,173	2,885	5,758	44.18	24.91	968	405	480	311	509	1,099
New York	650	527	2,399	308.52	581.13	4,821	-	18	-	18	195
North Carolina	218	193	704	404.04	277.98	(D)	-	-	-	-	153
North Dakota	200	129	1,485	44.66	58.74	796	4	20	10	23	44
Ohio	465	374	1,934	45.51	232.46	443	14	15	-	-	121
Oklahoma	233	180	260	144.17	440.79	470	-	-	-	-	115
Oregon	6,222	4,170	23,585	66.07	37.67	1,338	266	444	276	771	2,228
Pennsylvania	227	141	570	146.03	170.30	1,923	-	-	-	6	41
Rhode Island	54	32	152	1,655.84	1,902.99	1,799	-	-	-	-	12
South Carolina	239	167	410	457.38	2,315.31	2,659	-	-	-	-	97
South Dakota	429	353	3,359	56.34	65.28	581	45	29	81	79	80
Tennessee	298	169	325	278.57	198.31	1,232	-	-	-	-	42
Texas	2,010	1,739	33,819	116.61	91.47	1,628	80	264	182	275	726
Utah	8,594	5,271	21,257	52.54	24.24	921	723	890	872	1,182	1,488
Vermont	55	38	73	-	-	1,344	-	-	-	-	-
Virginia	162	97	423	1,256.00	1,256.00	4,105	-	-	-	-	32
Washington	5,416	3,770	65,354	113.01	49.89	747	94	135	215	905	2,199
West Virginia	87	81	157.09	157.09	157.09	334	-	-	-	6	19
Wisconsin	162	116	551	37.78	57.69	1,721	-	-	-	21	21
Wyoming	3,392	1,872	9,499	30.30	18.32	1,490	484	468	373	284	243
Water Resource Regions											
Region 01 New England	507	329	1,461	639.42	1,008.81	1,378	-	-	-	6	148
Region 02 Mid-Atlantic	717	521	2,969	233.10	413.81	3,958	-	-	-	-	140
Region 03 South Atlantic-Gulf	1,144	786	1,922	177.69	158.66	1,422	-	23	2	28	423
Region 04 Great Lakes	1,332	932	8,020	236.45	700.71	688	-	18	-	18	287
Region 05 Ohio	1,350	1,104	1,526	152.22	176.15	1,274	25	25	18	40	354
Region 06 Tennessee	375	246	257	228.10	330.34	1,233	-	-	-	9	136
Region 07 Upper Mississippi	573	389	1,721	51.53	76.82	1,271	-	-	-	32	94
Region 08 Lower Mississippi	365	226	574	50.70	27.59	1,175	-	2	-	-	88
Region 09 Souris-Red-Rainy	60	32	12,016	1,427.02	908.69	1,024	-	5	-	-	19
Region 10 Missouri	11,372	7,090	61,311	41.98	32.82	727	883	1,393	959	1,559	1,835
Region 11 Arkansas-White-Red	2,254	1,367	4,747	38.04	19.28	879	124	118	110	146	633
Region 12 Texas-Gulf	1,492	1,282	29,297	124.78	99.75	2,258	8	171	110	256	580
Region 13 Rio Grande	3,895	2,625	9,995	52.32	30.79	646	375	385	292	468	1,007
Region 14 Upper Colorado	9,116	4,721	12,433	29.73	15.81	978	719	738	731	1,072	1,323
Region 15 Lower Colorado	1,915	1,256	67,587	154.31	36.11	965	106	94	185	375	425
Region 16 Great Basin	8,117	4,924	23,207	47.00	19.30	923	737	965	770	976	1,381
Region 17 Pacific Northwest	21,064	13,777	127,342	67.24	35.77	1,103	1,328	1,354	1,263	2,959	6,395
Region 18 California	19,025	16,913	762,141	203.06	72.85	1,294	1,064	1,357	1,025	2,488	10,039
Region 19 Alaska	89	85	23	366.67	550.00	366	-	-	-	-	4
Region 20 Hawaii	1,613	1,556	9,478	316.02	216.27	869	3	15	-	18	1,079

¹ Average cost per acre and average cost per acre-foot do not include farms with off-farm water costs for irrigating square feet under protection.

² Average cost per 10,000 square feet does not include farms with off-farm water costs for irrigating acreage in the open.

Table 19. Expenditures for Irrigation Infrastructure: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Expenditures (all types) during survey year										
	Farms	Irrigated acres affected by expenditure ¹	Expenditures ² (\$1,000)	Average expenditure per affected acre ¹ (dollars)	Average expenditure per farm (dollars)	Farms with expenditures of-					
						\$1 to \$999	\$1,000 to \$4,999	\$5,000 to \$14,999	\$15,000 to \$39,999	\$40,000 to \$74,999	\$75,000 or more
United States	86,681	17,005,624	3,001,178	176	34,623	28,283	23,125	13,991	8,962	4,066	8,254
Alabama	538	55,194	20,338	368	37,802	148	128	147	7	32	76
Alaska	156	461	185	401	1,186	96	54	6	-	-	-
Arizona	1,137	401,963	53,581	133	47,125	287	305	218	179	59	89
Arkansas	1,203	975,235	109,184	112	90,760	145	205	164	257	166	266
California	15,851	3,161,724	814,802	258	51,404	4,458	3,616	2,798	2,047	1,009	1,923
Colorado	4,356	794,021	87,417	110	20,068	1,462	1,450	613	382	156	293
Connecticut	272	2,035	4,792	2,355	17,619	145	53	41	20	5	8
Delaware	176	34,578	8,055	233	45,769	23	43	25	35	11	39
Florida	3,845	641,809	127,866	199	33,255	1,193	1,301	811	212	27	301
Georgia	1,775	382,941	233,021	609	131,279	603	367	177	268	111	249
Hawaii	954	13,167	12,918	981	13,541	441	248	159	65	8	33
Idaho	5,004	1,194,120	103,285	86	20,641	1,891	1,380	743	464	191	335
Illinois	792	195,492	23,755	122	29,994	250	207	90	89	78	78
Indiana	748	140,894	13,702	97	18,318	338	210	58	62	34	46
Iowa	356	52,304	7,736	148	21,730	117	91	70	25	1	52
Kansas	1,829	992,198	137,131	138	74,976	260	274	257	223	210	605
Kentucky	493	19,573	8,107	414	16,444	305	149	22	8	-	9
Louisiana	863	429,619	34,090	79	39,502	124	142	180	198	69	150
Maine	193	4,561	1,407	309	7,292	97	76	7	1	9	3
Maryland	353	30,215	5,502	182	15,587	122	96	60	40	16	19
Massachusetts	573	11,384	7,605	668	13,273	123	123	74	85	12	26
Michigan	1,745	232,124	34,895	150	19,997	668	479	298	69	65	166
Minnesota	863	154,348	22,852	148	26,479	138	295	133	166	55	76
Mississippi	802	462,094	34,724	75	43,297	145	152	156	118	64	167
Missouri	812	160,101	24,118	151	29,702	267	202	113	109	44	77
Montana	2,922	460,397	55,695	121	19,061	1,024	849	622	195	60	172
Nebraska	4,569	1,564,388	166,130	106	36,360	484	1,078	1,173	658	420	756
Nevada	559	174,228	21,028	121	37,617	92	163	94	111	48	51
New Hampshire	121	561	582	1,038	4,813	71	32	10	6	-	2
New Jersey	361	28,327	6,460	228	17,895	144	59	63	65	7	23
New Mexico	2,011	128,136	33,630	262	16,723	712	638	260	177	121	103
New York	932	13,393	12,975	969	13,922	493	271	62	97	-	9
North Carolina	1,275	44,412	16,585	373	13,008	414	530	142	85	70	34
North Dakota	272	64,745	16,007	247	58,849	52	52	69	40	21	38
Ohio	694	21,954	43,831	1,996	63,157	372	93	131	63	6	29
Oklahoma	882	294,610	27,262	93	30,909	334	198	93	130	49	78
Oregon	5,436	451,457	131,742	292	24,235	2,249	1,588	870	397	162	170
Pennsylvania	725	9,784	3,191	326	4,402	302	275	72	65	10	1
Rhode Island	88	1,495	1,490	996	16,927	31	35	10	7	3	2
South Carolina	805	57,432	9,866	172	12,256	380	133	157	78	18	39
South Dakota	370	104,615	19,652	188	53,113	51	145	34	59	-	81
Tennessee	558	33,124	6,472	195	11,598	339	84	110	10	-	15
Texas	5,250	1,698,007	256,184	151	48,797	1,338	1,365	800	704	246	797
Utah	4,338	312,957	55,693	178	12,838	1,764	1,389	659	247	95	184
Vermont	169	740	561	759	3,321	76	53	34	3	3	-
Virginia	463	14,044	7,030	501	15,183	171	122	96	40	10	24
Washington	4,969	553,099	99,653	180	20,055	2,193	1,390	587	295	170	334
West Virginia	209	1,184	1,440	1,216	6,888	128	60	1	1	19	-
Wisconsin	1,166	125,493	35,216	281	30,202	443	208	185	204	6	120
Wyoming	1,848	304,887	41,735	137	22,584	650	669	237	96	90	106
Water Resource Regions											
Region 01 New England	1,282	20,291	16,010	789	12,488	611	332	148	121	29	41
Region 02 Mid-Atlantic	2,368	119,363	40,535	340	17,118	912	668	336	289	54	109
Region 03 South Atlantic-Gulf	8,368	1,178,415	404,464	343	48,335	2,747	2,480	1,510	670	258	703
Region 04 Great Lakes	2,981	300,951	59,363	197	19,914	1,285	800	467	139	77	213
Region 05 Ohio	1,928	150,127	59,314	395	30,764	1,085	435	155	128	44	81
Region 06 Tennessee	512	14,687	11,055	753	21,592	307	141	18	12	-	34
Region 07 Upper Mississippi	2,868	465,009	63,748	137	22,227	847	788	404	441	142	246
Region 08 Lower Mississippi	2,537	1,898,290	183,718	97	72,415	287	323	490	538	313	586
Region 09 Souris-Red-Rainy	222	51,343	6,785	132	30,562	54	22	85	44	11	6
Region 10 Missouri	10,734	3,105,295	364,124	117	33,923	2,153	2,796	2,274	1,259	787	1,465
Region 11 Arkansas-White-Red	3,905	1,852,880	269,930	146	69,124	1,012	863	398	523	258	851
Region 12 Texas-Gulf	4,381	925,596	141,063	152	32,199	1,129	1,157	735	608	193	559
Region 13 Rio Grande	2,029	385,797	65,631	170	32,347	608	643	328	173	107	170
Region 14 Upper Colorado	3,714	291,297	29,407	101	7,918	1,368	1,497	464	209	59	117
Region 15 Lower Colorado	1,321	443,940	56,993	128	43,144	400	356	218	184	59	104
Region 16 Great Basin	4,271	450,344	70,027	155	16,396	1,630	1,340	664	324	120	193
Region 17 Pacific Northwest	16,114	2,170,158	330,349	152	20,501	6,789	4,534	2,289	1,145	532	825
Region 18 California	16,036	3,168,213	815,557	257	50,858	4,522	3,648	2,843	2,090	1,015	1,918
Region 19 Alaska	156	461	185	401	1,186	96	54	6	-	-	-
Region 20 Hawaii	954	13,167	12,918	981	13,541	441	248	159	65	8	33

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Expenditures (all types) during survey year - con.							
	Primary purpose of expenditures ¹							
	New expansion		Water conservation		Energy conservation		Scheduled replacement or maintenance	
	Acres ¹	Dollars	Acres ¹	Dollars	Acres ¹	Dollars	Acres ¹	Dollars
United States	1,518,372	854,746,151	3,357,184	580,172,404	1,032,341	85,818,603	11,097,727	1,480,440,774
Alabama	20,792	15,997,587	(D)	(D)	(D)	(D)	33,578	4,218,897
Alaska	89	69,800	(D)	(D)	(D)	(D)	358	106,695
Arizona	(D)	21,619,187	65,413	(D)	(D)	(D)	240,311	23,253,664
Arkansas	93,244	20,282,915	207,690	46,837,131	73,842	3,639,301	600,459	38,424,764
California	331,568	223,503,290	728,537	166,966,008	181,623	21,494,524	1,919,996	402,838,513
Colorado	33,230	18,941,730	270,017	27,233,292	41,984	1,716,200	448,790	39,525,616
Connecticut	306	1,442,665	683	2,794,007	9	3,000	1,037	552,665
Delaware	7,090	2,993,800	1,947	116,539	4,322	1,706,968	21,219	3,237,960
Florida	24,138	40,029,269	51,972	26,794,199	600	75,000	565,099	60,967,575
Georgia	42,731	83,195,217	63,566	6,097,490	6,268	503,500	270,376	143,224,503
Hawaii	1,532	4,406,785	1,285	275,400	-	-	10,350	8,235,737
Idaho	35,796	19,763,085	190,285	20,123,161	163,042	13,000,407	804,997	50,398,545
Illinois	24,583	10,096,292	34,595	2,810,100	21,075	1,379,455	115,239	9,469,189
Indiana	13,504	8,684,568	3,968	601,500	10,115	215,955	113,307	4,199,949
Iowa	(D)	4,508,755	(D)	261,500	-	-	34,769	2,965,576
Kansas	21,737	9,827,962	155,842	9,702,420	30,800	3,358,580	783,819	114,242,494
Kentucky	8,704	7,501,083	1,070	66,525	-	-	9,799	539,178
Louisiana	53,215	12,355,204	92,871	8,042,743	4,827	493,500	278,706	13,198,584
Maine	1,324	806,800	53	19,750	-	-	3,184	580,859
Maryland	3,982	1,669,240	(D)	539,400	(D)	278,500	24,998	3,015,243
Massachusetts	2,305	1,754,836	3,516	2,858,866	2,035	259,300	3,528	2,732,273
Michigan	25,935	11,769,500	20,761	3,134,744	10,219	1,169,900	175,209	18,820,703
Minnesota	11,499	3,984,791	47,161	4,819,000	28,482	5,272,836	67,206	8,775,118
Mississippi	44,938	15,305,208	110,993	8,899,442	16,593	674,525	289,570	9,844,852
Missouri	23,552	13,175,820	39,525	4,805,000	5,468	1,254,000	91,556	4,883,006
Montana	25,708	11,631,454	45,968	20,475,452	14,575	549,680	374,146	23,038,199
Nebraska	63,742	13,929,250	412,107	29,305,006	150,371	9,264,386	938,168	113,631,284
Nevada	(D)	1,526,400	32,319	(D)	(D)	(D)	127,806	18,112,808
New Hampshire	220	284,731	213	210,889	-	-	128	86,706
New Jersey	4,936	2,509,500	3,167	495,000	1,160	428,500	19,064	3,027,213
New Mexico	2,958	1,004,842	43,018	11,731,464	3,197	202,500	78,963	20,690,978
New York	1,901	4,747,115	871	602,811	1,042	(D)	9,579	1,474,109
North Carolina	10,472	4,500,340	(D)	(D)	(D)	(D)	28,811	11,098,186
North Dakota	5,447	6,487,750	9,246	1,463,500	383	1,126,400	49,669	9,209,376
Ohio	4,714	38,902,620	(D)	(D)	(D)	(D)	12,747	4,395,905
Oklahoma	16,310	4,197,558	95,952	5,922,950	29,433	1,692,000	152,915	15,449,101
Oregon	52,601	73,663,339	100,459	29,869,185	30,883	6,161,848	267,514	22,047,728
Pennsylvania	1,472	991,327	461	143,300	361	99,200	7,490	1,957,503
Rhode Island	250	311,547	1,022	1,042,494	-	-	223	135,500
South Carolina	12,777	3,931,352	5,501	585,580	-	-	39,154	5,349,353
South Dakota	49,984	14,633,000	21,596	3,978,200	-	-	33,035	1,040,588
Tennessee	5,197	4,781,300	12,924	602,811	8,702	148,800	6,301	938,986
Texas	225,069	50,102,826	253,945	41,406,686	69,578	1,572,000	1,149,415	163,102,017
Utah	45,785	14,251,101	76,043	29,001,108	19,173	3,239,750	171,956	9,200,757
Vermont	75	306,200	258	118,000	7	1,000	400	136,120
Virginia	5,108	5,460,114	1,730	38,600	9	22,500	7,197	1,508,368
Washington	42,243	23,033,235	64,038	16,773,161	24,832	691,439	421,986	59,155,317
West Virginia	(D)	155,820	(D)	1,216,600	-	-	951	67,225
Wisconsin	10,104	15,037,809	1,715	1,230,250	24,575	1,876,736	89,099	17,071,224
Wyoming	19,913	4,680,232	73,444	23,956,463	7,980	554,200	203,550	12,544,065
Water Resource Regions								
Region 01 New England	4,418	4,620,079	5,699	7,024,006	2,044	262,300	8,130	4,103,763
Region 02 Mid-Atlantic	21,987	16,927,735	8,459	7,882,339	6,644	2,513,168	82,273	13,212,164
Region 03 South Atlantic-Gulf	104,055	143,084,783	126,589	35,276,551	7,289	713,500	940,482	225,388,768
Region 04 Great Lakes	40,817	27,858,823	22,992	3,816,394	15,168	2,208,125	221,974	25,479,854
Region 05 Ohio	15,384	49,356,909	27,768	3,960,649	5,823	87,283	101,152	5,908,692
Region 06 Tennessee	12,827	10,722,791	1,227	31,800	-	-	633	300,620
Region 07 Upper Mississippi	40,603	15,915,412	64,383	6,879,400	67,890	7,674,599	292,133	33,278,776
Region 08 Lower Mississippi	200,374	55,496,096	442,752	66,010,845	106,092	5,643,226	1,149,072	56,567,357
Region 09 Souris-Red-Rainy	3,748	3,797,750	(D)	(D)	(D)	(D)	35,366	2,178,840
Region 10 Missouri	193,662	65,498,190	672,829	91,909,594	235,205	13,933,872	2,003,599	192,782,558
Region 11 Arkansas-White-Red	183,421	52,067,308	390,915	31,931,515	58,470	4,773,000	1,220,074	181,158,601
Region 12 Texas-Gulf	96,602	19,665,080	101,574	29,670,217	50,327	1,032,250	677,093	90,695,534
Region 13 Rio Grande	2,999	2,463,200	191,324	15,430,408	3,181	213,550	188,293	47,524,190
Region 14 Upper Colorado	16,214	7,871,712	43,748	13,177,654	2,862	480,200	228,473	7,877,769
Region 15 Lower Colorado	67,041	22,619,187	(D)	(D)	(D)	(D)	266,041	25,014,486
Region 16 Great Basin	57,215	12,434,001	103,786	27,773,876	23,303	3,231,750	266,040	26,587,470
Region 17 Pacific Northwest	134,896	117,237,220	344,036	62,296,984	215,912	20,003,868	1,475,314	130,811,080
Region 18 California	320,488	222,633,290	735,225	168,201,808	181,623	21,494,524	1,930,877	403,227,820
Region 19 Alaska	89	69,800	(D)	(D)	(D)	(D)	358	106,695
Region 20 Hawaii	1,532	4,406,785	1,285	275,400	-	-	10,350	8,235,737

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Expenditures (all types) during survey year - con.							
	Primary source of funding assistance ¹							
	EQIP		Other USDA programs		Non-USDA assistance		No funding assistance	
	Farms	Acres ¹	Farms	Acres ¹	Farms	Acres ¹	Farms	Acres ¹
United States	3,007	452,661	741	79,916	7,267	1,734,635	104,923	14,738,412
Alabama	10	2,645	5	2,000	14	1,952	851	48,597
Alaska	-	-	-	-	-	-	214	461
Arizona	47	(D)	4	(D)	71	14,817	1,464	384,631
Arkansas	185	70,413	10	9,115	116	19,347	1,725	876,360
California	494	74,409	91	17,892	1,155	232,119	19,472	2,837,304
Colorado	71	3,170	5	309	369	63,375	5,443	727,167
Connecticut	23	26	-	-	29	132	311	1,877
Delaware	15	89	-	-	11	2,450	209	32,039
Florida	116	4,237	6	957	365	52,047	4,553	584,568
Georgia	-	-	-	-	316	61,542	2,277	321,399
Hawaii	8	(D)	1	(D)	18	1,428	1,220	11,538
Idaho	123	9,187	83	11,956	257	67,759	6,308	1,105,218
Illinois	-	-	14	2,800	44	9,484	1,054	183,208
Indiana	-	-	-	-	62	17,939	814	122,955
Iowa	20	40	-	-	45	4,665	402	47,599
Kansas	27	8,100	22	2,406	349	137,326	2,163	844,366
Kentucky	19	19	7	7	22	827	503	18,720
Louisiana	84	8,400	-	-	172	109,184	1,118	312,035
Maine	-	-	-	-	-	-	207	4,561
Maryland	20	20	-	-	49	4,778	384	25,417
Massachusetts	74	(D)	27	(D)	80	595	615	10,078
Michigan	18	540	54	54	108	7,395	1,998	224,135
Minnesota	56	10,336	27	9,250	61	13,851	980	120,911
Mississippi	94	36,793	29	821	107	56,011	1,055	368,469
Missouri	16	10,220	-	-	36	15,598	1,100	134,283
Montana	123	23,747	24	1,587	196	37,368	3,416	397,695
Nebraska	247	(D)	2	(D)	612	93,199	5,114	1,430,189
Nevada	43	12,535	4	(D)	5	(D)	715	152,244
New Hampshire	2	(D)	-	-	5	(D)	134	394
New Jersey	4	(D)	1	(D)	7	(D)	460	24,815
New Mexico	167	6,421	62	496	165	17,739	2,428	103,480
New York	-	-	-	-	103	4,371	1,019	9,022
North Carolina	-	-	-	-	125	1,582	1,547	42,830
North Dakota	18	2,978	5	500	15	3,880	304	57,387
Ohio	-	-	-	-	58	444	883	21,510
Oklahoma	10	(D)	1	(D)	47	44,000	1,083	243,610
Oregon	113	17,749	54	2,922	318	48,606	6,398	382,180
Pennsylvania	-	-	-	-	10	55	775	9,729
Rhode Island	11	(D)	2	(D)	4	(D)	95	469
South Carolina	81	1,923	-	-	15	3,300	1,080	52,209
South Dakota	8	44	-	-	160	22,062	452	82,509
Tennessee	-	-	-	-	50	13,052	658	20,072
Texas	206	61,354	-	-	667	364,377	6,687	1,272,276
Utah	113	6,256	136	2,396	368	59,248	4,971	245,057
Vermont	13	13	-	-	25	141	147	586
Virginia	1	(D)	-	-	32	(D)	603	10,283
Washington	102	10,677	27	4,374	266	72,132	5,754	465,916
West Virginia	23	23	38	(D)	21	(D)	178	933
Wisconsin	21	4,200	-	-	21	6,300	1,504	114,993
Wyoming	181	22,564	-	-	116	32,195	2,078	250,128
Water Resource Regions								
Region 01 New England	110	781	29	1,101	131	788	1,385	17,621
Region 02 Mid-Atlantic	40	(D)	1	(D)	193	17,243	2,686	101,094
Region 03 South Atlantic-Gulf	210	6,813	26	1,058	846	121,211	10,437	1,049,333
Region 04 Great Lakes	31	553	54	54	161	18,924	3,475	281,420
Region 05 Ohio	42	42	45	121	135	7,338	2,245	142,626
Region 06 Tennessee	5	2,000	5	2,000	29	1,223	644	9,464
Region 07 Upper Mississippi	97	14,576	41	12,050	117	30,140	3,520	408,243
Region 08 Lower Mississippi	292	103,484	16	9,820	373	210,938	3,568	1,574,048
Region 09 Souris-Red-Rainy	-	-	-	-	10	3,355	243	47,988
Region 10 Missouri	550	89,623	51	4,987	1,260	240,007	12,377	2,770,678
Region 11 Arkansas-White-Red	187	(D)	6	(D)	606	405,161	4,736	1,396,888
Region 12 Texas-Gulf	163	51,199	-	-	545	147,140	5,619	727,257
Region 13 Rio Grande	140	3,946	-	-	152	11,035	2,532	370,816
Region 14 Upper Colorado	73	2,476	67	805	167	16,219	4,456	271,797
Region 15 Lower Colorado	47	(D)	4	(D)	92	14,838	1,665	426,587
Region 16 Great Basin	156	18,791	159	6,960	335	65,612	4,986	358,981
Region 17 Pacific Northwest	362	37,771	145	14,692	937	189,416	19,232	1,928,279
Region 18 California	494	74,409	91	17,892	1,160	232,619	19,683	2,843,293
Region 19 Alaska	-	-	-	-	-	-	214	461
Region 20 Hawaii	8	(D)	1	(D)	18	1,428	1,220	11,538

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Purchase of new or replacement equipment and machinery during survey year								
	Farms	Irrigated acres affected by expenditure	Expenditures ² (\$1,000)	Average expenditure per farm (dollars)	Farms with expenditures of-				
					\$1 to \$999	\$1,000 to \$9,999	\$10,000 to \$29,999	\$30,000 to \$74,999	\$75,000 or more
United States	76,457	9,538,331	1,776,528	23,236	27,783	28,136	9,570	5,124	5,844
Alabama	502	20,502	16,166	32,204	162	214	24	32	70
Alaska	151	374	125	826	117	34	-	-	-
Arizona	793	182,705	28,635	36,110	241	335	111	35	71
Arkansas	1,009	587,943	33,857	33,555	166	283	258	199	103
California	13,876	1,690,534	446,515	32,179	4,477	4,946	2,112	1,254	1,087
Colorado	3,559	396,156	67,114	18,858	1,242	1,546	289	248	234
Connecticut	264	1,331	2,468	9,349	150	89	17	5	3
Delaware	163	27,358	7,094	43,524	28	47	31	21	36
Florida	3,641	342,718	54,996	15,105	1,193	1,773	408	63	204
Georgia	1,722	184,348	94,824	55,066	636	482	278	161	165
Hawaii	920	7,467	6,219	6,760	497	283	104	21	15
Idaho	4,420	719,251	76,064	17,209	1,727	1,655	517	215	306
Illinois	727	97,160	16,036	22,058	236	224	120	94	53
Indiana	644	105,517	11,691	18,154	298	196	44	61	45
Iowa	356	42,927	6,518	18,310	158	105	41	1	51
Kansas	1,704	591,156	107,836	63,284	260	415	230	234	565
Kentucky	429	12,201	7,644	17,818	305	101	14	1	8
Louisiana	675	196,374	10,711	15,868	122	158	230	59	38
Maine	188	2,541	615	3,273	97	78	7	6	-
Maryland	330	22,895	4,669	14,148	116	110	67	19	18
Massachusetts	523	5,745	2,989	5,716	256	192	54	18	3
Michigan	1,637	138,154	25,694	15,696	651	588	221	80	97
Minnesota	760	82,935	18,757	24,680	122	330	167	68	73
Mississippi	689	277,972	17,815	25,856	145	260	118	76	90
Missouri	733	96,448	13,990	19,086	293	238	123	46	33
Montana	2,479	256,338	42,168	17,010	1,010	1,014	236	72	147
Nebraska	3,908	944,845	142,245	36,398	541	1,350	696	642	679
Nevada	352	63,291	8,550	24,289	89	166	51	-	46
New Hampshire	117	367	355	3,034	71	44	-	-	2
New Jersey	344	16,845	3,705	10,771	144	96	77	13	14
New Mexico	1,360	65,187	17,017	12,512	583	386	212	112	67
New York	883	9,968	2,410	2,729	488	314	77	2	2
North Carolina	1,234	25,834	11,357	9,203	440	632	121	29	12
North Dakota	230	45,389	13,531	58,832	45	85	36	26	38
Ohio	662	11,625	39,310	59,381	373	186	77	3	23
Oklahoma	815	164,155	19,204	23,563	334	256	118	60	47
Oregon	4,968	295,923	50,027	10,070	2,097	2,103	496	162	110
Pennsylvania	679	7,772	2,518	3,708	299	304	61	15	-
Rhode Island	82	1,332	1,280	15,605	31	43	5	1	2
South Carolina	778	43,886	7,625	9,801	388	256	76	24	34
South Dakota	284	46,116	9,300	32,748	47	130	53	-	54
Tennessee	534	12,926	5,494	10,289	322	187	11	1	13
Texas	4,665	902,681	165,775	35,536	1,407	1,589	639	426	604
Utah	3,631	184,061	25,579	7,045	1,773	1,354	249	158	97
Vermont	162	639	345	2,127	79	78	3	2	-
Virginia	427	9,025	3,259	7,632	171	206	43	2	5
Washington	4,749	388,028	71,527	15,062	2,224	1,666	376	227	256
West Virginia	209	957	817	3,907	131	58	1	19	-
Wisconsin	1,039	71,651	24,171	23,263	404	339	147	31	118
Wyoming	1,451	136,778	29,915	20,617	597	544	124	80	106
Water Resource Regions									
Region 01 New England	1,209	11,569	7,840	6,485	619	465	83	32	10
Region 02 Mid-Atlantic	2,229	85,898	21,897	9,824	909	868	308	71	73
Region 03 South Atlantic-Gulf	7,971	618,803	181,132	22,724	2,827	3,416	935	309	484
Region 04 Great Lakes	2,741	173,612	38,934	14,204	1,204	1,001	309	90	137
Region 05 Ohio	1,757	87,926	50,988	29,020	1,075	442	90	78	72
Region 06 Tennessee	500	6,842	9,436	18,872	307	152	12	-	29
Region 07 Upper Mississippi	2,625	271,340	50,820	19,360	840	938	439	198	210
Region 08 Lower Mississippi	2,068	1,075,034	67,172	32,481	286	663	590	309	220
Region 09 Souris-Red-Rainy	194	42,132	5,523	28,471	49	83	36	20	6
Region 10 Missouri	8,967	1,825,527	293,480	32,729	2,104	3,199	1,293	1,064	1,307
Region 11 Arkansas-White-Red	3,476	948,720	179,084	51,520	951	947	494	330	754
Region 12 Texas-Gulf	4,042	569,411	96,704	23,925	1,218	1,483	587	337	417
Region 13 Rio Grande	1,281	143,562	43,603	34,038	452	446	163	126	94
Region 14 Upper Colorado	3,051	151,658	18,194	5,963	1,309	1,362	231	91	58
Region 15 Lower Colorado	966	193,762	29,279	30,309	354	386	116	35	75
Region 16 Great Basin	3,442	235,367	33,767	9,810	1,632	1,287	240	138	145
Region 17 Pacific Northwest	14,797	1,371,090	194,065	13,115	6,492	5,658	1,385	612	650
Region 18 California	14,070	1,718,237	448,269	31,860	4,541	5,023	2,155	1,263	1,088
Region 19 Alaska	151	374	125	826	117	34	-	-	-
Region 20 Hawaii	920	7,467	6,219	6,760	497	283	104	21	15

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Purchase of new or replacement equipment and machinery during survey year - con.							
	Primary purpose of expenditures							
	New expansion		Water conservation		Energy conservation		Scheduled replacement or maintenance	
	Acres	Dollars	Acres	Dollars	Acres	Dollars	Acres	Dollars
United States	753,319	451,819,107	958,268	307,209,255	372,267	51,093,878	7,454,477	966,406,252
Alabama	7,012	13,337,734	(D)	(D)	(D)	(D)	13,112	2,740,537
Alaska	20	16,500	9	3,544	-	-	345	104,755
Arizona	43,451	18,075,163	(D)	(D)	(D)	(D)	129,173	8,403,694
Arkansas	39,934	4,668,660	57,002	3,035,750	37,660	1,876,000	453,347	24,276,787
California	131,904	116,798,191	228,797	83,363,286	60,673	8,467,812	1,269,160	237,886,024
Colorado	17,468	16,395,770	80,443	20,493,290	9,620	620,000	288,625	29,605,438
Connecticut	177	223,650	177	1,781,097	9	3,000	968	460,415
Delaware	4,589	2,455,900	1,484	74,600	4,079	1,705,255	17,206	2,858,591
Florida	12,689	10,779,347	1,622	10,042,059	-	-	328,407	34,174,699
Georgia	15,277	51,966,017	8,477	4,306,780	54	6,750	160,540	38,544,760
Hawaii	687	457,425	148	36,150	-	-	6,632	5,725,637
Idaho	19,677	12,690,988	88,272	15,789,621	52,162	8,071,550	559,140	39,512,032
Illinois	11,015	5,222,092	15,995	2,000,000	5,020	1,082,200	65,130	7,731,809
Indiana	10,878	7,752,068	3,676	362,000	5,900	129,000	85,063	3,448,303
Iowa	(D)	3,586,387	(D)	101,500	-	-	29,856	2,830,576
Kansas	16,472	8,347,326	45,312	7,292,600	22,850	2,958,580	506,522	89,237,517
Kentucky	6,999	7,309,683	24	9,600	-	-	5,178	324,691
Louisiana	17,866	3,371,936	60	47,194	3,000	120,000	175,448	7,171,474
Maine	719	346,800	53	19,750	-	-	1,769	248,859
Maryland	1,834	1,314,990	(D)	535,500	(D)	215,000	20,277	2,603,218
Massachusetts	2,078	642,836	782	1,102,124	18	90,000	2,867	1,154,462
Michigan	15,352	6,500,186	12,012	2,864,644	7,149	1,115,900	103,641	15,212,943
Minnesota	2,786	3,532,791	18,892	3,565,500	18,240	4,755,500	43,017	6,902,740
Mississippi	16,112	6,956,909	40,611	3,742,172	2,986	550,000	218,263	6,565,764
Missouri	13,787	8,992,300	52	15,100	5,468	1,254,000	77,141	3,728,986
Montana	18,029	11,188,004	24,041	15,745,812	3,445	186,674	210,823	15,047,973
Nebraska	48,661	10,570,800	74,081	20,720,080	55,841	7,617,524	766,262	103,336,364
Nevada	8,648	781,696	(D)	(D)	(D)	(D)	49,154	7,557,827
New Hampshire	66	61,131	180	207,889	-	-	121	86,006
New Jersey	683	883,500	1,992	325,000	540	250,000	13,630	2,246,650
New Mexico	1,192	729,192	7,029	2,935,876	3,100	186,000	53,866	13,165,928
New York	1,074	886,290	78	24,400	866	165,525	7,950	1,333,609
North Carolina	3,477	1,232,340	(D)	(D)	(D)	(D)	20,448	9,887,690
North Dakota	3,818	5,019,750	3,959	1,363,700	383	1,126,400	37,229	6,021,486
Ohio	3,001	36,039,280	1,411	394,224	-	-	7,213	2,876,695
Oklahoma	8,433	2,460,558	5,064	3,093,450	15,643	718,000	135,015	12,931,703
Oregon	31,419	8,289,539	42,134	21,920,820	13,760	2,729,125	208,610	17,087,645
Pennsylvania	1,317	871,940	(D)	(D)	(D)	(D)	6,164	1,516,027
Rhode Island	121	130,701	1,012	1,030,494	-	-	199	118,400
South Carolina	5,769	2,473,752	4,536	294,800	-	-	33,581	4,856,763
South Dakota	8,616	4,918,000	6,632	3,663,000	-	-	30,868	719,428
Tennessee	5,064	4,708,800	2,495	42,600	17	3,400	5,350	739,386
Texas	106,219	17,707,109	75,465	30,465,123	15,079	653,400	705,918	116,949,173
Utah	26,139	5,296,211	33,555	10,756,274	11,107	2,582,700	113,260	6,943,717
Vermont	47	120,200	221	101,000	7	1,000	364	122,420
Virginia	2,542	1,869,514	40	(D)	9	(D)	6,434	1,350,368
Washington	23,475	11,060,340	26,201	14,077,896	7,616	319,339	330,736	46,069,629
West Virginia	(D)	144,320	(D)	608,000	-	-	810	64,225
Wisconsin	6,080	8,205,509	786	676,900	3,024	801,344	61,761	14,486,761
Wyoming	18,495	4,428,982	24,679	15,628,640	5,720	422,200	87,884	9,435,668
Water Resource Regions								
Region 01 New England	3,174	1,424,618	2,416	4,239,354	27	93,000	5,952	2,082,902
Region 02 Mid-Atlantic	10,657	7,592,784	4,035	1,087,700	5,219	2,174,455	65,987	11,041,681
Region 03 South Atlantic-Gulf	42,515	75,413,333	16,661	14,930,111	475	141,750	559,152	90,646,403
Region 04 Great Lakes	25,784	14,262,084	13,117	3,367,444	10,182	2,074,425	124,529	19,229,879
Region 05 Ohio	9,533	43,430,083	18,286	2,966,024	3,440	64,100	56,667	4,527,814
Region 06 Tennessee	6,164	9,141,266	82	12,600	-	-	596	282,120
Region 07 Upper Mississippi	17,955	12,521,012	19,884	4,087,900	17,750	5,769,844	215,751	28,441,705
Region 08 Lower Mississippi	80,304	21,779,314	96,397	5,903,994	45,798	3,240,000	852,535	36,248,290
Region 09 Souris-Red-Rainy	2,570	3,229,750	2,461	629,900	8,868	169,400	28,233	1,494,240
Region 10 Missouri	119,390	48,650,922	160,669	66,723,895	92,046	11,134,804	1,453,422	166,969,977
Region 11 Arkansas-White-Red	106,594	28,836,912	74,343	22,386,120	31,193	3,308,000	736,590	124,553,242
Region 12 Texas-Gulf	32,624	7,012,913	47,083	21,441,823	7,079	253,400	482,625	67,995,474
Region 13 Rio Grande	683	657,100	50,928	5,091,176	3,100	186,000	88,851	37,668,388
Region 14 Upper Colorado	6,884	5,032,852	18,431	7,537,632	-	-	126,343	5,623,505
Region 15 Lower Colorado	51,451	18,475,163	10,041	2,011,016	487	172,000	131,783	8,620,376
Region 16 Great Basin	34,057	4,616,357	37,677	12,381,542	10,837	2,569,700	152,796	14,198,949
Region 17 Pacific Northwest	78,349	32,860,528	147,535	48,399,044	75,093	11,275,188	1,070,113	101,530,144
Region 18 California	123,924	116,408,191	238,065	83,972,286	60,673	8,467,812	1,295,575	239,420,771
Region 19 Alaska	20	16,500	9	3,544	-	-	345	104,755
Region 20 Hawaii	687	457,425	148	36,150	-	-	6,632	5,725,637

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Purchase of new or replacement equipment and machinery during survey year - con.							
	Primary source of funding assistance							
	EQIP		Other USDA programs		Non-USDA assistance		No funding assistance	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States	1,477	202,327	412	43,047	4,242	957,910	70,326	8,335,047
Alabama	5	645	5	2,000	13	1,942	479	15,915
Alaska	-	-	-	-	-	-	151	374
Arizona	5	(D)	1	(D)	42	11,379	745	171,176
Arkansas	49	4,938	3	15	66	10,343	891	572,647
California	303	57,129	59	15,548	607	129,576	12,907	1,488,281
Colorado	49	(D)	1	(D)	223	34,582	3,286	359,366
Connecticut	8	8	-	-	25	87	231	1,236
Delaware	7	81	-	-	11	2,450	145	24,827
Florida	31	1,980	6	957	262	17,295	3,342	322,486
Georgia	-	-	-	-	163	29,547	1,559	154,801
Hawaii	5	170	-	-	16	614	899	6,683
Idaho	89	5,904	26	3,140	126	36,176	4,179	674,031
Illinois	-	-	-	-	40	9,448	687	87,712
Indiana	-	-	-	-	41	16,920	603	88,597
Iowa	10	20	-	-	38	3,650	308	39,257
Kansas	21	2,100	22	2,406	225	86,963	1,436	499,687
Kentucky	19	19	7	7	15	820	388	11,355
Louisiana	12	1,800	-	-	86	66,282	577	128,292
Maine	-	-	-	-	-	-	188	2,541
Maryland	-	-	-	-	42	4,140	288	18,755
Massachusetts	23	(D)	7	(D)	42	346	451	5,139
Michigan	18	540	54	54	80	7,139	1,485	130,421
Minnesota	32	3,192	17	3,200	60	13,826	651	62,717
Mississippi	29	11,063	9	720	57	34,399	594	231,790
Missouri	4	(D)	-	-	2	(D)	727	94,130
Montana	57	12,165	3	12	130	8,283	2,289	235,878
Nebraska	72	(D)	1	(D)	403	71,796	3,432	860,435
Nevada	-	-	2	(D)	5	(D)	345	53,844
New Hampshire	2	(D)	-	-	3	(D)	112	212
New Jersey	4	(D)	1	(D)	4	120	335	15,833
New Mexico	67	(D)	31	(D)	36	11,060	1,226	50,565
New York	-	-	-	-	84	4,333	799	5,635
North Carolina	-	-	-	-	94	1,399	1,140	24,435
North Dakota	13	1,653	5	500	15	3,880	197	39,356
Ohio	-	-	-	-	22	228	640	11,397
Oklahoma	10	(D)	1	(D)	20	30,608	784	126,547
Oregon	65	10,009	54	2,922	171	33,604	4,678	249,388
Pennsylvania	-	-	-	-	5	38	674	7,734
Rhode Island	8	(D)	2	(D)	4	(D)	68	309
South Carolina	63	1,869	-	-	7	1,400	708	40,617
South Dakota	4	8	-	-	52	6,942	228	39,166
Tennessee	-	-	-	-	28	4,362	506	8,564
Texas	152	54,305	-	-	364	163,648	4,149	684,728
Utah	47	1,530	70	1,296	225	28,821	3,289	152,414
Vermont	13	13	-	-	25	141	124	485
Virginia	-	-	-	-	20	1,976	407	7,049
Washington	60	7,590	6	2,442	166	40,361	4,517	337,635
West Virginia	23	23	19	57	21	114	146	763
Wisconsin	-	-	-	-	21	6,300	1,018	65,351
Wyoming	98	3,496	-	-	35	8,791	1,318	124,491
Water Resource Regions								
Region 01 New England	41	411	9	999	87	482	1,072	9,677
Region 02 Mid-Atlantic	11	(D)	1	(D)	147	12,290	2,070	72,635
Region 03 South Atlantic-Gulf	107	4,502	6	957	550	52,371	7,308	560,973
Region 04 Great Lakes	31	553	54	54	115	17,832	2,541	155,173
Region 05 Ohio	42	42	26	64	85	6,896	1,604	80,924
Region 06 Tennessee	-	-	5	2,000	29	1,223	466	3,619
Region 07 Upper Mississippi	42	3,212	17	3,200	116	30,115	2,450	234,813
Region 08 Lower Mississippi	55	13,041	9	720	182	115,772	1,822	945,501
Region 09 Souris-Red-Rainy	-	-	-	-	10	3,355	184	38,777
Region 10 Missouri	239	29,632	29	3,162	700	129,422	7,999	1,663,311
Region 11 Arkansas-White-Red	135	(D)	6	(D)	378	200,291	2,957	721,160
Region 12 Texas-Gulf	109	44,150	-	-	309	84,370	3,624	440,891
Region 13 Rio Grande	40	839	-	-	35	1,648	1,206	141,075
Region 14 Upper Colorado	51	(D)	32	(D)	69	14,588	2,899	135,308
Region 15 Lower Colorado	5	(D)	1	(D)	63	11,400	897	182,212
Region 16 Great Basin	47	1,530	72	1,298	192	35,185	3,131	197,354
Region 17 Pacific Northwest	214	23,503	86	8,504	552	110,480	13,945	1,228,603
Region 18 California	303	57,129	59	15,548	607	129,576	13,101	1,515,984
Region 19 Alaska	-	-	-	-	-	-	151	374
Region 20 Hawaii	5	170	-	-	16	614	899	6,683

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	New well construction or deepening of wells during survey year								
	Farms	Irrigated acres affected by expenditure	Expenditures ² (\$1,000)	Average expenditure per farm (dollars)	Farms with expenditures of-				
					\$1 to \$999	\$1,000 to \$9,999	\$10,000 to \$29,999	\$30,000 to \$74,999	\$75,000 or more
United States	5,464	1,175,525	428,194	78,366	263	691	1,719	1,277	1,514
Alabama	-	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-
Arizona	84	56,031	13,781	164,063	-	21	43	9	11
Arkansas	287	90,922	11,571	40,319	6	14	110	119	38
California	1,491	394,610	224,499	150,569	25	146	291	272	757
Colorado	85	16,430	6,667	78,435	-	1	16	21	47
Connecticut	25	57	406	16,228	-	3	22	-	-
Delaware	26	1,972	474	18,212	-	10	13	2	1
Florida	305	67,933	7,523	24,666	60	107	74	21	43
Georgia	67	9,105	5,164	77,081	-	6	33	10	18
Hawaii	4	102	541	135,240	-	1	-	-	3
Idaho	126	19,074	6,312	50,095	39	20	44	9	14
Illinois	86	5,652	5,126	59,609	14	5	37	14	16
Indiana	29	3,778	951	32,793	-	-	21	5	3
Iowa	16	2,536	528	33,011	-	-	7	8	1
Kansas	198	48,822	22,390	113,080	-	14	14	65	105
Kentucky	9	1,518	175	19,444	-	6	2	-	1
Louisiana	82	22,645	4,891	59,644	12	2	15	14	39
Maine	-	-	-	-	-	-	-	-	-
Maryland	11	982	380	34,500	-	2	4	4	1
Massachusetts	45	87	969	21,533	-	12	6	27	-
Michigan	167	9,583	5,324	31,880	-	38	49	59	21
Minnesota	58	5,319	1,567	27,017	16	-	24	13	5
Mississippi	135	24,585	3,665	27,152	3	25	46	61	-
Missouri	84	10,344	1,695	20,184	-	7	63	14	-
Montana	85	9,737	2,734	32,170	-	62	2	-	21
Nebraska	312	28,538	10,966	35,149	-	4	114	166	28
Nevada	75	30,870	8,747	116,630	-	3	-	33	39
New Hampshire	7	37	103	14,714	-	3	4	-	-
New Jersey	11	1,502	402	36,569	-	-	4	6	1
New Mexico	81	7,181	1,844	22,765	-	-	77	4	-
New York	31	296	606	19,551	-	26	-	1	4
North Carolina	88	2,320	2,787	31,673	-	-	41	38	9
North Dakota	11	1,826	506	45,991	2	-	3	5	1
Ohio	47	2,456	857	18,239	-	26	20	-	1
Oklahoma	62	20,166	5,776	93,156	-	18	-	9	35
Oregon	102	6,883	5,142	50,416	20	-	40	9	33
Pennsylvania	31	192	539	17,401	-	5	25	1	-
Rhode Island	9	101	44	4,889	-	8	1	-	-
South Carolina	30	2,914	492	16,407	-	25	-	1	4
South Dakota	78	12,105	5,566	71,359	2	-	21	27	28
Tennessee	17	5,341	500	29,412	-	-	6	11	-
Texas	680	228,786	39,997	58,819	25	46	323	133	153
Utah	49	6,847	2,905	59,284	22	4	-	-	23
Vermont	5	20	172	34,400	-	-	2	3	-
Virginia	10	61	104	10,400	-	-	10	-	-
Washington	75	7,298	8,906	118,752	-	-	42	26	7
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	148	7,961	3,897	26,328	17	21	50	57	3
Wyoming	-	-	-	-	-	-	-	-	-
Water Resource Regions									
Region 01 New England	86	282	1,522	17,694	-	26	33	27	-
Region 02 Mid-Atlantic	120	5,005	2,505	20,873	-	43	56	14	7
Region 03 South Atlantic-Gulf	532	82,709	16,466	30,950	60	163	162	73	74
Region 04 Great Lakes	239	16,297	8,247	34,507	-	40	79	97	23
Region 05 Ohio	93	7,286	5,393	57,985	-	35	36	5	17
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	208	11,504	4,239	20,381	47	21	80	50	10
Region 08 Lower Mississippi	507	141,544	19,798	39,049	21	9	214	198	65
Region 09 Souris-Red-Rainy	12	1,734	548	45,667	-	-	8	3	1
Region 10 Missouri	499	58,540	22,041	44,170	4	24	159	223	89
Region 11 Arkansas-White-Red	419	218,862	46,672	111,389	-	39	50	107	223
Region 12 Texas-Gulf	554	87,746	21,281	38,414	25	46	289	117	77
Region 13 Rio Grande	137	20,076	8,424	61,489	-	-	91	5	41
Region 14 Upper Colorado	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	84	56,031	13,781	164,063	-	21	43	9	11
Region 16 Great Basin	144	37,877	11,656	80,946	42	7	-	33	62
Region 17 Pacific Northwest	333	36,020	19,439	58,376	39	70	128	47	49
Region 18 California	1,493	393,910	225,641	151,133	25	146	291	269	762
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	4	102	541	135,240	-	1	-	-	3

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	New well construction or deepening of wells during survey year - con.							
	Primary purpose of expenditures							
	New expansion		Water conservation		Energy conservation		Scheduled replacement or maintenance	
	Acres	Dollars	Acres	Dollars	Acres	Dollars	Acres	Dollars
United States	299,564	128,459,314	77,761	35,417,610	28,388	7,591,000	769,812	256,725,863
Alabama	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-
Arizona	(D)	1,414,033	(D)	60,000	-	-	50,793	12,307,217
Arkansas	17,729	3,064,485	4,083	393,500	4,543	426,000	64,567	7,687,500
California	140,069	68,259,832	22,727	19,889,850	4,320	4,500,000	227,494	131,849,149
Colorado	14	208,000	3,300	550,000	-	-	13,116	5,909,000
Connecticut	(D)	(D)	(D)	(D)	-	-	3	28,500
Delaware	750	240,000	3	14,439	-	-	1,219	219,070
Florida	3,355	2,022,587	-	-	-	-	64,578	5,500,529
Georgia	(D)	1,861,000	-	-	-	-	(D)	3,303,400
Hawaii	102	540,960	-	-	-	-	-	-
Idaho	1,498	3,880,430	910	214,000	12,516	1,000,000	4,150	1,217,500
Illinois	4,022	4,681,400	-	-	-	-	1,630	445,000
Indiana	2,558	612,500	-	-	-	-	1,220	338,486
Iowa	(D)	(D)	-	-	-	-	(D)	(D)
Kansas	1,560	900,000	224	98,700	-	-	47,038	21,391,049
Kentucky	(D)	(D)	-	-	-	-	(D)	(D)
Louisiana	16,587	3,321,260	-	-	-	-	6,058	1,569,550
Maine	-	-	-	-	-	-	-	-
Maryland	112	82,000	-	-	-	-	870	297,500
Massachusetts	69	879,000	-	-	18	90,000	-	-
Michigan	7,523	4,208,310	-	-	-	-	2,060	1,115,600
Minnesota	(D)	(D)	1,852	477,000	(D)	(D)	2,008	818,000
Mississippi	2,356	997,000	1,861	870,100	-	-	20,368	1,798,386
Missouri	5,936	1,121,000	-	-	-	-	4,408	574,420
Montana	1,960	125,000	6,672	2,438,013	-	-	1,105	171,400
Nebraska	6,399	1,485,000	6,909	2,442,808	-	-	15,230	7,038,560
Nevada	-	-	-	-	-	-	30,870	8,747,216
New Hampshire	4	100,000	33	3,000	-	-	-	-
New Jersey	640	240,000	(D)	(D)	(D)	(D)	(D)	(D)
New Mexico	-	-	-	-	-	-	7,181	1,844,000
New York	(D)	(D)	-	-	-	-	(D)	(D)
North Carolina	2,179	2,637,250	-	-	-	-	141	150,000
North Dakota	(D)	(D)	-	-	-	-	(D)	(D)
Ohio	(D)	655,500	(D)	(D)	-	-	1,296	(D)
Oklahoma	(D)	(D)	10,252	1,845,000	(D)	(D)	(D)	2,132,695
Oregon	2,054	1,624,000	2,160	1,330,000	-	-	2,669	2,188,412
Pennsylvania	98	104,361	-	-	33	75,000	61	360,076
Rhode Island	(D)	(D)	(D)	(D)	-	-	-	-
South Carolina	854	(D)	-	-	-	-	2,060	(D)
South Dakota	12,052	5,356,000	-	-	-	-	53	210,000
Tennessee	-	-	5,341	500,000	-	-	-	-
Texas	50,979	12,004,558	(D)	(D)	(D)	(D)	173,661	27,137,700
Utah	(D)	(D)	6,721	2,892,600	-	-	(D)	(D)
Vermont	20	172,000	-	-	-	-	-	-
Virginia	(D)	(D)	-	-	-	-	(D)	(D)
Washington	147	302,400	1,335	374,000	-	-	5,816	8,230,000
West Virginia	-	-	-	-	-	-	-	-
Wisconsin	1,488	2,030,500	-	-	1,218	630,000	5,255	1,236,025
Wyoming	-	-	-	-	-	-	-	-
Water Resource Regions								
Region 01 New England	181	1,240,200	80	163,000	18	90,000	3	28,500
Region 02 Mid-Atlantic	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Region 03 South Atlantic-Gulf	9,210	7,164,037	56	175,600	-	-	73,443	9,125,929
Region 04 Great Lakes	8,821	5,937,410	(D)	(D)	-	-	(D)	(D)
Region 05 Ohio	5,290	5,135,900	-	-	-	-	1,996	256,728
Region 06 Tennessee	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	2,917	1,513,900	1,852	477,000	2,258	705,000	4,477	1,543,257
Region 08 Lower Mississippi	38,852	7,505,245	11,222	1,527,800	4,543	426,000	86,927	10,338,856
Region 09 Souris-Red-Rainy	(D)	(D)	-	-	-	-	(D)	(D)
Region 10 Missouri	26,553	8,223,668	12,621	4,856,821	-	-	19,366	8,960,460
Region 11 Arkansas-White-Red	35,247	5,683,000	(D)	(D)	(D)	(D)	168,632	38,235,128
Region 12 Texas-Gulf	19,519	6,844,558	2,646	754,600	-	-	65,581	13,682,316
Region 13 Rio Grande	1,200	1,600,000	3,300	550,000	-	-	15,576	6,274,000
Region 14 Upper Colorado	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	(D)	1,414,033	(D)	60,000	-	-	50,793	12,307,217
Region 16 Great Basin	(D)	(D)	(D)	(D)	-	-	30,876	8,755,256
Region 17 Pacific Northwest	3,859	5,835,830	4,705	688,000	12,516	1,000,000	14,940	11,915,312
Region 18 California	140,069	68,259,832	23,227	21,139,850	4,320	4,500,000	226,294	131,741,149
Region 19 Alaska	-	-	-	-	-	-	-	-
Region 20 Hawaii	102	540,960	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	New well construction or deepening of wells during survey year - con.							
	Primary source of funding assistance							
	EQIP		Other USDA programs		Non-USDA assistance		No funding assistance	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States	212	(D)	5	(D)	828	247,664	4,419	907,631
Alabama	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-
Arizona	-	-	1	(D)	-	-	83	(D)
Arkansas	-	-	-	-	15	2,760	272	88,162
California	-	-	1	(D)	196	(D)	1,294	367,895
Colorado	-	-	-	-	15	1,355	70	15,075
Connecticut	11	14	-	-	3	27	11	16
Delaware	5	5	-	-	-	-	21	1,967
Florida	46	586	-	-	3	906	256	66,441
Georgia	-	-	-	-	15	1,620	52	7,485
Hawaii	-	-	-	-	-	-	4	102
Idaho	-	-	-	-	47	13,476	79	5,598
Illinois	-	-	-	-	2	(D)	84	(D)
Indiana	-	-	-	-	2	(D)	27	(D)
Iowa	-	-	-	-	7	1,015	9	1,521
Kansas	-	-	-	-	73	22,109	125	26,713
Kentucky	-	-	-	-	-	-	9	1,518
Louisiana	-	-	-	-	17	11,820	65	10,825
Maine	-	-	-	-	-	-	-	-
Maryland	-	-	-	-	4	270	7	712
Massachusetts	9	9	-	-	27	27	9	51
Michigan	-	-	-	-	-	-	167	9,583
Minnesota	4	1,852	-	-	-	-	54	3,467
Mississippi	8	(D)	3	(D)	21	11,004	103	12,083
Missouri	-	-	-	-	2	(D)	82	(D)
Montana	23	5,716	-	-	12	1,080	50	2,941
Nebraska	60	5,944	-	-	57	7,553	195	15,041
Nevada	-	-	-	-	-	-	75	30,870
New Hampshire	-	-	-	-	-	-	7	37
New Jersey	-	-	-	-	1	(D)	10	(D)
New Mexico	-	-	-	-	-	-	81	7,181
New York	-	-	-	-	-	-	31	296
North Carolina	-	-	-	-	31	183	57	2,137
North Dakota	-	-	-	-	-	-	11	1,826
Ohio	-	-	-	-	18	108	29	2,348
Oklahoma	-	-	-	-	19	11,512	43	8,654
Oregon	-	-	-	-	6	850	96	6,033
Pennsylvania	-	-	-	-	-	-	31	192
Rhode Island	-	-	-	-	-	-	9	101
South Carolina	18	54	-	-	7	1,400	5	1,460
South Dakota	4	36	-	-	27	3,510	47	8,559
Tennessee	-	-	-	-	11	4,345	6	996
Texas	1	(D)	-	-	157	(D)	522	115,236
Utah	22	(D)	-	-	26	6,331	1	(D)
Vermont	-	-	-	-	-	-	5	20
Virginia	1	(D)	-	-	-	-	9	(D)
Washington	-	-	-	-	7	4,550	68	2,748
West Virginia	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	148	7,961
Wyoming	-	-	-	-	-	-	-	-
Water Resource Regions								
Region 01 New England	20	23	-	-	30	54	36	205
Region 02 Mid-Atlantic	6	30	-	-	5	670	109	4,305
Region 03 South Atlantic-Gulf	64	640	3	48	56	4,109	409	77,912
Region 04 Great Lakes	-	-	-	-	2	(D)	237	(D)
Region 05 Ohio	-	-	-	-	20	126	73	7,160
Region 06 Tennessee	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	4	1,852	-	-	-	-	204	9,652
Region 08 Lower Mississippi	8	1,450	-	-	66	30,629	433	109,465
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	12	1,734
Region 10 Missouri	85	11,692	-	-	106	13,433	308	33,415
Region 11 Arkansas-White-Red	-	-	-	-	130	108,116	289	110,746
Region 12 Texas-Gulf	1	(D)	-	-	119	(D)	434	48,691
Region 13 Rio Grande	-	-	-	-	-	-	137	20,076
Region 14 Upper Colorado	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	-	-	1	(D)	-	-	83	(D)
Region 16 Great Basin	22	(D)	-	-	26	(D)	96	31,150
Region 17 Pacific Northwest	2	(D)	-	-	67	19,456	264	(D)
Region 18 California	-	-	1	(D)	201	(D)	1,291	366,695
Region 19 Alaska	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	4	102

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Construction or improvement of permanent storage and distribution systems during survey year								
	Farms	Irrigated acres affected by expenditure	Expenditures ² (\$1,000)	Average expenditure per farm (dollars)	Farms with expenditures of-				
					\$1 to \$999	\$1,000 to \$9,999	\$10,000 to \$29,999	\$30,000 to \$74,999	\$75,000 or more
United States	9,236	1,451,994	301,885	32,686	2,731	3,834	1,618	524	529
Alabama	57	11,073	2,093	36,717	23	-	-	23	11
Alaska	10	10	4	384	9	1	-	-	-
Arizona	253	24,730	3,180	12,567	44	123	60	21	5
Arkansas	179	65,743	11,395	63,660	7	66	35	49	22
California	1,143	305,069	27,330	23,910	95	545	375	68	60
Colorado	1,162	161,241	6,957	5,988	369	606	150	26	11
Connecticut	7	(D)	1,666	238,042	-	1	-	-	6
Delaware	5	(D)	6	1,200	-	5	-	-	-
Florida	160	126,151	12,614	78,837	30	-	47	34	49
Georgia	181	43,205	98,377	543,520	27	27	55	27	45
Hawaii	43	423	1,136	26,419	15	-	16	-	12
Idaho	809	82,521	6,174	7,632	446	241	78	35	9
Illinois	34	497	589	17,324	15	16	2	-	1
Indiana	37	2,408	401	10,843	16	8	12	-	1
Iowa	57	960	387	6,789	20	20	17	-	-
Kansas	23	2,207	70	3,026	-	23	-	-	-
Kentucky	57	430	166	2,906	14	41	-	2	-
Louisiana	114	25,292	737	6,465	3	88	22	1	-
Maine	5	(D)	225	45,000	-	-	4	-	1
Maryland	30	283	122	4,065	10	14	6	-	-
Massachusetts	87	1,213	855	9,828	-	46	37	4	-
Michigan	63	5,807	501	7,950	18	19	20	6	-
Minnesota	16	80	35	2,200	-	16	-	-	-
Mississippi	79	16,916	902	11,411	5	38	33	-	3
Missouri	87	2,342	454	5,213	22	51	14	-	-
Montana	581	107,404	5,403	9,299	221	225	109	14	12
Nebraska	184	20,781	3,433	18,658	-	107	49	-	28
Nevada	177	44,065	1,598	9,029	12	84	79	2	-
New Hampshire	2	(D)	(D)	(D)	-	2	-	-	-
New Jersey	39	3,065	(D)	(D)	-	33	2	-	4
New Mexico	366	21,795	4,714	12,879	197	100	33	3	33
New York	24	72	(D)	(D)	-	4	19	-	1
North Carolina	31	5,443	1,165	37,581	-	11	3	9	8
North Dakota	11	581	5	464	11	-	-	-	-
Ohio	134	2,274	2,796	20,863	68	54	5	2	5
Oklahoma	18	1,124	78	4,333	-	18	-	-	-
Oregon	668	42,110	63,989	95,792	313	234	63	32	26
Pennsylvania	24	216	(D)	(D)	23	-	1	-	-
Rhode Island	8	(D)	92	11,518	-	5	1	2	-
South Carolina	151	(D)	(D)	(D)	82	67	2	-	-
South Dakota	54	9,315	2,835	52,500	-	27	-	-	27
Tennessee	1	(D)	(D)	(D)	-	-	1	-	-
Texas	517	109,276	9,039	17,484	98	223	112	42	42
Utah	691	64,008	13,412	19,410	269	241	71	44	66
Vermont	4	(D)	(D)	(D)	-	4	-	-	-
Virginia	63	564	1,457	23,127	8	19	9	24	3
Washington	308	28,182	6,346	20,604	116	96	44	31	21
West Virginia	45	221	(D)	(D)	23	3	-	19	-
Wisconsin	43	457	427	9,923	-	20	22	1	-
Wyoming	394	108,855	3,948	10,020	102	262	10	3	17
Water Resource Regions									
Region 01 New England	109	2,842	2,853	26,175	-	54	42	6	7
Region 02 Mid-Atlantic	145	3,746	4,782	32,979	33	55	36	16	5
Region 03 South Atlantic-Gulf	617	186,274	114,971	186,339	144	142	124	93	114
Region 04 Great Lakes	142	6,826	3,250	22,890	49	56	23	9	5
Region 05 Ohio	221	2,438	1,587	7,181	98	77	16	29	1
Region 06 Tennessee	28	2,023	503	17,960	23	-	-	-	5
Region 07 Upper Mississippi	155	4,031	1,247	8,045	35	85	34	-	1
Region 08 Lower Mississippi	283	91,418	11,383	40,224	10	143	73	38	19
Region 09 Souris-Red-Rainy	5	375	3	500	5	-	-	-	-
Region 10 Missouri	1,395	240,047	17,980	12,889	350	742	187	27	89
Region 11 Arkansas-White-Red	384	46,664	4,259	11,092	128	169	55	25	7
Region 12 Texas-Gulf	438	63,873	7,718	17,622	70	211	88	27	42
Region 13 Rio Grande	358	113,038	5,252	14,670	180	70	57	18	33
Region 14 Upper Colorado	866	109,803	5,149	5,946	244	483	90	47	2
Region 15 Lower Colorado	256	24,772	3,180	12,424	47	123	60	21	5
Region 16 Great Basin	792	80,145	12,414	15,674	296	301	127	2	66
Region 17 Pacific Northwest	1,838	165,137	76,864	41,820	900	569	215	98	56
Region 18 California	1,151	308,109	27,348	23,760	95	553	375	68	60
Region 19 Alaska	10	10	4	384	9	1	-	-	-
Region 20 Hawaii	43	423	1,136	26,419	15	-	16	-	12

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Construction or improvement of permanent storage and distribution systems during survey year - con.							
	Primary purpose of expenditures							
	New expansion		Water conservation		Energy conservation		Scheduled replacement or maintenance	
	Acres	Dollars	Acres	Dollars	Acres	Dollars	Acres	Dollars
United States	108,664	100,676,514	390,609	58,473,784	17,817	2,027,925	934,904	140,706,358
Alabama	7,773	1,192,875	-	-	-	-	3,300	900,000
Alaska	-	-	3	3,700	-	-	7	140
Arizona	2,601	694,641	3,432	694,700	-	-	18,697	1,790,200
Arkansas	19,475	6,848,670	16,956	2,906,000	-	-	29,312	1,640,400
California	9,078	7,974,380	117,046	12,239,048	6,066	923,325	172,879	6,192,844
Colorado	9,346	953,600	64,605	2,661,062	1,100	440,000	86,190	2,902,815
Connecticut	(D)	(D)	(D)	(D)	-	-	-	-
Delaware	-	-	(D)	6,000	-	-	-	-
Florida	57	1,647,192	604	2,345,000	-	-	125,490	8,621,700
Georgia	1,188	2,025,000	2,808	405,000	-	-	39,209	95,947,121
Hawaii	30	150,000	-	-	-	-	393	986,000
Idaho	2,340	453,600	20,016	645,800	1,524	360,600	58,641	4,714,404
Illinois	18	44,000	59	(D)	-	-	420	(D)
Indiana	-	-	12	228,000	-	-	2,396	173,200
Iowa	860	226,000	20	160,000	-	-	80	1,000
Kansas	-	-	(D)	(D)	-	-	(D)	(D)
Kentucky	35	39,200	46	55,925	-	-	349	70,500
Louisiana	2,362	348,500	20,565	246,500	60	30,000	2,305	112,000
Maine	(D)	(D)	-	-	-	-	(D)	(D)
Maryland	166	84,750	-	-	112	35,000	5	2,200
Massachusetts	(D)	(D)	766	(D)	-	-	(D)	(D)
Michigan	18	360	-	-	-	-	5,789	500,500
Minnesota	-	-	80	35,200	-	-	-	-
Mississippi	165	68,000	5,488	646,000	-	-	11,263	187,500
Missouri	331	194,200	131	205,000	-	-	1,880	54,350
Montana	1,406	173,950	3,427	220,520	6,300	105,000	96,271	4,903,032
Nebraska	-	-	13,661	3,069,040	1,820	98,000	5,300	266,000
Nevada	(D)	(D)	(D)	(D)	-	-	31,878	1,089,108
New Hampshire	(D)	(D)	-	-	-	-	-	-
New Jersey	(D)	(D)	(D)	(D)	-	-	1,815	376,500
New Mexico	589	21,700	18,164	4,559,888	62	6,200	2,980	126,000
New York	(D)	192,660	(D)	(D)	12	18,000	(D)	(D)
North Carolina	3,715	(D)	(D)	660,000	-	-	(D)	(D)
North Dakota	-	-	375	2,500	-	-	206	2,600
Ohio	502	2,132,340	14	5,600	-	-	1,758	657,673
Oklahoma	24	8,000	-	-	-	-	1,100	70,000
Oregon	10,269	61,861,200	17,904	1,319,300	57	1,900	13,880	806,860
Pennsylvania	-	-	(D)	2,800	-	-	(D)	(D)
Rhode Island	24	78,046	-	-	-	-	(D)	14,100
South Carolina	372	24,400	(D)	(D)	-	-	1,191	146,500
South Dakota	3,915	2,700,000	5,400	135,000	-	-	-	-
Tennessee	(D)	(D)	-	-	-	-	-	-
Texas	24,608	1,481,000	9,828	4,059,094	-	-	74,840	3,499,330
Utah	2,750	1,595,000	16,831	10,935,691	704	9,900	43,723	871,546
Vermont	-	-	(D)	(D)	-	-	-	-
Virginia	542	1,443,000	-	-	-	-	22	14,000
Washington	2,772	4,054,350	10,760	771,468	-	-	14,650	1,520,300
West Virginia	23	11,500	57	608,000	-	-	141	(D)
Wisconsin	333	222,800	(D)	(D)	-	-	(D)	(D)
Wyoming	55	35,000	26,539	3,174,273	-	-	82,261	738,494
Water Resource Regions								
Region 01 New England	276	1,185,646	788	1,198,295	-	-	1,778	469,131
Region 02 Mid-Atlantic	940	1,332,410	855	(D)	112	35,000	1,839	(D)
Region 03 South Atlantic-Gulf	11,530	5,150,592	5,265	4,138,780	-	-	169,479	105,682,021
Region 04 Great Lakes	(D)	2,105,200	(D)	49,000	12	18,000	6,197	1,078,109
Region 05 Ohio	(D)	355,200	(D)	899,325	-	-	2,012	332,464
Region 06 Tennessee	2,023	502,875	-	-	-	-	-	-
Region 07 Upper Mississippi	371	366,800	201	(D)	-	-	3,459	(D)
Region 08 Lower Mississippi	21,206	6,526,670	42,939	3,261,500	60	30,000	27,213	1,565,200
Region 09 Souris-Red-Rainy	-	-	375	2,500	-	-	-	-
Region 10 Missouri	6,576	3,230,650	54,751	7,643,513	8,120	203,000	170,600	6,902,344
Region 11 Arkansas-White-Red	7,132	1,946,000	5,434	1,640,040	-	-	34,098	673,300
Region 12 Texas-Gulf	22,302	941,500	8,920	4,009,894	-	-	32,651	2,767,030
Region 13 Rio Grande	589	21,700	58,414	4,226,688	-	-	54,035	1,003,500
Region 14 Upper Colorado	6,005	1,432,000	15,144	1,663,522	1,162	446,200	87,492	1,607,476
Region 15 Lower Colorado	2,601	694,641	3,432	694,700	-	-	18,739	1,791,100
Region 16 Great Basin	1,872	389,000	27,248	10,312,191	704	9,900	50,321	1,702,954
Region 17 Pacific Northwest	15,402	66,371,250	49,482	2,853,888	1,581	362,500	98,672	7,276,835
Region 18 California	9,078	7,974,380	117,046	12,239,048	6,066	923,325	175,919	6,211,344
Region 19 Alaska	-	-	3	3,700	-	-	7	140
Region 20 Hawaii	30	150,000	-	-	-	-	393	986,000

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Construction or improvement of permanent storage and distribution systems during survey year - con.							
	Primary source of funding assistance							
	EQIP		Other USDA programs		Non-USDA assistance		No funding assistance	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States	305	39,953	129	4,611	644	169,989	8,158	1,237,441
Alabama	5	2,000	-	-	-	-	52	9,073
Alaska	-	-	-	-	-	-	10	10
Arizona	19	(D)	-	-	22	(D)	212	21,404
Arkansas	34	6,687	-	-	-	-	145	59,056
California	32	1,659	-	-	101	30,253	1,010	273,157
Colorado	-	-	-	-	81	25,430	1,081	135,811
Connecticut	-	-	-	-	-	-	7	(D)
Delaware	-	-	-	-	-	-	5	(D)
Florida	3	57	-	-	-	-	157	126,094
Georgia	-	-	-	-	49	19,908	132	23,297
Hawaii	-	-	-	-	-	-	43	423
Idaho	-	-	19	2,128	12	7,812	778	72,581
Illinois	-	-	-	-	-	-	34	497
Indiana	-	-	-	-	16	16	21	2,392
Iowa	10	20	-	-	-	-	47	940
Kansas	-	-	-	-	-	-	23	2,207
Kentucky	-	-	-	-	-	-	57	430
Louisiana	-	-	-	-	12	1,140	102	24,152
Maine	-	-	-	-	-	-	5	(D)
Maryland	5	5	-	-	-	-	25	278
Massachusetts	23	(D)	-	-	2	(D)	62	1,058
Michigan	-	-	-	-	1	(D)	62	(D)
Minnesota	-	-	-	-	-	-	16	80
Mississippi	-	-	17	53	-	-	62	16,863
Missouri	2	(D)	-	-	29	(D)	56	2,022
Montana	-	-	21	1,575	23	19,260	537	86,569
Nebraska	-	-	-	-	49	8,443	135	12,338
Nevada	33	12,185	-	-	-	-	144	31,880
New Hampshire	-	-	-	-	-	-	2	(D)
New Jersey	-	-	-	-	1	(D)	38	(D)
New Mexico	35	(D)	31	(D)	5	14	295	20,289
New York	-	-	-	-	19	38	5	34
North Carolina	-	-	-	-	-	-	31	5,443
North Dakota	-	-	-	-	-	-	11	581
Ohio	-	-	-	-	-	-	134	2,274
Oklahoma	-	-	-	-	-	-	18	1,124
Oregon	6	1,500	-	-	49	2,549	613	38,061
Pennsylvania	-	-	-	-	-	-	24	216
Rhode Island	-	-	-	-	-	-	8	(D)
South Carolina	-	-	-	-	-	-	151	(D)
South Dakota	-	-	-	-	27	3,915	27	5,400
Tennessee	-	-	-	-	-	-	1	(D)
Texas	-	-	-	-	15	12,975	502	96,301
Utah	44	4,330	22	550	26	6,358	599	52,770
Vermont	-	-	-	-	-	-	4	(D)
Virginia	-	-	-	-	-	-	63	564
Washington	21	1,155	-	-	51	10,865	236	16,162
West Virginia	-	-	19	(D)	-	-	26	(D)
Wisconsin	-	-	-	-	-	-	43	457
Wyoming	33	8,820	-	-	54	16,874	307	83,161
Water Resource Regions								
Region 01 New England	23	(D)	-	-	2	(D)	84	2,687
Region 02 Mid-Atlantic	5	(D)	-	-	20	(D)	120	3,303
Region 03 South Atlantic-Gulf	3	(D)	17	(D)	49	19,908	548	166,256
Region 04 Great Lakes	-	-	-	-	17	(D)	125	(D)
Region 05 Ohio	-	-	19	57	-	-	202	2,381
Region 06 Tennessee	5	2,000	-	-	-	-	23	23
Region 07 Upper Mississippi	10	20	-	-	-	-	145	4,011
Region 08 Lower Mississippi	29	6,085	-	-	12	1,140	242	84,193
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	5	375
Region 10 Missouri	35	8,822	21	1,575	205	66,100	1,134	163,550
Region 11 Arkansas-White-Red	5	602	-	-	-	-	379	46,062
Region 12 Texas-Gulf	-	-	-	-	15	12,975	423	50,898
Region 13 Rio Grande	35	1,244	-	-	19	6,944	304	104,850
Region 14 Upper Colorado	-	-	31	(D)	44	(D)	791	108,345
Region 15 Lower Colorado	19	(D)	-	-	22	(D)	215	21,446
Region 16 Great Basin	77	16,515	22	(D)	26	6,358	667	(D)
Region 17 Pacific Northwest	27	2,655	19	2,128	112	21,226	1,680	139,128
Region 18 California	32	1,659	-	-	101	30,253	1,018	276,197
Region 19 Alaska	-	-	-	-	-	-	10	10
Region 20 Hawaii	-	-	-	-	-	-	43	423

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Computers, control panels, and computer controlled valves, and hardware for irrigation water management during survey year								
	Farms	Irrigated acres affected by expenditure	Expenditures ² (\$1,000)	Average expenditure per farm (dollars)	Farms with expenditures of-				
					\$1 to \$999	\$1,000 to \$9,999	\$10,000 to \$29,999	\$30,000 to \$74,999	\$75,000 or more
United States	14,447	3,666,483	157,538	10,905	3,790	7,215	2,235	815	392
Alabama	175	19,333	(D)	(D)	78	56	41	-	-
Alaska	8	8	3	375	8	-	-	-	-
Arizona	147	77,607	1,839	12,512	51	82	12	-	2
Arkansas	144	92,231	1,185	8,231	42	61	29	12	-
California	2,429	377,351	26,831	11,046	632	1,216	341	199	41
Colorado	557	183,646	4,586	8,234	81	331	86	54	5
Connecticut	40	491	143	3,583	28	10	1	1	-
Delaware	23	3,618	156	6,783	10	8	2	3	-
Florida	577	66,990	19,318	33,480	249	196	17	18	97
Georgia	404	106,803	4,999	12,373	111	69	150	74	-
Hawaii	158	4,338	257	1,629	86	68	3	1	-
Idaho	934	362,031	12,416	13,294	171	468	178	69	48
Illinois	260	91,508	1,979	7,610	53	142	39	26	-
Indiana	129	29,106	286	2,215	76	51	-	2	-
Iowa	38	5,881	302	7,953	1	29	-	8	-
Kansas	531	321,628	5,823	10,966	12	387	86	32	14
Kentucky	36	4,584	46	1,277	21	15	-	-	-
Louisiana	126	46,663	727	5,769	19	80	27	-	-
Maine	5	10	(D)	(D)	-	5	-	-	-
Maryland	65	5,990	311	4,780	22	37	5	-	1
Massachusetts	89	4,109	709	7,967	22	31	30	6	-
Michigan	290	78,100	3,137	10,819	64	139	45	39	3
Minnesota	273	65,640	2,383	8,729	37	141	78	17	-
Mississippi	175	94,686	1,048	5,988	54	72	46	3	-
Missouri	91	29,291	606	6,660	41	39	2	8	1
Montana	354	78,753	3,933	11,111	90	155	70	26	13
Nebraska	1,341	562,310	7,766	5,791	171	899	249	21	1
Nevada	29	28,821	297	10,236	-	19	8	2	-
New Hampshire	11	(D)	(D)	(D)	7	2	-	2	-
New Jersey	65	3,795	676	10,405	16	18	29	1	1
New Mexico	269	20,529	5,510	20,485	9	191	-	36	33
New York	110	2,316	(D)	(D)	65	42	1	1	1
North Carolina	255	6,901	706	2,768	117	109	29	-	-
North Dakota	74	16,059	1,667	22,523	14	31	18	7	4
Ohio	54	5,075	786	14,558	20	26	5	1	2
Oklahoma	215	107,744	1,665	7,745	37	116	62	-	-
Oregon	907	97,054	9,169	10,109	323	409	117	28	30
Pennsylvania	51	1,604	(D)	(D)	14	34	3	-	-
Rhode Island	3	(D)	3	1,000	2	1	-	-	-
South Carolina	130	3,084	(D)	(D)	102	16	11	-	1
South Dakota	122	35,295	1,726	14,149	4	48	44	26	-
Tennessee	108	14,330	377	3,493	42	49	16	1	-
Texas	1,019	376,136	9,907	9,722	313	448	176	66	16
Utah	286	29,374	6,295	22,009	45	165	23	5	48
Vermont	2	(D)	(D)	(D)	-	2	-	-	-
Virginia	87	4,010	1,544	17,745	40	40	3	-	4
Washington	712	111,763	3,439	4,830	266	354	78	8	6
West Virginia	6	6	(D)	(D)	6	-	-	-	-
Wisconsin	258	42,712	1,655	6,415	78	123	45	12	-
Wyoming	275	47,031	7,122	25,899	40	185	30	-	20
Water Resource Regions									
Region 01 New England	149	4,718	926	6,215	59	50	31	9	-
Region 02 Mid-Atlantic	281	19,079	5,764	20,511	105	123	42	4	7
Region 03 South Atlantic-Gulf	1,543	200,798	25,748	16,687	654	472	227	92	98
Region 04 Great Lakes	502	101,108	4,177	8,321	167	224	66	41	4
Region 05 Ohio	286	52,297	938	3,280	145	123	15	2	1
Region 06 Tennessee	92	3,482	268	2,910	62	6	24	-	-
Region 07 Upper Mississippi	712	170,527	5,716	8,028	138	377	133	64	-
Region 08 Lower Mississippi	422	272,063	3,540	8,389	59	230	109	23	1
Region 09 Souris-Red-Rainy	28	6,473	397	14,175	5	10	6	7	-
Region 10 Missouri	2,505	902,397	24,772	9,889	321	1,563	496	88	37
Region 11 Arkansas-White-Red	960	573,331	12,862	13,398	132	549	163	87	29
Region 12 Texas-Gulf	852	168,645	7,297	8,565	308	355	133	25	31
Region 13 Rio Grande	232	83,904	3,159	13,617	6	160	19	39	8
Region 14 Upper Colorado	276	23,140	3,149	11,410	20	201	11	22	22
Region 15 Lower Colorado	150	77,649	1,840	12,266	54	82	12	-	2
Region 16 Great Basin	307	63,250	4,736	15,428	60	183	31	7	26
Region 17 Pacific Northwest	2,530	555,790	24,681	9,755	763	1,223	354	105	85
Region 18 California	2,454	383,486	27,308	11,128	638	1,216	360	199	41
Region 19 Alaska	8	8	3	375	8	-	-	-	-
Region 20 Hawaii	158	4,338	257	1,629	86	68	3	1	-

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Computers, control panels, and computer controlled valves, and hardware for irrigation water management during survey year - con.							
	Primary purpose of expenditures							
	New expansion		Water conservation		Energy conservation		Scheduled replacement or maintenance	
	Acres	Dollars	Acres	Dollars	Acres	Dollars	Acres	Dollars
United States	167,327	27,936,695	1,353,455	54,996,112	568,029	19,667,186	1,577,672	54,938,201
Alabama	2,314	(D)	433	20,200	-	-	16,586	(D)
Alaska	-	-	-	-	(D)	(D)	(D)	(D)
Arizona	368	(D)	(D)	239,500	(D)	(D)	24,029	224,578
Arkansas	7,182	145,140	22,008	215,150	29,487	460,525	33,554	364,505
California	12,582	4,521,058	142,798	8,790,741	93,432	4,370,587	128,539	9,148,534
Colorado	3,550	444,900	106,157	2,898,640	16,939	391,200	57,000	851,333
Connecticut	(D)	17,315	(D)	118,615	-	-	34	7,400
Delaware	196	2,500	445	21,500	(D)	1,713	(D)	130,299
Florida	4,371	3,309,793	36,836	12,450,140	600	75,000	25,183	3,482,793
Georgia	1,406	378,200	52,100	1,239,210	6,214	496,750	47,083	2,884,463
Hawaii	(D)	21,000	(D)	119,250	-	-	3,017	117,100
Idaho	9,257	2,218,067	75,280	2,386,150	96,802	3,558,757	180,692	4,253,175
Illinois	8,853	123,800	18,541	307,100	16,055	297,255	48,059	1,250,380
Indiana	-	-	280	11,500	4,215	86,955	24,611	187,260
Iowa	1,468	258,200	-	-	-	-	4,413	44,000
Kansas	1,820	17,360	110,304	2,304,520	7,950	400,000	201,554	3,100,928
Kentucky	(D)	(D)	(D)	(D)	-	-	3,572	38,987
Louisiana	8,370	281,000	47	22,309	975	127,500	37,271	296,100
Maine	10	(D)	-	-	-	-	-	-
Maryland	1,865	177,500	222	3,900	112	21,000	3,791	108,325
Massachusetts	(D)	(D)	(D)	514,956	(D)	79,300	152	(D)
Michigan	2,582	825,644	8,749	270,100	3,050	50,000	63,719	1,991,660
Minnesota	7,920	145,000	26,337	741,300	9,202	442,336	22,181	1,054,378
Mississippi	6,409	145,000	50,815	458,910	13,607	124,525	23,855	319,502
Missouri	3	900	24,983	444,900	-	-	4,305	160,250
Montana	2,795	85,000	8,394	903,807	4,830	258,006	62,734	2,686,324
Nebraska	5,358	418,800	317,456	3,073,078	88,128	1,287,862	151,368	2,986,360
Nevada	4,498	83,332	11,975	78,500	-	-	12,348	135,000
New Hampshire	82	(D)	-	-	-	-	(D)	700
New Jersey	543	(D)	(D)	(D)	(D)	(D)	2,757	341,808
New Mexico	320	(D)	(D)	276,400	(D)	(D)	11,516	5,137,000
New York	472	46,625	(D)	(D)	164	3,200	(D)	84,500
North Carolina	766	137,600	1,720	90,000	-	-	4,415	478,296
North Dakota	440	920,000	4,662	93,300	-	-	10,957	653,390
Ohio	108	54,000	688	72,800	(D)	(D)	(D)	(D)
Oklahoma	3,408	142,000	80,236	884,500	10,790	324,000	13,310	314,703
Oregon	6,919	1,410,600	32,873	2,619,065	17,066	3,430,823	40,196	1,708,286
Pennsylvania	57	15,026	33	(D)	300	20,000	1,214	57,900
Rhode Island	-	-	-	-	-	-	(D)	3,000
South Carolina	82	39,000	(D)	(D)	-	-	(D)	(D)
South Dakota	25,131	1,524,000	9,400	145,000	-	-	764	57,160
Tennessee	(D)	(D)	5,088	(D)	8,685	145,400	(D)	161,600
Texas	22,758	3,894,545	130,010	2,788,321	47,955	629,900	175,413	2,594,186
Utah	7,908	3,557,600	8,653	1,888,039	5,867	422,900	6,946	426,100
Vermont	-	-	-	-	-	-	(D)	(D)
Virginia	1,632	1,409,600	1,682	14,200	-	-	696	120,000
Washington	2,786	90,750	21,801	369,950	17,216	372,100	69,960	2,606,232
West Virginia	-	-	6	(D)	-	-	-	-
Wisconsin	38	62,000	662	68,350	20,327	444,392	21,685	1,080,254
Wyoming	331	46,800	15,557	4,827,400	2,260	132,000	28,883	2,116,113
Water Resource Regions								
Region 01 New England	209	178,315	(D)	633,571	(D)	79,300	212	34,880
Region 02 Mid-Atlantic	4,291	1,880,100	2,683	(D)	875	56,213	11,230	(D)
Region 03 South Atlantic-Gulf	6,639	3,865,433	91,439	13,903,560	6,814	571,750	95,906	7,407,402
Region 04 Great Lakes	3,054	872,269	9,553	346,950	4,954	111,700	83,547	2,846,012
Region 05 Ohio	(D)	(D)	(D)	95,300	(D)	(D)	40,460	738,986
Region 06 Tennessee	2,300	230,000	(D)	19,200	-	-	(D)	18,500
Region 07 Upper Mississippi	17,340	561,700	37,484	1,033,300	47,876	1,198,755	67,827	2,922,430
Region 08 Lower Mississippi	21,959	571,080	102,039	1,137,370	52,754	857,950	95,311	973,879
Region 09 Souris-Red-Rainy	-	-	525	6,300	-	-	5,948	390,600
Region 10 Missouri	35,006	3,062,300	424,713	10,518,665	116,457	2,135,068	326,221	9,055,757
Region 11 Arkansas-White-Red	23,683	3,552,620	260,388	4,948,405	22,445	646,500	266,815	3,714,706
Region 12 Texas-Gulf	7,750	891,345	35,146	637,900	38,250	607,400	87,499	5,160,361
Region 13 Rio Grande	-	-	66,718	(D)	(D)	(D)	(D)	1,847,852
Region 14 Upper Colorado	398	100,800	8,676	2,605,000	1,700	34,000	12,366	409,488
Region 15 Lower Colorado	368	(D)	(D)	239,500	(D)	(D)	24,071	225,178
Region 16 Great Basin	12,404	3,640,532	19,997	(D)	10,267	427,900	20,582	(D)
Region 17 Pacific Northwest	18,964	3,720,417	124,661	5,283,365	126,684	7,356,680	285,481	8,320,154
Region 18 California	12,582	4,521,058	143,518	8,792,541	93,432	4,370,587	133,954	9,623,534
Region 19 Alaska	-	-	-	-	(D)	(D)	(D)	(D)
Region 20 Hawaii	(D)	21,000	(D)	119,250	-	-	3,017	117,100

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Computers, control panels, and computer controlled valves, and hardware for irrigation water management during survey year - con.							
	Primary source of funding assistance							
	EQIP		Other USDA programs		Non-USDA assistance		No funding assistance	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States	534	101,781	85	23,149	893	264,317	12,935	3,277,236
Alabama	-	-	-	-	-	-	175	19,333
Alaska	-	-	-	-	-	-	8	8
Arizona	5	50	-	-	4	144	138	77,413
Arkansas	20	17,549	7	9,100	-	-	117	65,582
California	78	4,692	25	300	176	39,085	2,150	333,274
Colorado	22	1,034	1	(D)	23	(D)	511	180,625
Connecticut	4	(D)	-	-	1	(D)	35	469
Delaware	3	3	-	-	-	-	20	3,615
Florida	33	1,557	-	-	67	33,636	477	31,797
Georgia	-	-	-	-	51	8,592	353	98,211
Hawaii	-	-	1	(D)	2	(D)	155	3,514
Idaho	29	2,868	19	4,560	49	9,350	837	345,253
Illinois	-	-	14	(D)	2	(D)	244	88,690
Indiana	-	-	-	-	3	183	126	28,923
Iowa	-	-	-	-	-	-	38	5,881
Kansas	6	6,000	-	-	51	28,254	474	287,374
Kentucky	-	-	-	-	-	-	36	4,584
Louisiana	-	-	-	-	-	-	126	46,663
Maine	-	-	-	-	-	-	5	10
Maryland	5	5	-	-	3	368	57	5,617
Massachusetts	19	(D)	7	7	4	(D)	59	3,727
Michigan	-	-	-	-	27	27	263	78,073
Minnesota	20	5,292	10	(D)	1	(D)	242	54,273
Mississippi	6	3,500	-	-	9	9,606	160	81,580
Missouri	10	10,200	-	-	1	(D)	80	(D)
Montana	43	5,866	-	-	28	8,265	283	64,622
Nebraska	115	22,192	1	(D)	45	(D)	1,180	535,128
Nevada	-	-	-	-	-	-	29	28,821
New Hampshire	-	-	-	-	-	-	11	(D)
New Jersey	-	-	-	-	-	-	65	3,795
New Mexico	3	3	-	-	31	5,580	235	14,946
New York	-	-	-	-	-	-	110	2,316
North Carolina	-	-	-	-	-	-	255	6,901
North Dakota	5	1,325	-	-	-	-	69	14,734
Ohio	-	-	-	-	18	108	36	4,967
Oklahoma	-	-	-	-	4	1,400	211	106,344
Oregon	37	4,990	-	-	84	11,595	786	80,469
Pennsylvania	-	-	-	-	5	17	46	1,587
Rhode Island	-	-	-	-	-	-	3	(D)
South Carolina	-	-	-	-	-	-	130	3,084
South Dakota	-	-	-	-	27	7,425	95	27,870
Tennessee	-	-	-	-	11	4,345	97	9,985
Texas	-	-	-	-	32	44,183	987	331,953
Utah	-	-	-	-	65	11,407	221	17,967
Vermont	-	-	-	-	-	-	2	(D)
Virginia	-	-	-	-	12	(D)	75	(D)
Washington	-	-	-	-	39	16,340	673	95,423
West Virginia	-	-	-	-	-	-	6	6
Wisconsin	21	4,200	-	-	-	-	237	38,512
Wyoming	50	10,248	-	-	18	2,945	207	33,838
Water Resource Regions								
Region 01 New England	23	207	7	7	5	190	114	4,314
Region 02 Mid-Atlantic	8	8	-	-	20	2,145	253	16,926
Region 03 South Atlantic-Gulf	33	1,557	-	-	118	42,228	1,392	157,013
Region 04 Great Lakes	-	-	-	-	27	27	475	101,081
Region 05 Ohio	-	-	-	-	23	309	263	51,988
Region 06 Tennessee	-	-	-	-	-	-	92	3,482
Region 07 Upper Mississippi	41	9,492	24	(D)	1	(D)	646	152,160
Region 08 Lower Mississippi	29	29,849	7	9,100	21	25,951	365	207,163
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	28	6,473
Region 10 Missouri	191	39,477	1	(D)	148	(D)	2,165	836,540
Region 11 Arkansas-White-Red	13	7,400	-	-	44	66,629	903	499,302
Region 12 Texas-Gulf	-	-	-	-	54	10,388	798	158,257
Region 13 Rio Grande	3	(D)	-	-	13	(D)	216	82,341
Region 14 Upper Colorado	22	(D)	1	(D)	-	-	253	22,034
Region 15 Lower Colorado	5	50	-	-	4	144	141	77,455
Region 16 Great Basin	-	-	19	4,560	65	11,407	223	47,283
Region 17 Pacific Northwest	88	8,012	-	-	172	37,285	2,270	510,493
Region 18 California	78	4,692	25	300	176	39,085	2,175	339,409
Region 19 Alaska	-	-	-	-	-	-	8	8
Region 20 Hawaii	-	-	1	(D)	2	(D)	155	3,514

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Clearing or leveling non-irrigated land for new irrigation acres (new expansion) during survey year								
	Farms	Irrigated acres affected by expenditure	Expenditures ² (\$1,000)	Average expenditure per farm (dollars)	Farms with expenditures of-				
					\$1 to \$999	\$1,000 to \$9,999	\$10,000 to \$29,999	\$30,000 to \$74,999	\$75,000 or more
United States	3,433	189,498	145,855	42,486	798	1,303	671	331	330
Alabama	117	3,693	1,236	10,565	23	58	7	29	-
Alaska	45	69	53	1,184	20	25	-	-	-
Arizona	40	3,738	1,248	31,204	3	5	23	3	6
Arkansas	105	8,924	5,556	52,914	-	29	28	21	27
California	525	37,935	25,950	49,428	24	254	105	89	53
Colorado	175	2,852	939	5,368	74	71	26	4	-
Connecticut	9	17	48	5,278	-	9	-	-	-
Delaware	15	1,555	295	19,693	5	-	5	5	-
Florida	143	3,666	22,270	155,737	61	4	34	38	6
Georgia	114	22,419	26,965	236,535	-	27	54	1	32
Hawaii	92	479	3,237	35,189	29	45	1	3	14
Idaho	149	3,024	520	3,490	44	99	-	6	-
Illinois	5	675	25	5,000	-	5	-	-	-
Indiana	20	(D)	320	16,000	-	-	20	-	-
Iowa	-	-	-	-	-	-	-	-	-
Kansas	53	1,885	563	10,628	-	27	26	-	-
Kentucky	20	840	76	3,810	7	11	2	-	-
Louisiana	112	8,030	5,033	44,933	-	64	24	8	16
Maine	6	489	410	68,333	-	-	3	2	1
Maryland	5	5	10	2,000	-	5	-	-	-
Massachusetts	9	18	18	2,000	-	9	-	-	-
Michigan	16	460	235	14,688	-	-	16	-	-
Minnesota	17	374	110	6,471	-	9	8	-	-
Mississippi	103	19,896	7,138	69,304	8	13	13	35	34
Missouri	78	3,495	2,867	36,762	22	-	14	34	8
Montana	81	1,518	60	735	66	15	-	-	-
Nebraska	139	3,324	1,455	10,465	-	62	77	-	-
Nevada	42	785	657	15,652	-	30	1	11	-
New Hampshire	4	40	45	11,250	-	2	2	-	-
New Jersey	10	2,520	990	99,000	-	-	-	1	9
New Mexico	166	857	158	952	104	62	-	-	-
New York	47	66	(D)	(D)	23	23	-	-	1
North Carolina	28	335	38	1,363	23	3	2	-	-
North Dakota	6	315	290	48,333	-	-	5	-	1
Ohio	39	123	22	551	25	14	-	-	-
Oklahoma	27	1,021	439	16,259	8	11	-	8	-
Oregon	29	1,940	478	16,483	-	25	-	3	1
Pennsylvania	-	-	-	-	-	-	-	-	-
Rhode Island	10	14	71	7,080	-	7	3	-	-
South Carolina	86	5,700	1,074	12,488	24	-	61	-	1
South Dakota	27	270	(D)	(D)	-	27	-	-	-
Tennessee	47	(D)	(D)	(D)	30	17	-	-	-
Texas	266	20,505	15,016	56,450	69	80	64	4	49
Utah	193	8,868	3,798	19,679	76	69	3	22	23
Vermont	4	8	14	3,500	-	4	-	-	-
Virginia	41	376	658	16,049	8	10	20	3	-
Washington	94	13,063	7,525	80,057	5	41	22	1	25
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	25	2,165	4,517	180,680	-	1	1	-	23
Wyoming	49	1,032	169	3,458	17	31	1	-	-
Water Resource Regions									
Region 01 New England	38	578	591	15,561	-	27	8	2	1
Region 02 Mid-Atlantic	92	4,232	4,824	52,435	13	38	25	6	10
Region 03 South Atlantic-Gulf	461	34,161	51,491	111,695	116	86	158	62	39
Region 04 Great Lakes	79	2,679	4,682	59,264	23	18	16	-	22
Region 05 Ohio	93	163	355	3,819	62	11	20	-	-
Region 06 Tennessee	63	2,340	849	13,471	23	17	-	23	-
Region 07 Upper Mississippi	29	2,020	952	32,828	-	15	1	12	1
Region 08 Lower Mississippi	308	38,053	19,114	62,058	-	78	73	72	85
Region 09 Souris-Red-Rainy	9	304	310	34,444	-	-	8	-	1
Region 10 Missouri	336	6,137	2,331	6,936	84	148	104	-	-
Region 11 Arkansas-White-Red	140	10,765	12,049	86,063	13	67	25	12	23
Region 12 Texas-Gulf	181	14,407	3,975	21,960	50	37	64	4	26
Region 13 Rio Grande	142	527	184	1,299	88	54	-	-	-
Region 14 Upper Colorado	241	2,927	1,306	5,419	103	102	14	22	-
Region 15 Lower Colorado	44	7,738	1,848	42,003	3	5	23	3	10
Region 16 Great Basin	192	8,762	3,784	19,707	55	99	4	11	23
Region 17 Pacific Northwest	324	18,322	8,449	26,078	92	177	22	7	26
Region 18 California	524	34,835	25,470	48,607	24	254	105	92	49
Region 19 Alaska	45	69	53	1,184	20	25	-	-	-
Region 20 Hawaii	92	479	3,237	35,189	29	45	1	3	14

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Clearing or leveling non-irrigated land for new irrigation acres (new expansion) during survey year - con.							
	Primary source of funding assistance							
	EQIP		Other USDA programs		Non-USDA assistance		No funding assistance	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States	190	9,583	23	630	317	20,354	2,903	158,931
Alabama	-	-	-	-	-	-	117	3,693
Alaska	-	-	-	-	-	-	45	69
Arizona	-	-	1	(D)	3	(D)	36	3,318
Arkansas	27	2,733	-	-	3	60	75	6,131
California	53	1,603	-	-	24	240	448	36,092
Colorado	-	-	-	-	22	88	153	2,764
Connecticut	-	-	-	-	-	-	9	17
Delaware	-	-	-	-	-	-	15	1,555
Florida	3	57	-	-	-	-	140	3,609
Georgia	-	-	-	-	37	1,775	77	20,644
Hawaii	3	21	-	-	-	-	89	458
Idaho	-	-	-	-	-	-	149	3,024
Illinois	-	-	-	-	-	-	5	675
Indiana	-	-	-	-	-	-	20	(D)
Iowa	-	-	-	-	-	-	-	-
Kansas	-	-	-	-	-	-	53	1,885
Kentucky	-	-	-	-	7	7	13	833
Louisiana	24	864	-	-	11	11	77	7,155
Maine	-	-	-	-	-	-	6	489
Maryland	5	5	-	-	-	-	-	-
Massachusetts	-	-	-	-	-	-	9	18
Michigan	-	-	-	-	-	-	16	460
Minnesota	-	-	-	-	-	-	17	374
Mississippi	8	(D)	-	-	12	(D)	83	19,078
Missouri	-	-	-	-	-	-	78	3,495
Montana	-	-	-	-	-	-	81	1,518
Nebraska	-	-	-	-	58	667	81	2,657
Nevada	-	-	-	-	-	-	37	635
New Hampshire	5	150	-	-	2	(D)	2	(D)
New Jersey	-	-	-	-	1	(D)	9	(D)
New Mexico	-	-	-	-	31	248	135	609
New York	-	-	-	-	-	-	47	66
North Carolina	-	-	-	-	-	-	28	335
North Dakota	-	-	-	-	-	-	6	315
Ohio	-	-	-	-	-	-	39	123
Oklahoma	-	-	-	-	4	480	23	541
Oregon	-	-	-	-	-	-	29	1,940
Pennsylvania	-	-	-	-	-	-	-	-
Rhode Island	3	(D)	-	-	-	-	7	(D)
South Carolina	-	-	-	-	1	(D)	85	(D)
South Dakota	-	-	-	-	27	270	-	-
Tennessee	-	-	-	-	-	-	47	(D)
Texas	38	1,799	-	-	49	7,350	179	11,356
Utah	-	-	22	(D)	23	6,325	148	(D)
Vermont	-	-	-	-	-	-	4	8
Virginia	-	-	-	-	-	-	41	376
Washington	21	(D)	-	-	1	(D)	72	11,117
West Virginia	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	25	2,165
Wyoming	-	-	-	-	1	(D)	48	(D)
Water Resource Regions								
Region 01 New England	3	(D)	-	-	2	(D)	33	563
Region 02 Mid-Atlantic	5	(D)	-	-	1	(D)	86	(D)
Region 03 South Atlantic-Gulf	3	57	-	-	38	2,275	420	31,829
Region 04 Great Lakes	-	-	-	-	-	-	79	2,679
Region 05 Ohio	-	-	-	-	7	7	86	156
Region 06 Tennessee	-	-	-	-	-	-	63	2,340
Region 07 Upper Mississippi	-	-	-	-	-	-	29	2,020
Region 08 Lower Mississippi	53	3,827	-	-	15	462	240	33,764
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	9	304
Region 10 Missouri	-	-	-	-	85	937	251	5,200
Region 11 Arkansas-White-Red	6	186	-	-	27	6,000	107	4,579
Region 12 Texas-Gulf	38	1,799	-	-	37	1,841	106	10,767
Region 13 Rio Grande	-	-	-	-	-	-	142	527
Region 14 Upper Colorado	-	-	-	-	54	421	187	2,506
Region 15 Lower Colorado	-	-	1	(D)	3	(D)	40	7,318
Region 16 Great Basin	5	150	22	(D)	23	(D)	142	(D)
Region 17 Pacific Northwest	21	(D)	-	-	1	(D)	302	16,376
Region 18 California	53	1,603	-	-	24	240	447	32,992
Region 19 Alaska	-	-	-	-	-	-	45	69
Region 20 Hawaii	3	21	-	-	-	-	89	458

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Land leveling of previously irrigated land during survey year								
	Farms	Irrigated acres affected by expenditure	Expenditures ² (\$1,000)	Average expenditure per farm (dollars)	Farms with expenditures of-				
					\$1 to \$999	\$1,000 to \$9,999	\$10,000 to \$29,999	\$30,000 to \$74,999	\$75,000 or more
United States	6,901	983,793	191,178	27,703	1,539	2,831	1,435	590	506
Alabama	29	593	(D)	(D)	14	14	-	-	1
Alaska	-	-	-	-	-	-	-	-	-
Arizona	269	57,152	4,898	18,207	75	83	49	46	16
Arkansas	312	129,472	45,619	146,215	14	63	86	75	74
California	1,748	356,225	63,678	36,429	84	556	717	260	131
Colorado	350	33,696	1,152	3,292	187	134	24	5	-
Connecticut	18	(D)	61	3,408	8	10	-	-	-
Delaware	3	(D)	30	10,000	-	-	3	-	-
Florida	214	34,351	11,145	52,079	-	153	9	16	36
Georgia	105	17,061	2,691	25,631	27	54	1	-	23
Hawaii	30	358	1,527	50,900	14	-	-	2	14
Idaho	333	8,219	1,799	5,401	180	103	40	10	-
Illinois	-	-	-	-	-	-	-	-	-
Indiana	17	(D)	53	3,100	-	17	-	-	-
Iowa	-	-	-	-	-	-	-	-	-
Kansas	52	26,500	450	8,654	-	11	41	-	-
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	265	130,615	11,992	45,254	16	66	75	35	73
Maine	3	(D)	(D)	(D)	-	2	-	-	1
Maryland	12	60	12	958	5	7	-	-	-
Massachusetts	43	212	2,065	48,018	-	11	14	2	16
Michigan	5	20	4	800	5	-	-	-	-
Minnesota	-	-	-	-	-	-	-	-	-
Mississippi	104	28,039	4,156	39,961	4	19	35	26	20
Missouri	79	18,181	4,505	57,025	2	7	29	25	16
Montana	179	6,647	1,397	7,803	85	75	16	-	3
Nebraska	91	4,590	265	2,912	-	91	-	-	-
Nevada	92	6,396	1,179	12,811	2	34	49	7	-
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	3	600	(D)	(D)	-	1	-	1	1
New Mexico	580	12,587	4,387	7,563	171	369	9	-	31
New York	27	675	(D)	(D)	-	-	27	-	-
North Carolina	36	3,579	532	14,783	22	-	11	-	3
North Dakota	10	575	8	800	10	-	10	-	-
Ohio	5	401	60	12,000	-	-	5	-	-
Oklahoma	4	400	100	25,000	-	-	4	-	-
Oregon	209	7,547	2,937	14,050	67	95	37	5	5
Pennsylvania	-	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	1	(D)	(D)	(D)	-	1	-	-	-
South Dakota	55	1,514	(D)	(D)	26	27	2	-	-
Tennessee	1	(D)	(D)	(D)	-	-	-	1	-
Texas	413	60,623	16,450	39,830	132	128	94	21	38
Utah	738	19,799	3,704	5,019	248	418	50	22	-
Vermont	8	(D)	(D)	(D)	4	4	-	-	-
Virginia	8	8	8	1,000	-	8	-	-	-
Washington	211	4,765	1,909	9,047	62	123	1	21	4
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	33	547	550	16,675	-	23	-	10	-
Wyoming	206	11,191	580	2,815	75	124	7	-	-
Water Resource Regions									
Region 01 New England	64	302	2,278	35,596	8	23	14	2	17
Region 02 Mid-Atlantic	53	1,403	765	14,425	5	16	30	1	1
Region 03 South Atlantic-Gulf	395	55,670	14,656	37,103	65	230	21	16	63
Region 04 Great Lakes	18	429	73	4,056	9	4	5	-	-
Region 05 Ohio	17	17	53	3,100	-	17	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	46	5,587	773	16,815	-	24	12	10	-
Region 08 Lower Mississippi	661	280,178	62,711	94,872	18	118	206	151	168
Region 09 Souris-Red-Rainy	5	325	4	800	5	-	-	-	-
Region 10 Missouri	536	72,647	3,522	6,570	160	285	72	16	3
Region 11 Arkansas-White-Red	156	54,538	15,004	96,178	19	79	16	4	38
Region 12 Texas-Gulf	260	21,514	4,088	15,722	66	108	55	16	15
Region 13 Rio Grande	674	24,690	5,009	7,432	228	366	48	1	31
Region 14 Upper Colorado	329	3,769	1,609	4,890	168	139	-	22	-
Region 15 Lower Colorado	308	83,988	7,065	22,939	99	83	49	46	31
Region 16 Great Basin	759	24,943	3,670	4,835	205	448	99	7	-
Region 17 Pacific Northwest	854	23,799	6,851	8,022	386	332	91	36	9
Region 18 California	1,736	329,636	61,522	35,439	84	559	717	260	116
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	30	358	1,527	50,900	14	-	-	2	14

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Land leveling of previously irrigated land during survey year - con.					
	Primary purpose of expenditures					
	Water conservation		Energy conservation		Scheduled replacement or maintenance	
	Acres	Dollars	Acres	Dollars	Acres	Dollars
United States	577,091	124,075,643	45,840	5,438,614	360,862	61,664,100
Alabama	13	13,000	-	-	580	(D)
Alaska	-	-	-	-	-	-
Arizona	(D)	4,346,804	18	22,788	(D)	527,975
Arkansas	107,641	40,286,731	2,152	876,776	19,679	4,455,572
California	217,169	42,683,083	17,132	3,232,800	121,924	17,761,962
Colorado	15,512	630,300	14,325	265,000	3,859	257,030
Connecticut	(D)	(D)	-	-	(D)	(D)
Delaware	-	-	-	-	(D)	30,000
Florida	12,910	1,957,000	-	-	21,441	9,187,854
Georgia	181	146,500	-	-	16,880	2,544,759
Hawaii	(D)	(D)	-	-	(D)	(D)
Idaho	5,807	1,087,590	38	9,500	2,374	701,434
Illinois	-	-	-	-	-	-
Indiana	-	-	-	-	(D)	52,700
Iowa	-	-	-	-	-	-
Kansas	-	-	-	-	26,500	450,000
Kentucky	-	-	-	-	-	-
Louisiana	72,199	7,726,740	792	216,000	57,624	4,049,460
Maine	-	-	-	-	(D)	(D)
Maryland	-	-	5	7,500	55	4,000
Massachusetts	114	784,786	-	-	98	1,280,000
Michigan	-	-	20	4,000	-	-
Minnesota	-	-	-	-	-	-
Mississippi	12,218	3,182,260	-	-	15,821	973,700
Missouri	14,359	4,140,000	-	-	3,822	365,000
Montana	3,434	1,167,300	-	-	3,213	229,470
Nebraska	-	-	4,582	261,000	8	4,000
Nevada	2,840	595,000	-	-	3,556	583,657
New Hampshire	-	-	-	-	-	-
New Jersey	(D)	(D)	(D)	(D)	(D)	(D)
New Mexico	9,136	3,959,300	(D)	(D)	(D)	(D)
New York	675	(D)	-	-	-	-
North Carolina	-	-	-	-	3,579	532,200
North Dakota	250	4,000	-	-	325	4,000
Ohio	-	-	-	-	401	60,000
Oklahoma	400	100,000	-	-	-	-
Oregon	5,388	2,680,000	-	-	2,159	256,525
Pennsylvania	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-
South Carolina	-	-	-	-	(D)	(D)
South Dakota	164	(D)	-	-	1,350	54,000
Tennessee	-	-	-	-	(D)	(D)
Texas	35,996	3,339,548	5,044	188,700	19,583	12,921,628
Utah	10,283	2,528,504	1,495	224,250	8,021	951,354
Vermont	(D)	(D)	-	-	4	(D)
Virginia	8	8,000	-	-	-	-
Washington	3,941	1,179,847	-	-	824	729,156
West Virginia	-	-	-	-	-	-
Wisconsin	(D)	450,000	(D)	(D)	379	(D)
Wyoming	6,669	326,150	-	-	4,522	253,790
Water Resource Regions						
Region 01 New England	117	789,786	-	-	185	1,488,350
Region 02 Mid-Atlantic	733	(D)	(D)	(D)	(D)	(D)
Region 03 South Atlantic-Gulf	13,168	2,128,500	-	-	42,502	12,527,013
Region 04 Great Lakes	4	(D)	20	(D)	405	66,000
Region 05 Ohio	-	-	-	-	17	52,700
Region 06 Tennessee	-	-	-	-	-	-
Region 07 Upper Mississippi	4,962	666,000	(D)	(D)	(D)	(D)
Region 08 Lower Mississippi	190,155	54,180,181	2,937	1,089,276	87,086	7,441,132
Region 09 Souris-Red-Rainy	-	-	-	-	325	4,000
Region 10 Missouri	20,075	2,166,700	18,582	461,000	33,990	894,020
Region 11 Arkansas-White-Red	40,267	953,050	332	68,500	13,939	13,982,225
Region 12 Texas-Gulf	7,779	2,826,000	4,998	171,450	8,737	1,090,353
Region 13 Rio Grande	(D)	4,252,348	(D)	26,550	12,649	730,450
Region 14 Upper Colorado	1,497	1,371,500	-	-	2,272	237,300
Region 15 Lower Colorado	43,315	4,971,804	18	22,788	40,655	2,070,615
Region 16 Great Basin	11,983	1,918,004	1,495	224,250	11,465	1,527,811
Region 17 Pacific Northwest	17,653	5,072,687	38	9,500	6,108	1,768,635
Region 18 California	213,369	42,058,083	17,132	3,232,800	99,135	16,231,022
Region 19 Alaska	-	-	-	-	-	-
Region 20 Hawaii	(D)	(D)	-	-	(D)	(D)

See footnote(s) at end of table.

--continued

Table 19. Expenditures for Irrigation Infrastructure: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Land leveling of previously irrigated land during survey year - con.							
	Primary source of funding assistance							
	EQIP		Other USDA programs		Non-USDA assistance		No funding assistance	
	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States	289	81,430	87	5,836	343	74,401	6,182	822,126
Alabama	-	-	-	-	1	(D)	28	(D)
Alaska	-	-	-	-	-	-	-	-
Arizona	18	(D)	1	(D)	-	-	250	57,034
Arkansas	55	38,506	-	-	32	6,184	225	84,782
California	28	9,326	6	1,194	51	7,100	1,663	338,605
Colorado	-	-	3	(D)	5	(D)	342	33,526
Connecticut	-	-	-	-	-	-	18	(D)
Delaware	-	-	-	-	-	-	3	(D)
Florida	-	-	-	-	33	210	181	34,141
Georgia	-	-	-	-	1	(D)	104	(D)
Hawaii	-	-	-	-	-	-	30	358
Idaho	5	415	19	(D)	23	(D)	286	4,731
Illinois	-	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	17	(D)
Iowa	-	-	-	-	-	-	-	-
Kansas	-	-	-	-	-	-	52	26,500
Kentucky	-	-	-	-	-	-	-	-
Louisiana	48	5,736	-	-	46	29,931	171	94,948
Maine	-	-	-	-	-	-	3	(D)
Maryland	5	5	-	-	-	-	7	55
Massachusetts	-	-	13	95	5	32	25	85
Michigan	-	-	-	-	-	-	5	20
Minnesota	-	-	-	-	-	-	-	-
Mississippi	43	20,364	-	-	8	600	53	7,075
Missouri	-	-	-	-	2	(D)	77	(D)
Montana	-	-	-	-	3	480	176	6,167
Nebraska	-	-	-	-	-	-	91	4,590
Nevada	5	(D)	2	(D)	-	-	85	6,194
New Hampshire	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	3	600
New Mexico	62	(D)	-	-	62	(D)	456	9,890
New York	-	-	-	-	-	-	27	675
North Carolina	-	-	-	-	-	-	36	3,579
North Dakota	-	-	-	-	-	-	10	575
Ohio	-	-	-	-	-	-	5	401
Oklahoma	-	-	-	-	-	-	4	400
Oregon	5	1,250	-	-	8	8	196	6,289
Pennsylvania	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-
South Carolina	-	-	-	-	-	-	1	(D)
South Dakota	-	-	-	-	-	-	55	1,514
Tennessee	-	-	-	-	-	-	1	(D)
Texas	15	3,750	-	-	50	24,171	348	32,702
Utah	-	-	22	220	3	6	713	19,573
Vermont	-	-	-	-	-	-	8	(D)
Virginia	-	-	-	-	-	-	8	8
Washington	-	-	21	(D)	2	(D)	188	2,831
West Virginia	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	33	547
Wyoming	-	-	-	-	8	3,500	198	7,691
Water Resource Regions								
Region 01 New England	-	-	13	95	5	32	46	175
Region 02 Mid-Atlantic	5	5	-	-	-	-	48	1,398
Region 03 South Atlantic-Gulf	-	-	-	-	35	320	360	55,350
Region 04 Great Lakes	-	-	-	-	-	-	18	429
Region 05 Ohio	-	-	-	-	-	-	17	17
Region 06 Tennessee	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	-	-	-	-	-	-	46	5,587
Region 08 Lower Mississippi	118	49,232	-	-	77	36,984	466	193,962
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	5	325
Region 10 Missouri	-	-	-	-	16	3,985	520	68,662
Region 11 Arkansas-White-Red	28	15,374	-	-	27	24,125	101	15,039
Region 12 Texas-Gulf	15	3,750	-	-	11	11	234	17,753
Region 13 Rio Grande	62	1,860	-	-	85	883	527	21,947
Region 14 Upper Colorado	-	-	3	165	-	-	326	3,604
Region 15 Lower Colorado	18	(D)	1	(D)	-	-	289	83,870
Region 16 Great Basin	5	(D)	24	(D)	3	6	727	24,515
Region 17 Pacific Northwest	10	1,665	40	4,060	33	955	771	17,119
Region 18 California	28	9,326	6	1,194	51	7,100	1,651	312,016
Region 19 Alaska	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	30	358

¹ Acres can be reported more than once due to multiple expenditure types being applied to the same acres.

² May not add due to rounding.

Table 20. Labor Used for Irrigation: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms	Acres irrigated on farms with any hired or contract labor	Total hired and contract labor expenses for irrigation (\$1,000)	Hired labor					Contract labor		
				Farms	Expenses (\$1,000)	Average hours of labor per farm	Average labor rate per hour (dollars)	Average expense per farm (dollars)	Farms	Expenses (\$1,000)	Average expense per farm (dollars)
United States	52,899	26,511,815	2,112,538	45,332	1,691,470	2,074	17.99	37,313	13,608	421,068	30,943
Alabama	326	78,104	17,113	317	16,867	2,419	21.99	53,209	21	246	11,694
Alaska	66	296	233	66	227	211	16.33	3,439	12	6	475
Arizona	921	585,399	61,914	840	60,472	4,490	16.04	71,990	92	1,442	15,672
Arkansas	1,230	2,899,725	16,675	1,162	12,507	694	15.51	10,763	153	4,168	27,240
California	14,494	5,925,664	1,171,642	12,232	898,269	4,050	18.13	73,436	3,817	273,373	71,620
Colorado	1,749	826,058	26,178	1,488	18,890	653	19.43	12,695	421	7,288	17,312
Connecticut	143	2,469	5,010	137	4,985	2,125	17.12	36,387	16	25	1,541
Delaware	76	34,659	612	59	462	383	20.47	7,833	25	150	5,996
Florida	2,409	430,053	78,248	1,748	52,778	1,819	16.60	30,193	1,100	25,471	23,155
Georgia	1,230	567,475	22,482	1,037	17,172	813	20.37	16,560	457	5,310	11,619
Hawaii	474	10,193	7,208	438	6,411	786	18.62	14,637	38	797	20,974
Idaho	2,134	1,671,447	99,756	1,821	91,646	3,019	16.67	50,327	529	8,110	15,330
Illinois	613	285,616	9,800	556	8,741	876	17.95	15,722	110	1,059	9,623
Indiana	595	238,363	5,165	566	3,473	321	19.14	6,136	181	1,693	9,351
Iowa	265	99,517	2,874	184	2,433	671	19.71	13,225	102	441	4,320
Kansas	1,234	1,114,866	18,948	954	14,528	732	20.80	15,228	551	4,420	8,022
Kentucky	169	16,078	970	161	718	312	14.31	4,458	51	253	4,952
Louisiana	617	626,945	5,059	594	4,473	537	14.01	7,530	40	586	14,654
Maine	155	14,066	522	150	513	185	18.44	3,419	15	9	600
Maryland	200	43,065	4,767	164	4,342	1,229	21.54	26,473	45	425	9,444
Massachusetts	412	12,356	5,726	363	4,560	630	19.93	12,562	87	1,166	13,402
Michigan	1,428	406,177	28,706	1,316	27,814	1,007	20.99	21,135	215	892	4,149
Minnesota	469	221,235	6,413	392	4,889	640	19.49	12,471	165	1,525	9,240
Mississippi	547	1,078,824	5,201	520	4,618	620	14.32	8,881	52	582	11,198
Missouri	476	669,863	4,733	438	3,932	521	17.24	8,978	76	801	10,541
Montana	1,012	613,144	9,127	902	7,401	482	17.02	8,205	232	1,726	7,441
Nebraska	2,803	2,375,729	29,471	1,941	22,361	499	23.08	11,520	1,120	7,110	6,348
Nevada	303	342,493	12,102	297	9,945	1,796	18.65	33,485	45	2,157	47,932
New Hampshire	83	1,042	1,012	80	1,008	675	18.67	12,604	9	4	394
New Jersey	324	33,700	11,795	320	10,996	1,884	18.24	34,362	18	799	44,401
New Mexico	1,085	153,906	10,301	949	8,451	577	15.42	8,905	230	1,850	8,044
New York	674	35,613	7,455	674	6,307	485	19.28	9,358	111	1,148	10,339
North Carolina	587	64,597	39,068	557	13,574	1,126	21.64	24,369	118	25,495	216,056
North Dakota	108	101,006	1,487	86	1,113	605	21.38	12,940	46	374	8,129
Ohio	529	27,961	8,516	520	8,069	757	20.49	15,518	42	447	10,637
Oklahoma	430	298,951	12,612	359	11,174	1,668	18.66	31,124	244	1,438	5,893
Oregon	2,350	624,771	69,262	2,181	67,637	1,591	19.49	31,012	292	1,625	5,564
Pennsylvania	460	10,329	10,913	460	9,478	1,469	14.03	20,604	11	1,435	130,429
Rhode Island	66	2,184	862	64	856	764	17.49	13,372	6	6	1,030
South Carolina	236	53,397	6,205	206	5,730	1,755	15.85	27,817	45	475	10,548
South Dakota	162	99,024	1,006	139	947	354	19.26	6,816	40	58	1,457
Tennessee	251	79,210	4,691	183	3,885	1,348	15.75	21,228	115	807	7,013
Texas	2,841	1,895,193	125,742	2,252	104,496	2,815	16.48	46,401	1,347	21,246	15,773
Utah	1,452	369,557	17,861	1,182	16,736	917	15.44	14,159	413	1,125	2,723
Vermont	114	1,232	1,639	114	1,611	702	20.14	14,129	11	28	2,568
Virginia	379	31,484	7,704	357	6,518	1,164	15.69	18,259	89	1,185	13,319
Washington	2,684	783,684	92,020	2,473	83,751	1,740	19.47	33,866	361	8,269	22,906
West Virginia	53	382	291	53	287	301	18.00	5,409	6	5	750
Wisconsin	803	221,338	9,025	716	8,380	579	20.22	11,704	161	645	4,006
Wyoming	678	433,375	16,418	564	15,040	1,558	17.11	26,666	125	1,379	11,031
Water Resource Regions											
Region 01 New England	885	32,827	13,213	820	11,981	797	18.32	14,611	142	1,232	8,673
Region 02 Mid-Atlantic	1,738	174,308	37,904	1,659	33,007	1,148	17.33	19,896	272	4,897	18,005
Region 03 South Atlantic-Gulf	4,768	1,169,717	162,142	3,828	105,011	1,509	18.18	27,432	1,785	57,131	32,006
Region 04 Great Lakes	2,235	490,324	38,515	2,085	37,398	883	20.31	17,937	277	1,117	4,033
Region 05 Ohio	1,029	201,229	13,754	1,011	11,370	632	17.78	11,247	189	2,384	12,613
Region 06 Tennessee	258	44,064	5,935	204	5,524	1,416	19.12	27,080	61	411	6,733
Region 07 Upper Mississippi	1,961	746,288	23,601	1,730	20,268	606	19.34	11,716	492	3,333	6,774
Region 08 Lower Mississippi	2,386	4,816,871	26,440	2,283	20,646	612	14.78	9,043	265	5,794	21,865
Region 09 Souris-Red-Rainy	84	63,218	961	60	676	580	19.45	11,273	53	284	5,361
Region 10 Missouri	5,748	4,100,837	76,289	4,374	59,643	684	19.94	13,636	1,908	16,646	8,724
Region 11 Arkansas-White-Red	2,377	2,512,189	88,745	1,994	77,000	2,082	18.55	38,616	980	11,744	11,984
Region 12 Texas-Gulf	2,171	1,084,842	65,646	1,737	52,744	1,963	15.47	30,365	1,013	12,902	12,736
Region 13 Rio Grande	1,324	308,466	19,200	1,145	14,171	833	14.85	12,376	324	5,029	15,522
Region 14 Upper Colorado	890	412,917	9,438	749	8,211	593	18.47	10,963	168	1,227	7,305
Region 15 Lower Colorado	1,030	670,694	89,615	947	88,144	5,797	16.06	93,078	116	1,470	12,674
Region 16 Great Basin	1,535	709,681	25,571	1,241	22,546	1,127	16.12	18,168	437	3,025	6,922
Region 17 Pacific Northwest	7,399	3,074,536	263,470	6,682	245,203	2,006	18.30	36,696	1,259	18,267	14,509
Region 18 California	14,541	5,888,318	1,144,660	12,279	871,287	3,896	18.21	70,957	3,817	273,373	71,620
Region 19 Alaska	66	296	233	66	227	211	16.33	3,439	12	6	475
Region 20 Hawaii	474	10,193	7,208	438	6,411	786	18.62	14,637	38	797	20,974

Table 21. Farms With Diminished Crop Yields Resulting From Irrigation Interruption by Cause: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Total ¹		Shortage of surface water		Shortage of ground water		Irrigation equipment failure	
	Farms	Acres affected by irrigation interruption	Farms	Acres affected by irrigation interruption	Farms	Acres affected by irrigation interruption	Farms	Acres affected by irrigation interruption
United States	17,145	2,022,246	7,368	850,172	2,310	510,222	4,343	575,892
Alabama	73	8,013	7	525	-	-	18	7,394
Alaska	-	-	-	-	-	-	-	-
Arizona	115	14,668	68	9,360	3	(D)	44	3,306
Arkansas	97	29,429	36	23,122	15	3,583	33	5,022
California	1,551	130,193	328	66,992	209	7,434	527	37,587
Colorado	1,917	226,134	1,185	171,975	145	26,103	219	16,428
Connecticut	22	62	-	-	8	8	-	-
Delaware	13	1,190	-	-	-	-	13	1,190
Florida	233	19,100	30	1,200	-	-	97	2,378
Georgia	174	11,143	27	675	11	(D)	109	3,813
Hawaii	202	1,716	36	448	-	-	42	112
Idaho	608	81,270	298	34,538	71	29,913	153	31,369
Illinois	42	2,178	-	-	-	-	2	(D)
Indiana	59	3,437	26	1,200	-	-	16	2,152
Iowa	42	405	41	(D)	-	-	-	-
Kansas	637	217,140	137	24,160	103	29,277	161	33,622
Kentucky	60	147	20	81	-	-	7	21
Louisiana	215	40,539	69	30,886	38	26,960	100	20,220
Maine	20	35	-	-	-	-	-	-
Maryland	54	3,346	13	344	12	27	9	1,474
Massachusetts	111	420	17	121	9	(D)	9	9
Michigan	163	6,395	124	3,494	19	19	26	5,106
Minnesota	227	29,310	63	3,490	20	1,360	128	22,412
Mississippi	84	11,680	14	52	8	8	39	10,542
Missouri	203	43,383	104	18,085	34	9,043	65	34,240
Montana	885	82,044	665	71,623	50	3,889	138	6,697
Nebraska	1,046	196,323	173	24,076	227	41,283	461	69,919
Nevada	152	39,077	31	1,736	1	(D)	17	10,181
New Hampshire	3	3	-	-	-	-	-	-
New Jersey	40	1,607	-	-	-	-	16	16
New Mexico	1,381	34,700	993	19,041	127	11,055	98	2,814
New York	139	6,455	4	(D)	-	-	4	(D)
North Carolina	244	9,212	128	6,880	23	23	46	1,173
North Dakota	31	3,324	10	485	-	-	17	2,199
Ohio	81	1,378	15	108	-	-	-	-
Oklahoma	249	30,838	49	3,338	54	13,150	128	14,286
Oregon	1,163	72,769	828	52,986	86	16,021	158	10,413
Pennsylvania	137	1,170	44	919	46	67	9	65
Rhode Island	9	12	2	(D)	2	(D)	-	-
South Carolina	75	1,188	25	25	25	25	24	240
South Dakota	32	4,102	2	(D)	-	-	26	4,030
Tennessee	24	6,137	1	(D)	17	(D)	-	-
Texas	2,102	502,513	584	173,234	816	263,696	720	181,605
Utah	1,155	60,775	604	47,767	24	6,540	284	15,872
Vermont	40	67	5	(D)	13	13	-	-
Virginia	108	4,165	48	2,423	-	-	39	1,438
Washington	372	24,949	167	16,546	54	9,738	148	5,899
West Virginia	7	19	4	4	-	-	3	15
Wisconsin	190	12,282	84	2,793	23	2,524	83	4,167
Wyoming	558	45,804	259	34,881	17	510	107	5,359
Water Resource Regions								
Region 01 New England	166	552	19	123	19	19	9	9
Region 02 Mid-Atlantic	378	16,999	109	3,690	55	88	74	4,973
Region 03 South Atlantic-Gulf	797	49,659	206	9,324	44	(D)	282	15,373
Region 04 Great Lakes	358	15,851	154	3,701	32	32	52	6,347
Region 05 Ohio	204	4,544	62	1,479	3	6	30	1,651
Region 06 Tennessee	71	6,095	23	23	40	40	23	23
Region 07 Upper Mississippi	484	36,304	185	7,157	52	3,893	199	26,192
Region 08 Lower Mississippi	311	80,169	85	41,712	33	15,541	158	47,941
Region 09 Souris-Red-Rainy	17	1,333	5	325	-	-	4	360
Region 10 Missouri	2,832	455,505	1,116	122,857	341	59,775	736	101,704
Region 11 Arkansas-White-Red	1,766	389,214	713	155,729	399	169,718	491	130,523
Region 12 Texas-Gulf	1,681	356,253	490	124,687	633	174,619	535	85,207
Region 13 Rio Grande	1,518	63,085	1,085	49,045	161	5,187	182	31,226
Region 14 Upper Colorado	919	89,762	510	70,916	21	84	109	7,036
Region 15 Lower Colorado	161	14,965	92	9,393	3	(D)	65	3,327
Region 16 Great Basin	1,115	93,922	543	46,265	25	8,497	259	25,948
Region 17 Pacific Northwest	2,539	204,373	1,562	132,861	235	56,988	542	42,676
Region 18 California	1,626	141,945	373	70,437	214	9,734	551	45,264
Region 19 Alaska	-	-	-	-	-	-	-	-
Region 20 Hawaii	202	1,716	36	448	-	-	42	112

See footnote(s) at end of table.

--continued

Table 21. Farms With Diminished Crop Yields Resulting From Irrigation Interruption by Cause: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Energy price increases or energy shortage		Water salinity too high		Loss of water rights		Cost of purchased water		Other	
	Farms	Acres affected by irrigation interruption	Farms	Acres affected by irrigation interruption	Farms	Acres affected by irrigation interruption	Farms	Acres affected by irrigation interruption	Farms	Acres affected by irrigation interruption
United States	977	181,460	195	49,279	288	49,921	811	78,245	4,507	541,915
Alabama	24	(D)	-	-	-	-	23	69	-	-
Alaska	-	-	-	-	-	-	-	-	-	-
Arizona	1	(D)	-	-	-	-	20	218	25	2,030
Arkansas	-	-	-	-	-	-	7	7	21	1,278
California	256	11,302	10	1,528	10	6,500	218	12,422	525	35,756
Colorado	-	-	-	-	66	16,060	27	1,720	494	26,091
Connecticut	-	-	-	-	-	-	-	-	14	54
Delaware	-	-	-	-	-	-	-	-	-	-
Florida	30	(D)	-	-	-	-	-	-	62	92
Georgia	28	1,275	-	-	-	-	-	-	54	3,672
Hawaii	29	100	-	-	-	-	73	145	93	1,081
Idaho	19	2,375	-	-	22	1,060	23	1,594	194	17,247
Illinois	-	-	-	-	-	-	-	-	40	(D)
Indiana	-	-	-	-	-	-	-	-	25	1,685
Iowa	-	-	-	-	-	-	-	-	1	(D)
Kansas	20	1,660	-	-	20	1,200	20	2,400	201	130,676
Kentucky	13	74	-	-	-	-	12	24	40	66
Louisiana	42	15,007	52	20,994	7	14,700	30	15,322	35	16,638
Maine	-	-	-	-	-	-	-	-	20	35
Maryland	-	-	-	-	-	-	-	-	17	809
Massachusetts	-	-	-	-	-	-	-	-	94	(D)
Michigan	-	-	-	-	-	-	-	-	20	20
Minnesota	32	1,712	-	-	-	-	16	1,040	52	13,488
Mississippi	-	-	-	-	-	-	27	196	8	26
Missouri	12	7,440	7	7	-	-	11	20	13	(D)
Montana	22	1,188	-	-	24	3,636	-	-	151	9,416
Nebraska	20	53,000	-	-	20	2,540	-	-	280	84,727
Nevada	-	-	-	-	31	1,736	-	-	109	34,660
New Hampshire	-	-	-	-	-	-	-	-	3	3
New Jersey	5	75	-	-	-	-	-	-	16	16
New Mexico	84	4,610	-	-	-	-	31	31	239	2,764
New York	-	-	-	-	-	-	-	-	137	5,555
North Carolina	8	2,400	11	2,940	-	-	22	22	91	1,770
North Dakota	-	-	-	-	-	-	5	325	6	646
Ohio	-	-	-	-	-	-	-	-	66	1,270
Oklahoma	29	2,030	-	-	-	-	-	-	47	93
Oregon	25	2,320	3	195	20	(D)	40	40	236	13,537
Pennsylvania	-	-	-	-	-	-	-	-	44	139
Rhode Island	-	-	-	-	-	-	-	-	5	(D)
South Carolina	-	-	-	-	-	-	23	23	3	900
South Dakota	-	-	-	-	-	-	-	-	4	(D)
Tennessee	-	-	-	-	-	-	-	-	6	6,030
Texas	179	56,503	103	23,606	6	705	105	36,916	372	106,427
Utah	-	-	-	-	25	303	47	2,943	354	7,435
Vermont	-	-	-	-	-	-	-	-	27	54
Virginia	11	616	9	9	-	-	-	-	35	109
Washington	28	3,675	-	-	2	(D)	14	2,632	42	1,285
West Virginia	-	-	-	-	-	-	-	-	-	-
Wisconsin	26	10,284	-	-	-	-	-	-	20	338
Wyoming	34	1,581	-	-	35	1,397	17	136	166	11,643
Water Resource Regions										
Region 01 New England	-	-	-	-	-	-	-	-	137	419
Region 02 Mid-Atlantic	5	(D)	-	-	-	-	-	-	148	6,390
Region 03 South Atlantic-Gulf	93	6,258	11	2,940	-	-	87	150	215	6,457
Region 04 Great Lakes	5	7,764	-	-	-	-	-	-	154	590
Region 05 Ohio	21	90	9	9	-	-	12	24	127	3,035
Region 06 Tennessee	-	-	-	-	-	-	-	-	6	6,030
Region 07 Upper Mississippi	53	4,232	-	-	-	-	18	1,042	106	15,504
Region 08 Lower Mississippi	42	15,007	52	20,994	7	14,700	45	15,489	42	16,642
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	5	325	8	648
Region 10 Missouri	74	56,241	7	7	54	3,237	29	1,650	771	219,201
Region 11 Arkansas-White-Red	114	42,406	31	223	20	1,200	60	27,774	341	39,864
Region 12 Texas-Gulf	128	26,317	72	23,383	6	705	67	11,546	307	98,694
Region 13 Rio Grande	62	1,860	-	-	22	440	31	31	224	2,424
Region 14 Upper Colorado	-	-	-	-	45	16,320	22	220	326	12,053
Region 15 Lower Colorado	1	(D)	-	-	-	-	20	218	47	2,294
Region 16 Great Basin	-	-	-	-	56	2,039	67	4,483	363	39,403
Region 17 Pacific Northwest	89	7,258	3	195	68	4,780	57	2,726	561	34,800
Region 18 California	261	13,602	10	1,528	10	6,500	218	12,422	531	36,386
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	29	100	-	-	-	-	73	145	93	1,081

¹ Sum may not add to the total if multiple causes were selected.

Table 22. Irrigated Farms by North American Industrial Classification System: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Total		Oilseed and grain farming (1111)		Other crop farming (1119)							
					Total		Tobacco farming (1191)		Cotton farming (1192)		Sugarcane farming, hay farming, and all other crop farming (1193, 1194, 1199)	
	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated
United States 2023	212,714	53,135,170	33,046	23,977,311	38,205	10,409,597	97	6,144	2,660	2,023,458	35,448	8,379,995
..... 2018	231,474	55,938,795	34,625	23,306,254	39,771	10,959,691	209	7,117	3,736	3,010,025	35,826	7,942,549
2023 DATA												
Alabama	1,230	157,755	179	77,413	170	44,323	-	-	64	17,548	106	26,775
Alaska	359	1,677	-	-	8	548	-	-	-	-	8	548
Arizona	3,086	921,013	61	39,189	780	596,258	-	-	142	127,368	638	468,890
Arkansas	2,857	4,646,159	2,114	4,351,353	209	281,968	-	-	127	259,171	82	22,797
California	38,033	7,765,348	901	477,887	2,051	1,086,998	-	-	170	113,310	1,881	973,688
Colorado	12,865	2,368,208	1,086	703,697	4,981	662,631	-	-	-	-	4,981	662,631
Connecticut	622	4,448	-	-	83	323	9	(D)	-	-	74	(D)
Delaware	416	132,106	223	80,408	21	11,422	-	-	-	-	21	11,422
Florida	7,303	1,145,368	30	1,200	313	515,599	-	-	31	11,470	282	504,129
Georgia	4,234	1,222,368	232	73,914	1,353	898,178	-	-	551	279,381	802	618,797
Hawaii	1,850	36,166	5	1,446	73	294	-	-	-	-	73	294
Idaho	11,952	3,180,948	969	529,830	3,893	1,018,473	-	-	-	-	3,893	1,018,473
Illinois	2,141	680,392	1,214	635,404	80	913	-	-	-	-	80	913
Indiana	2,298	582,245	1,197	498,486	128	6,965	-	-	-	-	128	6,965
Iowa	1,176	235,413	552	220,149	63	1,547	-	-	-	-	63	1,547
Kansas	4,188	2,325,264	2,909	1,954,112	202	163,856	-	-	6	15,660	196	148,196
Kentucky	1,321	81,805	144	60,348	237	15,441	32	2,193	-	-	205	13,248
Louisiana	1,859	1,306,078	1,079	1,154,745	185	134,923	-	-	36	24,365	149	110,558
Maine	559	18,822	-	-	22	79	-	-	-	-	22	79
Maryland	916	130,707	251	86,380	32	1,949	-	-	-	-	32	1,949
Massachusetts	1,311	18,963	-	-	89	549	2	(D)	-	-	87	(D)
Michigan	4,602	750,576	869	359,769	218	7,653	-	-	-	-	218	7,653
Minnesota	2,446	558,507	1,088	433,025	205	9,673	-	-	-	-	205	9,673
Mississippi	1,671	1,713,436	1,032	1,575,369	118	128,268	-	-	63	123,731	55	4,537
Missouri	2,337	1,487,302	1,062	1,220,159	227	229,160	-	-	143	202,882	84	26,278
Montana	7,013	1,561,373	500	233,593	2,243	360,253	-	-	-	-	2,243	360,253
Nebraska	13,128	7,305,801	10,272	6,501,189	734	170,922	-	-	-	-	734	170,922
Nevada	1,604	767,374	-	-	769	272,002	-	-	-	-	769	272,002
New Hampshire	369	2,060	-	-	25	64	-	-	-	-	25	64
New Jersey	1,193	70,616	23	3,544	34	595	-	-	-	-	34	595
New Mexico	7,718	583,735	177	49,164	1,935	231,319	-	-	44	33,042	1,891	198,277
New York	2,439	49,251	10	1,784	301	2,629	-	-	-	-	301	2,629
North Carolina	2,907	152,023	175	31,480	234	31,430	47	2,116	21	13,754	166	15,560
North Dakota	601	246,363	381	163,230	84	29,496	-	-	-	-	84	29,496
Ohio	1,931	56,230	155	23,490	200	3,091	-	-	-	-	200	3,091
Oklahoma	1,734	539,181	266	206,961	356	102,195	-	-	17	21,170	339	81,025
Oregon	12,692	1,447,429	177	54,850	3,012	588,891	-	-	-	-	3,012	588,891
Pennsylvania	2,362	30,248	38	1,385	267	2,699	-	-	-	-	267	2,699
Rhode Island	225	3,931	-	-	19	37	-	-	-	-	19	37
South Carolina	1,572	187,519	73	56,094	246	60,729	-	-	37	12,343	209	48,386
South Dakota	1,352	379,630	739	289,117	159	19,422	-	-	-	-	159	19,422
Tennessee	1,388	174,162	245	118,844	159	37,070	-	-	48	36,736	111	334
Texas	10,896	3,724,195	1,142	1,064,659	3,488	1,581,907	-	-	1,160	731,527	2,328	850,380
Utah	10,432	986,166	195	88,016	4,329	347,479	-	-	-	-	4,329	347,479
Vermont	486	2,675	-	-	26	162	-	-	-	-	26	162
Virginia	1,350	55,802	87	23,399	85	5,284	7	1,574	-	-	78	3,710
Washington	9,988	1,706,118	408	199,294	1,924	453,121	-	-	-	-	1,924	453,121
West Virginia	505	2,179	-	-	109	552	-	-	-	-	109	552
Wisconsin	2,714	481,845	601	219,934	165	14,201	-	-	-	-	165	14,201
Wyoming	4,483	1,148,190	185	113,001	1,561	276,056	-	-	-	-	1,561	276,056
Water Resource Regions												
Region 01 New England	3,221	49,633	-	-	245	1,065	11	261	-	-	234	804
Region 02 Mid-Atlantic	6,918	444,120	607	193,718	485	17,210	-	-	-	-	485	17,210
Region 03 South Atlantic-Gulf	17,369	2,829,208	631	199,632	2,372	1,552,237	54	3,690	689	332,086	1,629	1,216,461
Region 04 Great Lakes	7,846	978,210	1,275	485,631	508	23,175	-	-	-	-	508	23,175
Region 05 Ohio	5,317	482,493	1,036	399,621	642	6,334	24	909	-	-	618	5,425
Region 06 Tennessee	1,279	85,450	170	67,522	104	5,932	-	-	23	5,658	81	274
Region 07 Upper Mississippi	7,863	1,846,988	3,365	1,453,918	482	20,607	-	-	-	-	482	20,607
Region 08 Lower Mississippi	6,170	8,377,798	4,585	7,532,303	602	794,577	8	1,284	393	636,437	201	156,856
Region 09 Souris-Red-Rainy	502	181,264	290	130,315	50	13,204	-	-	-	-	50	13,204
Region 10 Missouri	29,755	11,799,109	14,225	8,513,364	4,868	883,789	-	-	-	-	4,868	883,789
Region 11 Arkansas-White-Red	9,195	4,852,366	3,283	3,285,568	2,011	731,389	-	-	162	102,806	1,849	628,583
Region 12 Texas-Gulf	8,603	2,337,508	486	251,492	2,723	1,269,907	-	-	984	642,531	1,739	627,376
Region 13 Rio Grande	6,738	703,913	163	42,880	1,972	239,693	-	-	97	63,262	1,875	176,431
Region 14 Upper Colorado	10,851	1,293,636	210	30,984	3,710	388,911	-	-	-	-	3,710	388,911
Region 15 Lower Colorado	3,632	1,054,139	42	39,094	927	689,281	-	-	142	127,368	785	561,913
Region 16 Great Basin	10,533	1,609,059	191	83,836	4,753	628,237	-	-	-	-	4,753	628,237
Region 17 Pacific Northwest	36,245	6,394,164	1,581	788,100	9,393	2,060,489	-	-	-	-	9,393	2,060,489
Region 18 California	38,468	7,778,269	901	477,887	2,277	1,082,718	-	-	170	113,310	2,107	969,408
Region 19 Alaska	359	1,677	-	-	8	548	-	-	-	-	8	548
Region 20 Hawaii	1,850	36,166	5	1,446	73	294	-	-	-	-	73	294

--continued

Table 22. Irrigated Farms by North American Industrial Classification System: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Vegetable and melon farming (1112)		Fruit and tree nut farming (1113)		Greenhouse, nursery, and floriculture farming (1114)	
	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated
United States 2023	15,864	4,271,642	49,535	5,261,435	25,003	699,950
..... 2018	15,597	4,484,052	53,322	5,647,673	22,300	626,655
2023 DATA						
Alabama	210	5,728	245	2,058	295	15,795
Alaska	97	(D)	38	(D)	210	(D)
Arizona	306	136,238	535	34,209	179	13,279
Arkansas	138	1,738	138	917	140	5,708
California	1,677	1,300,981	26,680	3,874,244	2,582	56,210
Colorado	499	157,594	587	7,083	560	18,705
Connecticut	186	862	52	341	291	2,908
Delaware	52	16,998	22	(D)	30	(D)
Florida	455	113,272	3,274	356,312	2,648	96,115
Georgia	397	68,286	1,459	119,086	451	27,837
Hawaii	445	18,541	678	11,287	569	2,793
Idaho	431	817,883	278	8,261	408	11,235
Illinois	201	29,172	83	387	485	11,560
Indiana	205	32,050	91	743	403	2,950
Iowa	116	1,132	84	437	236	2,385
Kansas	84	3,104	131	373	226	8,075
Kentucky	342	926	113	607	360	1,683
Louisiana	75	259	144	2,434	267	5,305
Maine	155	6,758	108	10,687	232	1,246
Maryland	199	7,728	60	1,107	237	13,908
Massachusetts	384	3,036	511	13,166	293	2,125
Michigan	784	166,302	902	44,144	1,408	68,403
Minnesota	256	60,087	209	1,241	428	7,323
Mississippi	124	702	131	2,251	171	3,276
Missouri	262	23,047	142	1,030	416	8,437
Montana	227	24,436	281	1,194	226	3,807
Nebraska	132	45,122	64	1,025	202	6,623
Nevada	77	(D)	39	118	65	(D)
New Hampshire	90	237	53	829	189	910
New Jersey	460	25,847	217	17,017	437	22,295
New Mexico	841	32,468	1,759	68,966	175	1,783
New York	498	7,690	268	16,699	1,196	20,209
North Carolina	534	36,677	472	16,613	965	16,609
North Dakota	55	44,275	-	-	35	222
Ohio	471	13,596	180	742	761	11,423
Oklahoma	116	16,264	245	5,814	146	14,457
Oregon	539	143,731	2,219	116,945	1,499	60,665
Pennsylvania	562	10,107	210	3,667	942	5,607
Rhode Island	62	209	19	180	109	3,453
South Carolina	343	18,068	317	14,516	383	19,842
South Dakota	26	80	80	184	95	792
Tennessee	299	9,253	67	92	542	8,649
Texas	376	175,212	1,956	90,972	787	72,676
Utah	235	3,160	262	1,093	226	5,159
Vermont	124	670	81	866	207	422
Virginia	351	13,460	192	744	388	5,863
Washington	812	497,737	3,154	384,315	925	14,955
West Virginia	42	668	110	391	244	568
Wisconsin	471	159,469	528	23,924	680	8,716
Wyoming	41	1,304	67	1,797	54	1,540
Water Resource Regions						
Region 01 New England	917	11,178	766	25,930	1,163	10,712
Region 02 Mid-Atlantic	1,732	75,449	698	34,169	2,623	69,421
Region 03 South Atlantic-Gulf	1,960	242,598	5,838	510,759	4,688	175,626
Region 04 Great Lakes	1,381	209,743	1,355	50,334	2,601	76,212
Region 05 Ohio	1,047	49,867	447	1,714	1,619	16,869
Region 06 Tennessee	290	(D)	111	(D)	572	4,642
Region 07 Upper Mississippi	908	197,637	835	26,057	1,575	29,424
Region 08 Lower Mississippi	240	25,998	175	2,653	421	9,635
Region 09 Souris-Red-Rainy	93	32,344	-	-	54	(D)
Region 10 Missouri	759	128,670	482	4,387	1,210	31,711
Region 11 Arkansas-White-Red	312	113,310	691	7,935	566	29,420
Region 12 Texas-Gulf	362	84,757	1,663	77,094	720	71,106
Region 13 Rio Grande	506	133,865	1,803	81,588	152	2,757
Region 14 Upper Colorado	540	13,257	558	7,339	229	3,883
Region 15 Lower Colorado	369	163,927	611	34,365	232	13,764
Region 16 Great Basin	318	62,545	216	652	248	6,316
Region 17 Pacific Northwest	1,915	1,427,115	5,890	510,589	2,969	91,321
Region 18 California	1,673	1,274,057	26,680	3,874,244	2,582	53,810
Region 19 Alaska	97	(D)	38	(D)	210	(D)
Region 20 Hawaii	445	18,541	678	11,287	569	2,793

--continued

Table 22. Irrigated Farms by North American Industrial Classification System: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Beef cattle ranching and farming (112111)		Cattle feedlots (112112)		Dairy cattle and milk production (11212)		All other animal specialties (1122, 1123, 1124, 1125, 1129)	
	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated
United States 2023 2018	32,043 41,961	5,663,840 7,385,161	1,189 1,818	609,742 866,308	2,702 3,760	1,493,039 1,649,727	15,127 18,320	748,614 1,013,274
2023 DATA								
Alabama	-	-	-	-	7	1,260	124	11,178
Alaska	-	-	-	-	-	-	6	8
Arizona	805	50,236	-	-	20	(D)	400	(D)
Arkansas	53	1,342	-	-	6	900	59	2,233
California	2,371	331,509	28	14,700	637	542,022	1,106	80,797
Colorado	3,392	643,488	150	91,829	24	36,430	1,586	46,751
Connecticut	-	-	-	-	-	-	10	14
Delaware	-	-	-	-	5	1,825	63	17,610
Florida	210	36,115	-	-	41	23,490	332	3,265
Georgia	162	5,670	-	-	28	10,725	152	18,672
Hawaii	7	1,528	-	-	-	-	73	277
Idaho	3,974	486,576	71	24,514	232	242,338	1,696	41,838
Illinois	20	20	-	-	-	-	58	2,936
Indiana	26	138	-	-	101	24,809	147	16,104
Iowa	41	3,610	-	-	21	2,016	63	4,137
Kansas	405	60,101	97	78,430	87	57,166	47	47
Kentucky	92	2,214	-	-	-	-	33	586
Louisiana	46	3,716	-	-	-	-	63	4,696
Maine	5	10	-	-	-	-	37	42
Maryland	10	200	-	-	3	3,535	124	15,900
Massachusetts	-	-	-	-	9	27	25	60
Michigan	117	6,327	-	-	189	61,066	115	36,912
Minnesota	32	1,200	-	-	128	17,696	100	28,262
Mississippi	51	2,638	-	-	-	-	44	932
Missouri	54	1,731	-	-	12	36	162	3,702
Montana	2,657	841,003	40	23,734	3	3,420	836	69,933
Nebraska	1,132	235,734	360	276,580	28	5,852	204	62,754
Nevada	550	421,235	-	-	31	17,081	73	36,653
New Hampshire	-	-	-	-	-	-	12	20
New Jersey	-	-	-	-	5	1,250	17	68
New Mexico	2,038	176,189	-	-	36	6,125	757	17,721
New York	-	-	18	(D)	19	(D)	129	203
North Carolina	-	-	-	-	-	-	527	19,214
North Dakota	35	3,800	5	500	4	(D)	2	(D)
Ohio	28	42	-	-	27	1,810	109	2,036
Oklahoma	535	182,225	11	9,350	-	-	59	1,915
Oregon	3,481	407,143	96	13,801	203	40,200	1,466	21,203
Pennsylvania	45	(D)	2	(D)	144	3,800	152	2,794
Rhode Island	3	15	-	-	3	3	10	34
South Carolina	50	1,764	-	-	31	5,635	129	10,871
South Dakota	147	53,207	27	10,800	-	-	79	6,028
Tennessee	50	150	-	-	-	-	26	104
Texas	2,283	611,387	17	13,570	58	90,631	789	23,181
Utah	3,228	329,834	133	30,530	204	118,833	1,620	62,062
Vermont	25	532	-	-	-	-	23	23
Virginia	53	1,305	-	-	45	2,737	149	3,010
Washington	1,735	77,372	86	3,230	109	70,186	835	5,908
West Virginia	-	-	-	-	-	-	-	-
Wisconsin	62	(D)	4	5,940	168	49,434	35	(D)
Wyoming	2,033	682,239	44	12,130	34	4,743	464	55,380
Water Resource Regions								
Region 01 New England	21	545	-	-	12	30	97	173
Region 02 Mid-Atlantic	62	(D)	2	(D)	202	13,147	507	39,378
Region 03 South Atlantic-Gulf	465	43,947	-	-	107	41,110	1,308	63,299
Region 04 Great Lakes	129	(D)	18	(D)	250	76,781	329	49,977
Region 05 Ohio	210	945	-	-	69	1,152	247	5,991
Region 06 Tennessee	25	(D)	-	-	-	-	7	(D)
Region 07 Upper Mississippi	146	1,512	4	5,940	346	78,953	202	32,940
Region 08 Lower Mississippi	69	7,888	-	-	-	-	78	4,744
Region 09 Souris-Red-Rainy	5	(D)	-	-	-	-	10	4,560
Region 10 Missouri	5,914	1,635,225	582	365,981	71	61,922	1,644	174,060
Region 11 Arkansas-White-Red	1,655	408,828	126	149,148	93	97,582	458	29,186
Region 12 Texas-Gulf	1,952	534,843	2	(D)	74	34,820	621	(D)
Region 13 Rio Grande	1,615	182,589	-	-	5	(D)	522	(D)
Region 14 Upper Colorado	3,699	754,320	63	13,824	21	29,400	1,821	51,718
Region 15 Lower Colorado	963	60,252	22	1,232	20	(D)	446	(D)
Region 16 Great Basin	3,121	618,318	108	17,293	231	106,667	1,347	85,195
Region 17 Pacific Northwest	9,460	1,031,370	195	36,560	564	360,734	4,278	87,886
Region 18 California	2,525	373,024	67	19,590	637	542,022	1,126	80,917
Region 19 Alaska	-	-	-	-	-	-	6	8
Region 20 Hawaii	7	1,528	-	-	-	-	73	277

Table 23. Irrigated Farms by Market Value of Agricultural Products Sold: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All farms										
	Farms with irrigation				Water source ^{1 2}			Quantity of water applied ¹			
	Farms	Land in farms (acres)	Acres irrigated	Irrigated cropland harvested (acres)	Ground water used (acres)	On-farm surface water used (acres)	Off-farm water used (acres)	Ground water used (acre-feet)	On-farm surface water used (acre-feet)	Off-farm water used (acre-feet)	
United States	2023 2018	212,714 231,474	202,564,553 222,028,954	53,135,170 55,938,795	49,609,793 51,552,851	35,685,151 36,182,400	5,904,554 6,292,234	13,673,923 15,932,204	43,945,347 41,533,499	8,597,404 8,278,327	28,463,082 33,569,129
2023 DATA											
Alabama		1,230	824,553	157,755	153,796	79,804	66,944	12,997	70,241	36,209	8,503
Alaska		359	9,035	1,677	1,675	1,293	120	45	1,063	85	35
Arizona		3,086	8,966,100	921,013	864,686	437,637	84,945	442,234	1,768,221	317,556	1,842,076
Arkansas		2,857	5,480,831	4,646,159	4,645,918	4,120,196	531,644	14,540	4,540,007	603,807	22,062
California		38,033	15,203,884	7,765,348	7,402,952	3,903,996	1,071,649	4,121,056	8,625,417	2,257,175	11,729,887
Colorado		12,865	12,385,374	2,368,208	1,939,936	893,892	418,473	1,172,132	1,217,461	697,128	1,827,204
Connecticut		622	29,102	4,448	4,405	1,678	417	417	1,155	4,052	320
Delaware		416	281,103	132,106	131,992	122,871	10,965	18	79,564	6,264	12
Florida		7,303	2,859,958	1,145,368	1,101,574	689,135	250,615	312,434	723,054	165,082	308,225
Georgia		4,234	3,225,793	1,222,368	1,209,820	1,010,570	228,406	19,933	1,079,142	190,514	29,478
Hawaii		1,850	179,956	36,166	31,757	4,038	8,653	23,426	8,467	13,241	34,788
Idaho		11,952	7,020,834	3,180,948	2,848,808	1,206,858	522,023	1,489,498	2,009,892	823,462	2,573,296
Illinois		2,141	1,851,591	680,392	679,473	669,297	5,385	5,310	403,633	4,631	2,442
Indiana		2,298	1,981,450	582,245	580,262	534,453	53,414	14,986	263,037	28,346	13,360
Iowa		1,176	1,003,247	235,413	235,341	223,738	7,769	3,657	118,583	5,236	2,302
Kansas		4,188	12,481,063	2,325,264	2,274,057	2,238,889	74,445	45,322	2,502,497	39,599	28,606
Kentucky		1,321	550,927	81,805	81,296	45,667	30,040	5,538	22,688	14,496	7,734
Louisiana		1,859	2,436,723	1,306,078	1,301,414	1,123,631	133,772	51,757	1,190,608	166,001	47,468
Maine		559	178,970	18,822	16,578	8,374	5,978	4,178	2,043	2,164	1,298
Maryland		916	344,822	130,707	130,393	105,117	24,846	1,686	48,324	13,697	1,280
Massachusetts		1,311	98,097	18,963	18,789	2,976	14,285	1,670	1,832	10,568	1,238
Michigan		4,602	2,209,871	750,576	744,700	621,419	122,554	24,536	344,344	64,080	14,460
Minnesota		2,446	1,441,468	558,507	557,355	530,656	14,609	13,507	360,750	16,778	16,712
Mississippi		1,671	2,259,054	1,713,436	1,712,855	1,669,303	70,666	1,533	1,395,398	69,117	1,389
Missouri		2,337	2,539,097	1,487,302	1,486,921	1,441,900	39,199	5,808	1,185,148	24,861	2,684
Montana		7,013	21,977,160	1,561,373	1,162,904	51,396	490,983	1,025,715	50,058	613,525	1,216,012
Nebraska		13,128	22,602,456	7,305,801	7,231,584	6,882,278	73,820	404,874	6,382,819	50,919	380,225
Nevada		1,604	3,843,498	767,374	513,432	237,113	189,514	350,578	707,595	473,875	1,067,349
New Hampshire		369	27,997	2,060	2,052	717	987	426	386	630	150
New Jersey		1,193	217,801	70,616	67,720	51,958	18,861	285	31,476	7,910	222
New Mexico		7,718	4,249,733	583,735	474,569	303,379	26,454	286,262	662,449	54,280	494,376
New York		2,439	346,014	49,251	49,138	24,316	17,262	6,711	12,331	7,468	4,525
North Carolina		2,907	889,074	152,023	149,733	76,069	72,866	2,089	58,473	59,759	2,971
North Dakota		601	1,689,371	246,363	246,081	183,092	6,582	56,643	124,172	3,867	39,773
Ohio		1,931	306,706	56,230	55,744	37,281	15,801	11,061	21,972	11,318	3,472
Oklahoma		1,734	3,963,086	539,181	498,824	502,711	16,211	23,136	626,730	7,225	31,510
Oregon		12,692	8,384,214	1,447,429	1,219,625	571,315	328,973	604,655	916,546	516,379	1,048,413
Pennsylvania		2,362	242,975	30,248	29,521	10,473	13,056	5,884	6,286	9,164	4,986
Rhode Island		225	11,147	3,931	3,754	1,846	1,146	838	1,224	1,195	599
South Carolina		1,572	809,212	187,519	184,806	162,317	23,331	2,611	130,569	15,878	1,176
South Dakota		1,352	2,565,748	379,630	374,693	299,368	13,439	66,743	191,999	6,605	59,175
Tennessee		1,388	792,210	174,162	174,162	157,820	9,609	6,329	73,559	5,821	1,686
Texas		10,896	19,762,913	3,724,195	3,220,509	3,115,019	153,964	564,451	3,777,926	184,610	643,530
Utah		10,432	4,127,787	986,166	741,292	243,916	86,689	657,674	746,984	113,285	1,361,605
Vermont		486	28,500	2,675	2,415	872	1,557	76	698	2,090	66
Virginia		1,350	380,489	55,802	54,345	8,561	39,135	7,607	6,247	25,221	4,138
Washington		9,988	6,190,535	1,706,118	1,635,528	548,768	179,171	1,011,090	994,421	310,674	2,332,619
West Virginia		505	65,210	2,179	2,179	916	727	203	600	283	272
Wisconsin		2,714	1,579,424	481,845	480,552	447,981	38,233	4,112	365,611	72,516	3,026
Wyoming		4,483	11,668,390	1,148,190	877,878	78,278	292,586	785,657	111,648	468,761	1,244,348
Water Resource Regions											
Region 01 New England		3,221	357,916	49,633	46,727	15,957	25,528	7,530	6,982	20,365	3,609
Region 02 Mid-Atlantic		6,918	1,483,813	444,120	438,520	317,376	113,106	15,392	180,819	63,030	10,591
Region 03 South Atlantic-Gulf		17,369	8,454,017	2,829,208	2,763,988	2,002,894	628,197	343,276	2,053,994	462,734	347,832
Region 04 Great Lakes		7,846	3,008,684	978,210	972,072	815,928	149,097	36,233	458,961	81,889	19,728
Region 05 Ohio		5,317	2,278,938	482,493	480,801	415,304	57,287	24,537	224,697	27,162	21,349
Region 06 Tennessee		1,279	490,417	85,450	85,105	35,897	35,586	13,571	29,786	17,026	4,470
Region 07 Upper Mississippi		7,863	5,614,417	1,846,988	1,842,477	1,750,307	93,119	18,505	1,164,489	110,209	11,072
Region 08 Lower Mississippi		6,170	11,316,795	8,377,798	8,372,698	7,681,901	681,363	62,926	7,566,558	783,838	68,617
Region 09 Souris-Red-Rainy		502	983,675	181,264	181,084	154,144	9,169	17,896	99,854	8,187	19,818
Region 10 Missouri		29,755	67,370,394	11,799,109	11,161,125	8,705,373	857,683	2,387,416	8,125,947	1,152,329	3,075,025
Region 11 Arkansas-White-Red		9,195	19,432,156	4,852,366	4,613,251	4,353,982	292,207	333,343	5,295,933	349,929	492,186
Region 12 Texas-Gulf		8,603	11,441,998	2,337,508	1,910,743	1,819,449	56,975	493,334	2,006,829	69,659	580,014
Region 13 Rio Grande		6,738	6,228,054	703,913	530,197	411,247	64,508	271,308	843,480	105,889	445,529
Region 14 Upper Colorado		10,851	9,292,022	1,293,636	894,004	4,195	297,029	1,005,367	4,647	428,816	1,740,871
Region 15 Lower Colorado		3,632	9,387,271	1,054,139	987,087	468,511	98,678	530,694	1,864,665	364,932	2,298,379
Region 16 Great Basin		10,533	7,253,125	1,609,059	1,198,135	521,411	272,121	827,542	1,515,383	612,935	1,924,785
Region 17 Pacific Northwest		36,245	22,585,239	6,394,164	5,725,558	2,256,650	1,091,115	3,172,526	3,795,786	1,695,664	5,977,604
Region 18 California		38,468	15,396,631	7,778,269	7,372,789	3,949,292	1,073,012	4,089,056	8,697,007	2,229,486	11,386,778
Region 19 Alaska		359	9,035	1,677	1,675	1,293	120	45	1,063	85	35
Region 20 Hawaii		1,850	179,956	36,166	31,757	4,038	8,653	23,426	8,467	13,241	34,788

See footnote(s) at end of table.

--continued

Table 23. Irrigated Farms by Market Value of Agricultural Products Sold: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Less than \$25,000										
	Farms with irrigation				Water source ^{1 2}			Quantity of water applied ¹			
	Farms	Land in farms (acres)	Acres irrigated	Irrigated cropland harvested (acres)	Ground water used (acres)	On-farm surface water used (acres)	Off-farm water used (acres)	Ground water used (acre-feet)	On-farm surface water used (acre-feet)	Off-farm water used (acre-feet)	
United States	2023 2018	95,922 106,363	22,518,793 21,683,475	2,564,030 2,770,548	1,617,293 1,778,667	672,201 641,511	456,926 499,717	1,477,238 1,677,276	964,473 729,293	623,031 772,411	2,154,575 2,841,607
2023 DATA											
Alabama		527	48,137	4,351	2,077	1,451	2,353	445	1,110	980	522
Alaska		239	4,900	500	498	286	32	35	176	(D)	34
Arizona		1,876	2,859,252	34,600	13,061	21,809	1,093	11,764	55,781	1,642	30,998
Arkansas		455	43,161	9,708	9,659	7,920	1,498	221	11,105	1,705	132
California		14,656	936,057	317,719	252,332	151,144	46,779	142,587	325,237	119,521	321,501
Colorado		8,388	1,951,410	326,424	193,060	34,197	92,356	206,278	42,756	133,058	280,433
Connecticut		248	4,941	545	502	254	143	72	196	376	58
Delaware		44	1,525	610	610	592	-	(D)	196	-	(D)
Florida		3,972	234,316	58,296	54,642	33,091	12,280	12,775	22,261	5,391	6,969
Georgia		1,835	620,804	46,931	38,342	40,113	7,007	349	22,717	3,981	366
Hawaii		1,097	10,178	3,149	2,471	321	(D)	2,539	343	(D)	2,456
Idaho		7,526	532,510	193,583	125,098	51,773	39,235	112,256	83,452	44,101	134,651
Illinois		379	14,167	6,147	6,147	5,936	38	52	2,955	52	52
Indiana		408	20,181	4,406	4,141	2,838	882	554	564	498	281
Iowa		307	4,712	828	798	563	(D)	52	589	124	52
Kansas		335	16,437	2,235	2,235	1,285	15	850	702	10	1,220
Kentucky		725	52,864	2,667	2,158	1,160	586	(D)	442	1,169	(D)
Louisiana		420	26,838	3,091	2,981	2,169	122	687	1,754	58	210
Maine		286	14,576	474	443	228	77	17	232	35	11
Maryland		217	11,810	3,889	3,694	3,730	(D)	20	870	42	(D)
Massachusetts		565	17,334	2,095	1,986	356	1,405	274	354	1,085	162
Michigan		1,258	61,898	7,503	7,042	4,351	1,793	995	3,463	1,389	345
Minnesota		526	37,580	8,601	8,601	6,662	1,817	16	5,129	1,207	16
Mississippi		478	41,127	7,624	7,196	5,937	1,510	429	3,987	834	308
Missouri		686	51,878	5,176	5,048	4,498	315	185	3,035	278	(D)
Montana		3,956	3,180,697	266,277	187,876	15,324	84,404	166,376	15,523	97,935	166,878
Nebraska		483	37,202	11,281	8,253	3,823	-	7,421	6,331	-	6,697
Nevada		880	187,540	30,992	21,121	8,873	(D)	21,529	22,071	(D)	53,885
New Hampshire		194	9,203	345	337	222	19	14	143	20	15
New Jersey		540	27,559	2,381	2,365	1,580	667	89	1,677	(D)	89
New Mexico		6,344	1,870,388	100,882	58,725	26,726	5,326	70,941	44,811	7,949	115,024
New York		933	42,553	3,620	3,564	2,608	487	175	1,285	504	140
North Carolina		1,177	63,107	9,867	9,637	1,849	7,514	(D)	1,914	9,788	89
North Dakota		63	4,807	338	338	16	22	276	20	(D)	76
Ohio		873	36,285	3,791	3,305	3,000	1,306	1,522	1,958	307	(D)
Oklahoma		559	221,805	15,541	14,226	7,264	2,495	5,707	3,116	1,897	9,392
Oregon		7,591	1,481,840	130,101	71,536	24,186	25,184	83,312	30,110	28,093	127,374
Pennsylvania		660	26,284	1,578	1,578	931	(D)	283	906	172	(D)
Rhode Island		115	2,696	244	177	146	33	18	123	14	21
South Carolina		747	33,792	2,964	2,471	1,513	(D)	730	1,610	490	123
South Dakota		266	13,753	2,933	1,800	210	-	2,700	179	-	2,617
Tennessee		707	21,365	1,227	1,227	609	151	247	661	142	313
Texas		4,960	3,475,002	376,253	127,759	138,738	8,363	229,757	173,940	7,787	236,282
Utah		7,681	870,259	220,969	129,960	12,794	25,644	182,908	23,995	39,387	334,634
Vermont		234	15,209	399	399	224	40	20	151	42	20
Virginia		654	31,652	2,530	1,590	1,695	445	(D)	851	529	56
Washington		5,163	269,491	72,409	51,534	16,938	14,814	40,433	26,819	25,282	79,801
West Virginia		361	25,443	671	671	217	49	165	179	41	201
Wisconsin		724	35,711	3,216	3,151	1,386	1,533	(D)	1,263	1,759	(D)
Wyoming		2,604	2,916,557	252,069	168,871	18,662	65,475	168,490	15,427	81,848	238,976
Water Resource Regions											
Region 01 New England		1,450	50,035	3,771	3,513	1,246	1,680	399	1,071	1,533	271
Region 02 Mid-Atlantic		2,259	104,420	12,486	11,297	10,500	1,126	284	5,469	650	202
Region 03 South Atlantic-Gulf		8,424	1,024,433	124,364	109,361	79,009	30,297	14,613	50,175	20,640	8,217
Region 04 Great Lakes		2,383	118,973	13,846	13,323	8,090	3,064	1,878	4,610	2,130	827
Region 05 Ohio		2,401	120,459	11,739	10,479	8,364	2,347	2,224	3,876	1,750	1,059
Region 06 Tennessee		776	22,994	1,730	1,385	(D)	(D)	402	464	(D)	386
Region 07 Upper Mississippi		1,733	100,560	15,234	15,153	11,305	3,337	135	8,628	3,134	141
Region 08 Lower Mississippi		808	77,703	16,320	15,846	14,588	1,046	844	12,431	893	265
Region 09 Souris-Red-Rainy		109	6,969	474	474	(D)	(D)	15	216	46	15
Region 10 Missouri		7,513	5,600,798	466,693	335,191	54,038	110,401	307,686	64,007	142,697	378,591
Region 11 Arkansas-White-Red		2,930	1,080,382	101,979	77,433	39,091	25,384	37,204	45,619	31,053	64,950
Region 12 Texas-Gulf		4,047	3,033,640	348,380	99,501	119,069	3,363	226,501	148,671	4,510	232,611
Region 13 Rio Grande		5,278	1,165,402	94,744	61,977	24,224	17,683	55,373	38,048	25,517	82,215
Region 14 Upper Colorado		8,232	2,474,078	317,963	169,052	1,120	76,385	241,378	2,883	103,475	356,414
Region 15 Lower Colorado		2,311	2,897,947	40,450	16,812	24,693	1,284	14,489	63,615	1,882	37,702
Region 16 Great Basin		7,403	756,320	198,378	124,072	21,754	29,619	147,388	40,889	44,975	279,985
Region 17 Pacific Northwest		21,682	2,910,171	460,101	293,357	99,213	98,979	273,465	143,677	112,460	374,010
Region 18 California		14,847	958,431	331,729	256,098	154,339	50,159	150,385	329,604	124,811	334,223
Region 19 Alaska		239	4,900	500	498	286	32	35	176	(D)	34
Region 20 Hawaii		1,097	10,178	3,149	2,471	321	(D)	2,539	343	(D)	2,456

See footnote(s) at end of table.

--continued

Table 23. Irrigated Farms by Market Value of Agricultural Products Sold: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$25,000 to \$49,999										
	Farms with irrigation				Water source ^{1 2}			Quantity of water applied ¹			
	Farms	Land in farms (acres)	Acres irrigated	Irrigated cropland harvested (acres)	Ground water used (acres)	On-farm surface water used (acres)	Off-farm water used (acres)	Ground water used (acre-feet)	On-farm surface water used (acre-feet)	Off-farm water used (acre-feet)	
United States	2023 2018	16,947 18,815	5,396,950 7,013,890	961,904 1,072,326	745,911 814,490	324,541 392,246	121,102 121,463	526,913 582,956	418,868 407,631	177,290 150,476	957,315 973,895
2023 DATA											
Alabama	133	10,213	4,089	4,089	1,429	2,599	26	993	2,553	23	23
Alaska	14	322	(D)	(D)	(D)	(D)	-	(D)	27	-	-
Arizona	152	54,296	23,652	21,408	3,467	760	19,420	13,162	4,180	107,540	306
Arkansas	101	34,329	12,144	12,144	10,357	1,465	311	6,162	1,297	306	306
California	3,901	478,087	99,286	77,364	51,556	10,425	47,555	109,544	14,600	117,654	117,654
Colorado	1,073	1,294,129	154,200	128,897	18,642	30,118	105,408	25,038	53,102	158,162	158,162
Connecticut	117	1,903	195	195	89	22	22	74	8	8	22
Delaware	46	6,044	1,932	1,932	1,354	570	(D)	1,369	333	(D)	(D)
Florida	525	7,843	5,468	5,468	5,254	403	-	6,636	392	-	-
Georgia	166	17,780	5,286	5,286	3,541	1,755	(Z)	2,106	189	(Z)	(Z)
Hawaii	189	(D)	587	559	(D)	28	(D)	(D)	(D)	(D)	479
Idaho	949	126,543	76,409	54,279	7,280	14,168	54,920	11,570	24,495	82,399	82,399
Illinois	117	5,450	4,818	4,818	4,760	-	24	3,327	-	22	22
Indiana	158	10,461	1,390	1,390	1,284	106	(D)	905	(D)	(D)	(D)
Iowa	60	3,820	360	360	61	240	(D)	43	280	(D)	21
Kansas	179	56,651	11,820	11,820	11,598	147	43	5,395	101	38	38
Kentucky	81	7,413	169	169	17	(D)	40	15	58	29	29
Louisiana	92	29,036	9,944	9,824	9,346	572	(D)	7,059	1,430	(D)	(D)
Maine	42	1,911	143	143	118	(D)	-	83	(D)	-	-
Maryland	125	12,535	2,382	2,382	2,276	(D)	(D)	832	39	28	28
Massachusetts	125	4,829	718	718	(D)	568	-	27	345	-	-
Michigan	342	6,803	3,222	3,222	2,606	343	(D)	1,932	144	(D)	(D)
Minnesota	153	30,029	12,871	12,871	12,790	-	16	11,914	-	7	7
Mississippi	76	21,769	14,833	14,833	14,800	(D)	1	10,172	(D)	4	4
Missouri	131	6,886	2,268	2,235	2,015	94	94	1,575	67	94	94
Montana	738	508,238	67,048	52,463	1,383	13,986	51,662	(D)	15,259	58,916	58,916
Nebraska	550	142,926	32,611	32,611	25,159	2,090	5,336	18,629	1,741	8,267	8,267
Nevada	205	147,293	60,765	22,856	(D)	(D)	50,370	(D)	13,489	125,190	125,190
New Hampshire	29	2,602	52	52	8	(D)	(D)	(D)	(D)	5	5
New Jersey	33	(D)	161	161	3	133	5	5	147	3	3
New Mexico	408	231,439	58,123	25,577	4,850	14	53,239	10,280	16	68,305	68,305
New York	296	13,985	1,355	1,355	94	856	221	120	713	243	243
North Carolina	327	15,921	4,011	4,011	1,235	2,624	37	687	2,254	37	37
North Dakota	16	19,096	1,876	1,876	620	-	1,251	370	-	1,461	1,461
Ohio	166	7,968	543	543	141	(D)	256	82	38	312	312
Oklahoma	230	372,013	35,522	31,251	35,480	-	(D)	31,091	-	18	18
Oregon	858	263,720	46,629	25,592	16,993	6,822	22,745	22,859	7,858	42,914	42,914
Pennsylvania	255	12,387	1,689	1,089	331	588	691	325	686	653	653
Rhode Island	26	382	61	61	31	(D)	3	30	(D)	3	3
South Carolina	202	18,654	2,789	1,789	1,208	1,503	49	412	1,403	74	74
South Dakota	6	242	82	82	70	-	(D)	70	-	(D)	(D)
Tennessee	103	10,481	979	979	898	20	6	537	40	17	17
Texas	992	1,014,365	72,403	58,567	56,000	6,285	11,804	78,482	6,935	10,024	10,024
Utah	885	178,279	69,442	56,658	2,111	5,545	61,799	7,611	11,807	98,352	98,352
Vermont	58	2,177	103	103	(D)	33	(D)	(D)	37	(Z)	(Z)
Virginia	127	8,219	592	312	(D)	31	(Z)	267	16	3	3
Washington	863	65,754	21,078	18,120	6,195	2,402	12,362	12,755	2,866	26,480	26,480
West Virginia	15	654	(D)	(D)	(D)	3	-	(D)	3	-	-
Wisconsin	213	10,112	3,077	3,077	2,170	819	(D)	1,603	672	(D)	(D)
Wyoming	299	118,622	32,659	30,252	510	6,063	26,592	255	7,571	49,139	49,139
Water Resource Regions											
Region 01 New England	375	13,196	1,218	1,218	388	623	31	235	398	31	31
Region 02 Mid-Atlantic	691	40,552	7,271	6,391	4,389	1,758	814	2,796	1,731	809	809
Region 03 South Atlantic-Gulf	1,356	73,301	21,733	20,733	12,754	8,904	114	10,841	6,793	138	138
Region 04 Great Lakes	665	29,630	7,476	7,476	5,575	1,390	(D)	4,007	753	182	182
Region 05 Ohio	379	21,168	871	871	162	(D)	298	149	(D)	343	343
Region 06 Tennessee	80	(D)	(D)	(D)	(D)	-	(Z)	(D)	-	(Z)	(Z)
Region 07 Upper Mississippi	489	45,255	19,064	19,064	18,220	534	105	15,809	553	(D)	(D)
Region 08 Lower Mississippi	261	76,076	38,770	38,650	36,882	1,830	14	24,972	2,670	28	28
Region 09 Souris-Red-Rainy	3	6	3	3	-	-	(D)	-	-	(D)	(D)
Region 10 Missouri	1,755	811,033	129,068	114,491	38,851	20,339	70,260	29,151	23,479	90,474	90,474
Region 11 Arkansas-White-Red	783	773,119	103,825	79,598	68,801	1,754	33,220	91,102	2,470	29,677	29,677
Region 12 Texas-Gulf	788	825,560	48,533	38,727	42,505	4,845	(D)	40,925	5,495	2,124	2,124
Region 13 Rio Grande	303	252,779	54,198	31,025	4,295	5,848	44,014	9,840	8,052	66,335	66,335
Region 14 Upper Colorado	897	1,064,542	120,750	97,274	(D)	22,697	98,053	(D)	41,833	162,016	162,016
Region 15 Lower Colorado	155	54,356	23,700	21,453	3,467	760	19,466	13,162	4,180	107,621	107,621
Region 16 Great Basin	951	298,117	118,201	72,513	7,902	16,508	93,781	21,659	41,199	194,365	194,365
Region 17 Pacific Northwest	2,872	527,542	162,977	117,228	27,537	112,582	22,618	43,851	22,836	178,732	178,732
Region 18 California	3,941	482,847	103,406	78,384	52,576	10,425	50,655	110,064	14,600	123,854	123,854
Region 19 Alaska	14	322	(D)	(D)	(D)	(D)	-	(D)	27	-	-
Region 20 Hawaii	189	(D)	587	559	(D)	28	(D)	(D)	(D)	479	479

See footnote(s) at end of table.

--continued

Table 23. Irrigated Farms by Market Value of Agricultural Products Sold: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$50,000 to \$99,999									
	Farms with irrigation				Water source ^{1 2}			Quantity of water applied ¹		
	Farms	Land in farms (acres)	Acres irrigated	Irrigated cropland harvested (acres)	Ground water used (acres)	On-farm surface water used (acres)	Off-farm water used (acres)	Ground water used (acre-feet)	On-farm surface water used (acre-feet)	Off-farm water used (acre-feet)
United States	17,728	7,835,256	1,529,257	1,329,819	770,077	257,150	518,935	861,622	368,512	838,631
2018	19,608	13,142,214	2,071,141	1,712,727	927,004	297,632	888,083	965,070	400,502	1,405,008
2023 DATA										
Alabama	140	44,689	4,798	4,798	716	4,082	-	532	2,658	-
Alaska	78	1,926	168	168	62	50	(Z)	46	(D)	(Z)
Arizona	266	291,431	20,024	6,960	10,856	2,375	6,781	40,388	4,750	11,524
Arkansas	190	104,813	88,686	88,686	82,561	6,098	14	97,145	6,316	14
California	4,061	689,621	165,971	149,824	80,681	2,152	93,636	146,920	4,230	192,746
Colorado	819	633,969	144,451	137,377	14,113	57,550	72,778	23,061	100,500	97,084
Connecticut	79	2,028	171	171	68	44	(D)	72	39	(D)
Delaware	52	10,159	3,457	3,457	3,455	-	-	2,311	-	(D)
Florida	466	41,024	12,684	12,684	9,402	3,260	-	11,293	7,377	-
Georgia	275	67,217	15,447	15,447	11,838	5,184	-	8,001	2,538	-
Hawaii	116	22,272	1,492	981	-	(D)	1,461	-	(D)	2,099
Idaho	694	368,540	82,660	67,366	14,059	20,536	48,043	20,030	31,470	73,399
Illinois	202	37,801	13,150	13,150	12,136	29	940	7,909	55	712
Indiana	259	38,385	10,360	10,268	9,840	362	134	5,142	216	(D)
Iowa	57	18,820	4,800	4,800	4,764	-	(D)	2,181	-	2
Kansas	260	100,803	17,327	17,327	15,503	1,178	879	16,207	645	302
Kentucky	126	14,743	1,325	1,325	1,046	218	21	516	262	28
Louisiana	128	55,658	23,528	20,294	17,816	5,698	(D)	10,426	6,303	(D)
Maine	49	4,688	109	109	12	60	(D)	(D)	30	(D)
Maryland	127	18,983	4,399	4,384	3,249	1,150	-	1,451	489	-
Massachusetts	138	8,883	1,907	1,907	167	1,617	(D)	(D)	913	(D)
Michigan	489	105,769	24,083	23,957	20,047	1,819	2,262	9,574	1,154	1,003
Minnesota	331	78,210	19,917	19,917	18,077	1,776	80	11,446	704	1,007
Mississippi	100	15,953	9,230	9,230	7,989	(D)	(D)	6,231	1,016	(D)
Missouri	286	73,708	50,657	50,657	46,026	2,578	1,981	47,490	1,738	884
Montana	543	1,135,128	114,151	79,833	38	43,596	70,506	50	47,572	97,356
Nebraska	1,326	471,177	130,223	129,956	110,843	1,740	17,622	89,998	1,566	21,641
Nevada	80	230,616	37,150	37,138	(D)	27,369	(D)	38,304	74,598	971
New Hampshire	42	3,457	97	97	38	(D)	7	28	(D)	8
New Jersey	171	6,089	1,384	1,384	796	501	-	331	402	-
New Mexico	128	7,928	7,500	7,500	1,771	-	6,275	5,828	-	10,537
New York	233	7,039	639	585	416	12	75	318	24	56
North Carolina	271	17,092	2,030	2,030	964	856	(D)	435	64	46
North Dakota	34	38,733	3,233	3,233	2,829	-	400	2,283	-	400
Ohio	170	14,851	2,052	2,052	1,167	786	(D)	502	376	(D)
Oklahoma	260	285,438	19,739	16,694	15,280	4,446	-	13,508	2,242	-
Oregon	945	340,994	60,954	46,402	14,447	13,553	32,919	18,033	20,898	56,544
Pennsylvania	404	32,198	1,938	1,915	756	600	358	514	317	467
Rhode Island	23	793	93	63	74	(D)	(D)	95	(D)	(D)
South Carolina	8	480	16	16	9	-	-	9	-	-
South Dakota	155	94,725	16,574	16,570	10,457	-	6,101	4,802	-	8,677
Tennessee	117	35,166	5,407	5,407	4,971	351	5	1,330	229	2
Texas	967	1,550,354	218,492	167,624	183,798	14,420	22,546	172,600	17,369	46,200
Utah	544	198,528	62,363	54,535	16,543	10,981	34,831	33,168	9,116	60,310
Vermont	91	3,910	797	537	455	294	12	378	326	(D)
Virginia	128	24,902	2,192	2,152	232	1,568	329	156	1,832	131
Washington	689	56,435	23,198	18,168	4,292	6,501	15,184	6,871	8,173	30,275
West Virginia	41	33,526	389	389	(D)	354	(D)	8	56	(D)
Wisconsin	171	54,336	9,023	9,023	5,935	2,994	42	3,671	1,780	63
Wyoming	399	341,268	88,822	61,272	(Z)	7,146	82,165	1	7,465	125,214
Water Resource Regions										
Region 01 New England	361	20,983	2,931	2,641	645	2,015	148	510	1,401	67
Region 02 Mid-Atlantic	949	85,637	13,793	13,661	8,791	4,131	490	4,963	3,103	331
Region 03 South Atlantic-Gulf	1,144	172,473	35,114	35,114	23,094	13,338	74	20,280	13,162	49
Region 04 Great Lakes	807	126,976	31,148	30,930	26,553	2,190	2,286	13,942	1,393	1,026
Region 05 Ohio	531	99,635	8,055	8,055	6,150	1,265	422	2,449	807	359
Region 06 Tennessee	118	10,779	561	561	408	(D)	5	155	69	2
Region 07 Upper Mississippi	766	186,347	48,940	48,940	39,085	7,341	2,312	24,362	4,203	1,457
Region 08 Lower Mississippi	414	199,021	152,544	149,310	140,416	12,109	8	136,994	12,497	8
Region 09 Souris-Red-Rainy	62	25,822	3,857	3,857	3,441	-	400	2,200	-	400
Region 10 Missouri	2,762	2,045,720	327,794	306,847	129,595	58,350	140,277	105,145	79,542	202,700
Region 11 Arkansas-White-Red	825	588,174	93,164	87,919	61,710	28,706	5,309	71,511	47,937	6,846
Region 12 Texas-Gulf	740	1,274,323	193,544	142,676	169,932	(D)	20,230	163,235	5,137	42,324
Region 13 Rio Grande	196	184,038	17,840	17,840	9,811	-	8,575	12,088	-	14,217
Region 14 Upper Colorado	444	388,789	100,692	81,529	-	24,077	76,615	-	31,314	102,422
Region 15 Lower Colorado	269	291,461	20,033	6,966	10,865	2,375	6,781	40,410	4,750	11,524
Region 16 Great Basin	697	582,327	115,979	107,269	26,028	43,233	46,725	71,472	86,307	80,276
Region 17 Pacific Northwest	2,345	824,970	190,425	130,489	31,467	52,363	109,311	43,606	72,637	173,170
Region 18 California	4,104	703,583	171,183	154,066	82,025	2,152	97,504	148,255	4,230	199,354
Region 19 Alaska	78	1,926	168	168	62	50	(Z)	46	(D)	(Z)
Region 20 Hawaii	116	22,272	1,492	981	-	(D)	1,461	-	(D)	2,099

See footnote(s) at end of table.

--continued

Table 23. Irrigated Farms by Market Value of Agricultural Products Sold: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$100,000 to \$249,999										
	Farms with irrigation				Water source ^{1 2}			Quantity of water applied ¹			
	Farms	Land in farms (acres)	Acres irrigated	Irrigated cropland harvested (acres)	Ground water used (acres)	On-farm surface water used (acres)	Off-farm water used (acres)	Ground water used (acre-feet)	On-farm surface water used (acre-feet)	Off-farm water used (acre-feet)	
United States	2023 2018	23,849 25,934	17,814,767 24,892,896	3,804,167 4,509,521	3,270,375 3,891,124	2,262,239 2,496,120	457,978 530,206	1,178,900 1,568,451	2,531,356 2,575,814	647,951 673,093	2,044,018 2,959,584
2023 DATA											
Alabama	54	35,444	7,384	7,384	7,023	360	-	9,513	648	-	-
Alaska	5	(D)	145	145	(D)	(D)	-	44	(D)	-	-
Arizona	154	47,107	30,310	24,215	12,056	12,115	6,121	38,482	18,860	26,278	26,278
Arkansas	236	159,950	112,128	112,008	105,820	6,291	11	106,994	5,835	10	10
California	4,338	891,867	374,968	319,282	222,484	63,283	134,530	459,544	122,824	346,875	346,875
Colorado	1,127	1,001,503	388,523	271,048	118,475	55,123	222,964	146,675	82,527	360,337	360,337
Connecticut	30	1,744	259	259	152	80	20	54	76	14	14
Delaware	60	15,156	8,352	8,352	8,349	-	-	4,410	-	-	-
Florida	795	224,840	89,402	85,092	89,192	610	23,839	67,598	522	32,054	32,054
Georgia	486	274,481	102,017	102,017	63,211	20,223	18,559	51,660	9,990	27,822	27,822
Hawaii	98	2,680	1,752	1,734	-	422	1,330	-	506	997	997
Idaho	723	546,669	201,023	139,517	27,768	40,199	133,029	45,182	79,571	209,672	209,672
Illinois	262	96,847	42,500	42,446	42,079	306	43	27,362	375	95	95
Indiana	393	99,586	34,074	34,074	28,831	1,014	4,158	11,781	453	653	653
Iowa	173	72,518	14,988	14,988	13,376	1,575	-	10,276	1,575	-	-
Kansas	736	909,395	139,498	137,978	130,969	6,450	2,269	133,693	4,302	1,207	1,207
Kentucky	211	25,171	2,639	2,639	1,569	885	91	1,013	588	110	110
Louisiana	147	67,918	24,272	23,072	24,242	1,121	-	30,172	398	-	-
Maine	107	10,119	328	328	191	43	6	147	14	6	6
Maryland	136	24,986	12,649	12,649	9,651	2,105	854	4,013	844	691	691
Massachusetts	243	15,794	2,867	2,802	611	1,987	389	328	1,007	168	168
Michigan	708	165,942	42,136	41,182	25,131	11,588	6,120	13,411	4,565	918	918
Minnesota	400	157,811	39,468	39,324	38,930	496	-	23,380	248	-	-
Mississippi	175	74,633	38,325	38,172	37,111	1,162	46	27,004	(D)	25	25
Missouri	230	140,491	61,352	61,132	57,528	3,705	77	39,752	4,137	80	80
Montana	669	1,584,011	192,266	154,843	1,224	54,920	142,093	(D)	64,637	165,311	165,311
Nebraska	2,933	2,931,972	533,727	510,713	498,781	5,521	29,533	427,177	4,907	30,770	30,770
Nevada	49	43,231	33,046	28,951	(D)	(D)	(D)	(D)	(D)	87,889	87,889
New Hampshire	21	4,830	80	80	28	44	5	9	31	10	10
New Jersey	68	11,851	1,702	1,702	1,510	-	157	449	-	115	115
New Mexico	468	367,387	57,479	50,016	33,858	15,594	10,810	78,568	34,195	33,915	33,915
New York	375	34,581	2,750	2,750	1,319	600	613	851	482	590	590
North Carolina	417	62,487	7,236	7,236	2,352	4,653	(D)	2,012	3,642	100	100
North Dakota	95	134,309	15,808	15,808	6,056	265	9,480	5,042	(D)	9,660	9,660
Ohio	248	17,341	4,819	4,819	3,260	1,478	467	1,407	618	168	168
Oklahoma	317	1,001,355	70,548	69,669	70,548	-	-	82,837	-	-	-
Oregon	1,019	878,083	122,349	99,283	45,274	27,059	57,012	54,529	40,194	81,975	81,975
Pennsylvania	492	37,647	6,356	6,252	2,009	1,974	2,187	1,096	1,501	2,777	2,777
Rhode Island	12	156	32	32	9	-	14	17	-	14	14
South Carolina	147	27,103	2,854	2,854	2,686	(D)	2	1,952	32	3	3
South Dakota	233	213,583	39,986	39,986	14,353	9,500	16,106	4,088	3,320	15,942	15,942
Tennessee	81	32,470	9,066	9,066	9,042	-	10	2,639	-	14	14
Texas	1,490	2,278,540	416,340	376,919	395,111	18,424	2,785	439,888	17,093	4,041	4,041
Utah	599	714,789	203,789	92,978	12,890	27,118	163,816	31,070	25,066	324,394	324,394
Vermont	43	2,765	216	216	19	174	9	18	91	32	32
Virginia	102	9,487	2,165	2,153	(D)	1,492	(D)	149	1,054	182	182
Washington	856	380,600	77,514	72,902	29,248	3,926	44,278	47,517	6,269	92,929	92,929
West Virginia	70	(D)	116	116	60	-	-	27	-	-	-
Wisconsin	540	124,396	51,537	51,537	50,680	1,256	9	47,924	2,963	22	22
Wyoming	478	1,858,686	181,027	147,655	8,105	52,657	120,265	16,438	100,816	185,149	185,149
Water Resource Regions											
Region 01 New England	439	38,928	3,595	3,530	996	2,154	434	567	1,128	212	212
Region 02 Mid-Atlantic	993	94,170	32,457	32,341	22,723	5,651	3,681	10,578	3,523	3,980	3,980
Region 03 South Atlantic-Gulf	1,853	618,129	208,595	204,132	163,383	26,784	42,519	132,530	15,246	59,998	59,998
Region 04 Great Lakes	1,223	219,963	50,428	49,474	31,089	13,372	6,961	15,697	5,424	1,388	1,388
Region 05 Ohio	681	101,793	22,572	22,572	20,050	(D)	1,001	10,295	802	551	551
Region 06 Tennessee	114	(D)	1,519	1,519	1,347	70	23	439	(D)	20	20
Region 07 Upper Mississippi	1,336	442,251	153,280	153,082	143,642	6,505	3,443	102,907	8,870	(D)	(D)
Region 08 Lower Mississippi	544	309,728	194,107	192,907	192,180	3,008	2	176,061	1,768	5	5
Region 09 Souris-Red-Rainy	79	101,941	15,843	15,843	15,187	-	651	10,583	-	653	653
Region 10 Missouri	5,015	7,469,974	1,056,462	985,966	634,507	146,738	286,800	566,346	194,306	378,905	378,905
Region 11 Arkansas-White-Red	1,269	2,358,892	389,103	326,263	252,580	32,901	106,294	280,105	52,878	162,026	162,026
Region 12 Texas-Gulf	1,336	1,924,501	362,311	326,056	350,942	8,564	2,885	392,464	4,435	(D)	(D)
Region 13 Rio Grande	495	248,861	118,036	82,467	67,066	3,194	50,559	94,908	9,395	110,381	110,381
Region 14 Upper Colorado	681	412,031	217,780	114,394	(D)	51,548	166,198	24	57,917	294,444	294,444
Region 15 Lower Colorado	204	57,919	39,034	32,829	19,536	12,115	7,365	68,402	18,860	29,995	29,995
Region 16 Great Basin	444	581,211	142,173	88,828	21,558	7,288	113,360	62,399	21,704	257,056	257,056
Region 17 Pacific Northwest	2,642	1,833,619	401,099	304,471	92,404	68,558	245,648	132,730	120,830	383,551	383,551
Region 18 California	4,398	973,823	393,876	331,822	232,889	67,843	139,848	474,279	130,285	355,381	355,381
Region 19 Alaska	5	(D)	145	145	(D)	(D)	(D)	44	(D)	(D)	(D)
Region 20 Hawaii	98	2,680	1,752	1,734	-	422	1,330	-	506	997	997

See footnote(s) at end of table.

--continued

Table 23. Irrigated Farms by Market Value of Agricultural Products Sold: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$250,000 to \$499,999									
	Farms with irrigation				Water source ^{1 2}			Quantity of water applied ¹		
	Farms	Land in farms (acres)	Acres irrigated	Irrigated cropland harvested (acres)	Ground water used (acres)	On-farm surface water used (acres)	Off-farm water used (acres)	Ground water used (acre-feet)	On-farm surface water used (acre-feet)	Off-farm water used (acre-feet)
United States	17,329	23,195,501	4,748,640	4,346,285	3,043,231	496,982	1,326,773	3,389,155	711,438	2,473,921
2018	20,450	33,338,889	6,592,987	5,936,621	4,134,372	720,408	1,953,391	4,571,022	921,586	3,382,308
2023 DATA										
Alabama	89	126,755	18,262	17,002	12,162	2,800	3,300	6,123	2,331	4,020
Alaska	-	-	-	-	-	-	-	-	-	-
Arizona	112	87,013	36,683	34,694	12,729	18,962	4,990	40,159	51,338	14,607
Arkansas	287	319,392	252,450	252,450	214,469	37,619	356	219,373	50,369	118
California	3,279	778,471	446,595	413,387	236,750	49,620	236,510	516,440	95,717	655,257
Colorado	587	2,233,117	311,806	250,492	99,903	101,108	131,946	134,299	177,333	224,226
Connecticut	44	2,330	342	342	63	256	(D)	29	878	(D)
Delaware	78	50,706	23,114	23,114	20,096	3,010	(D)	18,158	2,110	(D)
Florida	469	99,940	56,261	56,261	48,253	237	7,700	65,197	170	7,864
Georgia	374	207,648	95,211	95,211	77,101	21,451	135	48,332	18,719	252
Hawaii	152	3,064	1,446	1,338	(D)	(D)	642	(D)	(D)	1,187
Idaho	749	1,069,478	306,895	250,389	72,003	79,568	155,514	126,155	121,051	273,298
Illinois	297	171,404	65,772	65,772	64,818	800	100	47,050	792	110
Indiana	258	98,893	30,400	29,295	30,161	(D)	(D)	14,683	(D)	-
Iowa	186	102,504	18,831	18,831	16,988	1,690	(D)	7,342	1,285	73
Kansas	626	1,469,316	161,465	159,225	151,620	6,080	8,534	134,190	4,456	6,390
Kentucky	41	48,898	3,248	3,248	1,540	1,699	-	2,772	1,081	-
Louisiana	218	169,282	92,707	92,707	71,357	9,380	11,968	84,659	11,176	18,704
Maine	35	7,328	716	716	279	(D)	(D)	152	(D)	26
Maryland	91	36,671	14,635	14,635	13,516	1,111	-	6,825	631	-
Massachusetts	125	19,794	2,315	2,315	514	1,584	177	351	1,198	540
Michigan	401	163,481	52,697	50,697	33,731	18,940	-	26,212	8,734	-
Minnesota	396	195,198	86,329	85,321	82,464	3,808	20	47,238	8,056	12
Mississippi	139	133,461	64,300	64,300	59,347	4,950	(D)	47,161	3,420	(D)
Missouri	205	165,837	91,876	91,876	81,873	8,626	1,356	41,000	1,997	406
Montana	388	2,511,115	264,419	187,701	10,254	26,106	228,293	7,312	27,824	249,141
Nebraska	2,664	4,290,678	908,122	890,521	815,444	3,724	91,214	683,470	2,977	86,501
Nevada	171	172,932	114,451	97,215	43,995	5,875	64,579	114,116	16,001	209,348
New Hampshire	30	2,668	594	594	18	342	325	32	202	65
New Jersey	143	28,385	12,905	10,025	8,722	4,130	23	8,075	2,341	5
New Mexico	74	352,387	16,676	16,676	12,687	1,920	3,982	24,405	960	10,884
New York	161	37,448	1,908	1,905	710	365	777	851	400	376
North Carolina	81	26,802	5,972	5,972	3,830	2,108	-	2,556	1,374	-
North Dakota	85	206,219	20,859	20,859	11,583	595	8,681	6,925	235	5,648
Ohio	130	22,330	5,176	5,176	3,597	1,321	(D)	2,261	450	178
Oklahoma	128	233,544	67,041	63,521	62,511	2	4,522	63,213	7	10,830
Oregon	622	1,717,365	135,541	101,822	46,868	17,433	75,839	89,604	23,604	145,468
Pennsylvania	221	40,079	5,272	5,272	1,460	3,735	(D)	677	2,953	(D)
Rhode Island	24	972	261	261	90	(D)	(D)	70	(D)	(D)
South Carolina	157	107,525	21,546	21,546	21,497	-	26	16,379	-	27
South Dakota	125	132,868	33,852	33,852	27,237	(D)	(D)	13,584	3,267	(D)
Tennessee	92	53,327	9,291	9,291	8,932	335	-	4,114	329	-
Texas	878	1,668,118	481,844	425,233	469,960	1,518	10,359	516,672	2,990	21,404
Utah	374	1,040,105	138,308	129,203	33,642	8,083	96,575	114,548	7,344	240,986
Vermont	18	999	213	213	32	170	-	18	22	-
Virginia	80	26,028	4,161	4,161	334	1,599	2,208	195	1,402	1,068
Washington	743	347,794	80,992	77,821	31,224	2,782	50,592	36,310	4,944	94,179
West Virginia	8	1,248	358	358	(D)	(D)	-	(D)	153	-
Wisconsin	315	106,493	12,477	12,372	6,330	5,955	(D)	4,715	5,004	65
Wyoming	379	2,308,091	172,045	151,097	19,706	30,815	122,146	44,522	43,560	189,751
Water Resource Regions										
Region 01 New England	250	32,850	4,214	4,214	973	2,503	762	635	2,409	646
Region 02 Mid-Atlantic	650	205,851	59,764	56,884	44,232	13,140	2,238	34,144	9,432	1,075
Region 03 South Atlantic-Gulf	1,174	589,942	196,126	194,866	158,567	29,746	11,161	135,562	25,114	12,163
Region 04 Great Lakes	793	250,583	70,509	68,401	46,208	23,119	(D)	34,645	9,849	588
Region 05 Ohio	373	122,558	25,560	25,560	21,120	(D)	(D)	10,135	2,175	(D)
Region 06 Tennessee	24	14,133	5,945	5,945	(D)	(D)	-	3,772	(D)	-
Region 07 Upper Mississippi	1,020	529,471	183,398	181,285	166,273	15,502	1,473	102,129	15,327	(D)
Region 08 Lower Mississippi	652	641,862	432,542	432,542	377,736	42,824	11,974	359,949	56,050	18,715
Region 09 Souris-Red-Rainy	37	51,338	11,720	11,720	11,185	535	-	5,027	(D)	-
Region 10 Missouri	4,275	10,796,366	1,517,465	1,411,912	1,024,692	64,545	440,259	894,952	79,703	539,446
Region 11 Arkansas-White-Red	757	1,850,038	343,201	332,791	327,659	11,357	8,938	382,007	9,986	21,949
Region 12 Texas-Gulf	657	1,037,953	344,173	292,212	338,642	(D)	(D)	315,934	529	(D)
Region 13 Rio Grande	135	190,757	74,840	61,522	37,841	26,207	12,928	69,225	50,089	28,630
Region 14 Upper Colorado	324	1,779,413	203,480	151,428	(D)	74,800	137,647	(D)	123,282	296,648
Region 15 Lower Colorado	117	87,032	36,696	34,707	12,729	18,962	4,999	40,159	51,338	14,627
Region 16 Great Basin	474	877,621	222,758	197,589	82,197	17,222	123,333	236,264	29,873	307,958
Region 17 Pacific Northwest	2,101	3,198,707	537,760	446,858	130,661	100,944	314,546	219,615	149,637	534,584
Region 18 California	3,364	935,962	477,043	434,511	253,090	50,475	249,763	542,692	96,173	687,608
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	152	3,064	1,446	1,338	(D)	(D)	642	(D)	(D)	1,187

See footnote(s) at end of table.

--continued

Table 23. Irrigated Farms by Market Value of Agricultural Products Sold: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$500,000 to \$999,999									
	Farms with irrigation				Water source ^{1 2}			Quantity of water applied ¹		
	Farms	Land in farms (acres)	Acres irrigated	Irrigated cropland harvested (acres)	Ground water used (acres)	On-farm surface water used (acres)	Off-farm water used (acres)	Ground water used (acre-feet)	On-farm surface water used (acre-feet)	Off-farm water used (acre-feet)
United States	16,566	33,861,175	8,006,155	7,581,709	5,802,887	838,283	1,560,436	6,185,083	1,143,873	3,113,766
2018	17,545	41,857,868	9,882,727	9,298,942	7,170,228	960,667	2,085,837	7,207,350	1,179,797	4,452,304
2023 DATA										
Alabama	136	148,443	23,361	23,361	12,387	9,255	1,710	5,853	5,487	390
Alaska	22	1,538	819	819	799	-	9	(D)	-	1
Arizona	144	370,483	75,879	72,459	37,669	3,420	34,788	146,659	10,260	153,435
Arkansas	417	616,792	501,900	501,900	424,671	81,124	2,355	477,752	106,806	3,172
California	2,806	1,226,165	692,436	643,211	392,165	41,581	366,988	817,525	101,468	1,109,784
Colorado	409	2,413,705	324,520	291,725	129,677	20,541	198,635	159,719	30,523	308,084
Connecticut	43	4,671	341	341	100	173	(D)	80	133	(D)
Delaware	64	63,224	26,234	26,130	25,159	1,120	-	14,709	841	(D)
Florida	341	158,979	56,126	56,126	48,079	7,980	-	46,327	10,103	(D)
Georgia	467	458,601	124,093	124,093	87,716	36,688	-	90,231	22,781	-
Hawaii	79	(D)	2,467	1,407	300	(D)	(D)	(D)	(D)	2,181
Idaho	502	1,568,281	436,847	380,003	146,322	114,111	177,236	224,107	154,216	318,330
Illinois	290	279,581	109,533	109,533	107,407	-	2,101	60,896	-	1,053
Indiana	221	321,424	87,204	87,153	85,993	6,800	(D)	35,651	2,921	(D)
Iowa	90	97,687	29,722	29,680	24,794	1,694	3,234	11,127	1,127	1,617
Kansas	906	2,603,805	426,772	426,252	399,416	24,880	5,978	410,952	11,181	4,237
Kentucky	34	29,553	4,608	4,608	3,630	835	142	1,618	360	184
Louisiana	301	380,067	205,168	205,168	181,172	23,962	(D)	207,610	30,279	29
Maine	16	13,631	785	785	427	354	(D)	(D)	221	(D)
Maryland	91	70,495	29,433	29,349	24,798	4,326	286	14,146	2,110	144
Massachusetts	14	2,777	1,013	1,013	(D)	969	(D)	(D)	364	(D)
Michigan	455	334,463	91,627	91,627	70,650	29,644	(D)	28,368	19,834	(D)
Minnesota	329	307,323	116,378	116,378	115,444	920	8	72,038	368	8
Mississippi	239	308,756	204,174	204,174	194,837	9,522	-	145,906	7,912	-
Missouri	329	460,117	282,523	282,523	277,094	4,536	880	211,810	4,632	791
Montana	467	4,827,508	318,065	225,149	8,810	145,366	163,911	8,084	188,206	205,057
Nebraska	2,585	6,130,949	1,746,316	1,733,899	1,648,875	15,130	95,921	1,358,435	12,749	85,297
Nevada	124	855,793	120,763	101,203	30,591	64,582	27,990	95,742	136,231	55,953
New Hampshire	31	2,128	206	206	151	(D)	-	93	(D)	-
New Jersey	43	(D)	4,588	4,588	3,146	1,442	-	1,846	(D)	-
New Mexico	132	130,689	55,031	55,031	48,065	-	11,036	121,004	-	21,264
New York	222	70,897	13,601	13,601	7,382	3,998	2,132	1,848	2,326	1,958
North Carolina	179	63,706	18,294	16,864	8,475	8,389	1,430	7,343	5,693	2,158
North Dakota	94	193,588	29,616	29,576	22,916	1,180	5,518	12,044	687	2,172
Ohio	118	32,191	3,753	3,753	2,689	(D)	(D)	1,102	307	98
Oklahoma	104	1,042,650	130,318	116,078	120,963	-	9,350	138,609	-	9,350
Oregon	811	1,225,887	219,713	180,762	90,391	39,003	99,193	100,627	63,979	167,212
Pennsylvania	164	21,573	3,219	3,219	1,393	1,504	298	628	533	67
Rhode Island	14	4,066	1,571	1,491	1,055	(D)	412	580	(D)	414
South Carolina	137	190,788	29,264	28,489	28,030	1,200	4	18,053	1,632	1
South Dakota	322	606,049	94,859	91,059	87,018	(D)	7,808	68,230	18	8,296
Tennessee	63	63,354	14,845	14,845	8,645	6,200	-	3,290	2,750	-
Texas	801	2,854,336	748,198	713,690	678,529	19,688	53,582	748,765	31,328	61,210
Utah	185	645,679	106,268	103,044	46,869	510	58,881	156,140	1,320	171,952
Vermont	33	1,736	146	146	(D)	85	-	56	49	-
Virginia	70	50,672	8,665	8,665	684	6,593	1,385	228	4,569	554
Washington	646	677,158	214,526	199,119	94,629	33,662	87,574	108,410	46,864	175,240
West Virginia	-	-	-	-	-	-	-	-	-	-
Wisconsin	306	332,012	66,982	66,079	58,340	9,564	2,982	35,576	17,087	1,953
Wyoming	170	1,526,577	203,385	161,335	14,433	53,838	135,114	14,165	100,441	240,046
Water Resource Regions										
Region 01 New England	123	28,638	3,941	3,861	1,780	1,663	474	825	971	436
Region 02 Mid-Atlantic	537	228,136	78,431	78,243	61,727	14,591	2,051	33,180	7,499	820
Region 03 South Atlantic-Gulf	1,271	1,018,286	260,098	257,893	187,123	70,048	3,144	169,209	49,356	2,549
Region 04 Great Lakes	687	465,790	116,723	116,723	89,755	33,455	2,144	36,565	21,417	1,966
Region 05 Ohio	262	239,002	54,923	54,923	53,081	(D)	(D)	30,700	(D)	(D)
Region 06 Tennessee	61	(D)	9,665	9,665	(D)	5,825	-	1,802	2,300	-
Region 07 Upper Mississippi	993	1,012,023	327,511	326,515	316,558	15,320	5,100	181,192	19,489	3,033
Region 08 Lower Mississippi	1,029	1,438,692	1,026,128	1,026,128	928,337	101,841	2,370	863,486	136,967	3,192
Region 09 Souris-Red-Rainy	87	156,795	29,851	29,811	(D)	(D)	(D)	15,478	(D)	(D)
Region 10 Missouri	4,209	15,041,911	2,654,184	2,494,708	1,982,986	212,117	496,982	1,658,048	278,481	666,384
Region 11 Arkansas-White-Red	1,220	3,899,489	1,033,352	1,019,012	961,784	41,945	33,105	1,126,085	46,161	42,764
Region 12 Texas-Gulf	468	920,860	314,084	302,676	301,583	4,688	11,417	296,350	1,328	8,680
Region 13 Rio Grande	123	991,348	90,425	64,300	32,599	-	61,896	77,184	-	84,987
Region 14 Upper Colorado	160	1,589,202	123,132	101,822	-	27,036	-	-	43,096	179,453
Region 15 Lower Colorado	168	383,145	88,541	85,121	50,221	3,530	34,788	190,503	10,500	153,435
Region 16 Great Basin	299	1,504,306	237,225	205,741	98,004	64,982	76,631	283,864	137,311	185,801
Region 17 Pacific Northwest	1,933	3,536,685	842,164	748,825	306,185	190,016	357,024	389,903	277,166	651,918
Region 18 California	2,835	1,254,305	712,491	653,516	397,565	47,581	375,643	829,675	107,468	1,125,894
Region 19 Alaska	22	1,538	819	819	799	-	9	(D)	(D)	1
Region 20 Hawaii	79	(D)	2,467	1,407	300	(D)	(D)	(D)	(D)	2,181

See footnote(s) at end of table.

--continued

Table 23. Irrigated Farms by Market Value of Agricultural Products Sold: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$1,000,000 or more									
	Farms with irrigation				Water source ^{1 2}			Quantity of water applied ¹		
	Farms	Land in farms (acres)	Acres irrigated	Irrigated cropland harvested (acres)	Ground water used (acres)	On-farm surface water used (acres)	Off-farm water used (acres)	Ground water used (acre-feet)	On-farm surface water used (acre-feet)	Off-farm water used (acre-feet)
United States 2023	24,373	91,942,111	31,521,017	30,718,401	22,809,974	3,276,134	7,084,728	29,594,790	4,925,309	16,880,855
..... 2018	22,759	80,099,722	29,039,545	28,120,280	20,420,918	3,162,142	7,176,210	25,077,319	4,180,461	17,554,424
2023 DATA										
Alabama	151	410,872	95,510	95,085	44,635	45,495	7,516	46,117	21,552	3,548
Alaska	1	(D)	(D)	(D)	(D)	-	-	(D)	-	-
Arizona	382	5,256,518	699,865	691,889	339,052	46,220	358,369	1,433,589	226,526	1,497,694
Arkansas	1,171	4,202,394	3,669,143	3,669,071	3,274,398	397,550	11,272	3,621,475	431,480	18,310
California	4,992	10,203,616	5,668,373	5,547,552	2,769,216	857,809	3,099,250	6,250,208	1,798,815	8,986,070
Colorado	462	2,857,541	718,284	667,337	478,885	61,677	234,124	685,912	120,084	398,878
Connecticut	61	2,595	2,595	2,595	954	1,466	216	651	2,542	184
Delaware	72	134,289	68,407	68,397	63,867	6,265	(D)	38,412	2,980	(D)
Florida	735	2,093,016	867,131	831,301	455,864	225,845	268,120	503,741	141,127	261,338
Georgia	631	1,579,262	833,383	829,424	727,050	136,099	889	856,095	132,315	1,037
Hawaii	119	81,414	25,273	23,267	2,632	7,046	15,834	7,277	9,811	25,390
Idaho	809	2,808,813	1,883,531	1,832,156	887,652	214,205	808,500	1,499,397	368,558	1,481,548
Illinois	594	1,246,341	438,472	437,607	432,161	4,212	2,051	254,133	3,357	399
Indiana	601	1,392,520	414,411	413,941	375,507	44,101	10,130	194,310	24,150	12,396
Iowa	303	703,186	165,884	165,884	163,191	(D)	(D)	87,025	845	537
Kansas	1,146	7,324,656	1,566,147	1,519,220	1,528,498	35,694	26,768	1,801,357	18,904	15,211
Kentucky	103	372,285	67,149	67,149	36,704	(D)	(D)	16,312	10,978	(D)
Louisiana	553	1,707,924	947,368	947,368	817,530	92,917	39,064	848,927	116,357	28,509
Maine	24	126,717	16,267	14,054	7,118	5,234	3,913	1,375	1,832	1,249
Maryland	129	169,342	63,320	63,300	47,897	16,016	(D)	20,186	9,543	(D)
Massachusetts	101	28,686	8,048	8,048	1,161	6,155	711	729	5,656	323
Michigan	949	1,371,515	529,308	526,973	464,902	58,427	15,091	261,384	28,259	12,096
Minnesota	311	635,317	274,943	274,943	256,294	5,791	13,367	189,604	6,195	16,653
Mississippi	464	1,663,355	1,374,950	1,374,950	1,349,282	52,269	1,050	1,154,936	55,237	1,050
Missouri	470	1,640,180	993,450	993,450	972,865	19,346	1,236	820,486	12,012	(D)
Montana	252	8,230,463	339,147	275,039	14,363	122,605	202,874	15,999	172,092	273,355
Nebraska	2,587	8,597,552	3,943,521	3,925,631	3,779,353	45,615	157,827	3,798,778	26,979	141,053
Nevada	95	2,206,093	370,207	204,948	131,783	84,460	161,463	394,871	232,321	534,112
New Hampshire	22	3,109	686	686	253	486	(D)	(D)	211	46
New Jersey	195	131,298	47,495	47,495	36,201	11,989	11	19,093	4,647	10
New Mexico	164	1,289,515	288,044	261,044	175,422	3,600	129,979	377,553	11,160	234,446
New York	219	139,511	25,378	25,378	11,787	10,945	2,719	7,058	3,018	1,160
North Carolina	455	639,959	104,613	103,983	57,365	46,723	402	43,527	36,367	541
North Dakota	214	1,092,619	174,633	174,391	139,070	4,520	31,037	97,487	2,555	20,355
Ohio	226	175,740	36,096	36,096	23,426	10,081	8,313	14,660	9,222	2,548
Oklahoma	136	806,281	200,472	187,385	190,665	9,267	(D)	294,356	3,078	1,920
Oregon	846	2,476,325	732,142	694,228	333,156	199,920	233,635	600,784	331,753	426,925
Pennsylvania	166	72,807	10,196	10,196	3,594	4,373	2,252	2,140	2,982	962
Rhode Island	11	2,082	1,669	1,669	441	854	372	310	845	(D)
South Carolina	174	430,870	128,086	127,641	107,374	20,010	1,800	92,154	12,320	948
South Dakota	245	1,504,528	191,344	191,344	160,022	-	31,320	101,046	-	22,750
Tennessee	225	576,047	133,347	133,347	124,724	2,552	6,061	60,989	2,331	1,341
Texas	808	6,922,198	1,410,665	1,350,717	1,192,884	85,265	233,617	1,647,579	101,108	264,549
Utah	164	480,148	185,027	174,914	119,066	8,808	58,864	380,452	19,245	130,977
Vermont	9	1,704	801	801	65	760	(D)	(D)	1,524	(D)
Virginia	189	229,529	35,497	35,312	4,872	27,408	3,186	4,401	15,820	2,144
Washington	1,028	4,393,303	1,216,401	1,197,864	366,241	115,084	760,667	755,738	216,276	1,833,715
West Virginia	10	(D)	(D)	(D)	(D)	(D)	(D)	(D)	30	(D)
Wisconsin	445	916,364	335,533	335,313	323,141	16,112	880	270,858	43,250	880
Wyoming	154	2,598,589	218,183	157,396	16,862	76,591	130,884	20,840	127,060	216,073
Water Resource Regions										
Region 01 New England	223	173,286	29,963	27,750	9,928	14,891	5,282	3,139	12,525	1,946
Region 02 Mid-Atlantic	839	725,047	239,918	239,703	165,013	72,709	5,833	89,688	37,093	3,374
Region 03 South Atlantic-Gulf	2,147	4,957,453	1,983,178	1,941,889	1,378,964	449,081	271,652	1,535,398	332,422	264,718
Region 04 Great Lakes	1,288	1,796,769	688,080	685,745	608,658	72,506	21,754	349,495	40,923	13,751
Region 05 Ohio	690	1,574,323	358,773	358,341	306,376	46,412	20,208	167,093	20,444	18,763
Region 06 Tennessee	106	(D)	(D)	(D)	(D)	28,758	13,141	(D)	13,670	4,062
Region 07 Upper Mississippi	1,526	3,298,510	1,099,561	1,098,438	1,055,225	44,581	5,938	729,463	58,634	5,356
Region 08 Lower Mississippi	2,462	8,573,713	6,517,387	6,517,315	5,991,762	518,706	47,714	5,992,665	572,994	46,403
Region 09 Souris-Red-Rainy	125	640,804	119,516	119,376	95,286	7,400	16,827	66,349	7,264	18,747
Region 10 Missouri	4,226	25,604,592	5,647,443	5,512,010	4,840,705	245,193	645,152	4,808,298	354,121	818,525
Region 11 Arkansas-White-Red	1,411	8,882,062	2,787,742	2,690,235	2,642,358	150,160	109,274	3,299,504	159,443	163,974
Region 12 Texas-Gulf	567	2,425,161	726,483	708,895	496,777	31,695	224,467	649,249	48,226	282,684
Region 13 Rio Grande	208	3,194,869	253,830	211,066	235,412	11,575	37,963	542,188	12,837	58,763
Region 14 Upper Colorado	113	1,583,967	209,839	178,505	-	20,486	189,350	-	27,898	349,475
Region 15 Lower Colorado	408	5,615,411	805,685	789,199	347,002	59,652	442,807	1,448,414	273,422	1,943,475
Region 16 Great Basin	265	2,653,223	574,345	402,123	263,967	93,268	226,324	798,835	251,566	619,345
Region 17 Pacific Northwest	2,670	9,753,545	3,799,638	3,684,330	1,569,182	557,637	1,759,950	2,822,404	940,098	3,681,640
Region 18 California	4,979	10,087,680	5,588,541	5,464,392	2,776,808	844,377	3,025,258	6,262,438	1,751,919	8,560,464
Region 19 Alaska	1	(D)	(D)	(D)	(D)	-	-	(D)	-	-
Region 20 Hawaii	119	81,414	25,273	23,267	2,632	7,046	15,834	7,277	9,811	25,390

¹ Total square feet and gallons rounded to acres and acre-feet. May not add due to rounding.
² Farms can utilize more than one water source on the same area.

Table 24. Irrigated Farms by Percent of Total Sales from Irrigated Crops and Livestock: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms by percent of total sales from -									
	Irrigated crops						Non-irrigated crops and livestock			
	None	1 to 24 percent	25 to 49 percent	50 to 74 percent	75 to 99 percent	100 percent	None	1 to 49 percent	50 to 99 percent	100 percent
United States 2023	24,510	23,918	15,910	23,057	31,492	93,827	93,827	45,716	48,661	24,510
..... 2018	26,169	29,227	22,309	30,666	40,969	82,134	82,134	61,093	62,078	26,169
2023 DATA										
Alabama	30	334	84	263	167	352	352	299	549	30
Alaska	-	11	9	57	10	272	272	18	69	-
Arizona	851	265	137	217	92	1,524	1,524	193	518	851
Arkansas	33	129	81	294	806	1,514	1,514	1,001	309	33
California	3,033	781	719	1,466	2,224	29,810	29,810	3,088	2,102	3,033
Colorado	2,064	1,208	944	1,693	2,497	4,459	4,459	3,837	2,505	2,064
Connecticut	7	55	79	71	95	315	315	141	159	7
Delaware	-	48	62	77	170	59	59	221	136	-
Florida	550	203	266	365	610	5,309	5,309	837	607	550
Georgia	170	425	314	512	972	1,841	1,841	1,405	818	170
Hawaii	39	131	72	216	138	1,254	1,254	231	326	39
Idaho	3,548	611	487	935	1,909	4,462	4,462	2,519	1,423	3,548
Illinois	24	424	377	432	392	492	492	649	976	24
Indiana	33	612	541	486	224	402	402	517	1,346	33
Iowa	-	362	208	177	177	252	252	311	613	-
Kansas	40	1,432	746	812	699	459	459	1,267	2,422	40
Kentucky	3	396	211	251	180	280	280	247	791	3
Louisiana	37	139	168	235	409	871	871	587	364	37
Maine	5	87	79	100	69	219	219	94	241	5
Maryland	19	116	138	174	204	265	265	311	321	19
Massachusetts	25	106	105	132	202	741	741	282	263	25
Michigan	74	749	490	693	572	2,024	2,024	955	1,549	74
Minnesota	56	477	357	412	560	584	584	848	958	56
Mississippi	33	123	118	233	489	675	675	664	299	33
Missouri	61	478	268	277	522	731	731	697	848	61
Montana	1,004	1,649	599	868	1,058	1,835	1,835	1,561	2,613	1,004
Nebraska	174	1,723	1,898	2,546	5,168	1,619	1,619	6,836	4,499	174
Nevada	261	72	224	115	167	765	765	186	392	261
New Hampshire	10	70	34	35	50	170	170	71	118	10
New Jersey	17	83	140	220	124	609	609	190	377	17
New Mexico	1,370	591	360	916	1,062	3,419	3,419	1,605	1,324	1,370
New York	18	508	121	395	348	1,049	1,049	541	831	18
North Carolina	68	671	326	335	397	1,110	1,110	560	1,169	68
North Dakota	4	253	114	97	47	86	86	97	414	4
Ohio	43	452	241	348	301	546	546	556	786	43
Oklahoma	357	258	225	280	219	395	395	378	604	357
Oregon	3,756	1,440	680	1,006	1,266	4,544	4,544	1,780	2,612	3,756
Pennsylvania	29	512	262	388	437	734	734	573	1,026	29
Rhode Island	16	14	13	17	26	139	139	34	36	16
South Carolina	150	259	257	118	138	650	650	238	534	150
South Dakota	27	455	288	233	198	151	151	265	909	27
Tennessee	79	331	180	290	148	360	360	278	671	79
Texas	1,488	1,402	950	1,246	1,362	4,448	4,448	2,151	2,809	1,488
Utah	2,262	962	663	978	1,796	3,771	3,771	2,545	1,854	2,262
Vermont	19	79	56	22	95	215	215	100	152	19
Virginia	78	299	196	155	154	468	468	205	599	78
Washington	1,860	510	319	687	1,029	5,583	5,583	1,375	1,170	1,860
West Virginia	8	172	20	88	42	175	175	65	257	8
Wisconsin	22	535	212	382	482	1,081	1,081	771	840	22
Wyoming	655	916	472	712	989	739	739	1,536	1,553	655
Water Resource Regions										
Region 01 New England	76	349	316	378	463	1,639	1,639	644	862	76
Region 02 Mid-Atlantic	138	1,148	763	1,075	1,191	2,603	2,603	1,608	2,569	138
Region 03 South Atlantic-Gulf	978	1,898	1,286	1,556	2,332	9,319	9,319	3,342	3,730	978
Region 04 Great Lakes	150	1,352	957	1,324	1,056	3,007	3,007	1,874	2,815	150
Region 05 Ohio	86	1,571	730	922	685	1,323	1,323	1,091	2,817	86
Region 06 Tennessee	78	257	133	240	64	507	507	202	492	78
Region 07 Upper Mississippi	94	1,708	1,102	1,329	1,499	2,131	2,131	2,446	3,192	94
Region 08 Lower Mississippi	54	373	415	775	1,770	2,783	2,783	2,304	1,029	54
Region 09 Souris-Red-Rainy	-	145	80	59	83	135	135	115	252	-
Region 10 Missouri	1,705	5,825	3,982	4,775	8,066	5,402	5,402	11,136	11,512	1,705
Region 11 Arkansas-White-Red	779	1,756	1,085	1,749	1,568	2,258	2,258	2,811	3,347	779
Region 12 Texas-Gulf	1,326	1,033	747	933	1,063	3,501	3,501	1,602	2,174	1,326
Region 13 Rio Grande	1,141	400	274	776	775	3,372	3,372	1,196	1,029	1,141
Region 14 Upper Colorado	2,419	1,205	672	1,208	2,035	3,312	3,312	3,069	2,051	2,419
Region 15 Lower Colorado	964	353	169	210	180	1,756	1,756	272	640	964
Region 16 Great Basin	2,059	788	836	1,118	1,720	4,012	4,012	2,470	1,992	2,059
Region 17 Pacific Northwest	9,231	2,797	1,532	2,863	4,487	15,335	15,335	6,083	5,596	9,231
Region 18 California	3,193	818	750	1,494	2,307	29,906	29,906	3,202	2,167	3,193
Region 19 Alaska	-	11	9	57	10	272	272	18	69	-
Region 20 Hawaii	39	131	72	216	138	1,254	1,254	231	326	39

Table 25. Methods Used in Deciding When to Irrigate: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms reporting any method	Farms reporting method used ¹									
		Condition of crop	Feel of soil	Soil moisture sensing device	Plant moisture sensing device	Commercial or government scheduling service	Reports on daily crop-water evapo-transpiration (ET)	Scheduled by water supplier	Personal calendar schedule	Computer simulation models	When neighbors begin to irrigate
United States	212,714	164,779	85,093	27,831	5,282	17,533	15,484	31,192	44,349	1,627	10,228
Alabama	1,230	1,075	485	166	23	14	24	5	189	-	23
Alaska	359	295	223	45	3	-	-	-	79	-	-
Arizona	3,086	2,292	977	180	36	379	199	674	801	37	129
Arkansas	2,857	2,567	1,261	541	66	265	109	20	546	14	172
California	38,033	28,724	14,821	9,429	3,322	4,736	5,944	4,980	10,578	488	1,122
Colorado	12,865	8,226	3,826	539	80	618	319	5,174	2,985	39	1,218
Connecticut	622	564	387	48	2	17	31	-	74	2	-
Delaware	416	389	226	33	-	14	46	-	27	6	36
Florida	7,303	5,808	3,185	1,152	72	353	468	66	1,657	38	38
Georgia	4,234	3,378	1,557	676	69	448	310	56	952	65	136
Hawaii	1,850	1,617	747	89	20	67	18	43	533	14	17
Idaho	11,952	8,158	4,502	764	103	868	433	3,453	2,780	21	1,123
Illinois	2,141	1,948	1,014	272	32	77	156	-	255	46	98
Indiana	2,298	2,064	1,140	291	33	48	207	-	335	14	217
Iowa	1,176	1,114	492	140	22	39	179	-	111	17	28
Kansas	4,188	3,579	1,668	506	82	675	459	63	203	21	133
Kentucky	1,321	1,125	677	75	7	20	34	10	267	-	-
Louisiana	1,859	1,693	578	102	29	59	96	12	249	-	54
Maine	559	459	431	80	12	6	3	2	118	5	-
Maryland	916	854	480	101	7	20	26	6	90	-	22
Massachusetts	1,311	1,073	799	229	17	24	49	-	196	1	43
Michigan	4,602	4,173	2,784	464	51	293	550	26	838	120	133
Minnesota	2,446	2,246	1,436	378	21	209	279	16	406	13	94
Mississippi	1,671	1,394	646	494	25	109	66	10	246	4	52
Missouri	2,337	2,131	1,111	294	21	127	89	29	429	4	136
Montana	7,013	5,375	2,529	465	33	280	203	2,122	1,392	1	586
Nebraska	13,128	10,961	6,258	3,335	370	2,261	2,807	811	1,096	228	689
Nevada	1,604	1,164	491	60	2	173	51	249	438	4	129
New Hampshire	369	293	228	32	1	15	5	-	64	1	-
New Jersey	1,193	1,129	661	166	26	11	17	-	194	24	-
New Mexico	7,718	4,614	1,544	294	34	1,291	47	2,455	2,048	97	786
New York	2,439	2,163	1,445	184	-	62	78	5	321	66	-
North Carolina	2,907	2,444	1,259	156	1	132	40	55	447	2	10
North Dakota	601	524	281	130	8	16	46	31	90	10	35
Ohio	1,931	1,756	1,017	132	8	21	34	4	323	4	30
Oklahoma	1,734	1,581	735	170	14	42	163	11	250	-	129
Oregon	12,692	9,179	4,369	1,113	138	694	359	2,546	2,607	20	688
Pennsylvania	2,362	2,095	1,341	130	-	79	30	-	419	7	41
Rhode Island	225	192	123	19	2	12	8	9	46	2	-
South Carolina	1,572	1,275	815	176	-	31	39	-	420	11	35
South Dakota	1,352	1,184	650	164	-	71	107	72	269	-	182
Tennessee	1,388	1,223	565	192	6	54	19	-	265	-	8
Texas	10,896	9,172	3,926	1,133	182	503	405	649	2,056	85	223
Utah	10,432	6,000	2,365	214	23	1,498	55	4,773	2,017	6	702
Vermont	486	419	327	41	-	4	4	5	103	-	-
Virginia	1,350	1,232	716	101	1	25	24	-	182	4	-
Washington	9,988	7,918	4,512	1,556	248	481	548	1,327	2,915	18	467
West Virginia	505	398	324	49	-	8	-	-	137	1	-
Wisconsin	2,714	2,305	1,665	464	30	119	184	-	371	43	22
Wyoming	4,483	3,237	1,494	267	-	165	117	1,423	935	24	442
Water Resource Regions											
Region 01 New England	3,221	2,700	2,078	435	34	75	97	12	554	11	43
Region 02 Mid-Atlantic	6,918	6,358	3,935	626	34	165	168	6	978	68	99
Region 03 South Atlantic-Gulf	17,369	13,993	7,264	2,287	176	970	870	187	3,676	116	242
Region 04 Great Lakes	7,846	7,013	4,552	702	58	359	713	39	1,249	188	207
Region 05 Ohio	5,317	4,545	2,702	391	25	67	174	3	1,012	18	134
Region 06 Tennessee	1,279	1,231	653	157	-	39	24	5	247	-	-
Region 07 Upper Mississippi	7,863	7,069	4,245	1,210	120	386	679	15	1,099	91	281
Region 08 Lower Mississippi	6,170	5,589	2,420	1,291	119	514	296	39	1,029	13	361
Region 09 Souris-Red-Rainy	502	462	272	66	3	52	77	18	83	4	10
Region 10 Missouri	29,755	24,280	12,758	4,854	480	3,016	3,682	4,953	4,117	293	1,854
Region 11 Arkansas-White-Red	9,195	7,354	3,058	908	67	843	651	1,128	1,139	45	345
Region 12 Texas-Gulf	8,603	7,411	3,351	832	178	330	235	373	1,726	41	204
Region 13 Rio Grande	6,738	3,333	1,686	304	44	1,373	94	2,667	1,965	63	843
Region 14 Upper Colorado	10,851	7,077	2,828	183	23	663	66	3,703	2,392	69	1,106
Region 15 Lower Colorado	3,632	2,728	1,066	218	36	432	209	730	934	37	154
Region 16 Great Basin	10,533	6,143	2,479	338	24	1,346	128	4,361	2,271	8	710
Region 17 Pacific Northwest	36,245	26,559	13,769	3,429	511	2,110	1,338	7,767	8,595	55	2,472
Region 18 California	38,468	29,022	15,007	9,466	3,327	4,726	5,965	5,143	10,671	493	1,146
Region 19 Alaska	359	295	223	45	3	-	-	-	79	-	-
Region 20 Hawaii	1,850	1,617	747	89	20	67	18	43	533	14	17

¹ Respondents could choose more than one method.

Table 26. Groundwater Recharge Participation on Farms with Irrigation: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

	Farms		Farms
United States	10,609	Oklahoma	18
Alabama	66	Oregon	533
Alaska	8	Pennsylvania	28
Arizona	141	Rhode Island	6
Arkansas	227	South Carolina	60
California	2,619	South Dakota	54
Colorado	1,598	Tennessee	62
Connecticut	5	Texas	389
Delaware	2	Utah	669
Florida	332	Vermont	10
Georgia	109	Virginia	28
Hawaii	25	Washington	240
Idaho	799	West Virginia	27
Illinois	49	Wisconsin	108
Indiana	27	Wyoming	359
Iowa	8	Water Resource Regions	
Kansas	36	Region 01 New England	138
Kentucky	33	Region 02 Mid-Atlantic	200
Louisiana	57	Region 03 South Atlantic-Gulf	744
Maine	13	Region 04 Great Lakes	19
Maryland	33	Region 05 Ohio	203
Massachusetts	112	Region 06 Tennessee	-
Michigan	5	Region 07 Upper Mississippi	209
Minnesota	47	Region 08 Lower Mississippi	367
Mississippi	59	Region 09 Souris-Red-Rainy	17
Missouri	63	Region 10 Missouri	1,286
Montana	458	Region 11 Arkansas-White-Red	266
Nebraska	139	Region 12 Texas-Gulf	298
Nevada	150	Region 13 Rio Grande	484
New Hampshire	2	Region 14 Upper Colorado	1,181
New Jersey	90	Region 15 Lower Colorado	169
New Mexico	422	Region 16 Great Basin	668
New York	64	Region 17 Pacific Northwest	1,683
North Carolina	153	Region 18 California	2,644
North Dakota	6	Region 19 Alaska	8
Ohio	61	Region 20 Hawaii	25

Table 27. Technical and Financial Assistance Received During the Past Five Years for Irrigation or Drainage Improvements: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Total ¹			USDA programs for water conservation and environmental improvements (CTA, EQIP, RCPP, AMA, WMB, CIG, etc.)			Other USDA programs for stewardship (CSP) or easements (ACEP/WRP, CRP (including CREP), etc.)		
	Farms ²	Farms receiving technical assistance	Farms receiving financial assistance	Farms ²	Farms receiving technical assistance	Farms receiving financial assistance	Farms ²	Farms receiving technical assistance	Farms receiving financial assistance
United States	16,826	11,622	11,555	8,980	5,938	7,565	1,838	1,377	1,277
Alabama	117	44	103	110	42	96	6	-	6
Alaska	32	32	24	32	32	24	2	2	-
Arizona	289	244	214	151	145	151	21	21	2
Arkansas	437	332	347	377	279	311	182	123	155
California	2,905	2,028	1,614	1,297	736	1,069	156	108	67
Colorado	1,112	894	862	749	580	644	123	80	70
Connecticut	70	35	61	36	27	29	5	5	5
Delaware	50	44	31	21	16	19	5	5	-
Florida	546	403	346	253	162	154	6	6	-
Georgia	405	281	268	196	110	142	86	37	86
Hawaii	85	84	60	62	58	60	20	20	-
Idaho	1,009	730	687	385	308	344	149	121	123
Illinois	137	99	71	38	10	28	-	-	-
Indiana	108	84	74	19	19	-	-	-	-
Iowa	60	53	17	10	10	10	21	21	-
Kansas	251	204	181	84	78	64	53	33	41
Kentucky	151	105	106	115	103	71	-	-	-
Louisiana	290	149	250	240	132	217	104	86	69
Maine	46	8	45	46	8	45	1	1	1
Maryland	63	34	54	30	16	30	10	10	7
Massachusetts	212	152	150	155	132	111	11	11	2
Michigan	252	172	128	97	32	65	29	27	29
Minnesota	246	178	177	160	122	115	77	65	53
Mississippi	267	110	261	216	104	213	53	33	53
Missouri	200	154	122	138	110	81	32	32	16
Montana	471	287	320	231	189	169	37	34	15
Nebraska	945	614	605	497	295	369	186	157	136
Nevada	135	124	129	128	121	125	9	9	9
New Hampshire	30	28	19	25	25	17	2	2	2
New Jersey	58	51	34	33	11	31	2	-	2
New Mexico	396	233	396	332	200	332	31	31	-
New York	106	67	64	25	25	25	25	25	25
North Carolina	177	122	100	45	22	45	-	-	-
North Dakota	55	32	55	40	25	36	15	9	11
Ohio	120	98	31	28	28	1	3	3	3
Oklahoma	94	36	73	25	15	25	4	-	4
Oregon	962	655	574	341	177	306	95	26	74
Pennsylvania	139	134	66	42	39	42	-	-	-
Rhode Island	30	24	25	26	20	20	7	7	3
South Carolina	115	55	89	47	5	42	-	-	-
South Dakota	162	108	91	64	6	62	2	-	2
Tennessee	136	101	125	90	90	90	8	8	8
Texas	936	493	732	588	306	539	35	25	30
Utah	703	347	606	398	177	398	47	24	47
Vermont	42	9	34	14	1	14	-	-	-
Virginia	49	34	28	5	5	1	4	4	-
Washington	896	714	577	406	335	329	106	99	53
West Virginia	105	85	104	92	72	92	12	12	12
Wisconsin	105	100	30	58	54	29	22	21	22
Wyoming	519	418	395	383	324	333	34	34	34
Water Resource Regions									
Region 01 New England	428	270	318	289	213	223	26	26	13
Region 02 Mid-Atlantic	362	275	252	130	89	126	54	52	46
Region 03 South Atlantic-Gulf	1,387	901	943	650	348	474	113	47	103
Region 04 Great Lakes	357	258	164	121	43	87	40	38	40
Region 05 Ohio	460	333	295	249	214	173	1	1	1
Region 06 Tennessee	86	63	86	73	62	73	6	-	6
Region 07 Upper Mississippi	531	440	279	261	195	169	111	98	66
Region 08 Lower Mississippi	1,029	676	860	899	596	767	326	255	253
Region 09 Souris-Red-Rainy	24	14	13	13	9	9	4	4	-
Region 10 Missouri	2,411	1,698	1,627	1,318	915	1,072	278	237	221
Region 11 Arkansas-White-Red	890	563	750	580	385	552	140	80	103
Region 12 Texas-Gulf	660	374	491	386	203	362	25	20	25
Region 13 Rio Grande	434	214	429	303	150	303	45	31	14
Region 14 Upper Colorado	792	624	608	591	427	486	39	36	8
Region 15 Lower Colorado	293	248	218	155	149	155	21	21	2
Region 16 Great Basin	720	442	642	457	318	434	75	52	75
Region 17 Pacific Northwest	2,869	2,039	1,850	1,118	800	951	356	249	234
Region 18 California	2,976	2,074	1,635	1,293	732	1,065	156	108	67
Region 19 Alaska	32	32	24	32	32	24	2	2	-
Region 20 Hawaii	85	84	60	62	58	60	20	20	-

See footnote(s) at end of table.

--continued

Table 27. Technical and Financial Assistance Received During the Past Five Years for Irrigation or Drainage Improvements: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Non-USDA Federal programs (Bureau of Reclamation, EPA, or other)			State programs, local water management, or water supply districts			Private businesses (equipment dealers, bankers, lenders)		
	Farms ²	Farms receiving technical assistance	Farms receiving financial assistance	Farms ²	Farms receiving technical assistance	Farms receiving financial assistance	Farms ²	Farms receiving technical assistance	Farms receiving financial assistance
United States	999	437	658	4,025	2,190	2,676	7,324	5,267	2,889
Alabama	-	-	-	29	23	29	2	2	1
Alaska	-	-	-	2	2	-	-	-	-
Arizona	24	19	24	34	13	25	115	95	20
Arkansas	18	2	16	77	26	51	114	68	46
California	165	80	96	816	483	476	1,462	1,230	381
Colorado	80	48	54	218	135	169	348	232	164
Connecticut	1	-	1	33	7	32	12	12	-
Delaware	-	-	-	10	5	7	21	18	12
Florida	6	6	-	311	205	236	143	110	33
Georgia	36	22	14	72	-	72	239	198	70
Hawaii	-	-	-	3	3	-	26	26	-
Idaho	21	15	21	192	114	78	571	361	305
Illinois	14	-	14	19	19	-	99	84	29
Indiana	-	-	-	28	8	20	77	73	54
Iowa	-	-	-	21	21	-	29	22	7
Kansas	21	21	21	96	77	55	150	121	102
Kentucky	-	-	-	39	20	27	20	5	16
Louisiana	51	12	39	41	-	41	43	17	26
Maine	-	-	-	-	-	-	1	1	-
Maryland	3	3	-	20	11	20	22	11	13
Massachusetts	9	9	-	50	15	37	45	32	22
Michigan	4	-	4	57	50	7	191	127	85
Minnesota	10	9	1	70	37	37	81	72	41
Mississippi	-	-	-	25	6	25	75	24	54
Missouri	24	19	5	54	18	47	36	23	13
Montana	22	22	-	74	46	28	286	151	144
Nebraska	21	21	-	128	79	49	460	310	207
Nevada	-	-	-	2	2	-	7	3	4
New Hampshire	-	-	-	5	5	-	10	8	2
New Jersey	1	-	1	20	16	4	28	27	1
New Mexico	64	2	62	72	39	72	31	-	31
New York	-	-	-	20	1	19	81	41	40
North Carolina	-	-	-	73	49	47	61	53	8
North Dakota	-	-	-	3	-	3	19	8	16
Ohio	1	1	-	1	1	-	92	70	28
Oklahoma	40	-	40	54	10	44	59	15	44
Oregon	72	20	52	343	188	271	554	463	125
Pennsylvania	-	-	-	3	-	3	97	95	24
Rhode Island	2	2	-	8	6	5	12	12	5
South Carolina	-	-	-	22	4	18	54	54	29
South Dakota	26	26	-	27	27	-	102	49	53
Tennessee	11	-	11	35	-	35	22	11	11
Texas	74	6	68	203	75	170	437	183	261
Utah	68	-	68	164	50	160	207	141	89
Vermont	3	-	3	16	-	16	12	8	4
Virginia	12	12	8	24	4	20	36	29	15
Washington	68	40	28	232	128	197	546	420	166
West Virginia	-	-	-	23	23	-	1	1	-
Wisconsin	-	-	-	21	21	-	69	67	2
Wyoming	27	20	7	135	118	24	119	84	86
Water Resource Regions									
Region 01 New England	12	11	1	109	33	87	106	87	33
Region 02 Mid-Atlantic	12	11	9	84	32	65	201	144	98
Region 03 South Atlantic-Gulf	46	32	14	500	263	413	525	428	155
Region 04 Great Lakes	17	10	7	71	61	10	268	201	94
Region 05 Ohio	-	-	-	140	77	70	137	103	59
Region 06 Tennessee	-	-	-	6	-	6	7	1	7
Region 07 Upper Mississippi	27	12	15	100	84	20	271	249	93
Region 08 Lower Mississippi	83	12	71	147	31	123	246	115	135
Region 09 Souris-Red-Rainy	-	-	-	3	-	3	12	5	12
Region 10 Missouri	86	74	12	390	281	155	1,095	718	524
Region 11 Arkansas-White-Red	110	28	103	245	111	187	391	187	258
Region 12 Texas-Gulf	49	1	48	165	70	137	288	147	147
Region 13 Rio Grande	64	2	62	99	29	99	111	53	93
Region 14 Upper Colorado	76	48	50	117	89	79	149	104	45
Region 15 Lower Colorado	24	19	24	34	13	25	115	95	20
Region 16 Great Basin	45	-	45	143	52	137	191	115	118
Region 17 Pacific Northwest	183	97	101	826	456	579	1,653	1,209	597
Region 18 California	165	80	96	841	503	481	1,532	1,280	401
Region 19 Alaska	-	-	-	2	2	-	-	-	-
Region 20 Hawaii	-	-	-	3	3	-	26	26	-

¹ Respondents could choose more than one program.
² Farms can report receiving both technical and financial assistance.

Table 28. Barriers to Making Improvements to Reduce Energy Use or Conserve Water: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Total ¹					Investigating improvements not a priority				
	Farms	Land in farms (acres)	Acres Equipped (see text)	Acres irrigated	Acre-feet applied ^{2,3}	Farms	Land in farms (acres) (see text)	Acres Equipped (see text)	Acres irrigated ³	Acre-feet applied ³
United States	124,043	109,235,570	31,965,301	29,930,162	45,703,633	36,382	22,295,161	5,384,141	5,026,403	7,163,013
Alabama	751	586,284	123,412	113,942	74,773	269	198,901	28,881	25,775	13,507
Alaska	195	4,714	849	585	264	101	740	304	222	106
Arizona	1,695	2,532,412	551,439	499,539	2,085,897	399	109,701	69,116	59,112	270,788
Arkansas	1,688	3,104,125	2,681,101	2,614,848	2,909,506	355	576,538	494,655	488,832	572,649
California	21,835	8,847,133	4,610,641	4,318,666	12,854,325	5,625	1,453,430	544,034	521,037	1,689,423
Colorado	8,379	7,025,047	1,532,631	1,461,308	2,285,666	2,226	683,719	229,607	217,117	350,391
Connecticut	304	19,106	4,573	2,112	3,394	132	4,448	1,003	714	1,136
Delaware	237	150,165	70,545	69,256	44,969	70	37,159	14,275	14,245	7,240
Florida	4,289	1,445,977	481,862	431,274	524,774	1,631	439,119	103,655	101,580	108,818
Georgia	2,453	1,464,195	629,629	586,956	598,737	992	431,606	114,571	113,373	72,254
Hawaii	1,055	51,466	15,747	11,082	19,346	467	5,125	2,951	2,363	2,072
Idaho	7,096	3,797,468	1,803,252	1,745,386	2,995,098	2,008	554,096	297,861	288,706	439,238
Illinois	1,211	1,116,513	359,537	351,868	212,363	443	432,320	86,569	84,549	41,504
Indiana	1,087	911,427	280,953	269,714	137,307	428	340,321	99,348	94,534	47,105
Iowa	659	548,409	144,882	139,855	79,532	307	258,300	36,513	33,279	19,336
Kansas	2,454	6,702,901	1,406,795	1,326,072	1,449,987	641	1,240,495	146,126	142,644	153,272
Kentucky	823	312,383	47,668	37,276	19,436	436	155,125	21,668	18,101	10,515
Louisiana	1,172	1,497,548	947,833	812,432	922,084	382	446,999	315,570	230,308	345,719
Maine	403	94,247	12,904	8,901	2,200	225	37,327	4,598	2,753	815
Maryland	552	179,849	70,121	67,034	31,295	229	59,938	18,785	18,200	10,744
Massachusetts	790	54,155	16,000	11,306	6,732	327	20,214	4,012	3,276	1,746
Michigan	2,542	1,337,524	488,218	435,694	234,618	948	316,720	76,755	68,600	38,549
Minnesota	1,246	738,789	308,160	303,575	218,537	406	222,289	58,695	57,127	34,938
Mississippi	882	1,048,569	811,922	784,353	651,008	202	231,526	166,534	165,220	163,822
Missouri	1,250	1,432,543	848,578	833,046	732,434	418	631,330	385,612	379,217	306,079
Montana	4,385	9,681,728	996,751	963,630	1,201,754	1,207	1,672,360	222,974	215,779	251,115
Nebraska	7,064	13,603,905	4,252,896	4,167,260	3,777,730	1,357	2,053,200	448,982	433,485	352,760
Nevada	985	1,567,775	444,319	430,794	1,309,844	249	658,532	141,541	136,395	408,955
New Hampshire	223	13,032	2,918	1,228	819	89	2,709	245	165	212
New Jersey	735	110,303	39,637	33,491	19,412	279	17,934	6,223	5,635	4,160
New Mexico	4,217	2,091,712	298,577	263,659	569,831	720	736,859	29,357	29,198	69,077
New York	1,352	182,480	52,859	36,767	16,725	717	80,118	17,018	13,647	8,602
North Carolina	1,404	470,487	107,861	74,323	58,712	589	128,273	22,662	19,744	11,314
North Dakota	296	749,572	120,505	116,307	76,798	117	214,720	23,297	20,507	10,391
Ohio	958	137,925	35,959	29,193	23,605	303	51,700	8,293	6,342	2,798
Oklahoma	1,136	2,635,332	385,845	356,258	432,841	408	733,759	103,509	93,667	85,257
Oregon	7,865	4,215,301	1,009,586	827,425	1,397,012	2,193	1,229,893	174,002	115,008	153,503
Pennsylvania	1,177	128,767	26,666	16,747	11,792	690	64,982	12,090	7,045	4,292
Rhode Island	104	3,311	1,024	802	717	41	627	126	108	81
South Carolina	878	511,692	101,166	94,085	66,670	394	292,857	37,679	35,960	16,021
South Dakota	851	1,713,198	220,679	211,941	145,343	278	421,625	52,576	51,838	38,152
Tennessee	793	491,503	105,381	99,524	50,548	306	143,881	19,009	16,004	7,227
Texas	6,821	12,802,343	2,945,665	2,549,062	3,115,476	1,636	2,154,995	333,590	315,714	387,584
Utah	6,642	2,694,861	674,305	645,659	1,403,536	1,713	282,061	79,272	77,724	187,023
Vermont	239	13,802	1,407	703	467	153	10,204	592	388	301
Virginia	693	251,996	51,058	34,141	18,980	211	47,362	8,192	6,502	2,928
Washington	5,840	2,038,958	791,573	754,457	1,557,903	1,829	258,171	119,010	110,845	210,499
West Virginia	186	13,253	1,266	996	361	81	10,788	424	364	167
Wisconsin	1,375	938,474	312,516	284,114	263,522	496	289,255	73,750	56,800	36,551
Wyoming	2,776	7,170,911	735,630	701,516	1,088,951	659	1,850,360	128,030	126,655	212,277
Water Resource Regions										
Region 01 New England	1,908	190,906	37,772	24,512	13,937	875	71,949	10,249	7,109	4,029
Region 02 Mid-Atlantic	3,804	816,136	279,563	243,837	135,402	1,651	245,757	69,455	61,177	34,798
Region 03 South Atlantic-Gulf	9,906	4,344,059	1,412,752	1,267,322	1,309,338	3,892	1,504,639	303,046	293,922	222,441
Region 04 Great Lakes	4,188	1,733,941	625,435	550,832	311,778	1,864	452,573	112,573	96,290	54,951
Region 05 Ohio	2,845	1,183,643	237,634	213,494	118,850	1,267	479,068	58,546	49,631	18,189
Region 06 Tennessee	701	362,003	73,065	67,170	40,990	188	50,245	12,001	8,995	4,043
Region 07 Upper Mississippi	4,090	3,087,015	1,039,661	1,002,941	721,535	1,443	1,232,192	285,023	265,609	156,305
Region 08 Lower Mississippi	3,405	6,157,130	4,763,715	4,555,519	4,690,884	868	1,596,179	1,253,558	1,160,318	1,293,194
Region 09 Souris-Red-Rainy	241	434,589	90,990	88,765	58,803	81	114,951	19,702	17,577	11,823
Region 10 Missouri	17,162	36,895,877	7,079,651	6,860,878	7,134,435	4,004	7,024,978	954,945	922,133	926,661
Region 11 Arkansas-White-Red	5,841	11,704,945	3,244,889	3,000,928	3,783,365	1,442	2,214,272	432,636	408,535	520,234
Region 12 Texas-Gulf	5,408	7,185,414	1,850,949	1,600,513	1,746,987	1,389	1,888,751	253,828	237,954	269,997
Region 13 Rio Grande	4,348	4,157,700	507,891	451,480	917,917	748	477,221	38,966	38,476	65,046
Region 14 Upper Colorado	6,356	4,588,996	741,826	689,041	1,133,541	1,892	369,403	139,177	135,786	247,684
Region 15 Lower Colorado	2,024	2,888,309	683,077	592,329	2,545,502	473	111,683	70,191	60,187	275,388
Region 16 Great Basin	6,674	3,802,644	1,055,185	1,013,293	2,517,118	1,646	874,565	197,967	187,801	529,734
Region 17 Pacific Northwest	21,815	10,728,150	3,645,281	3,379,933	5,932,747	6,458	2,114,440	611,989	543,281	821,375
Region 18 California	22,077	8,917,933	4,579,369	4,315,708	12,570,891	5,633	1,466,430	557,034	529,037	1,704,943
Region 19 Alaska	195	4,714	849	585	264	101	740	304	222	106
Region 20 Hawaii	1,055	51,466	15,747	11,082	19,346	467	5,125	2,951	2,363	2,072

See footnote(s) at end of table.

--continued

Table 28. Barriers to Making Improvements to Reduce Energy Use or Conserve Water: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Risk of reduced yield or poorer crop quality					Physical field or crop conditions limit system improvements				
	Farms	Land in farms (acres) (see text)	Acres Equipped (see text)	Acres irrigated ³	Acres-foot applied ³	Farms	Land in farms (acres) (see text)	Acres Equipped (see text)	Acres irrigated ³	Acres-foot applied ³
United States	18,688	17,018,693	6,763,888	6,367,477	10,115,489	15,427	15,881,393	5,008,281	4,666,302	7,439,814
Alabama	115	42,212	18,154	17,730	16,729	102	66,572	17,726	16,956	7,079
Alaska	10	189	122	122	49	5	54	19	19	11
Arizona	226	296,348	158,493	150,187	614,465	295	205,481	149,551	143,945	610,058
Arkansas	253	497,622	425,170	424,880	424,240	294	604,066	488,893	470,769	468,536
California	5,028	1,632,679	1,214,034	1,138,629	3,398,047	2,724	1,323,217	863,300	789,906	2,237,123
Colorado	757	1,227,584	238,713	235,963	339,849	1,188	780,164	220,876	213,990	297,991
Connecticut	30	1,245	262	188	130	34	565	155	99	313
Delaware	45	14,120	10,144	9,794	9,115	29	31,412	13,351	13,351	9,928
Florida	873	121,144	73,491	66,475	118,448	508	99,339	57,292	37,701	47,361
Georgia	366	294,895	161,417	131,468	97,341	240	217,853	111,863	82,496	61,907
Hawaii	143	1,311	1,151	1,131	877	64	(D)	2,065	2,000	(D)
Idaho	752	1,032,625	524,667	511,743	932,751	987	686,911	405,359	383,515	689,716
Illinois	205	264,782	96,426	93,259	73,018	132	130,794	41,407	39,167	19,861
Indiana	207	208,516	75,646	75,483	39,898	140	124,482	41,301	41,253	18,375
Iowa	46	91,196	32,785	32,685	16,520	58	81,016	28,026	27,666	15,976
Kansas	607	2,009,272	485,367	459,843	526,400	263	971,495	175,100	171,052	193,475
Kentucky	45	58,785	6,173	6,154	3,269	47	21,001	14,019	14,019	8,720
Louisiana	253	258,797	167,275	147,237	160,870	158	275,286	167,113	158,249	130,002
Maine	20	6,674	1,697	1,298	481	28	6,830	(D)	1,504	555
Maryland	61	38,244	10,038	9,660	3,822	49	13,257	3,889	3,739	1,880
Massachusetts	57	6,446	2,001	1,370	1,611	77	2,020	812	722	439
Michigan	433	321,615	121,877	114,642	70,043	101	189,155	88,138	80,293	59,830
Minnesota	257	184,023	71,007	70,072	48,220	109	129,329	42,182	41,454	34,464
Mississippi	159	151,816	117,501	116,983	99,137	86	71,644	61,072	60,742	51,061
Missouri	189	178,931	97,015	95,816	100,858	63	57,547	40,866	40,795	35,551
Montana	419	1,198,640	87,564	85,416	91,413	678	1,816,235	208,225	206,185	287,354
Nebraska	1,469	2,603,605	1,147,402	1,113,197	1,039,593	1,005	1,383,112	501,902	489,479	452,331
Nevada	112	40,078	22,522	22,520	77,892	108	185,525	42,041	40,956	126,820
New Hampshire	12	3,104	1,033	319	151	21	1,522	350	149	49
New Jersey	32	11,309	6,828	5,248	2,814	128	16,747	5,560	5,364	2,352
New Mexico	578	35,445	18,314	14,686	24,107	513	76,523	39,826	35,282	87,826
New York	160	29,099	9,608	4,304	2,355	74	14,675	1,465	1,139	(D)
North Carolina	244	93,674	11,551	11,141	9,734	126	14,762	6,715	5,449	3,905
North Dakota	38	101,774	18,738	18,738	12,889	35	116,762	15,502	15,297	14,473
Ohio	118	28,243	10,290	6,937	12,137	55	12,207	5,705	4,962	4,605
Oklahoma	183	280,371	65,342	53,095	69,827	57	32,728	26,290	18,799	34,011
Oregon	842	317,597	149,824	118,516	211,656	963	527,147	139,980	120,632	199,536
Pennsylvania	99	8,337	2,583	894	300	56	11,631	4,071	2,726	1,275
Rhode Island	3	64	(D)	(D)	(D)	8	127	(D)	92	77
South Carolina	65	59,914	19,236	17,545	18,731	36	28,687	14,302	14,301	13,774
South Dakota	76	187,480	33,449	33,353	27,992	163	251,287	79,629	71,779	51,707
Tennessee	139	83,656	19,126	18,351	18,060	62	45,914	13,280	12,140	3,648
Texas	1,185	1,139,780	581,977	501,057	627,255	863	1,381,439	366,033	312,632	312,876
Utah	674	709,454	106,707	105,014	253,493	1,037	739,909	147,966	142,691	273,388
Vermont	9	2,259	(D)	(D)	(D)	23	3,681	336	247	205
Virginia	63	35,320	6,340	6,084	3,764	81	34,206	7,069	4,344	3,432
Washington	708	312,571	176,593	171,067	334,831	982	981,212	154,015	147,439	296,955
West Virginia	6	522	261	261	153	19	(D)	38	38	38
Wisconsin	109	114,086	42,555	40,066	28,852	135	68,504	30,716	29,630	20,073
Wyoming	208	681,240	115,279	106,736	151,245	418	2,041,722	159,630	149,148	242,428
Water Resource Regions										
Region 01 New England	124	17,609	5,093	3,255	2,422	176	11,140	4,409	2,590	1,441
Region 02 Mid-Atlantic	378	114,774	38,352	33,813	21,428	391	93,322	29,956	28,143	18,416
Region 03 South Atlantic-Gulf	1,593	617,859	284,499	245,161	260,942	969	429,286	207,110	153,602	132,397
Region 04 Great Lakes	655	405,326	160,574	142,763	90,480	171	213,178	94,805	85,972	61,994
Region 05 Ohio	323	307,081	58,498	58,051	36,041	214	108,903	27,086	26,563	16,692
Region 06 Tennessee	181	59,988	11,988	11,793	17,037	98	(D)	12,017	11,847	4,030
Region 07 Upper Mississippi	605	522,747	222,105	217,700	156,880	430	370,228	146,179	142,125	92,768
Region 08 Lower Mississippi	656	987,283	786,933	765,355	763,815	427	775,714	606,162	586,600	558,375
Region 09 Souris-Red-Rainy	13	39,599	9,927	9,927	7,139	23	51,044	4,443	4,443	(D)
Region 10 Missouri	2,592	6,640,623	1,697,374	1,632,812	1,639,901	2,590	6,188,344	1,047,843	1,013,079	1,150,828
Region 11 Arkansas-White-Red	853	1,636,520	491,302	461,011	585,859	683	1,281,294	451,996	413,480	447,543
Region 12 Texas-Gulf	1,002	908,930	490,813	418,681	495,006	577	900,571	252,407	217,114	202,953
Region 13 Rio Grande	580	57,079	48,213	46,246	77,782	688	282,170	93,114	88,689	167,705
Region 14 Upper Colorado	613	769,074	114,564	112,124	195,846	815	466,043	132,069	125,518	184,658
Region 15 Lower Colorado	263	313,635	175,555	162,992	673,611	335	230,376	174,219	164,186	687,758
Region 16 Great Basin	575	253,560	97,559	96,238	252,325	1,026	959,520	184,165	178,717	372,103
Region 17 Pacific Northwest	2,497	1,740,304	863,355	818,734	1,493,838	3,003	2,087,745	671,086	629,628	1,129,907
Region 18 California	5,032	1,625,202	1,205,911	1,129,568	3,344,212	2,742	1,388,709	867,131	791,987	2,201,511
Region 19 Alaska	10	189	122	122	49	5	54	19	19	11
Region 20 Hawaii	143	1,311	1,151	1,131	877	64	(D)	2,065	2,000	(D)

See footnote(s) at end of table.

--continued

Table 28. Barriers to Making Improvements to Reduce Energy Use or Conserve Water: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Improvements will not reduce costs enough to cover implementation costs					Cannot finance improvements				
	Farms	Land in farms (acres) (see text)	Acres Equipped (see text)	Acres irrigated ³	Acre-feet applied ³	Farms	Land in farms (acres) (see text)	Acres Equipped (see text)	Acres irrigated ³	Acre-feet applied ³
United States	30,969	33,842,892	11,657,285	10,989,319	17,165,341	39,224	31,769,891	9,226,689	8,636,826	14,084,376
Alabama	311	155,662	48,608	45,630	28,160	248	78,733	30,647	27,342	29,267
Alaska	12	129	119	119	53	59	599	316	162	82
Arizona	329	256,438	159,488	144,382	654,536	626	437,589	172,719	160,323	657,687
Arkansas	581	1,043,816	948,093	920,363	1,010,598	585	982,831	833,539	802,832	896,312
California	5,972	2,497,026	1,783,978	1,677,080	4,943,394	6,964	2,140,534	1,537,939	1,401,889	4,160,703
Colorado	1,935	1,771,610	477,550	459,237	763,788	3,169	1,940,754	502,432	481,058	757,798
Connecticut	47	8,049	2,059	405	536	104	4,726	1,166	861	1,814
Delaware	72	40,523	22,461	21,573	12,828	54	23,039	9,494	9,071	7,313
Florida	757	679,856	205,109	183,959	218,103	1,322	185,114	113,837	109,037	100,679
Georgia	585	518,702	221,500	212,074	157,425	552	196,088	70,132	59,657	57,205
Hawaii	209	13,816	4,732	2,879	7,073	349	8,261	6,429	5,160	9,766
Idaho	1,768	1,544,909	792,189	765,771	1,371,214	2,338	1,188,960	537,016	523,588	921,100
Illinois	303	398,511	106,686	104,042	55,944	270	130,000	32,764	31,850	20,259
Indiana	179	266,765	94,957	88,223	38,470	170	112,358	29,515	29,456	16,668
Iowa	123	116,913	43,979	43,979	26,034	61	915	380	280	135
Kansas	658	2,012,869	509,935	484,942	546,615	581	1,741,475	362,265	348,123	346,839
Kentucky	178	65,668	22,989	19,086	11,999	216	58,317	10,517	4,871	1,970
Louisiana	249	323,360	212,742	201,683	176,611	294	283,716	156,366	148,320	125,295
Maine	66	8,941	804	474	124	202	47,754	5,391	5,168	975
Maryland	108	56,005	22,260	20,879	9,565	133	25,940	13,254	12,944	6,224
Massachusetts	183	9,294	4,108	2,236	1,685	292	13,963	4,502	3,271	1,940
Michigan	788	656,238	236,364	213,738	130,441	770	227,711	80,843	75,509	44,557
Minnesota	350	298,027	133,339	132,167	95,713	374	175,536	77,550	75,928	59,811
Mississippi	194	221,785	170,048	157,007	102,345	315	318,168	237,242	213,638	180,675
Missouri	361	531,963	373,301	363,150	336,749	380	280,517	280,560	205,526	221,022
Montana	1,211	3,603,536	272,474	264,165	341,880	1,652	4,140,885	394,152	384,300	456,627
Nebraska	2,445	5,155,245	1,734,489	1,708,723	1,484,114	2,040	4,792,281	1,078,206	1,047,865	1,037,359
Nevada	257	352,693	195,269	194,626	604,340	402	592,350	164,042	159,194	480,479
New Hampshire	69	4,496	1,527	714	400	53	3,864	336	152	97
New Jersey	125	44,343	16,058	15,320	8,684	285	49,649	19,766	14,838	8,461
New Mexico	803	460,139	100,064	92,929	203,451	1,261	345,832	97,940	71,260	147,135
New York	157	54,336	8,899	8,504	5,042	349	26,012	4,525	2,981	2,048
North Carolina	342	119,312	25,788	22,129	14,447	445	152,460	52,190	28,171	18,977
North Dakota	80	283,891	55,989	55,586	39,285	71	204,475	44,627	43,767	32,593
Ohio	147	46,417	12,648	12,171	9,223	206	10,761	3,735	2,563	1,328
Oklahoma	196	574,887	124,972	109,211	189,369	311	607,322	46,406	44,698	52,344
Oregon	2,141	1,986,273	396,765	302,580	512,073	2,346	2,169,594	351,363	299,299	481,519
Pennsylvania	146	22,900	6,224	4,555	3,708	259	33,651	7,056	4,954	4,400
Rhode Island	29	1,126	533	507	488	36	1,215	663	499	451
South Carolina	99	126,752	29,890	29,384	30,385	303	26,283	14,287	9,732	8,658
South Dakota	268	336,280	86,014	78,130	50,186	173	105,050	20,161	20,161	13,332
Tennessee	108	107,968	30,414	30,024	12,206	229	143,727	34,961	32,210	13,209
Texas	1,557	2,967,325	1,028,093	912,700	1,251,209	1,963	2,868,116	849,085	770,358	929,664
Utah	1,640	731,522	179,895	176,655	440,848	2,704	1,243,323	368,061	354,284	751,324
Vermont	40	4,223	585	175	158	80	4,761	575	253	177
Virginia	166	68,911	11,880	8,070	3,839	260	42,833	8,892	4,472	2,515
Washington	1,541	1,097,084	345,868	327,890	707,601	1,774	404,919	239,349	230,099	515,180
West Virginia	29	1,354	546	354	72	73	1,006	420	420	214
Wisconsin	329	272,259	113,702	103,900	140,061	438	236,586	99,517	94,475	81,777
Wyoming	726	1,922,745	281,301	265,239	412,267	1,083	2,959,338	291,559	279,957	418,412
Water Resource Regions										
Region 01 New England	422	37,982	9,123	4,380	3,251	703	71,852	12,090	9,983	5,306
Region 02 Mid-Atlantic	676	224,613	80,099	74,741	41,764	1,095	170,402	56,232	46,871	29,711
Region 03 South Atlantic-Gulf	2,069	1,553,809	509,648	471,027	435,654	2,913	661,802	287,062	236,657	215,912
Region 04 Great Lakes	1,002	789,792	287,488	261,914	164,338	1,038	266,736	95,562	88,445	48,809
Region 05 Ohio	494	367,816	78,899	68,578	35,211	670	152,350	26,101	21,392	11,259
Region 06 Tennessee	160	92,998	33,244	31,105	15,372	299	32,161	5,275	4,584	1,750
Region 07 Upper Mississippi	1,012	941,504	373,859	361,450	298,429	1,129	550,775	217,063	209,582	168,636
Region 08 Lower Mississippi	945	1,835,112	1,487,050	1,437,878	1,385,474	1,022	1,680,007	1,304,137	1,245,899	1,266,526
Region 09 Souris-Red-Rainy	61	149,557	29,181	29,181	19,070	30	71,305	19,068	18,968	11,959
Region 10 Missouri	5,103	11,866,575	2,610,078	2,533,696	2,557,327	5,347	12,040,200	1,916,543	1,857,732	2,077,733
Region 11 Arkansas-White-Red	1,483	3,651,203	1,322,599	1,241,001	1,683,554	1,825	3,369,766	848,087	805,899	1,029,298
Region 12 Texas-Gulf	1,263	2,133,653	597,887	527,834	638,870	1,576	1,780,185	537,126	475,697	472,640
Region 13 Rio Grande	697	322,078	128,679	124,944	285,484	1,469	500,081	231,768	198,111	356,418
Region 14 Upper Colorado	1,466	1,151,683	200,885	180,294	294,491	2,459	1,743,670	300,955	290,194	464,867
Region 15 Lower Colorado	495	332,918	222,446	187,494	864,069	724	493,515	225,433	196,637	875,503
Region 16 Great Basin	1,799	1,147,871	387,365	383,419	1,063,458	2,723	1,760,115	499,179	481,840	1,155,813
Region 17 Pacific Northwest	5,589	4,760,094	1,546,574	1,413,291	2,584,802	6,785	4,241,737	1,115,571	1,046,900	1,864,139
Region 18 California	6,012	2,469,689	1,747,330	1,654,094	4,787,599	7,009	2,174,372	1,522,692	1,396,113	4,018,246
Region 19 Alaska	12	129	119	119	53	59	599	316	162	82
Region 20 Hawaii	209	13,816	4,732	2,879	7,073	349	8,261	6,429	5,160	9,766

See footnote(s) at end of table.

--continued

Table 28. Barriers to Making Improvements to Reduce Energy Use or Conserve Water: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Landlord will not share in cost					Uncertainty about future availability of water				
	Farms	Land in farms (acres) (see text)	Acres Equipped (see text)	Acres irrigated ³	Acre-feet applied ³	Farms	Land in farms (acres) (see text)	Acres Equipped (see text)	Acres irrigated ³	Acre-feet applied ³
United States	8,604	18,744,056	7,578,796	7,168,245	10,599,178	22,164	25,924,013	7,225,090	6,712,674	11,733,808
Alabama	59	136,530	20,910	20,310	10,508	75	50,498	16,053	13,729	13,187
Alaska	12	169	(D)	(D)	(D)	9	18	11	11	11
Arizona	216	297,301	225,333	209,924	880,074	455	228,545	157,855	123,484	455,229
Arkansas	447	1,199,463	1,067,920	1,040,961	1,173,457	102	167,481	151,436	144,458	186,545
California	1,022	1,038,061	768,102	711,676	2,204,241	4,884	3,832,853	1,809,389	1,698,260	4,978,459
Colorado	353	437,105	219,169	217,279	383,814	2,518	3,323,850	704,334	683,912	1,091,117
Connecticut	1	(D)	(D)	(D)	(D)	12	389	84	57	64
Delaware	24	25,602	12,742	12,556	7,534	12	13,759	6,324	6,324	4,176
Florida	102	71,654	45,124	45,124	47,251	163	96,087	23,611	23,131	29,686
Georgia	218	259,082	127,448	125,234	99,017	308	273,678	97,188	94,704	62,927
Hawaii	48	8,752	4,475	4,455	10,128	96	29,498	1,982	832	829
Idaho	498	803,829	511,951	498,607	960,280	1,081	934,603	338,672	328,389	592,944
Illinois	89	230,890	71,777	71,777	30,745	19	87,980	8,836	8,836	4,721
Indiana	139	188,623	65,100	63,830	35,347	1	(D)	(D)	(D)	(D)
Iowa	16	52,815	23,750	23,750	11,143	37	34,755	6,483	6,483	4,869
Kansas	421	1,628,566	398,283	382,489	394,296	762	2,753,543	669,300	605,811	649,419
Kentucky	28	70,882	21,931	19,100	10,283	15	3,504	242	92	124
Louisiana	345	709,436	385,333	344,857	380,321	89	49,812	30,824	26,652	32,917
Maine	1	(D)	(D)	(D)	(D)	12	3,597	(D)	(D)	(D)
Maryland	17	20,314	8,570	7,760	3,695	27	11,869	2,864	2,864	1,099
Massachusetts	50	2,357	1,709	831	477	47	712	357	330	170
Michigan	84	260,883	94,836	92,236	57,397	141	39,841	20,173	19,316	12,753
Minnesota	99	177,936	67,081	67,081	40,699	108	80,582	28,676	27,656	15,527
Mississippi	198	377,891	305,299	290,159	231,157	61	62,141	60,586	58,666	49,580
Missouri	105	157,695	106,983	106,169	101,043	7	7,965	7,539	7,539	9,661
Montana	224	774,719	156,816	153,645	205,238	783	2,233,030	218,365	209,477	260,507
Nebraska	1,318	2,966,384	1,452,207	1,421,646	1,431,477	708	2,747,560	518,782	511,909	361,590
Nevada	11	66,429	40,374	39,929	130,759	185	57,293	34,344	33,169	113,879
New Hampshire	4	8	8	8	6	9	57	43	(D)	(D)
New Jersey	32	18,833	6,719	4,934	1,642	4	1,400	1,204	1,204	(D)
New Mexico	139	62,843	19,645	18,452	59,858	1,899	599,078	138,648	128,227	277,764
New York	8	3,057	736	187	219	65	18,794	7,832	7,048	929
North Carolina	65	36,825	11,048	7,209	10,996	77	11,941	5,315	4,616	3,744
North Dakota	43	184,061	44,291	44,211	34,375	14	53,178	11,388	11,308	11,331
Ohio	2	(D)	(D)	(D)	(D)	24	2,808	1,296	1,296	720
Oklahoma	113	464,144	95,631	92,931	165,791	91	82,709	25,038	23,238	28,579
Oregon	384	592,852	159,985	132,043	216,876	1,931	1,046,815	341,603	282,954	478,291
Pennsylvania	4	(D)	112	72	28	25	4,080	(D)	(D)	589
Rhode Island	5	376	376	376	(D)	11	220	49	47	53
South Carolina	13	37,500	14,678	10,778	10,060	27	6,684	6,324	2,424	1,518
South Dakota	151	161,568	54,072	46,242	35,558	35	33,146	4,174	4,174	5,206
Tennessee	15	56,152	20,105	20,105	6,865	17	3,196	17	17	12
Texas	449	3,356,789	501,850	401,207	481,235	2,402	4,475,153	1,379,034	1,246,421	1,444,161
Utah	354	44,297	30,707	27,335	46,006	1,379	330,674	117,865	106,673	183,455
Vermont	6	(D)	(D)	(D)	11	14	585	(D)	14	3
Virginia	26	14,134	4,137	1,435	530	65	16,309	3,331	1,839	675
Washington	320	520,467	233,871	221,099	443,720	604	157,329	100,130	96,794	163,436
West Virginia	9	321	153	153	64	10	(D)	40	22	10
Wisconsin	102	147,762	67,184	64,808	48,631	84	17,470	1,200	1,016	2,468
Wyoming	215	1,075,131	104,652	102,442	194,778	660	1,932,718	161,408	152,442	197,269
Water Resource Regions										
Region 01 New England	61	3,079	2,367	1,489	1,964	91	4,975	1,574	1,480	721
Region 02 Mid-Atlantic	104	70,406	29,707	26,399	13,530	154	58,255	21,502	19,675	7,422
Region 03 South Atlantic-Gulf	413	441,405	209,119	195,886	172,918	641	407,369	142,609	132,722	109,370
Region 04 Great Lakes	155	325,319	129,403	124,867	85,556	180	46,718	20,836	19,772	13,056
Region 05 Ohio	151	326,920	64,744	61,763	26,015	104	75,622	7,169	6,736	2,177
Region 06 Tennessee	48	111,470	(D)	(D)	(D)	45	35,995	6,040	6,040	1,835
Region 07 Upper Mississippi	257	415,396	183,708	181,318	104,245	180	110,428	27,071	25,867	19,262
Region 08 Lower Mississippi	978	2,194,533	1,718,908	1,645,143	1,738,037	199	262,290	232,554	222,109	252,232
Region 09 Souris-Red-Rainy	18	119,668	22,540	22,540	15,190	16	14,384	9,280	9,280	3,088
Region 10 Missouri	2,162	5,825,875	2,020,684	1,971,466	2,189,684	2,708	9,581,140	1,290,157	1,228,271	1,307,705
Region 11 Arkansas-White-Red	661	2,093,904	757,833	689,109	825,803	1,727	3,963,291	1,075,381	981,525	1,267,121
Region 12 Texas-Gulf	278	618,992	284,687	248,960	265,533	1,847	3,005,027	970,100	888,422	980,650
Region 13 Rio Grande	330	2,580,240	112,410	87,121	190,643	2,026	531,206	255,138	248,263	468,019
Region 14 Upper Colorado	52	159,992	31,722	31,722	44,560	1,541	1,174,654	225,233	212,781	326,009
Region 15 Lower Colorado	220	333,301	261,333	230,344	994,074	493	230,959	158,244	123,856	455,667
Region 16 Great Basin	392	165,844	83,739	79,922	190,533	1,283	358,481	119,436	108,472	232,285
Region 17 Pacific Northwest	1,219	1,924,155	902,235	852,933	1,623,755	3,725	2,087,037	786,177	723,104	1,216,656
Region 18 California	1,045	1,024,636	745,812	699,486	2,101,966	5,099	3,946,666	1,874,596	1,753,456	5,069,692
Region 19 Alaska	12	169	(D)	(D)	(D)	9	18	11	11	11
Region 20 Hawaii	48	8,752	4,475	4,455	10,128	96	29,498	1,982	832	829

See footnote(s) at end of table.

--continued

Table 28. Barriers to Making Improvements to Reduce Energy Use or Conserve Water: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Will not be farming this operation long enough to justify improvements					Improvements will increase management time or cost				
	Farms	Land in farms (acres) (see text)	Acres Equipped (see text)	Acres irrigated ³	Acre-feet applied ³	Farms	Land in farms (acres) (see text)	Acres Equipped (see text)	Acres irrigated ³	Acre-feet applied ³
United States	14,544	9,221,345	2,891,845	2,704,042	4,255,988	13,729	13,137,730	4,480,536	4,158,248	6,507,767
Alabama	40	5,553	1,460	(D)	(D)	181	44,662	17,429	14,316	20,730
Alaska	46	3,173	104	(D)	(D)	9	99	18	16	11
Arizona	281	1,640,041	116,411	104,240	455,469	96	60,296	54,982	54,433	206,170
Arkansas	183	293,208	264,334	259,035	311,756	255	564,270	520,548	504,297	585,581
California	2,548	520,141	445,410	418,344	1,195,790	3,121	1,286,908	832,781	774,074	2,195,925
Colorado	747	737,936	144,876	123,631	193,568	859	1,088,178	140,351	139,058	222,427
Connecticut	30	1,121	228	228	260	31	2,026	450	301	147
Delaware	28	22,990	10,923	10,811	5,982	28	11,489	7,763	7,417	3,381
Florida	946	123,179	75,466	72,646	100,180	415	187,699	57,740	51,968	61,881
Georgia	151	78,925	16,354	16,354	8,826	308	450,036	237,455	206,768	341,862
Hawaii	39	202	180	148	158	173	5,916	2,280	2,215	6,079
Idaho	784	317,365	183,399	180,911	325,694	675	362,128	158,841	158,516	268,415
Illinois	105	55,765	26,299	25,655	19,823	157	123,332	58,189	56,931	45,075
Indiana	205	115,405	33,045	32,501	18,117	76	83,059	23,590	23,582	14,239
Iowa	128	85,654	21,653	20,320	10,558	22	176	22	22	2
Kansas	251	500,329	72,335	67,197	69,783	285	447,233	118,905	105,971	102,856
Kentucky	119	13,465	1,980	1,246	451	127	28,416	12,627	12,446	7,959
Louisiana	83	55,670	22,165	22,152	16,982	144	194,002	108,695	94,461	128,439
Maine	11	2,280	353	198	97	12	3,624	646	341	126
Maryland	61	22,321	10,002	9,640	3,773	59	25,249	10,889	10,806	5,035
Massachusetts	132	3,284	1,401	1,030	826	121	13,929	4,662	2,806	724
Michigan	450	238,445	156,016	137,523	68,766	330	223,293	114,667	111,208	90,651
Minnesota	169	82,212	29,627	29,611	17,722	143	121,446	65,613	64,242	51,949
Mississippi	103	152,477	123,783	121,847	110,759	186	269,345	219,324	218,540	170,820
Missouri	113	79,429	50,387	49,547	52,908	180	331,081	298,253	296,934	279,056
Montana	464	808,231	65,211	61,185	76,241	446	1,524,172	95,650	95,179	136,552
Nebraska	630	767,097	259,518	249,548	237,089	557	2,254,507	357,476	348,086	336,532
Nevada	108	45,140	31,929	28,400	93,938	35	47,268	26,546	26,544	102,429
New Hampshire	26	574	104	26	10	22	1,402	40	40	13
New Jersey	155	9,869	6,392	4,951	2,946	105	16,027	4,611	4,611	2,917
New Mexico	513	235,738	17,791	14,257	25,348	304	235,640	23,181	22,081	56,458
New York	173	14,271	9,604	3,767	2,185	150	20,117	8,023	6,956	1,715
North Carolina	123	27,037	8,398	4,984	3,995	60	27,109	6,957	5,157	3,392
North Dakota	31	41,252	3,691	3,581	1,671	54	193,788	28,007	28,007	20,821
Ohio	210	8,238	3,398	3,338	2,181	101	21,253	5,974	5,537	2,779
Oklahoma	106	690,694	98,891	97,891	89,642	124	130,926	30,909	30,619	39,590
Oregon	908	251,743	75,465	60,537	108,169	800	325,094	140,634	114,225	196,339
Pennsylvania	112	17,023	1,433	994	510	95	3,609	1,271	1,100	787
Rhode Island	26	774	113	111	81	14	626	61	31	25
South Carolina	110	38,645	18,857	14,957	11,673	71	62,468	19,038	18,532	20,046
South Dakota	166	150,568	43,237	43,141	27,908	126	703,952	40,873	32,947	18,803
Tennessee	113	45,477	10,707	10,665	2,938	80	67,491	16,445	16,394	6,545
Texas	761	499,996	246,609	229,636	258,721	777	682,150	369,701	264,811	363,626
Utah	850	59,569	35,944	33,772	49,684	548	375,116	58,041	56,409	139,710
Vermont	29	1,061	89	55	22	49	2,607	189	118	59
Virginia	68	44,650	7,096	2,930	824	130	55,723	16,148	9,615	5,565
Washington	783	142,650	87,107	85,769	164,553	596	104,606	77,490	76,926	147,543
West Virginia	-	-	-	-	-	65	3,779	222	222	96
Wisconsin	86	28,680	9,950	8,146	7,041	87	41,702	12,601	12,232	6,156
Wyoming	240	141,798	42,120	35,088	99,159	340	308,706	73,728	70,290	89,726
Water Resource Regions										
Region 01 New England	230	8,058	2,204	1,598	1,278	227	27,828	5,980	3,565	1,051
Region 02 Mid-Atlantic	506	125,433	43,827	32,244	15,783	436	79,867	38,200	37,170	17,760
Region 03 South Atlantic-Gulf	1,366	275,917	121,027	110,811	125,989	1,062	786,167	342,763	297,744	448,378
Region 04 Great Lakes	714	264,106	164,794	145,037	73,453	472	264,005	128,696	124,227	96,094
Region 05 Ohio	432	114,987	32,229	31,510	17,335	353	122,264	39,452	35,504	36,246
Region 06 Tennessee	97	19,298	6,138	(D)	(D)	129	4,848	552	492	147
Region 07 Upper Mississippi	401	187,274	64,459	60,986	45,159	415	261,451	112,348	109,488	75,911
Region 08 Lower Mississippi	325	496,927	394,551	389,953	398,230	580	1,283,940	1,076,320	1,053,209	1,080,493
Region 09 Souris-Red-Rainy	34	14,770	9,362	9,362	3,126	35	92,818	25,921	25,921	20,895
Region 10 Missouri	1,727	1,967,587	487,736	465,026	560,209	1,647	5,429,964	640,407	619,394	698,534
Region 11 Arkansas-White-Red	504	1,355,236	241,721	232,962	261,858	543	828,065	390,047	321,169	349,721
Region 12 Texas-Gulf	690	437,503	219,934	211,057	215,948	608	355,468	192,797	136,396	222,449
Region 13 Rio Grande	514	202,652	38,816	27,961	60,494	424	103,007	36,166	34,626	52,000
Region 14 Upper Colorado	484	328,525	61,555	39,701	56,945	682	646,125	76,263	73,701	115,859
Region 15 Lower Colorado	315	1,641,529	116,494	104,300	455,505	108	285,045	71,476	69,070	251,302
Region 16 Great Basin	865	95,201	64,688	59,010	140,002	472	412,617	81,029	79,417	238,295
Region 17 Pacific Northwest	2,661	1,124,806	370,856	352,530	618,326	2,234	864,417	390,090	367,043	630,418
Region 18 California	2,594	558,161	451,170	423,604	1,204,696	3,120	1,283,819	829,731	767,881	2,166,124
Region 19 Alaska	46	3,173	104	(D)	(D)	9	99	18	16	11
Region 20 Hawaii	39	202	180	148	158	173	5,916	2,280	2,215	6,079

¹ Data include only positive responses and respondents could choose more than one source of information.

² Total may not add due to rounding.

³ Acres irrigated and acre-feet applied are totals for all irrigation on these farms.

Table 29. Sources of Information Relied on for Reducing Irrigation Costs and Conserving Water: 2023

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Total ¹		Extension agents or university specialists		Private irrigation specialists or consultants		Irrigation equipment dealers		Local irrigation districts or water suppliers	
	Farms	Acres irrigated ²	Farms	Acres irrigated ²	Farms	Acres irrigated ²	Farms	Acres irrigated ²	Farms	Acres irrigated ²
United States	110,858	34,609,658	46,134	15,797,508	34,466	19,594,153	24,576	11,230,883	18,608	4,811,938
Alabama	600	117,233	314	66,069	190	58,327	147	59,298	24	4,455
Alaska	149	354	38	103	1	(D)	14	26	-	-
Arizona	1,305	544,551	499	222,828	346	282,872	78	83,374	253	88,915
Arkansas	1,846	3,276,003	1,226	2,268,922	823	1,813,820	259	570,089	64	136,279
California	22,588	5,588,821	8,300	2,701,281	10,957	3,500,222	4,082	1,733,347	4,110	1,466,425
Colorado	6,795	1,250,476	1,758	309,131	1,089	555,906	929	357,761	1,810	240,830
Connecticut	263	2,516	155	1,310	15	185	73	1,352	2	(D)
Delaware	244	91,136	143	47,349	82	43,891	70	28,620	6	2,965
Florida	3,849	714,799	2,429	556,843	973	415,651	986	235,615	318	284,153
Georgia	2,835	958,644	2,011	709,119	666	442,753	445	160,740	54	9,504
Hawaii	684	9,859	325	3,808	41	5,390	181	4,681	24	1,281
Idaho	5,664	1,967,572	1,573	785,090	1,198	1,072,419	1,272	1,002,853	2,079	457,852
Illinois	1,050	430,770	442	108,885	234	165,058	417	231,837	19	8,735
Indiana	903	316,798	245	123,421	302	130,675	275	161,178	11	6,612
Iowa	597	151,718	298	74,268	130	49,406	221	89,632	10	20
Kansas	2,649	1,805,525	825	425,346	1,919	1,648,451	725	585,980	178	144,207
Kentucky	529	30,430	414	10,677	41	17,270	72	10,440	-	-
Louisiana	887	765,445	462	433,401	352	382,681	152	114,222	14	5,405
Maine	200	14,102	154	7,024	9	8,853	20	(D)	1	(D)
Maryland	453	84,305	248	37,123	147	39,858	178	47,994	14	1,878
Massachusetts	680	13,713	492	11,380	66	3,101	227	6,947	19	394
Michigan	2,263	544,118	1,330	294,937	553	318,543	963	348,082	-	-
Minnesota	1,448	414,129	698	213,797	553	222,650	424	182,670	63	37,493
Mississippi	1,026	1,120,211	585	645,932	470	722,451	242	290,945	14	9,938
Missouri	975	848,822	478	440,304	212	252,204	285	350,110	7	21
Montana	3,574	733,693	1,166	235,853	628	245,464	999	270,827	1,063	162,162
Nebraska	8,810	5,466,183	3,406	2,148,277	5,028	3,797,579	1,924	1,325,517	607	497,544
Nevada	775	443,797	186	149,774	155	110,257	160	233,746	252	76,759
New Hampshire	194	1,520	148	1,194	15	330	67	784	-	-
New Jersey	506	39,506	303	22,792	67	9,073	150	19,895	18	1,016
New Mexico	3,271	284,729	904	95,177	392	144,105	159	60,494	1,084	75,610
New York	920	32,533	578	20,765	84	(D)	245	13,331	5	750
North Carolina	1,068	83,253	831	63,592	92	28,507	355	37,033	10	2,048
North Dakota	333	155,841	128	64,586	151	80,072	120	70,034	25	17,888
Ohio	601	33,355	219	11,000	56	11,261	189	20,006	-	-
Oklahoma	827	402,492	487	265,439	285	224,311	242	231,411	14	7,340
Oregon	6,029	744,957	2,439	336,085	1,211	345,087	1,748	384,902	1,863	156,655
Pennsylvania	844	14,922	392	5,164	101	5,254	308	4,802	2	(D)
Rhode Island	104	2,528	59	1,942	21	487	29	818	-	-
South Carolina	811	98,617	532	73,483	122	28,516	258	46,123	1	(D)
South Dakota	837	262,160	282	51,009	253	106,485	235	113,497	73	12,599
Tennessee	680	130,136	441	75,238	142	74,347	108	45,691	1	(D)
Texas	5,443	2,235,101	2,466	751,907	1,560	1,217,672	1,267	619,038	740	412,073
Utah	5,534	641,573	2,059	291,145	537	203,003	623	214,763	2,247	226,675
Vermont	200	1,655	137	683	11	844	70	(D)	3	36
Virginia	539	32,417	340	13,247	84	14,526	137	9,173	-	-
Washington	4,949	834,202	1,608	283,161	1,337	470,373	1,587	460,863	873	103,268
West Virginia	223	518	164	205	-	-	7	49	-	-
Wisconsin	1,254	321,219	734	124,904	315	171,714	493	209,327	43	9,468
Wyoming	2,050	550,701	683	212,538	450	147,589	359	173,727	590	135,598
Water Resource Regions										
Region 01 New England	1,502	35,195	1,045	22,916	133	13,656	446	16,919	22	(D)
Region 02 Mid-Atlantic	2,853	275,885	1,609	132,823	493	112,466	919	116,558	40	5,881
Region 03 South Atlantic-Gulf	9,310	1,935,953	6,193	1,441,930	2,062	946,654	2,197	518,220	418	301,344
Region 04 Great Lakes	3,321	667,136	1,884	330,372	686	350,024	1,269	410,739	11	4,086
Region 05 Ohio	2,144	274,702	1,102	100,235	348	116,467	493	171,412	-	-
Region 06 Tennessee	543	67,192	359	44,663	73	(D)	146	29,293	1	(D)
Region 07 Upper Mississippi	3,984	1,213,183	1,934	500,376	1,138	569,663	1,451	623,528	143	59,028
Region 08 Lower Mississippi	3,692	5,516,996	2,205	3,510,063	1,649	2,933,114	663	1,243,758	81	151,446
Region 09 Souris-Red-Rainy	256	103,894	153	49,296	134	55,495	81	41,790	9	3,020
Region 10 Missouri	17,540	7,989,164	6,178	2,858,359	7,576	5,076,366	4,044	2,303,927	2,433	948,488
Region 11 Arkansas-White-Red	5,041	3,392,815	1,876	1,184,523	2,495	2,530,976	1,196	1,118,596	392	193,038
Region 12 Texas-Gulf	4,180	1,334,072	1,894	409,582	997	565,459	986	345,857	482	317,063
Region 13 Rio Grande	3,361	402,148	1,006	193,590	504	194,267	211	50,232	1,246	107,617
Region 14 Upper Colorado	4,832	613,722	1,569	305,151	192	74,507	429	117,964	1,566	174,395
Region 15 Lower Colorado	1,559	674,595	543	277,181	370	382,501	129	111,304	373	117,972
Region 16 Great Basin	5,681	1,019,714	2,018	391,904	683	287,916	710	429,876	2,074	253,180
Region 17 Pacific Northwest	17,442	3,547,058	5,831	1,376,617	3,875	1,911,911	4,818	1,810,021	5,046	706,696
Region 18 California	22,784	5,536,021	8,372	2,664,016	11,016	3,422,695	4,193	1,766,182	4,247	1,460,952
Region 19 Alaska	149	354	38	103	1	(D)	14	26	-	-
Region 20 Hawaii	684	9,859	325	3,808	41	5,390	181	4,681	24	1,281

See footnote(s) at end of table.

--continued

Table 29. Sources of Information Relied on for Reducing Irrigation Costs and Conserving Water: 2023 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	NRCS, local conservation district, other Federal or state agencies		Media reports or information in the press		Neighboring farmers		Electronic information services (DTN and other Internet links)	
	Farms	Acres irrigated ²	Farms	Acres irrigated ²	Farms	Acres irrigated ²	Farms	Acres irrigated ²
United States	16,643	6,775,405	12,086	3,520,281	39,654	10,220,511	20,060	8,332,352
Alabama	48	29,966	71	4,971	179	18,639	60	13,859
Alaska	32	35	1	(D)	66	221	25	26
Arizona	203	92,203	103	41,567	484	110,300	277	165,730
Arkansas	517	1,096,398	71	147,442	532	1,067,774	330	490,941
California	2,673	977,675	2,869	754,982	6,954	1,806,417	4,760	1,766,689
Colorado	1,202	254,866	625	80,642	3,711	335,877	697	240,175
Connecticut	91	512	106	538	43	600	34	565
Delaware	35	7,165	36	13,730	72	26,398	68	20,476
Florida	883	314,752	704	108,774	1,027	97,123	1,003	343,750
Georgia	438	150,926	206	40,290	671	153,824	407	179,857
Hawaii	86	1,605	52	800	304	1,902	207	1,506
Idaho	825	452,445	460	214,985	3,029	670,981	617	450,359
Illinois	110	19,923	132	54,376	340	122,600	301	150,141
Indiana	10	3,802	77	47,506	374	110,382	250	89,557
Iowa	58	10,922	140	40,510	198	50,338	267	76,923
Kansas	164	152,436	243	131,274	559	408,543	334	275,568
Kentucky	71	645	64	423	144	6,857	75	2,923
Louisiana	147	154,002	136	44,368	326	312,996	195	120,072
Maine	73	7,297	43	(D)	62	1,696	75	10,583
Maryland	63	10,200	57	10,713	156	32,415	90	20,677
Massachusetts	214	4,653	104	4,313	278	3,207	68	2,846
Michigan	350	85,449	389	128,713	751	175,276	665	187,022
Minnesota	316	133,191	221	68,037	494	135,861	258	91,585
Mississippi	194	313,122	77	53,518	277	280,200	104	128,449
Missouri	212	252,289	123	42,231	391	508,115	194	154,399
Montana	458	205,660	236	79,641	1,832	293,496	450	128,196
Nebraska	1,213	629,390	1,159	749,238	2,121	1,150,411	1,833	1,427,718
Nevada	210	167,511	39	105,645	315	209,115	122	132,176
New Hampshire	33	421	26	247	53	668	39	433
New Jersey	77	6,627	68	2,647	133	10,112	187	12,563
New Mexico	1,079	71,522	166	6,510	1,490	92,988	345	53,458
New York	105	4,697	87	8,318	195	3,747	227	9,209
North Carolina	189	8,394	46	5,997	151	17,210	203	13,814
North Dakota	41	15,772	13	4,788	110	37,579	87	56,723
Ohio	94	1,737	110	4,216	137	11,587	155	20,442
Oklahoma	51	11,081	29	(D)	281	177,787	182	94,302
Oregon	759	170,092	538	68,365	2,119	268,640	738	144,257
Pennsylvania	61	195	87	1,103	217	2,271	81	2,202
Rhode Island	24	117	21	1,114	36	1,833	17	442
South Carolina	3	4,800	77	10,750	227	15,998	112	14,680
South Dakota	74	28,572	56	5,861	390	93,813	260	65,169
Tennessee	51	20,183	101	20,499	284	43,169	103	32,872
Texas	665	242,163	622	187,143	1,643	472,803	1,188	566,260
Utah	839	269,109	394	44,933	3,093	261,915	319	70,143
Vermont	10	45	24	(D)	69	236	62	306
Virginia	59	3,584	107	4,657	181	4,211	99	2,589
Washington	655	122,872	602	80,147	1,844	285,095	1,050	269,654
West Virginia	128	146	29	217	29	64	53	89
Wisconsin	131	30,388	176	32,059	344	125,899	465	130,135
Wyoming	619	233,848	163	60,331	938	201,322	322	99,842
Water Resource Regions								
Region 01 New England	429	12,988	302	7,271	479	8,001	246	14,895
Region 02 Mid-Atlantic	341	30,312	396	39,379	831	76,593	642	66,405
Region 03 South Atlantic-Gulf	1,603	484,710	1,142	170,939	2,329	299,100	1,822	562,911
Region 04 Great Lakes	413	87,645	541	146,048	1,013	241,447	897	221,805
Region 05 Ohio	312	5,817	226	24,925	633	82,581	483	93,247
Region 06 Tennessee	43	25,713	64	(D)	225	15,039	54	7,707
Region 07 Upper Mississippi	568	185,073	558	156,741	1,331	395,688	1,072	369,129
Region 08 Lower Mississippi	863	1,647,803	261	270,634	1,188	2,024,365	607	758,022
Region 09 Souris-Red-Rainy	33	18,075	22	14,191	46	11,003	88	44,720
Region 10 Missouri	2,450	1,193,919	1,996	1,014,093	5,807	1,896,866	3,391	2,021,315
Region 11 Arkansas-White-Red	660	334,474	441	200,991	1,331	790,175	869	655,673
Region 12 Texas-Gulf	528	155,037	454	107,590	1,377	341,595	937	358,866
Region 13 Rio Grande	1,041	82,068	242	6,840	1,477	116,783	410	99,911
Region 14 Upper Colorado	1,127	281,985	327	56,109	3,044	287,396	295	47,920
Region 15 Lower Colorado	240	134,046	106	41,576	610	126,700	321	175,598
Region 16 Great Basin	935	430,929	404	130,785	3,136	444,565	397	187,899
Region 17 Pacific Northwest	2,201	713,249	1,626	361,091	7,383	1,244,176	2,450	855,766
Region 18 California	2,738	949,922	2,925	769,297	7,044	1,816,315	4,847	1,789,031
Region 19 Alaska	32	35	1	(D)	66	221	25	26
Region 20 Hawaii	86	1,605	52	800	304	1,902	207	1,506

¹ Respondents could choose more than one source of information.

² Acres irrigated are totals for all irrigation on these farms.

Table 30. Reasons for Discontinuing Irrigation and Idle Irrigation Equipment: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Discontinued irrigation since previous census year										
	Farms	Acres irrigated in previous census year ¹	Square feet under protection in previous census year ¹	Farms reporting discontinuance to be permanent		Reason for discontinuance ²					
				Farms	Acres irrigated in previous census year ¹	Sufficient soil moisture		Shortage of surface water		Shortage of ground water	
						Farms	Acres irrigated in previous census year ¹	Farms	Acres irrigated in previous census year ¹	Farms	Acres irrigated in previous census year ¹
United States 2023	12,389	840,695	8,845,156	1,515	141,997	5,480	262,722	1,110	48,392	442	51,342
..... 2018	24,175	1,310,593	10,726,594	4,603	133,977	14,553	783,478	3,103	147,215	1,309	101,038
2023 DATA											
Alabama	162	1,840	-	69	322	93	1,518	23	115	23	115
Alaska	8	21	-	-	-	4	18	-	-	-	-
Arizona	383	8,715	12,420	-	-	121	554	151	1,660	20	(D)
Arkansas	185	60,994	(D)	13	2,822	95	30,816	-	-	7	105
California	1,024	95,456	112,000	156	2,028	413	50,072	106	5,489	75	1,425
Colorado	716	53,229	21,450	66	10,582	435	19,246	101	9,875	23	9,189
Connecticut	108	603	1,680	3	3	91	367	3	(D)	-	-
Delaware	31	481	(D)	-	-	26	476	-	-	-	-
Florida	500	56,259	1,529,250	61	309	152	(D)	-	-	32	(D)
Georgia	167	2,501	203,700	27	216	87	2,164	9	36	-	-
Hawaii	45	214	-	14	14	31	214	-	-	-	-
Idaho	427	16,595	8,120	-	-	148	5,319	-	-	-	-
Illinois	56	854	-	14	490	56	854	-	-	-	-
Indiana	116	4,610	48,448	27	10	36	4,512	-	-	-	-
Iowa	18	8,514	-	-	-	18	8,514	-	-	-	-
Kansas	299	40,950	66,228	117	22,400	20	940	-	-	-	-
Kentucky	211	7,914	45,228	24	145	127	5,728	9	487	3	(D)
Louisiana	146	12,968	300	24	4,488	58	8,925	12	420	-	-
Maine	254	7,451	(D)	7	516	241	6,335	-	-	33	627
Maryland	61	1,836	70,800	2	(D)	32	1,437	18	(D)	-	-
Massachusetts	183	955	414,450	-	-	141	879	-	-	-	-
Michigan	152	6,851	145,383	21	483	113	6,278	-	-	-	-
Minnesota	36	165	95,812	-	-	20	117	-	-	16	48
Mississippi	125	21,520	7,614	10	42	79	2,539	-	-	2	(D)
Missouri	69	629	15,120	12	-	25	560	13	(D)	2	(D)
Montana	433	22,987	(D)	24	219	278	12,473	108	10,250	-	-
Nebraska	642	123,185	9,300	402	90,259	32	781	-	-	-	-
Nevada	38	20,179	131,841	-	-	3	6	3	3	3	3
New Hampshire	77	209	19,404	7	7	69	197	-	-	-	-
New Jersey	160	749	161,000	-	-	87	576	17	85	17	85
New Mexico	293	8,507	1,200	-	-	126	1,500	63	871	5	4,750
New York	288	9,769	2,060,760	37	75	126	7,480	20	20	-	-
North Carolina	324	13,112	760,600	34	1,226	114	7,620	22	66	-	-
North Dakota	51	3,481	(D)	16	886	20	2,315	-	-	-	-
Ohio	139	3,784	30,000	12	1,304	74	2,449	25	25	-	-
Oklahoma	168	23,800	105,716	10	10	135	(D)	4	4,620	-	-
Oregon	573	23,066	4,400	48	68	234	2,524	45	6,500	20	(D)
Pennsylvania	260	3,865	344,160	42	720	220	3,785	40	140	20	80
Rhode Island	8	41	(D)	-	-	-	-	2	(D)	-	-
South Carolina	185	8,652	11,200	-	-	97	2,944	-	-	32	16
South Dakota	124	2,418	-	53	53	44	1,825	-	-	-	-
Tennessee	216	1,388	5,100	25	25	25	(D)	25	25	-	-
Texas	1,829	107,845	1,243,376	50	1,240	767	25,301	123	2,834	87	12,391
Utah	265	8,274	3,244	43	965	85	1,631	67	1,362	22	176
Vermont	110	974	135,824	7	14	70	918	30	33	-	-
Virginia	95	3,144	990,000	8	16	32	728	12	570	-	-
Washington	355	8,243	5,328	4	4	74	497	42	2,310	-	-
West Virginia	6	6	7,200	6	(D)	-	-	-	-	-	-
Wisconsin	83	440	-	20	20	21	105	-	-	-	-
Wyoming	185	30,452	-	-	-	85	11,645	17	85	-	-
Water Resource Regions											
Region 01 New England	665	9,372	447,518	17	526	564	7,872	15	21	33	627
Region 02 Mid-Atlantic	612	14,262	976,280	44	730	396	9,711	87	753	17	85
Region 03 South Atlantic-Gulf	1,393	82,472	3,492,584	209	2,131	589	25,753	54	217	87	(D)
Region 04 Great Lakes	603	14,316	1,971,823	90	1,436	324	12,840	45	48	-	-
Region 05 Ohio	425	15,270	99,676	44	601	232	11,214	29	567	23	1,145
Region 06 Tennessee	173	1,520	13,980	25	25	7	14	25	25	-	-
Region 07 Upper Mississippi	192	10,402	95,812	34	510	106	10,032	13	(D)	16	48
Region 08 Lower Mississippi	298	87,169	2,400	30	7,296	129	36,064	12	420	2	(D)
Region 09 Souris-Red-Rainy	25	1,860	-	5	5	10	1,575	-	-	-	-
Region 10 Missouri	1,735	184,494	98,170	556	101,787	607	29,526	108	8,490	9	35
Region 11 Arkansas-White-Red	675	81,146	283,484	122	22,412	324	21,279	26	5,940	13	177
Region 12 Texas-Gulf	1,697	111,323	1,067,376	50	1,240	715	25,100	100	2,144	66	16,439
Region 13 Rio Grande	334	13,836	1,200	-	-	120	1,900	86	1,561	36	9,790
Region 14 Upper Colorado	355	24,307	18,844	-	-	201	7,297	91	8,056	18	36
Region 15 Lower Colorado	373	24,494	14,020	-	-	142	848	115	1,570	2	(D)
Region 16 Great Basin	334	31,145	131,841	43	965	67	1,343	67	(D)	25	179
Region 17 Pacific Northwest	1,406	53,169	18,148	76	291	499	10,050	131	11,274	20	(D)
Region 18 California	1,041	79,903	112,000	156	2,028	413	50,072	106	5,489	75	1,425
Region 19 Alaska	8	21	-	-	-	4	18	-	-	-	-
Region 20 Hawaii	45	214	-	14	14	31	214	-	-	-	-

See footnote(s) at end of table.

--continued

Table 30. Reasons for Discontinuing Irrigation and Idle Irrigation Equipment: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Discontinued irrigation since previous census year - con.									
	Reason for discontinuance ² - con.									
	Irrigation is uneconomical		Loss of water rights		Sold or leased water rights or annual water allocation		Sold or leased irrigated land or irrigated area under protection		Restrictions on water use	
	Farms	Acres irrigated in previous census year ¹	Farms	Acres irrigated in previous census year ¹	Farms	Acres irrigated in previous census year ¹	Farms	Acres irrigated in previous census year ¹	Farms	Acres irrigated in previous census year ¹
United States 2023	1,835	141,800	76	166	67	226	1,445	198,516	468	22,627
..... 2018	2,075	124,044	165	2,574	90	4,368	781	84,185	686	11,913
2023 DATA										
Alabama	23	115	-	-	-	-	-	-	23	115
Alaska	1	-	-	-	-	-	-	-	-	-
Arizona	55	2,269	-	-	-	-	18	36	-	-
Arkansas	7	805	-	-	-	-	39	6,034	-	-
California	305	2,624	-	-	-	-	42	11,619	50	13,000
Colorado	110	6,160	-	-	-	-	22	88	27	225
Connecticut	6	51	-	-	-	-	3	3	-	-
Delaware	5	5	-	-	-	-	-	-	-	-
Florida	67	(D)	30	60	-	-	69	22,859	-	-
Georgia	17	31	-	-	-	-	-	-	-	-
Hawaii	14	14	-	-	-	-	-	-	-	-
Idaho	77	1,520	-	-	-	-	100	8,714	-	-
Illinois	-	-	-	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	17	-	-	-
Iowa	-	-	-	-	-	-	-	-	-	-
Kansas	40	6,160	-	-	-	-	138	26,010	-	-
Kentucky	7	14	-	-	-	-	31	481	7	(D)
Louisiana	23	640	-	-	4	20	24	540	-	-
Maine	-	-	-	-	-	-	5	500	-	-
Maryland	12	908	-	-	-	-	6	6	-	-
Massachusetts	8	24	-	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-	-	18	90
Minnesota	-	-	-	-	-	-	-	-	-	-
Mississippi	8	14,768	-	-	-	-	19	3,011	-	-
Missouri	12	-	-	-	-	-	-	-	-	-
Montana	42	882	-	-	-	-	-	-	21	126
Nebraska	29	841	-	-	-	-	340	91,026	29	-
Nevada	-	-	3	3	-	-	31	(D)	-	-
New Hampshire	3	3	-	-	-	-	-	-	-	-
New Jersey	24	24	-	-	-	-	-	-	33	117
New Mexico	5	4,750	-	-	-	-	-	-	-	-
New York	5	(D)	-	-	-	-	24	(D)	-	-
North Carolina	107	4,619	-	-	-	-	69	1,422	-	-
North Dakota	-	-	-	-	-	-	5	(D)	-	-
Ohio	-	-	-	-	-	-	8	644	-	-
Oklahoma	30	30	-	-	-	-	9	(D)	-	-
Oregon	159	10,272	-	-	20	80	45	3,492	19	114
Pennsylvania	23	740	20	80	20	80	40	100	20	80
Rhode Island	-	-	-	-	-	-	-	-	2	(D)
South Carolina	25	75	-	-	-	-	-	-	-	-
South Dakota	-	-	-	-	-	-	27	27	-	-
Tennessee	-	-	-	-	-	-	99	1,271	-	-
Texas	426	50,945	23	23	23	46	96	10,596	174	7,869
Utah	44	2,838	-	-	-	-	45	(D)	21	42
Vermont	7	13	-	-	-	-	-	-	-	-
Virginia	27	1,759	-	-	-	-	23	46	3	561
Washington	28	7	-	-	-	-	51	366	21	273
West Virginia	-	-	-	-	-	-	-	-	-	-
Wisconsin	21	42	-	-	-	-	-	-	-	-
Wyoming	33	6,310	-	-	-	-	-	-	-	-
Water Resource Regions										
Region 01 New England	20	87	-	-	-	-	8	503	2	(D)
Region 02 Mid-Atlantic	71	3,356	-	-	-	-	30	1,030	36	678
Region 03 South Atlantic-Gulf	229	25,972	30	60	-	-	169	24,335	23	115
Region 04 Great Lakes	30	446	-	-	-	-	37	40	18	90
Region 05 Ohio	20	80	20	80	20	80	53	959	27	87
Region 06 Tennessee	17	24	-	-	-	-	81	1,421	-	-
Region 07 Upper Mississippi	-	-	-	-	-	-	-	-	-	-
Region 08 Lower Mississippi	20	15,188	-	-	4	20	85	7,833	-	-
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	5	280	-	-
Region 10 Missouri	120	5,214	-	-	-	-	421	91,193	77	351
Region 11 Arkansas-White-Red	114	11,015	-	-	23	46	128	32,962	-	-
Region 12 Texas-Gulf	383	55,431	23	23	-	-	96	10,596	128	6,880
Region 13 Rio Grande	24	24	-	-	-	-	-	-	46	989
Region 14 Upper Colorado	66	1,320	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	55	2,269	-	-	-	-	20	38	-	-
Region 16 Great Basin	44	2,838	3	3	-	-	93	5,415	21	(D)
Region 17 Pacific Northwest	282	15,878	-	-	20	80	177	10,292	40	387
Region 18 California	325	2,644	-	-	-	-	42	11,619	50	13,000
Region 19 Alaska	1	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	14	14	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 30. Reasons for Discontinuing Irrigation and Idle Irrigation Equipment: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Discontinued irrigation since previous census year - con.							
	Reason for discontinuance ² - con.							
	Converted to non-agricultural uses		Converted to agricultural enterprise not requiring irrigation		Available surface water too salty		Other or unspecified	
	Farms	Acres irrigated in previous census year ¹	Farms	Acres irrigated in previous census year ¹	Farms	Acres irrigated in previous census year ¹	Farms	Acres irrigated in previous census year ¹
United States 2023	469	25,184	685	45,695	95	6,174	2,213	136,651
..... 2018	703	6,600	1,563	106,777	218	1,215	4,005	166,542
2023 DATA								
Alabama	46	1,196	-	-	-	-	23	46
Alaska	-	-	-	-	-	-	3	3
Arizona	-	-	3	3	-	-	78	6,378
Arkansas	14	14	2	(D)	-	-	35	24,037
California	81	15,929	25	75	-	-	205	13,279
Colorado	24	2,840	7	29	-	-	73	10,545
Connecticut	-	-	3	105	-	-	18	170
Delaware	-	-	-	-	-	-	-	-
Florida	-	-	91	1,119	-	-	121	(D)
Georgia	-	-	27	216	-	-	27	54
Hawaii	-	-	-	-	-	-	14	-
Idaho	20	20	-	-	-	-	102	1,022
Illinois	-	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	84	4,098
Iowa	-	-	-	-	-	-	-	-
Kansas	-	-	41	7,440	-	-	80	6,160
Kentucky	14	77	20	62	-	-	7	14
Louisiana	3	21	-	-	12	420	50	3,262
Maine	-	-	5	10	-	-	23	67
Maryland	-	-	7	385	-	-	2	(D)
Massachusetts	9	27	-	-	-	-	42	68
Michigan	-	-	-	-	-	-	21	483
Minnesota	-	-	-	-	-	-	-	-
Mississippi	-	-	-	-	8	288	38	1,333
Missouri	12	-	-	-	-	-	18	51
Montana	-	-	-	-	21	5,250	90	2,611
Nebraska	-	-	172	31,924	-	-	68	1,721
Nevada	-	-	-	-	-	-	1	(D)
New Hampshire	-	-	3	9	-	-	11	15
New Jersey	-	-	16	32	-	-	-	-
New Mexico	4	4	-	-	-	-	127	1,478
New York	18	18	80	1,225	-	-	39	39
North Carolina	26	26	-	-	-	-	71	872
North Dakota	5	-	15	885	-	-	6	(D)
Ohio	-	-	-	-	-	-	32	666
Oklahoma	10	10	7	(D)	-	-	10	7,700
Oregon	20	20	19	38	8	8	102	3,864
Pennsylvania	20	80	20	80	20	(D)	-	-
Rhode Island	-	-	3	9	2	(D)	3	24
South Carolina	-	-	-	-	-	-	56	5,692
South Dakota	-	-	26	26	-	-	27	540
Tennessee	42	42	-	-	-	-	50	50
Texas	8	8	26	260	24	120	301	8,031
Utah	-	-	22	1,496	-	-	2	(D)
Vermont	-	-	3	6	-	-	4	8
Virginia	-	-	-	-	-	-	10	50
Washington	60	600	42	252	-	-	58	4,211
West Virginia	-	-	-	-	-	-	6	6
Wisconsin	-	-	-	-	-	-	41	293
Wyoming	33	4,252	-	-	-	-	34	8,398
Water Resource Regions								
Region 01 New England	9	27	14	133	2	(D)	97	344
Region 02 Mid-Atlantic	-	-	28	917	-	-	12	578
Region 03 South Atlantic-Gulf	72	1,222	118	1,335	-	-	305	6,842
Region 04 Great Lakes	18	18	78	731	-	-	98	(D)
Region 05 Ohio	51	174	40	142	20	(D)	101	5,469
Region 06 Tennessee	25	25	-	-	-	-	50	50
Region 07 Upper Mississippi	-	-	-	-	-	-	58	310
Region 08 Lower Mississippi	3	21	-	-	20	708	73	28,483
Region 09 Souris-Red-Rainy	-	-	5	5	-	-	5	-
Region 10 Missouri	74	7,092	210	32,854	21	5,250	329	16,915
Region 11 Arkansas-White-Red	24	24	50	7,449	-	-	113	13,760
Region 12 Texas-Gulf	8	8	26	260	24	120	289	7,341
Region 13 Rio Grande	4	4	-	-	-	-	96	1,044
Region 14 Upper Colorado	-	-	5	5	-	-	19	8,162
Region 15 Lower Colorado	3	15,573	3	3	-	-	78	6,378
Region 16 Great Basin	-	-	22	1,496	-	-	41	(D)
Region 17 Pacific Northwest	100	640	61	290	8	8	227	8,389
Region 18 California	78	356	25	75	-	-	205	13,279
Region 19 Alaska	-	-	-	-	-	-	3	3
Region 20 Hawaii	-	-	-	-	-	-	14	-

See footnote(s) at end of table.

--continued

Table 30. Reasons for Discontinuing Irrigation and Idle Irrigation Equipment: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms with idle irrigation equipment (see text)									
	Farms	Acres with idle irrigation equipment	Farms reporting idle irrigation to be permanent		Reason for idle irrigation ²					
			Farms	Acres with idle irrigation equipment	Sufficient soil moisture		Shortage of surface water		Shortage of ground water	
					Farms	Acres with idle irrigation equipment	Farms	Acres with idle irrigation equipment	Farms	Acres with idle irrigation equipment
United States 2023 2018	60,673 (NA)	4,752,342 (NA)	3,508 (NA)	105,915 (NA)	30,077 (NA)	2,331,168 (NA)	7,786 (NA)	682,765 (NA)	3,721 (NA)	393,285 (NA)
2023 DATA										
Alabama	626	17,635	69	805	329	13,578	155	2,568	96	1,096
Alaska	82	877	1	(D)	70	(D)	2	(D)	-	-
Arizona	969	145,036	18	18	346	64,411	351	45,815	117	21,303
Arkansas	864	117,121	36	530	531	84,077	81	7,060	28	3,286
California	6,320	517,904	345	1,854	2,883	275,448	556	40,540	522	24,031
Colorado	2,630	181,384	80	9,576	1,239	73,706	475	35,560	134	14,458
Connecticut	311	5,150	3	-	217	3,888	21	582	2	(D)
Delaware	100	2,967	-	-	69	1,999	9	40	5	350
Florida	2,232	183,844	271	9,522	1,114	119,098	181	2,731	63	(D)
Georgia	1,341	115,416	80	-	788	54,140	123	8,087	38	813
Hawaii	601	17,463	30	270	350	6,479	65	2,075	29	(D)
Idaho	2,142	104,029	61	95	1,132	71,092	147	12,288	93	3,956
Illinois	476	44,525	14	-	304	11,347	46	2,584	37	6,450
Indiana	517	23,887	27	10	252	11,728	28	100	50	288
Iowa	248	19,741	22	-	122	11,907	30	1,180	-	-
Kansas	1,041	163,864	144	2,088	337	44,037	59	6,695	128	41,589
Kentucky	898	27,851	64	614	576	15,701	67	5,752	58	1,917
Louisiana	834	188,687	60	4,608	340	94,032	53	3,913	-	-
Maine	526	28,702	7	(D)	475	24,660	23	45	35	1,851
Maryland	298	9,231	4	(D)	185	5,314	42	3,131	2	(D)
Massachusetts	636	9,834	10	(D)	416	7,395	72	275	20	48
Michigan	1,281	99,804	76	1,260	824	67,097	99	4,280	6	900
Minnesota	381	22,863	-	-	226	6,783	48	432	16	48
Mississippi	485	69,905	59	632	253	29,245	17	25	2	(D)
Missouri	775	50,767	46	11,740	362	13,922	128	12,589	22	258
Montana	1,478	215,735	69	(D)	825	150,341	290	111,664	-	-
Nebraska	2,781	190,015	431	580	906	60,270	279	24,219	148	4,185
Nevada	328	34,436	-	-	61	(D)	61	6,762	5	5
New Hampshire	237	3,166	15	3	199	3,021	9	88	-	-
New Jersey	660	21,388	33	800	430	14,382	42	553	49	351
New Mexico	1,710	125,779	67	5,600	664	79,338	408	11,419	116	12,473
New York	1,399	78,770	73	54	987	73,002	98	858	-	-
North Carolina	1,706	79,095	134	3,368	974	42,425	142	9,871	140	3,640
North Dakota	194	16,008	31	740	78	11,353	20	415	15	740
Ohio	932	19,905	76	1,264	652	14,644	73	565	18	270
Oklahoma	931	134,874	49	-	512	68,463	106	32,962	102	33,950
Oregon	4,616	298,784	190	10,056	2,104	139,622	779	58,896	362	22,300
Pennsylvania	1,467	39,861	95	2,480	926	30,299	224	6,577	49	4,120
Rhode Island	70	460	3	-	39	314	7	39	2	(D)
South Carolina	791	46,343	82	120	467	14,761	75	3,444	81	406
South Dakota	333	32,253	53	26	141	16,899	27	972	-	-
Tennessee	895	11,074	56	955	499	8,170	92	1,606	17	17
Texas	6,281	812,695	280	6,690	2,225	320,900	970	137,373	712	162,443
Utah	2,021	183,368	64	440	947	16,515	376	17,327	131	1,033
Vermont	325	3,581	17	722	251	3,329	43	150	7	86
Virginia	615	30,299	27	340	396	24,126	62	1,908	15	499
Washington	2,403	94,883	39	399	1,078	48,318	442	32,807	167	7,214
West Virginia	226	2,702	18	1,020	71	586	49	527	26	266
Wisconsin	714	33,169	43	(D)	414	22,065	2	(D)	4	80
Wyoming	946	75,212	36	1,020	491	45,720	232	23,172	52	1,649
Water Resource Regions										
Region 01 New England	1,892	48,064	41	(D)	1,438	40,004	142	1,044	59	1,945
Region 02 Mid-Atlantic	3,236	114,456	96	2,834	2,101	88,113	393	8,989	130	2,626
Region 03 South Atlantic-Gulf	6,918	448,159	690	11,355	3,795	246,578	684	26,717	418	20,561
Region 04 Great Lakes	3,118	178,583	204	2,746	2,003	129,976	208	5,294	9	954
Region 05 Ohio	2,569	62,362	213	3,584	1,631	39,580	239	10,213	146	5,475
Region 06 Tennessee	719	11,389	41	3,257	364	10,222	100	930	17	17
Region 07 Upper Mississippi	1,574	108,770	78	10,640	902	46,132	152	4,198	57	6,578
Region 08 Lower Mississippi	1,708	341,152	89	4,899	829	178,347	97	9,435	15	384
Region 09 Souris-Red-Rainy	105	20,983	10	740	55	(D)	5	(D)	5	625
Region 10 Missouri	7,050	668,440	646	36,504	3,085	314,819	937	179,925	275	28,556
Region 11 Arkansas-White-Red	3,479	546,211	228	2,527	1,559	222,627	485	62,577	419	133,926
Region 12 Texas-Gulf	5,238	564,949	232	6,666	1,859	220,109	828	123,576	562	94,012
Region 13 Rio Grande	1,607	97,366	105	6,422	651	56,420	337	14,334	104	8,930
Region 14 Upper Colorado	1,762	264,280	-	-	888	96,544	338	13,306	63	(D)
Region 15 Lower Colorado	1,061	184,520	18	18	370	67,231	400	46,242	99	21,249
Region 16 Great Basin	2,150	81,695	81	440	784	24,007	361	22,698	155	1,040
Region 17 Pacific Northwest	9,288	479,543	357	1,959	4,417	261,767	1,366	102,272	596	22,594
Region 18 California	6,516	513,080	348	10,854	2,926	274,735	647	48,614	563	36,265
Region 19 Alaska	82	877	1	(D)	70	(D)	2	(D)	-	-
Region 20 Hawaii	601	17,463	30	270	350	6,479	65	2,075	29	(D)

See footnote(s) at end of table.

--continued

Table 30. Reasons for Discontinuing Irrigation and Idle Irrigation Equipment: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms with idle irrigation equipment (see text) - con.							
	Reason for idle irrigation ² - con.							
	Irrigation is uneconomical		Loss of water rights		Sold or leased water rights or annual water allocation		Restrictions on water use	
Farms	Acres with idle irrigation equipment	Farms	Acres with idle irrigation equipment	Farms	Acres with idle irrigation equipment	Farms	Acres with idle irrigation equipment	
United States 2023 2018	9,439 (NA)	738,998 (NA)	609 (NA)	75,677 (NA)	720 (NA)	77,841 (NA)	3,108 (NA)	256,632 (NA)
2023 DATA								
Alabama	111	1,878	23	115	23	115	84	1,758
Alaska	7	203	-	-	-	-	-	-
Arizona	155	14,536	22	6,762	5	3,027	78	9,488
Arkansas	134	21,040	-	-	12	1,200	15	810
California	1,166	62,674	100	950	52	43,270	352	11,700
Colorado	424	36,515	22	1,320	71	2,410	74	3,741
Connecticut	18	640	-	-	-	-	3	138
Delaware	12	663	-	-	-	-	5	25
Florida	467	19,012	30	30	4	240	30	420
Georgia	280	31,529	11	(D)	1	(D)	19	4,627
Hawaii	89	(D)	15	30	15	30	30	45
Idaho	282	3,923	25	(D)	7	3,474	103	11,056
Illinois	50	23,228	14	42	-	-	36	4,790
Indiana	68	2,999	-	-	-	-	2	(D)
Iowa	21	2,856	-	-	-	-	10	100
Kansas	105	17,790	20	19,600	26	161	78	42,585
Kentucky	140	5,114	12	55	7	56	33	2,622
Louisiana	139	17,716	-	-	4	-	37	2,930
Maine	15	2,061	-	-	-	-	-	-
Maryland	34	1,326	-	-	6	24	2	(D)
Massachusetts	23	262	9	18	-	-	9	18
Michigan	235	14,214	18	7,470	-	-	18	180
Minnesota	40	2,200	-	-	16	144	36	856
Mississippi	55	5,948	8	64	-	-	41	20,521
Missouri	141	10,378	2	(D)	-	-	38	4,074
Montana	179	30,407	-	-	-	-	122	8,804
Nebraska	470	27,923	28	6,636	29	1,102	206	8,761
Nevada	55	3,462	3	3	-	-	2	(D)
New Hampshire	7	11	4	-	-	-	11	70
New Jersey	61	3,292	2	(D)	16	1,968	33	287
New Mexico	247	18,922	-	-	-	-	31	31
New York	176	3,260	-	-	-	-	-	-
North Carolina	419	40,457	-	-	-	-	-	-
North Dakota	21	1,395	5	5	-	-	10	585
Ohio	54	704	-	-	-	-	28	70
Oklahoma	101	14,134	29	29	4	1,000	59	239
Oregon	782	25,614	35	15,060	122	3,680	406	34,402
Pennsylvania	174	8,600	20	3,000	20	3,000	47	4,060
Rhode Island	14	53	-	-	-	-	3	31
South Carolina	105	6,009	-	-	-	-	24	2,265
South Dakota	27	540	-	-	-	-	27	972
Tennessee	42	59	-	-	17	34	17	17
Texas	1,328	208,801	45	3,268	90	8,451	567	61,933
Utah	336	7,396	88	(D)	89	3,946	153	1,321
Vermont	22	102	-	-	-	-	3	54
Virginia	103	10,324	-	-	8	16	18	123
Washington	386	12,260	2	(D)	56	406	125	4,571
West Virginia	38	500	-	-	20	80	12	258
Wisconsin	42	(D)	-	-	-	-	2	(D)
Wyoming	39	8,914	17	1,020	-	-	69	4,820
Water Resource Regions								
Region 01 New England	80	3,030	13	18	-	-	26	257
Region 02 Mid-Atlantic	371	15,086	2	(D)	50	2,088	70	1,493
Region 03 South Atlantic-Gulf	1,439	105,520	72	(D)	28	362	181	9,775
Region 04 Great Lakes	463	18,998	18	7,470	-	-	24	558
Region 05 Ohio	220	6,175	32	3,055	27	3,056	107	6,020
Region 06 Tennessee	41	72	-	-	17	34	33	(D)
Region 07 Upper Mississippi	166	31,245	16	82	16	144	93	8,790
Region 08 Lower Mississippi	262	41,276	-	-	16	1,200	61	23,512
Region 09 Souris-Red-Rainy	4	(D)	-	-	-	-	5	130
Region 10 Missouri	961	95,462	70	27,261	77	1,483	473	58,871
Region 11 Arkansas-White-Red	486	112,261	29	29	32	1,343	165	8,160
Region 12 Texas-Gulf	1,130	142,559	45	3,268	67	8,428	476	60,599
Region 13 Rio Grande	213	15,003	-	-	-	-	101	1,384
Region 14 Upper Colorado	262	8,290	22	1,320	44	1,870	3	(D)
Region 15 Lower Colorado	158	16,393	22	6,762	19	39,264	100	9,708
Region 16 Great Basin	389	10,878	91	(D)	94	7,416	131	1,073
Region 17 Pacific Northwest	1,496	47,835	54	1,548	160	3,450	626	47,550
Region 18 California	1,202	61,179	108	14,950	58	7,673	403	18,244
Region 19 Alaska	7	203	-	-	-	-	-	-
Region 20 Hawaii	89	(D)	15	30	15	30	30	45

See footnote(s) at end of table.

--continued

Table 30. Reasons for Discontinuing Irrigation and Idle Irrigation Equipment: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms with idle irrigation equipment (see text) - con.					
	Reason for idle irrigation ² - con.					
	Converted to agricultural enterprise not requiring irrigation		Available surface water too salty		Other or unspecified	
	Farms	Acres with idle irrigation equipment	Farms	Acres with idle irrigation equipment	Farms	Acres with idle irrigation equipment
United States 2023	3,826	297,278	439	49,843	7,520	591,117
..... 2018	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
2023 DATA						
Alabama	24	242	23	(D)	29	600
Alaska	-	-	-	-	4	172
Arizona	25	3,604	-	-	134	12,358
Arkansas	31	3,041	14	3,773	83	4,417
California	290	20,210	77	702	1,134	92,731
Colorado	137	2,882	45	210	347	19,446
Connecticut	4	770	1	(D)	42	279
Delaware	14	259	2	(D)	-	-
Florida	259	19,016	5	348	279	3,825
Georgia	28	(D)	-	-	220	14,835
Hawaii	37	156	-	-	87	3,796
Idaho	122	4,059	-	-	261	2,983
Illinois	14	406	-	-	22	28
Indiana	36	(D)	-	-	128	12,044
Iowa	-	-	-	-	51	4,878
Kansas	128	8,613	-	-	163	36,698
Kentucky	45	93	-	-	25	102
Louisiana	78	50,872	40	8,760	186	52,478
Maine	7	233	-	-	60	297
Maryland	32	578	-	-	21	428
Massachusetts	66	783	-	-	64	1,262
Michigan	96	7,702	-	-	142	7,244
Minnesota	15	12,000	-	-	32	1,360
Mississippi	39	7,830	10	874	88	2,728
Missouri	62	210	-	-	62	11,989
Montana	63	1,428	21	7,980	285	14,472
Nebraska	347	20,255	-	-	352	44,182
Nevada	12	3,479	-	-	163	13,459
New Hampshire	13	331	3	6	15	11
New Jersey	65	407	-	-	2	(D)
New Mexico	97	1,438	-	-	265	3,600
New York	121	3,540	-	-	81	(D)
North Carolina	68	573	-	-	149	1,274
North Dakota	22	(D)	-	-	25	1,665
Ohio	81	853	-	-	86	4,095
Oklahoma	7	7	1	(D)	99	7,327
Oregon	284	48,563	18	796	681	59,001
Pennsylvania	98	5,286	20	3,000	69	1,967
Rhode Island	12	49	2	(D)	7	28
South Carolina	51	1,178	-	-	113	22,213
South Dakota	26	26	-	-	93	7,676
Tennessee	43	47	-	-	100	100
Texas	418	48,358	127	21,811	670	109,200
Utah	110	2,871	22	330	11	268
Vermont	10	19	-	-	12	35
Virginia	26	773	8	-	62	802
Washington	135	4,618	-	-	213	2,763
West Virginia	44	951	-	-	6	-
Wisconsin	84	4,954	-	-	127	5,038
Wyoming	-	-	-	-	170	4,178
Water Resource Regions						
Region 01 New England	102	2,166	6	38	195	1,885
Region 02 Mid-Atlantic	187	4,412	2	(D)	154	2,053
Region 03 South Atlantic-Gulf	451	21,929	36	463	830	44,235
Region 04 Great Lakes	338	16,484	-	-	315	11,782
Region 05 Ohio	196	5,123	20	3,000	192	13,946
Region 06 Tennessee	43	169	-	-	100	100
Region 07 Upper Mississippi	62	3,194	-	-	231	18,746
Region 08 Lower Mississippi	117	60,400	57	10,257	243	57,880
Region 09 Souris-Red-Rainy	17	12,000	-	-	9	675
Region 10 Missouri	617	24,914	22	8,080	1,053	89,721
Region 11 Arkansas-White-Red	168	45,643	56	10,274	394	88,176
Region 12 Texas-Gulf	385	11,633	79	15,787	573	68,043
Region 13 Rio Grande	97	1,438	-	-	245	1,504
Region 14 Upper Colorado	10	45	44	(D)	212	3,099
Region 15 Lower Colorado	25	3,604	-	-	138	28,758
Region 16 Great Basin	122	6,350	22	330	252	15,041
Region 17 Pacific Northwest	562	57,408	18	796	1,121	59,934
Region 18 California	290	20,210	77	702	1,172	81,571
Region 19 Alaska	-	-	-	-	4	172
Region 20 Hawaii	37	156	-	-	87	3,796

¹ Acres and square feet irrigated are totals for all irrigation on these farms. Data were acquired from the 2022 and 2017 Censuses of Agriculture results.

² Respondents could choose more than one reason for not irrigating or discontinuing irrigation.

Table 31. Method of Water Distribution in Fields in the Open: 2023 and 2018

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms ¹	Acres irrigated ¹	Gravity systems		Sprinkler systems		Drip, trickle, or low-flow micro sprinklers		Hydroponics (see text)	
			Farms	Acres irrigated ²	Farms	Acres irrigated ²	Farms	Acres irrigated ²	Farms	Acres irrigated
United States .....2023	201,429	53,076,539	67,994	18,265,880	106,253	30,849,622	60,160	6,425,941	139	1,033
.....2018	220,566	55,886,470	85,888	20,187,048	109,184	31,656,895	62,158	5,860,921	(NA)	(NA)
2023 DATA										
Alabama	1,101	(D)	56	2,645	734	156,396	450	3,978	-	-
Alaska	219	(D)	22	71	97	1,163	151	238	-	-
Arizona	2,998	920,420	1,867	693,836	820	182,162	523	92,828	-	-
Arkansas	2,771	4,645,925	2,259	4,306,198	638	389,975	277	1,613	-	-
California	37,159	7,755,846	10,642	2,948,897	9,171	1,081,423	24,636	4,356,056	14	14
Colorado	12,764	2,367,382	9,814	1,121,454	4,144	1,289,171	876	17,333	-	-
Connecticut	444	3,645	26	76	258	1,919	236	1,993	-	-
Delaware	401	(D)	9	1,260	334	133,497	100	3,469	-	-
Florida	6,594	1,135,824	570	447,391	3,457	313,146	3,573	434,063	-	-
Georgia	4,079	1,221,632	164	1,008	2,493	1,145,152	1,978	119,309	-	-
Hawaii	1,584	(D)	197	3,093	780	8,023	1,119	26,130	15	135
Idaho	11,864	3,180,644	5,925	550,086	6,894	2,703,060	639	27,796	-	-
Illinois	1,950	679,401	104	4,832	1,623	705,730	438	11,154	-	-
Indiana	2,084	581,477	44	4,075	1,757	588,180	465	7,430	-	-
Iowa	1,039	234,886	63	123	770	237,840	288	2,426	-	-
Kansas	4,104	2,324,901	598	47,296	3,553	2,248,701	563	32,688	-	-
Kentucky	879	81,034	47	82	337	86,077	556	2,406	-	-
Louisiana	1,754	1,305,572	1,287	1,220,292	453	83,312	223	3,332	-	-
Maine	358	(D)	31	31	228	16,663	190	1,952	-	-
Maryland	767	(D)	30	54	514	132,043	344	12,579	-	-
Massachusetts	1,104	(D)	213	4,855	637	15,849	525	4,612	14	563
Michigan	3,912	746,242	194	392	2,659	738,979	1,643	69,941	-	-
Minnesota	2,169	557,770	84	11,160	1,888	607,774	352	2,464	-	-
Mississippi	1,560	1,713,175	1,085	1,516,326	548	232,995	232	2,842	-	-
Missouri	2,115	1,486,605	881	920,038	1,057	626,064	581	9,731	9	(D)
Montana	6,913	1,561,047	3,945	855,611	3,871	704,579	224	864	-	-
Nebraska	13,057	7,305,558	3,957	485,241	11,842	6,818,973	619	26,234	-	-
Nevada	1,598	767,294	1,156	563,060	517	216,656	155	20,369	-	-
New Hampshire	249	1,765	21	191	140	1,278	133	699	-	-
New Jersey	1,090	69,373	61	5,115	737	51,579	467	19,804	25	250
New Mexico	7,645	583,414	5,800	290,530	1,865	306,373	545	9,537	-	-
New York	1,759	47,118	264	2,809	856	22,222	1,214	26,728	-	-
North Carolina	2,481	150,265	80	206	1,803	144,639	905	14,922	2	(D)
North Dakota	577	246,301	76	19,676	489	227,912	60	182	-	-
Ohio	1,401	53,996	46	792	734	47,834	882	9,324	-	-
Oklahoma	1,641	538,934	122	20,645	1,338	531,455	318	25,018	37	37
Oregon	12,366	1,445,030	2,980	309,870	8,705	1,080,509	2,549	117,122	-	-
Pennsylvania	1,661	28,104	113	1,249	500	13,289	1,356	15,263	-	-
Rhode Island	169	(D)	7	318	114	3,291	97	498	-	-
South Carolina	1,420	(D)	138	428	902	171,261	681	20,525	-	-
South Dakota	1,298	379,485	198	12,410	1,058	366,660	151	420	-	-
Tennessee	1,072	173,528	82	2,279	668	186,570	431	7,090	-	-
Texas	10,572	3,720,978	2,568	582,926	6,486	3,324,072	3,239	563,970	23	23
Utah	10,401	985,863	5,411	405,148	6,121	602,218	368	3,088	-	-
Vermont	337	2,330	49	847	147	952	271	1,647	-	-
Virginia	1,131	(D)	34	42	654	49,996	609	5,570	-	-
Washington	9,824	1,704,878	739	72,791	7,191	1,402,977	2,938	283,913	-	-
West Virginia	229	1,775	39	184	85	797	171	1,048	-	-
Wisconsin	2,330	480,561	313	12,202	1,857	514,896	753	3,588	-	-
Wyoming	4,435	1,148,044	3,583	815,739	1,729	333,340	66	155	-	-
Water Resource Regions										
Region 01 New England	2,399	47,344	313	6,174	1,413	39,345	1,236	10,754	14	563
Region 02 Mid-Atlantic	5,604	438,415	418	10,476	2,982	386,935	3,319	73,954	25	250
Region 03 South Atlantic-Gulf	15,697	2,816,046	968	451,758	9,453	1,893,519	7,517	594,098	2	(D)
Region 04 Great Lakes	6,264	970,903	395	5,451	4,088	949,172	2,905	86,269	-	-
Region 05 Ohio	3,911	479,026	169	552	2,261	494,469	2,028	14,081	-	-
Region 06 Tennessee	1,063	(D)	106	131	577	81,312	539	7,748	-	-
Region 07 Upper Mississippi	7,073	(D)	556	27,153	5,806	1,950,662	1,701	20,001	-	-
Region 08 Lower Mississippi	5,978	(D)	4,785	7,330,622	1,776	1,205,720	395	6,257	-	-
Region 09 Souris-Red-Rainy	456	(D)	30	8,469	398	177,199	40	174	-	-
Region 10 Missouri	29,233	11,797,087	13,005	2,064,836	20,283	9,732,975	2,062	56,648	9	(D)
Region 11 Arkansas-White-Red	8,878	4,851,498	2,870	949,276	5,824	4,036,420	1,318	96,391	37	37
Region 12 Texas-Gulf	8,331	2,334,549	1,898	540,081	4,975	1,853,289	2,838	514,124	23	23
Region 13 Rio Grande	6,688	703,426	5,473	383,624	1,248	336,522	563	13,165	-	-
Region 14 Upper Colorado	10,819	1,293,341	7,889	897,710	4,067	420,686	495	3,911	-	-
Region 15 Lower Colorado	3,530	1,053,465	2,082	786,617	1,186	223,174	584	107,176	-	-
Region 16 Great Basin	10,493	1,608,762	5,719	908,247	5,661	728,045	421	23,319	-	-
Region 17 Pacific Northwest	35,615	6,390,033	10,272	982,403	23,829	5,191,268	6,298	429,505	-	-
Region 18 California	37,594	7,768,745	10,827	2,909,136	9,549	1,139,724	24,631	4,341,998	14	14
Region 19 Alaska	219	(D)	22	71	97	1,163	151	238	-	-
Region 20 Hawaii	1,584	(D)	197	3,093	780	8,023	1,119	26,130	15	135

¹ Farms can have multiple types of irrigation systems on the same acres. Farm and acre counts may not add to total.

² Different methods can be applied to the same acreage and acreage is counted each time a method is applied.

Table 32. Gravity Irrigation in Fields in the Open: 2023 and 2018

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms	Acres irrigated ¹	Down rows or furrows							
			Farms	Acres irrigated	Unlined open ditch		Lined open ditch		Poly pipe (or other single-year use, lay-flat tubing)	
					Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated
United States 2023	67,994	18,265,880	31,837	9,968,747	9,402	1,535,559	3,238	690,664	10,052	6,353,571
..... 2018	85,888	20,187,048	40,394	10,083,296	14,779	1,907,292	4,599	1,001,984	11,759	5,650,870
2023 DATA										
Alabama	56	2,645	56	2,645	-	-	-	-	32	2,573
Alaska	22	71	20	(D)	2	(D)	-	-	14	(D)
Arizona	1,867	693,836	537	281,746	109	33,606	307	242,467	19	114
Arkansas	2,259	4,306,198	2,141	3,214,846	89	53,855	7	7,210	2,071	3,077,626
California	10,642	2,948,897	4,275	1,112,022	1,389	491,489	502	186,772	597	87,350
Colorado	9,814	1,121,454	4,528	446,773	1,758	186,314	367	35,534	1,070	64,176
Connecticut	26	76	22	68	4	8	3	9	15	51
Delaware	9	1,260	4	10	-	-	-	-	4	10
Florida	570	447,391	358	35,659	129	29,446	31	31	132	5,270
Georgia	164	1,008	128	243	10	10	-	-	64	98
Hawaii	197	3,093	87	1,021	14	28	-	-	57	227
Idaho	5,925	550,086	2,888	242,902	1,166	94,583	707	86,311	461	15,259
Illinois	104	4,832	92	4,802	14	14	-	-	78	4,778
Indiana	44	4,075	39	(D)	10	(D)	-	-	29	63
Iowa	63	123	41	101	-	-	20	80	21	21
Kansas	598	47,296	576	42,896	100	11,380	2	(D)	41	(D)
Kentucky	47	82	34	48	7	7	-	-	20	27
Louisiana	1,287	1,220,292	832	826,271	69	58,551	35	18,096	743	710,453
Maine	31	31	26	26	-	-	-	-	26	26
Maryland	30	54	30	54	5	5	6	6	13	37
Massachusetts	213	4,855	49	585	24	384	-	-	11	(D)
Michigan	194	392	149	347	19	19	-	-	94	202
Minnesota	84	11,160	56	136	4	4	16	16	32	112
Mississippi	1,085	1,516,326	1,069	1,427,527	46	46,386	6	3,600	1,002	1,344,387
Missouri	881	920,038	800	839,807	26	12,398	13	6,795	736	773,633
Montana	3,945	855,611	680	101,032	432	58,082	52	4,360	127	10,042
Nebraska	3,957	485,241	3,755	455,499	204	9,931	145	6,774	500	49,616
Nevada	1,156	563,060	186	(D)	139	9,692	-	-	15	825
New Hampshire	21	191	10	(D)	3	3	-	-	7	(D)
New Jersey	61	5,115	20	1,216	-	-	-	-	16	16
New Mexico	5,800	290,530	1,877	115,701	990	58,634	413	31,353	218	12,639
New York	264	2,809	226	2,061	-	-	23	460	139	1,537
North Carolina	80	206	80	206	-	-	-	-	80	206
North Dakota	76	19,676	56	14,697	41	13,757	5	165	5	(D)
Ohio	46	792	42	252	14	210	-	-	28	42
Oklahoma	122	20,645	63	14,260	11	9,350	-	-	18	584
Oregon	2,980	309,870	838	65,868	393	31,902	86	15,461	134	4,648
Pennsylvania	113	1,249	99	399	3	24	-	-	91	272
Rhode Island	7	318	2	(D)	-	-	-	-	-	-
South Carolina	138	428	82	332	24	24	33	58	25	250
South Dakota	198	12,410	60	8,508	60	8,508	-	-	-	-
Tennessee	82	2,279	56	2,175	25	50	-	-	31	2,125
Texas	2,568	582,926	1,074	253,847	377	106,740	71	6,129	420	131,507
Utah	5,411	405,148	1,319	45,390	703	28,203	90	722	195	3,112
Vermont	49	847	40	728	-	-	-	-	26	26
Virginia	34	42	25	33	-	-	-	-	25	33
Washington	739	72,791	476	65,632	222	40,703	41	8,283	72	969
West Virginia	39	184	29	(D)	-	-	19	(D)	10	(D)
Wisconsin	313	12,202	101	299	21	42	-	-	40	103
Wyoming	3,583	815,739	1,804	328,416	746	141,205	238	29,914	448	46,922
Water Resource Regions										
Region 01 New England	313	6,174	124	1,712	31	395	3	9	68	272
Region 02 Mid-Atlantic	418	10,476	305	3,588	8	(D)	29	466	234	1,765
Region 03 South Atlantic-Gulf	968	451,758	664	39,165	163	29,480	64	89	285	8,349
Region 04 Great Lakes	395	5,451	311	703	19	19	-	-	184	372
Region 05 Ohio	169	552	125	(D)	31	227	19	38	68	(D)
Region 06 Tennessee	106	131	106	131	25	50	-	-	81	81
Region 07 Upper Mississippi	556	27,153	286	8,896	39	60	36	96	186	8,705
Region 08 Lower Mississippi	4,785	7,330,622	4,263	5,887,588	227	167,806	50	30,806	4,021	5,504,345
Region 09 Souris-Red-Rainy	30	8,469	26	469	5	75	5	165	21	69
Region 10 Missouri	13,005	2,064,836	7,201	968,522	1,827	242,778	524	50,743	1,375	122,213
Region 11 Arkansas-White-Red	2,870	949,276	1,649	649,723	378	64,702	130	29,156	704	424,198
Region 12 Texas-Gulf	1,898	540,081	775	208,247	244	70,811	23	345	368	127,789
Region 13 Rio Grande	5,473	383,624	1,778	144,466	1,020	98,017	428	37,025	146	6,095
Region 14 Upper Colorado	7,889	897,710	3,508	230,066	1,213	139,098	192	1,660	686	28,795
Region 15 Lower Colorado	2,082	786,617	631	327,685	173	46,980	317	267,441	41	7,594
Region 16 Great Basin	5,719	908,247	1,347	37,379	787	21,107	90	722	188	3,673
Region 17 Pacific Northwest	10,272	982,403	4,357	383,883	1,812	174,482	834	110,055	728	21,529
Region 18 California	10,827	2,909,136	4,274	1,075,026	1,384	479,413	494	161,848	597	87,350
Region 19 Alaska	22	71	20	(D)	2	(D)	-	-	14	(D)
Region 20 Hawaii	197	3,093	87	1,021	14	28	-	-	57	227

See footnote(s) at end of table.

--continued

Table 32. Gravity Irrigation in Fields in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Down rows or furrows - Con.				Controlled flooding (within borders, levees, or basins)					
	Above ground pipe (except poly pipe)		Underground pipe		Farms	Acres irrigated	Unlined open ditch		Lined open ditch	
	Farms	Acres irrigated	Farms	Acres irrigated			Farms	Acres irrigated	Farms	Acres irrigated
United States 2023	9,560	950,909	3,215	438,044	29,318	6,509,404	18,170	3,635,609	4,649	1,014,997
..... 2018	10,591	1,065,083	3,449	458,067	36,020	8,052,277	21,702	4,787,688	5,258	890,721
2023 DATA										
Alabama	-	-	24	72	-	-	-	-	-	-
Alaska	4	(D)	-	-	-	-	-	-	-	-
Arizona	56	3,161	77	2,398	1,180	395,078	378	74,232	795	315,099
Arkansas	27	6,603	143	69,552	1,436	1,072,651	428	288,315	98	73,098
California	537	84,794	1,548	261,617	5,662	1,725,360	3,064	910,454	663	297,804
Colorado	1,849	144,757	303	15,992	3,744	405,292	2,587	324,152	235	31,866
Connecticut	-	-	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-	-
Florida	62	422	34	490	107	215,263	77	213,703	-	-
Georgia	27	108	27	27	-	-	-	-	-	-
Hawaii	30	766	-	-	61	1,109	16	78	17	121
Idaho	874	42,856	139	3,893	2,168	209,100	1,685	191,480	236	7,184
Illinois	10	10	-	-	-	-	-	-	-	-
Indiana	-	-	-	-	4	4,000	-	-	4	4,000
Iowa	-	-	-	-	-	-	-	-	-	-
Kansas	427	27,486	52	2,628	22	4,400	-	-	-	-
Kentucky	7	14	-	-	7	28	-	-	-	-
Louisiana	23	1,482	89	37,689	575	389,117	180	101,796	23	12,520
Maine	-	-	-	-	-	-	-	-	-	-
Maryland	6	6	-	-	-	-	-	-	-	-
Massachusetts	8	(D)	6	(D)	115	3,944	70	2,518	20	519
Michigan	18	18	18	108	18	18	18	18	-	-
Minnesota	4	4	-	-	28	11,024	12	10,944	-	-
Mississippi	27	12,223	25	20,931	121	88,471	32	40,126	10	5,835
Missouri	47	46,926	11	55	150	79,777	73	29,100	11	8,100
Montana	181	28,548	-	-	2,509	535,329	2,181	488,483	78	12,547
Nebraska	3,288	387,299	116	1,879	116	2,146	58	1,131	29	870
Nevada	35	(D)	-	-	813	413,731	481	282,690	315	97,356
New Hampshire	-	-	-	-	3	(D)	-	-	-	-
New Jersey	-	-	4	1,200	41	3,899	41	3,899	-	-
New Mexico	225	11,182	134	1,893	3,651	154,736	2,136	83,517	937	40,341
New York	64	64	-	-	23	690	-	-	23	690
North Carolina	-	-	-	-	-	-	-	-	-	-
North Dakota	15	750	5	(D)	32	4,979	27	4,679	-	-
Ohio	-	-	-	-	-	-	-	-	-	-
Oklahoma	4	4,296	30	30	30	4,500	30	4,500	-	-
Oregon	299	13,026	75	831	917	132,393	697	109,683	140	10,530
Pennsylvania	3	(D)	2	(D)	6	600	6	600	-	-
Rhode Island	2	(D)	2	(D)	-	-	-	-	-	-
South Carolina	-	-	-	-	8	48	-	-	-	-
South Dakota	-	-	-	-	107	3,304	28	164	-	-
Tennessee	-	-	-	-	26	104	-	-	26	104
Texas	144	7,295	173	2,176	1,153	100,844	536	41,204	234	28,242
Utah	360	11,948	73	1,405	2,982	264,999	2,341	193,079	635	58,404
Vermont	14	702	-	-	4	(D)	-	-	-	-
Virginia	-	-	-	-	9	9	-	-	-	-
Washington	119	12,118	49	3,559	89	1,587	-	-	-	-
West Virginia	-	-	-	-	-	-	-	-	-	-
Wisconsin	40	154	-	-	189	11,844	105	5,901	42	4,074
Wyoming	724	101,102	56	9,273	1,212	268,988	883	229,163	78	5,693
Water Resource Regions										
Region 01 New England	16	792	8	244	118	3,962	70	2,518	20	519
Region 02 Mid-Atlantic	28	(D)	6	1,282	79	5,198	47	4,499	23	690
Region 03 South Atlantic-Gulf	97	658	85	589	115	215,311	77	213,703	-	-
Region 04 Great Lakes	90	204	18	108	26	4,042	18	18	4	4,000
Region 05 Ohio	7	(D)	-	-	33	132	-	-	26	104
Region 06 Tennessee	-	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	35	35	-	-	235	18,190	124	12,145	42	4,074
Region 08 Lower Mississippi	98	67,074	244	117,557	1,955	1,426,632	598	386,082	117	79,898
Region 09 Souris-Red-Rainy	5	160	-	-	4	8,000	4	8,000	-	-
Region 10 Missouri	4,567	541,321	187	11,467	4,106	694,042	2,979	576,840	275	19,620
Region 11 Arkansas-White-Red	551	113,097	151	18,570	1,248	272,883	796	129,151	131	24,288
Region 12 Texas-Gulf	101	8,585	103	717	774	97,154	330	52,502	133	16,472
Region 13 Rio Grande	130	2,367	150	962	3,465	180,353	1,941	97,661	981	51,624
Region 14 Upper Colorado	1,546	47,443	307	13,070	3,127	399,961	2,371	345,818	79	25,290
Region 15 Lower Colorado	81	3,269	80	2,401	1,256	441,143	416	105,169	802	330,139
Region 16 Great Basin	278	10,700	65	1,177	3,307	649,707	2,344	452,475	967	156,011
Region 17 Pacific Northwest	1,355	69,534	263	8,283	3,644	379,963	2,897	348,774	350	13,083
Region 18 California	541	84,798	1,548	261,617	5,765	1,711,622	3,142	900,176	682	289,064
Region 19 Alaska	4	(D)	-	-	-	-	-	-	-	-
Region 20 Hawaii	30	766	-	-	61	1,109	16	78	17	121

See footnote(s) at end of table.

--continued

Table 32. Gravity Irrigation in Fields in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Controlled Flooding (within borders, levees, or basins) - con.						Uncontrolled flooding		Other gravity systems, including water seepage	
	Poly pipe (or other single-year use, lay-flat tubing)		Above ground pipe (except poly pipe)		Underground pipe		Farms	Acres irrigated	Farms	Acres irrigated
	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated				
United States 2023	2,339	734,550	2,348	198,389	4,365	925,859	9,997	1,461,036	2,185	326,693
..... 2018	3,234	724,723	2,314	230,089	5,795	1,419,056	15,298	1,881,732	3,752	169,743
2023 DATA										
Alabama	-	-	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	2	(D)
Arizona	3	15	57	295	79	5,437	268	16,974	19	38
Arkansas	579	475,541	51	29,177	361	206,520	40	18,694	7	7
California	89	17,575	191	80,174	2,225	419,353	1,214	99,179	324	12,336
Colorado	551	31,727	591	15,652	135	1,895	1,938	241,026	254	28,363
Connecticut	-	-	-	-	-	-	-	-	4	8
Delaware	-	-	-	-	-	-	-	-	5	1,250
Florida	-	-	-	-	30	1,560	60	780	47	195,689
Georgia	-	-	-	-	-	-	-	-	36	765
Hawaii	14	560	14	(D)	14	(D)	17	461	32	502
Idaho	101	4,769	179	2,886	84	2,781	1,021	79,229	194	18,855
Illinois	-	-	-	-	-	-	-	-	12	30
Indiana	-	-	-	-	-	-	-	-	1	(D)
Iowa	-	-	-	-	-	-	-	-	22	22
Kansas	-	-	-	-	22	4,400	-	-	-	-
Kentucky	7	28	-	-	-	-	-	-	6	6
Louisiana	146	90,878	-	-	278	183,923	46	4,904	-	-
Maine	-	-	-	-	-	-	-	-	5	5
Maryland	-	-	-	-	-	-	-	-	-	-
Massachusetts	9	288	1	(D)	26	(D)	11	82	38	244
Michigan	-	-	-	-	-	-	-	-	27	27
Minnesota	-	-	-	-	16	80	-	-	-	-
Mississippi	65	34,280	9	1,350	5	6,880	8	320	8	8
Missouri	39	28,366	11	22	18	14,189	12	120	35	334
Montana	59	7,566	284	21,055	38	5,678	981	217,958	50	1,292
Nebraska	-	-	29	145	-	-	116	8,096	30	19,500
Nevada	34	6,060	9	13,905	123	13,720	272	136,575	8	(D)
New Hampshire	-	-	3	(D)	-	-	-	-	8	153
New Jersey	-	-	-	-	-	-	-	-	-	-
New Mexico	221	1,905	193	3,754	298	25,219	377	19,467	130	626
New York	-	-	-	-	-	-	-	-	38	58
North Carolina	-	-	-	-	-	-	-	-	-	-
North Dakota	-	-	15	300	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-	-	4	540
Oklahoma	-	-	-	-	-	-	29	1,885	-	-
Oregon	61	776	80	3,904	3	7,500	1,099	96,367	232	15,242
Pennsylvania	-	-	-	-	-	-	-	-	8	250
Rhode Island	-	-	-	-	-	-	-	-	5	(D)
South Carolina	-	-	-	-	8	48	24	24	24	24
South Dakota	-	-	79	2,022	52	1,118	31	598	-	-
Tennessee	-	-	-	-	-	-	-	-	-	-
Texas	153	20,032	75	593	277	10,773	282	227,237	136	998
Utah	45	2,490	65	473	159	10,553	1,205	84,823	217	9,936
Vermont	-	-	4	(D)	-	-	-	-	5	(D)
Virginia	-	-	-	-	9	9	-	-	-	-
Washington	7	490	82	845	21	252	115	3,734	72	1,838
West Virginia	-	-	-	-	-	-	-	-	10	(D)
Wisconsin	-	-	42	693	42	1,176	-	-	23	59
Wyoming	156	11,204	284	20,662	42	2,266	831	202,503	107	15,832
Water Resource Regions										
Region 01 New England	9	288	4	(D)	26	(D)	11	82	60	418
Region 02 Mid-Atlantic	-	-	-	-	9	9	-	-	57	1,690
Region 03 South Atlantic-Gulf	-	-	-	-	38	1,608	84	804	107	196,478
Region 04 Great Lakes	-	-	4	24	-	-	-	-	58	706
Region 05 Ohio	7	28	-	-	-	-	-	-	11	(D)
Region 06 Tennessee	-	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	-	-	53	715	58	1,256	-	-	35	67
Region 08 Lower Mississippi	697	538,392	53	29,967	622	392,293	79	16,394	8	8
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-	-
Region 10 Missouri	373	32,549	882	50,466	201	14,567	2,210	364,546	225	37,726
Region 11 Arkansas-White-Red	176	92,257	157	7,410	71	19,777	167	13,839	110	12,831
Region 12 Texas-Gulf	130	17,732	74	413	206	10,035	267	233,706	112	974
Region 13 Rio Grande	225	4,739	159	1,054	307	25,275	464	58,179	130	626
Region 14 Upper Colorado	336	15,766	289	4,951	139	8,136	1,497	248,588	213	19,095
Region 15 Lower Colorado	35	79	57	295	82	5,461	321	17,394	40	395
Region 16 Great Basin	79	8,550	70	14,827	276	17,844	1,311	214,501	138	6,660
Region 17 Pacific Northwest	167	5,855	344	10,035	88	2,216	2,273	182,390	523	36,167
Region 18 California	91	17,755	188	77,774	2,228	426,853	1,296	110,152	324	12,336
Region 19 Alaska	-	-	-	-	-	-	-	-	2	(D)
Region 20 Hawaii	14	560	14	(D)	14	(D)	17	461	32	502

¹ Different methods can be applied to the same acreage and acreage is counted each time a method is applied.

Table 33. Sprinkler Irrigation in Fields in the Open: 2023 and 2018

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms	Acres irrigated ¹	Center pivot system							
			Farms	Acres irrigated ¹	Low pressure under 30 psi		Medium pressure 30 to 59 psi		High pressure 60 psi or more	
					Farms	Acres irrigated ¹	Farms	Acres irrigated	Farms	Acres irrigated
United States .....2023	106,253	30,849,622	49,507	25,971,706	20,648	10,767,730	27,054	13,585,090	4,585	1,618,886
.....2018	109,184	31,656,895	49,923	26,800,613	20,553	10,536,214	27,174	14,679,988	4,891	1,584,411
2023 DATA										
Alabama	734	156,396	421	141,015	130	57,945	267	73,790	31	9,280
Alaska	97	1,163	6	688	3	(D)	3	(D)	-	-
Arizona	820	182,162	105	103,916	98	(D)	2	(D)	5	25
Arkansas	638	389,975	444	357,309	162	129,685	242	214,085	53	13,539
California	9,171	1,081,423	1,067	142,015	693	73,809	397	60,589	66	7,617
Colorado	4,144	1,289,171	2,284	1,200,630	905	306,959	1,406	824,746	190	68,925
Connecticut	258	1,919	23	88	12	67	11	21	-	-
Delaware	334	133,497	275	115,219	85	24,753	194	88,961	8	1,505
Florida	3,457	313,146	642	200,958	254	82,633	347	108,685	73	9,640
Georgia	2,493	1,145,152	1,713	1,041,978	533	417,346	1,146	583,627	239	41,005
Hawaii	780	8,023	59	782	28	(D)	29	(D)	16	222
Idaho	6,894	2,703,060	2,818	2,220,695	1,030	729,435	1,519	1,151,692	410	339,568
Illinois	1,623	705,730	1,261	651,297	341	148,209	911	477,455	38	25,633
Indiana	1,757	588,180	1,347	556,454	324	169,905	943	345,771	124	40,778
Iowa	770	237,840	556	209,607	244	77,425	240	121,288	86	10,894
Kansas	3,553	2,248,701	3,416	2,219,544	2,445	1,705,718	935	505,706	110	8,120
Kentucky	337	86,077	132	73,659	30	13,821	84	48,180	27	11,658
Louisiana	453	83,312	177	78,453	65	15,280	112	63,173	13	-
Maine	228	16,663	39	4,414	19	1,131	16	1,293	10	1,990
Maryland	514	132,043	327	112,483	180	58,439	160	48,323	15	5,721
Massachusetts	637	15,849	206	2,906	59	984	131	1,476	20	446
Michigan	2,659	738,979	1,479	610,746	201	73,698	984	381,568	327	155,480
Minnesota	1,888	607,774	1,462	533,946	723	240,724	657	263,030	157	30,192
Mississippi	548	232,995	347	213,704	134	69,722	171	109,853	57	34,129
Missouri	1,057	626,064	813	606,194	285	212,664	537	380,367	67	13,163
Montana	3,871	704,579	1,578	551,689	514	159,807	1,008	342,296	167	49,586
Nebraska	11,842	6,818,973	11,491	6,695,152	3,157	1,748,938	8,328	4,620,636	976	325,578
Nevada	517	216,656	266	183,762	97	72,698	148	109,534	30	1,530
New Hampshire	140	1,278	10	(D)	7	34	3	(D)	-	-
New Jersey	737	51,579	168	16,555	66	8,302	100	4,138	6	4,115
New Mexico	1,865	306,373	390	272,158	302	162,844	89	109,314	-	-
New York	856	22,222	88	3,436	23	1,642	44	1,630	24	164
North Carolina	1,803	144,639	378	94,369	163	30,596	184	59,685	39	4,088
North Dakota	489	227,912	439	222,615	151	67,578	277	146,927	33	8,110
Ohio	734	47,834	198	32,010	74	4,497	110	23,028	14	4,485
Oklahoma	1,338	531,455	1,038	472,006	733	362,667	357	109,339	-	-
Oregon	8,705	1,080,509	1,342	563,201	620	280,972	555	244,656	213	37,573
Pennsylvania	500	13,289	90	3,425	29	56	38	1,537	23	1,832
Rhode Island	114	3,291	17	(D)	11	11	6	(D)	-	-
South Carolina	902	171,261	420	157,984	193	52,724	235	100,340	24	4,920
South Dakota	1,058	366,660	954	362,020	216	82,543	665	254,872	120	24,605
Tennessee	668	186,570	349	160,902	165	63,083	157	90,602	33	7,217
Texas	6,486	3,324,072	4,535	2,625,724	3,624	2,194,474	859	380,522	162	50,728
Utah	6,121	602,218	1,221	403,524	449	159,546	752	240,327	87	3,651
Vermont	147	952	18	(D)	6	9	12	(D)	-	-
Virginia	654	49,996	140	27,676	73	11,868	67	15,499	3	309
Washington	7,191	1,402,977	1,029	999,597	307	446,843	602	400,142	192	152,612
West Virginia	85	797	-	-	-	-	-	-	-	-
Wisconsin	1,857	514,896	917	448,257	228	82,831	524	279,673	228	85,753
Wyoming	1,729	333,340	1,012	276,863	457	102,416	490	151,947	82	22,500
Water Resource Regions										
Region 01 New England	1,413	39,345	305	7,478	111	2,230	174	2,812	30	2,436
Region 02 Mid-Atlantic	2,982	386,935	1,012	270,987	420	101,320	561	156,091	78	13,576
Region 03 South Atlantic-Gulf	9,453	1,893,519	3,532	1,595,861	1,275	607,150	2,141	920,978	400	67,733
Region 04 Great Lakes	4,088	949,172	1,994	800,989	269	103,483	1,377	515,407	413	182,099
Region 05 Ohio	2,261	494,469	1,135	452,666	365	148,913	736	284,652	58	19,101
Region 06 Tennessee	577	81,312	197	74,535	43	36,036	140	30,132	14	8,367
Region 07 Upper Mississippi	5,806	1,950,662	4,036	1,742,011	1,420	524,087	2,248	1,060,800	536	157,124
Region 08 Lower Mississippi	1,776	1,205,720	1,420	1,130,714	604	392,168	785	692,983	120	45,563
Region 09 Souris-Red-Rainy	398	177,199	369	171,695	162	57,727	178	100,653	52	13,315
Region 10 Missouri	20,283	9,732,975	17,843	9,402,523	5,677	2,705,970	12,070	6,233,097	1,430	463,456
Region 11 Arkansas-White-Red	5,824	4,036,420	4,958	3,745,283	3,727	2,957,812	1,286	767,946	87	19,525
Region 12 Texas-Gulf	4,975	1,853,289	3,295	1,352,003	2,596	1,098,852	650	210,223	138	42,928
Region 13 Rio Grande	1,248	336,522	536	296,229	259	108,007	276	173,172	5	15,050
Region 14 Upper Colorado	4,067	420,686	1,005	298,019	433	118,307	519	167,902	137	11,810
Region 15 Lower Colorado	1,186	223,174	201	125,473	120	72,787	33	52,150	48	536
Region 16 Great Basin	5,661	728,045	1,136	542,342	434	187,132	615	316,092	117	39,118
Region 17 Pacific Northwest	23,829	5,191,268	5,312	3,796,853	1,964	1,462,228	2,814	1,830,360	812	504,265
Region 18 California	9,549	1,139,724	1,156	164,575	738	83,413	419	68,500	94	12,662
Region 19 Alaska	97	1,163	6	688	3	(D)	3	(D)	-	-
Region 20 Hawaii	780	8,023	59	782	28	(D)	29	(D)	16	222

See footnote(s) at end of table.

--continued

Table 33. Sprinkler Irrigation in Fields in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Linear move tower sprinklers						Solid set and permanent sprinklers					
	Farms	Acres irrigated ¹	Low pressure under 30 psi		Medium to high pressure 30 psi or more		Farms	Acres irrigated ¹	Low pressure under 30 psi		Medium to high pressure 30 psi or more	
			Farms	Acres irrigated ¹	Farms	Acres irrigated ¹			Farms	Acres irrigated ¹	Farms	Acres irrigated ¹
United States 2023	5,058	826,368	1,860	491,437	3,249	334,931	17,662	1,405,482	6,395	433,198	11,571	972,284
..... 2018	3,669	469,408	1,195	141,356	2,499	328,052	18,216	1,206,860	5,203	321,635	13,643	885,225
2023 DATA												
Alabama	29	2,200	-	-	29	2,200	46	597	1	(D)	46	(D)
Alaska	1	(D)	-	-	1	(D)	27	(D)	19	(D)	8	34
Arizona	24	6,619	23	(D)	1	(D)	131	48,180	56	2,355	75	45,825
Arkansas	13	607	6	600	7	7	50	13,362	22	1,022	28	12,340
California	326	60,443	104	14,314	222	46,129	5,621	663,793	1,895	175,815	3,898	487,978
Colorado	152	4,823	61	1,324	113	3,499	263	3,502	143	1,578	120	1,924
Connecticut	21	309	20	(D)	1	(D)	38	706	13	73	30	633
Delaware	29	7,922	5	1,815	24	6,107	11	3,227	2	(D)	9	(D)
Florida	101	17,301	9	10,192	92	7,109	1,321	38,547	762	25,301	559	13,246
Georgia	81	6,615	81	6,615	-	-	409	29,861	123	5,252	295	24,609
Hawaii	28	720	-	-	28	720	99	2,477	59	928	54	1,549
Idaho	435	75,438	125	28,800	322	46,638	994	47,159	392	18,288	608	28,871
Illinois	79	5,941	43	589	36	5,352	73	568	42	239	31	329
Indiana	78	12,558	35	6,480	43	6,078	91	517	62	419	29	98
Iowa	39	3,262	21	3,234	18	28	30	(D)	29	121	1	(D)
Kansas	56	26,694	56	26,694	-	-	6	72	-	-	6	72
Kentucky	10	2,860	-	-	10	2,860	31	1,414	9	128	22	1,286
Louisiana	24	600	12	60	12	540	117	2,480	25	396	92	2,084
Maine	16	165	10	20	6	145	24	(D)	8	(D)	18	(D)
Maryland	27	3,212	19	2,467	8	745	29	746	6	618	23	128
Massachusetts	52	558	10	86	42	472	269	8,772	69	1,200	209	7,572
Michigan	47	119	-	-	47	119	510	26,761	222	17,291	289	9,470
Minnesota	85	10,998	48	10,348	37	650	135	16,564	85	8,058	50	8,506
Mississippi	26	752	18	400	8	352	20	278	10	58	10	220
Missouri	24	1,124	13	24	11	1,100	33	286	19	122	14	164
Montana	119	3,892	79	1,277	40	2,615	151	2,504	44	1,803	110	701
Nebraska	216	44,050	29	8,700	187	35,350	46	66,806	-	-	46	66,806
Nevada	-	-	-	-	-	-	54	1,536	8	26	46	1,510
New Hampshire	19	485	18	(D)	1	(D)	20	(D)	12	20	16	(D)
New Jersey	29	368	4	(D)	25	(D)	169	5,508	57	384	112	5,124
New Mexico	1	(D)	1	(D)	-	-	260	9,287	185	8,011	106	1,276
New York	35	1,440	32	1,035	3	405	144	(D)	95	(D)	49	441
North Carolina	70	2,290	3	150	67	2,140	404	20,486	172	10,415	256	10,071
North Dakota	14	1,900	14	1,900	-	-	12	706	5	675	7	31
Ohio	37	383	16	104	21	279	109	2,766	57	656	54	2,110
Oklahoma	102	2,957	63	1,894	39	1,063	77	3,320	68	3,279	9	41
Oregon	758	51,714	206	25,415	552	26,299	1,772	60,981	397	27,151	1,375	33,830
Pennsylvania	55	1,595	28	203	30	1,392	26	1,793	-	-	26	1,793
Rhode Island	2	(D)	-	-	2	(D)	18	953	15	353	3	600
South Carolina	123	5,532	99	4,092	24	1,440	124	1,948	67	1,472	57	476
South Dakota	2	(D)	2	(D)	-	-	16	(D)	13	(D)	3	165
Tennessee	-	-	-	-	-	-	89	2,130	8	1,813	81	317
Texas	565	382,784	278	290,619	288	92,165	550	80,369	275	72,922	290	7,447
Utah	641	25,671	110	9,312	531	16,359	311	4,229	35	901	276	3,328
Vermont	17	(D)	17	(D)	-	-	41	484	4	(D)	37	(D)
Virginia	26	765	-	-	26	765	86	1,661	31	1,079	55	582
Washington	286	27,462	93	16,092	200	11,370	2,460	198,166	747	40,320	1,714	157,846
West Virginia	6	(D)	6	6	6	(D)	3	3	-	-	3	3
Wisconsin	45	8,014	1	(D)	44	(D)	306	19,128	24	167	283	18,961
Wyoming	87	11,717	42	11,000	45	717	36	2,486	3	168	33	2,318
Water Resource Regions												
Region 01 New England	110	2,507	58	842	52	1,665	391	17,994	118	3,497	297	14,497
Region 02 Mid-Atlantic	178	14,497	66	5,036	121	9,461	361	12,120	144	1,420	217	10,700
Region 03 South Atlantic-Gulf	424	34,330	210	21,449	214	12,881	2,335	91,601	1,122	42,436	1,225	49,165
Region 04 Great Lakes	110	1,156	61	927	49	229	668	30,022	292	18,125	378	11,897
Region 05 Ohio	74	4,703	32	1,704	42	2,999	234	4,995	102	2,389	134	2,606
Region 06 Tennessee	6	(D)	-	-	6	(D)	26	(D)	25	(D)	23	90
Region 07 Upper Mississippi	267	35,645	108	15,763	159	19,882	533	35,950	177	8,685	356	27,265
Region 08 Lower Mississippi	38	992	12	(D)	26	(D)	174	14,832	39	428	135	14,404
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	16	160	16	160	-	-
Region 10 Missouri	489	71,367	147	29,016	342	42,351	250	71,903	100	1,611	150	70,292
Region 11 Arkansas-White-Red	295	95,926	211	50,970	84	44,956	173	70,463	115	66,445	73	4,018
Region 12 Texas-Gulf	366	313,277	148	265,605	219	47,672	473	14,679	213	10,680	260	3,999
Region 13 Rio Grande	71	1,044	47	444	24	600	211	8,732	175	7,997	67	735
Region 14 Upper Colorado	163	10,842	68	8,104	117	2,738	293	3,697	131	1,115	162	2,582
Region 15 Lower Colorado	89	8,186	23	(D)	66	(D)	191	61,561	56	2,355	135	59,206
Region 16 Great Basin	563	20,249	85	2,402	478	17,847	301	4,813	62	1,447	239	3,366
Region 17 Pacific Northwest	1,414	147,386	454	67,982	979	79,404	5,225	297,009	1,532	80,646	3,703	216,363
Region 18 California	372	63,083	130	16,914	242	46,169	5,681	661,562	1,898	182,046	3,955	479,516
Region 19 Alaska	1	(D)	-	-	1	(D)	27	(D)	19	(D)	8	34
Region 20 Hawaii	28	720	-	-	28	720	99	2,477	59	928	54	1,549

See footnote(s) at end of table.

--continued

Table 33. Sprinkler Irrigation in Fields in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Mechanical move systems				Hand-Move systems, including hand watered		Other sprinkler system	
	Side roll, wheel move, or other mechanical move		Big gun or traveler		Farms	Acres irrigated	Farms	Acres irrigated
	Farms	Acres irrigated	Farms	Acres irrigated				
United States 2023	15,009	1,578,115	7,732	576,362	24,859	215,342	5,847	276,247
..... 2018	16,130	1,788,443	7,518	596,059	22,266	394,194	8,673	401,318
2023 DATA								
Alabama	54	5,140	49	3,065	175	2,725	70	1,654
Alaska	2	(D)	1	(D)	63	256	-	-
Arizona	101	20,006	38	1,007	480	2,416	18	18
Arkansas	43	16,532	24	1,745	131	325	9	95
California	380	89,599	97	10,247	1,826	14,435	1,258	100,891
Colorado	788	48,659	356	10,059	667	4,178	171	17,320
Connecticut	-	-	17	202	172	411	28	203
Delaware	23	3,059	32	2,970	14	16	4	1,084
Florida	7	8,141	191	30,379	1,093	7,400	549	10,420
Georgia	217	32,010	329	27,654	309	2,026	97	5,008
Hawaii	2	(D)	3	(D)	465	1,317	199	2,447
Idaho	2,186	323,118	321	10,408	2,048	22,896	252	3,346
Illinois	136	40,723	44	6,238	287	435	32	528
Indiana	56	11,772	138	6,334	196	473	13	72
Iowa	88	23,795	21	930	72	103	1	(D)
Kansas	5	5	8	184	92	130	69	2,072
Kentucky	5	3,321	66	4,484	111	339	-	-
Louisiana	15	375	24	900	112	376	16	128
Maine	1	(D)	15	4,636	153	(D)	44	66
Maryland	40	10,073	28	2,202	132	856	10	2,471
Massachusetts	17	224	47	1,448	175	690	82	1,251
Michigan	97	33,813	636	62,141	665	2,588	111	2,811
Minnesota	98	41,500	140	3,235	216	485	35	1,046
Mississippi	41	16,491	23	1,412	121	315	5	43
Missouri	36	2,833	73	14,922	137	481	30	224
Montana	1,627	121,875	188	6,754	1,603	17,720	29	145
Nebraska	153	3,808	71	7,468	167	1,225	49	464
Nevada	224	29,329	34	246	54	1,042	3	741
New Hampshire	5	(D)	5	(D)	83	(D)	24	157
New Jersey	29	8,210	177	15,955	261	2,800	87	2,183
New Mexico	377	20,195	34	2,018	863	2,075	106	(D)
New York	2	(D)	148	12,230	492	1,312	135	2,095
North Carolina	85	4,805	443	17,482	703	3,730	164	1,477
North Dakota	9	2,450	8	204	23	(D)	8	(D)
Ohio	33	2,684	140	5,761	358	3,294	57	936
Oklahoma	111	33,022	73	4,089	93	747	42	15,314
Oregon	2,171	207,473	1,630	138,804	3,340	39,503	637	18,833
Pennsylvania	5	51	134	5,362	230	636	46	427
Rhode Island	9	35	8	943	64	177	20	170
South Carolina	25	863	58	1,508	188	563	171	2,863
South Dakota	27	3,240	27	1,080	60	113	-	-
Tennessee	73	22,216	28	730	204	442	50	150
Texas	585	136,408	249	12,787	617	28,711	339	57,289
Utah	3,201	145,559	262	4,405	2,104	16,643	137	2,187
Vermont	1	(D)	2	(D)	78	241	5	9
Virginia	13	615	161	18,693	307	582	4	4
Washington	1,180	58,227	793	88,248	2,223	23,961	436	7,316
West Virginia	-	-	15	573	67	(D)	-	-
Wisconsin	18	11,545	200	15,999	614	2,446	171	9,507
Wyoming	608	32,979	123	7,802	151	1,113	24	380
Water Resource Regions								
Region 01 New England	32	341	93	7,525	654	1,644	203	1,856
Region 02 Mid-Atlantic	111	22,268	591	53,382	1,032	5,562	242	8,119
Region 03 South Atlantic-Gulf	406	51,490	1,119	82,210	2,455	16,559	1,059	21,468
Region 04 Great Lakes	117	34,926	833	72,133	1,352	6,300	170	3,646
Region 05 Ohio	67	14,343	256	15,177	719	2,222	56	363
Region 06 Tennessee	25	4,000	34	901	293	507	50	150
Region 07 Upper Mississippi	336	103,310	349	19,958	991	2,737	242	11,051
Region 08 Lower Mississippi	114	43,839	46	14,609	175	574	20	160
Region 09 Souris-Red-Rainy	21	5,306	-	-	24	33	5	5
Region 10 Missouri	1,728	134,568	440	28,873	1,105	7,460	160	16,281
Region 11 Arkansas-White-Red	276	79,988	124	9,437	354	3,307	167	32,016
Region 12 Texas-Gulf	459	94,492	225	9,187	581	27,320	281	42,331
Region 13 Rio Grande	183	27,327	34	2,018	317	432	107	740
Region 14 Upper Colorado	1,770	95,049	277	4,287	1,293	6,396	182	2,396
Region 15 Lower Colorado	253	24,253	91	1,197	527	2,477	23	27
Region 16 Great Basin	2,627	133,767	231	5,950	2,010	17,782	77	3,142
Region 17 Pacific Northwest	5,839	586,390	2,863	238,175	8,595	97,702	1,302	27,753
Region 18 California	641	122,218	122	11,235	1,854	14,755	1,302	102,296
Region 19 Alaska	2	(D)	1	(D)	63	256	-	-
Region 20 Hawaii	2	(D)	3	(D)	465	1,317	199	2,447

¹ Different methods can be applied to the same acreage and acreage is counted each time a method is applied.

Table 34. Drip, Trickle, or Low-Flow Micro Irrigation in Fields in the Open: 2023 and 2018

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms	Acres irrigated ¹	Surface drip		Sub-surface drip		Low-flow micro sprinklers		Other drip, trickle, or low-flow micro systems	
			Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated
United States .....2023	60,160	6,425,941	41,350	3,330,397	7,979	1,097,147	15,328	1,776,813	4,574	221,584
.....2018	62,158	5,860,921	41,058	2,900,438	8,490	1,082,033	17,676	1,661,438	3,311	217,012
2023 DATA										
Alabama	450	3,978	322	1,590	74	2,127	54	146	23	115
Alaska	151	238	149	210	7	(D)	-	-	2	(D)
Arizona	523	92,828	330	22,366	70	65,593	130	3,921	25	948
Arkansas	277	1,613	181	970	42	415	47	171	21	57
California	24,636	4,356,056	17,348	2,366,196	2,898	607,862	9,260	1,279,295	1,857	102,703
Colorado	876	17,333	499	1,490	130	12,420	230	1,079	127	2,344
Connecticut	236	1,993	213	1,309	25	148	21	(D)	10	(D)
Delaware	100	3,469	78	2,443	22	742	4	34	5	250
Florida	3,573	434,063	1,428	113,867	200	29,605	1,670	256,580	356	34,011
Georgia	1,978	119,309	1,319	33,714	86	(D)	625	61,180	76	(D)
Hawaii	1,119	26,130	901	21,206	133	858	176	4,013	29	53
Idaho	639	27,796	447	21,759	57	3,749	84	2,156	74	132
Illinois	438	11,154	230	5,515	60	422	139	4,832	29	385
Indiana	465	7,430	397	4,792	85	2,514	14	16	24	108
Iowa	288	2,426	206	1,106	51	1,161	49	159	-	-
Kansas	563	32,688	249	596	270	30,356	29	1,673	23	63
Kentucky	556	2,406	408	2,014	98	265	26	52	43	75
Louisiana	223	3,332	170	2,899	22	121	20	247	15	65
Maine	190	1,952	129	1,482	21	325	66	122	9	23
Maryland	344	12,579	267	6,692	52	1,586	17	169	36	4,132
Massachusetts	525	4,612	359	2,844	73	379	93	249	116	1,140
Michigan	1,643	69,941	1,425	54,352	230	15,313	54	54	56	222
Minnesota	352	2,464	240	1,583	16	(D)	32	129	96	(D)
Mississippi	232	2,842	159	1,158	49	1,443	49	232	3	9
Missouri	581	9,731	414	2,266	121	4,876	61	2,506	26	83
Montana	224	864	184	577	5	32	30	248	5	7
Nebraska	619	26,234	296	(D)	312	20,113	8	(D)	10	10
Nevada	155	20,369	116	20,291	5	14	30	60	4	4
New Hampshire	133	699	86	526	16	34	20	36	28	103
New Jersey	467	19,804	396	16,199	79	2,819	1	(D)	34	(D)
New Mexico	545	9,537	266	3,164	85	3,284	71	2,043	137	1,046
New York	1,214	26,728	906	21,084	201	3,473	147	223	128	1,948
North Carolina	905	14,922	642	8,165	199	5,063	85	1,469	3	225
North Dakota	60	182	50	153	4	4	7	7	14	18
Ohio	882	9,324	687	7,413	136	1,518	19	19	70	374
Oklahoma	318	25,018	196	5,746	34	18,240	66	967	65	65
Oregon	2,549	117,122	2,119	65,546	228	20,129	280	24,014	127	7,433
Pennsylvania	1,356	15,263	950	12,062	203	1,805	103	345	205	1,051
Rhode Island	97	498	85	389	11	20	15	(D)	2	(D)
South Carolina	681	20,525	558	11,194	49	265	124	9,041	25	25
South Dakota	151	420	146	411	-	-	9	9	-	-
Tennessee	431	7,090	365	(D)	73	5,743	2	(D)	16	(D)
Texas	3,239	563,970	1,710	287,901	1,069	196,463	370	45,808	206	33,798
Utah	368	3,088	329	1,796	5	65	38	1,212	15	15
Vermont	271	1,647	238	1,491	11	81	36	(D)	5	(D)
Virginia	609	5,570	478	4,487	91	796	34	220	37	67
Washington	2,938	283,913	1,898	178,174	213	17,207	748	70,066	233	18,466
West Virginia	171	1,048	158	804	13	244	-	-	-	-
Wisconsin	753	3,588	576	2,052	45	947	135	248	105	341
Wyoming	66	155	47	136	-	-	-	-	19	19
Water Resource Regions										
Region 01 New England	1,236	10,754	923	7,552	146	906	245	607	156	1,689
Region 02 Mid-Atlantic	3,319	73,954	2,441	56,166	534	8,814	187	1,163	411	7,811
Region 03 South Atlantic-Gulf	7,517	594,098	4,192	169,405	605	53,335	2,595	328,597	483	42,761
Region 04 Great Lakes	2,905	86,269	2,338	65,477	486	19,979	164	207	140	606
Region 05 Ohio	2,028	14,081	1,697	9,460	251	3,426	96	726	123	469
Region 06 Tennessee	539	7,748	415	666	123	6,923	10	63	16	96
Region 07 Upper Mississippi	1,701	20,001	1,209	11,954	133	2,000	342	5,295	192	752
Region 08 Lower Mississippi	395	6,257	290	3,692	68	2,227	45	319	7	19
Region 09 Souris-Red-Rainy	40	174	30	151	-	-	7	7	12	16
Region 10 Missouri	2,062	56,648	1,244	8,957	543	42,346	181	5,004	154	341
Region 11 Arkansas-White-Red	1,318	96,391	720	24,057	431	56,031	135	1,421	142	14,882
Region 12 Texas-Gulf	2,838	514,124	1,512	268,965	908	181,108	345	45,000	140	19,051
Region 13 Rio Grande	563	13,165	330	5,304	66	4,297	41	2,470	161	1,094
Region 14 Upper Colorado	495	3,911	283	676	57	57	161	953	69	2,225
Region 15 Lower Colorado	584	107,176	378	22,457	88	74,298	138	9,473	25	948
Region 16 Great Basin	421	23,319	343	21,940	13	(D)	68	1,272	16	(D)
Region 17 Pacific Northwest	6,298	429,505	4,601	265,900	500	41,087	1,140	96,480	439	26,038
Region 18 California	24,631	4,341,998	17,354	2,366,202	2,887	599,350	9,252	1,273,743	1,857	102,703
Region 19 Alaska	151	238	149	210	7	(D)	-	-	2	(D)
Region 20 Hawaii	1,119	26,130	901	21,206	133	858	176	4,013	29	53

¹ Different methods can be applied to the same acreage and acreage is counted each time a method is applied.

Table 35. Estimated Quantity of Water Applied in the Open Using Only One Method of Distribution: 2023 and 2018

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Water applied by all methods			Only sprinkler systems			Only gravity flow systems		
	Acres irrigated ¹	Acre-feet applied	Average acre-feet per acre	Farms	Acres irrigated ¹	Average acre-feet per acre	Farms	Acres irrigated ¹	Average acre-feet per acre
United States .....2023	53,076,539	80,937,415	1.5	79,843	23,021,197	1.2	47,494	12,732,761	1.7
.....2018	55,886,470	83,332,760	1.5	79,830	22,877,786	1.1	61,091	13,649,228	1.8
2023 DATA									
Alabama (D)		114,339	(D)	619	123,442	0.6	-	-	-
Alaska (D)		1,159	(D)	66	1,120	0.8	2	(D)	(D)
Arizona 920,420	3,927,289	4.3	613	99,316	3.6	1,746	618,876	4.4	
Arkansas 4,645,925	5,165,689	1.1	270	70,429	0.7	1,897	3,641,203	1.2	
California 7,755,846	22,599,562	2.9	5,154	446,860	2.4	6,631	1,507,018	3.5	
Colorado 2,367,382	3,740,814	1.6	2,391	912,773	1.5	7,984	857,456	1.5	
Connecticut 3,645	4,646	1.3	192	989	1.6	8	16	0.8	
Delaware (D)	85,821	(D)	294	119,943	0.7	7	1,256	0.6	
Florida 1,135,824	1,177,858	1.0	2,599	235,205	1.1	281	369,859	0.8	
Georgia 1,221,632	1,298,711	1.1	2,091	981,075	1.1	-	-	-	
Hawaii (D)	55,589	(D)	372	2,922	1.4	41	1,997	0.9	
Idaho 3,180,644	5,406,523	1.7	5,412	2,270,291	1.7	4,497	345,329	1.5	
Illinois 679,401	409,679	0.6	1,445	657,164	0.6	24	24	1.8	
Indiana 581,477	303,886	0.5	1,614	558,289	0.5	1	(D)	(D)	
Iowa 234,886	125,420	0.5	708	229,273	0.5	43	43	1.0	
Kansas 2,324,901	2,570,383	1.1	2,972	1,966,368	1.1	203	13,657	1.0	
Kentucky 81,034	44,674	0.6	310	77,711	0.5	6	6	1.0	
Louisiana 1,305,572	1,403,444	1.1	244	4,431	0.5	1,121	1,015,537	1.2	
Maine (D)	5,407	(D)	158	14,486	0.3	10	10	1.0	
Maryland (D)	62,740	(D)	405	107,708	0.5	7	31	1.1	
Massachusetts (D)	13,147	(D)	405	6,546	0.8	44	282	0.6	
Michigan 746,242	417,925	0.6	2,196	628,335	0.6	19	19	1.0	
Minnesota 557,770	393,326	0.7	1,749	540,805	0.7	68	11,112	1.8	
Mississippi 1,713,175	1,465,708	0.9	262	34,427	0.7	803	1,059,676	0.9	
Missouri 1,486,605	1,192,401	0.8	720	317,001	0.6	530	571,235	0.9	
Montana 1,561,047	1,879,427	1.2	2,770	418,859	1.0	2,892	586,782	1.2	
Nebraska 7,305,558	6,813,805	0.9	8,730	4,874,729	0.9	921	110,495	1.0	
Nevada 767,294	2,248,790	2.9	339	94,206	2.8	952	389,518	2.8	
New Hampshire 1,765	1,013	0.6	104	669	0.6	4	21	4.6	
New Jersey 69,373	38,099	0.5	560	33,869	0.6	21	2,420	0.6	
New Mexico 583,414	1,210,959	2.1	1,464	192,256	1.8	5,270	262,713	2.2	
New York 47,118	22,607	0.5	440	15,041	0.5	66	2,471	0.6	
North Carolina 150,265	120,223	0.8	1,576	131,490	0.8	-	-	-	
North Dakota 246,301	167,778	0.7	446	219,809	0.7	39	7,495	1.2	
Ohio 53,996	35,017	0.6	519	36,859	0.5	-	-	-	
Oklahoma 538,934	665,291	1.2	1,239	417,932	1.3	74	20,031	1.4	
Oregon 1,445,030	2,478,499	1.7	7,055	800,722	1.7	1,935	148,453	1.5	
Pennsylvania 28,104	19,392	0.7	271	9,748	0.4	33	669	1.0	
Rhode Island (D)	2,965	(D)	70	2,701	0.8	-	-	-	
South Carolina (D)	147,461	(D)	682	162,426	0.8	49	274	0.3	
South Dakota 379,485	257,704	0.7	953	354,166	0.7	124	9,123	0.9	
Tennessee 173,528	80,834	0.5	584	157,215	0.4	51	154	1.5	
Texas 3,720,978	4,599,571	1.2	5,159	2,483,777	1.3	1,825	302,190	1.3	
Utah 985,863	2,221,470	2.3	4,710	436,062	2.6	4,125	284,182	1.9	
Vermont 2,330	2,775	1.2	57	130	0.6	4	24	1.3	
Virginia (D)	34,365	(D)	513	47,226	0.6	-	-	-	
Washington 1,704,878	3,636,947	2.1	6,179	1,144,975	2.1	430	28,485	1.9	
West Virginia 1,775	1,068	0.6	54	429	0.8	4	4	(D)	
Wisconsin 480,561	440,473	0.9	1,305	458,115	0.8	43	233	0.2	
Wyoming 1,148,044	1,824,742	1.6	803	120,877	1.6	2,659	562,336	1.5	
Water Resource Regions									
Region 01 New England 47,344	29,267	0.6	945	25,456	0.5	66	329	0.9	
Region 02 Mid-Atlantic 438,415	249,422	0.6	2,068	321,890	0.6	115	6,828	0.6	
Region 03 South Atlantic-Gulf 2,816,046	2,843,508	1.0	7,651	1,608,618	1.0	338	370,261	0.8	
Region 04 Great Lakes 970,903	553,119	0.6	3,213	818,684	0.6	68	110	0.9	
Region 05 Ohio 479,026	271,137	0.6	1,843	453,585	0.6	33	112	1.5	
Region 06 Tennessee (D)	51,102	(D)	499	64,540	0.4	25	(D)	(D)	
Region 07 Upper Mississippi (D)	1,283,578	(D)	4,937	1,766,660	0.7	159	9,244	1.1	
Region 08 Lower Mississippi (D)	8,418,276	(D)	822	340,256	0.5	3,869	5,747,739	1.1	
Region 09 Souris-Red-Rainy (D)	127,799	(D)	391	172,531	0.7	25	8,464	1.6	
Region 10 Missouri 11,797,087	12,351,441	1.0	14,555	7,044,842	0.9	7,475	1,190,899	1.3	
Region 11 Arkansas-White-Red 4,851,498	6,137,419	1.3	4,885	3,379,202	1.3	2,154	747,111	1.3	
Region 12 Texas-Gulf 2,334,549	2,650,201	1.1	3,940	1,258,910	1.2	1,350	282,405	1.3	
Region 13 Rio Grande 703,426	1,394,677	2.0	803	240,001	1.8	4,906	324,100	1.9	
Region 14 Upper Colorado 1,293,341	2,174,034	1.7	2,651	195,133	2.0	6,447	683,771	1.5	
Region 15 Lower Colorado 1,053,465	4,527,355	4.3	879	114,721	3.5	1,869	663,975	4.4	
Region 16 Great Basin 1,608,762	4,052,734	2.5	4,483	511,484	2.5	4,588	657,434	2.4	
Region 17 Pacific Northwest 6,390,033	11,465,253	1.8	19,431	4,221,632	1.8	7,274	550,694	1.5	
Region 18 California 7,768,745	22,300,345	2.9	5,409	479,010	2.4	6,690	1,487,194	3.5	
Region 19 Alaska (D)	1,159	(D)	66	1,120	0.8	2	(D)	(D)	
Region 20 Hawaii (D)	55,589	(D)	372	2,922	1.4	41	1,997	0.9	

See footnote(s) at end of table.

--continued

Table 35. Estimated Quantity of Water Applied in the Open Using Only One Method of Distribution: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Only drip, trickle, or low-flow micro sprinkler systems			Only hydroponics (see text)		
	Farms	Acres irrigated ¹	Average acre-feet per acre	Farms	Acres irrigated ¹	Average acre-feet per acre
United States .....2023	43,108	3,887,092	2.2	63	957	0.5
.....2018	44,753	3,776,584	2.1	(NA)	(NA)	(NA)
2023 DATA						
Alabama	343	2,637	0.9	-	-	-
Alaska	102	156	0.9	-	-	-
Arizona	427	35,089	3.0	-	-	-
Arkansas	209	1,302	0.5	-	-	-
California	18,871	2,770,611	2.6	-	-	-
Colorado	413	3,447	2.4	-	-	-
Connecticut	174	1,740	1.1	-	-	-
Delaware	58	986	0.8	-	-	-
Florida	2,753	359,164	1.2	-	-	-
Georgia	1,469	91,106	0.7	-	-	-
Hawaii	706	11,602	1.6	15	135	1.7
Idaho	404	15,321	1.3	-	-	-
Illinois	291	7,569	0.6	-	-	-
Indiana	287	990	0.4	-	-	-
Iowa	206	915	0.9	-	-	-
Kansas	348	11,572	1.0	-	-	-
Kentucky	502	1,991	1.0	-	-	-
Louisiana	180	2,900	0.5	-	-	-
Maine	120	1,352	0.3	-	-	-
Maryland	246	7,936	0.4	-	-	-
Massachusetts	392	2,379	0.4	14	563	0.3
Michigan	1,151	35,270	0.7	-	-	-
Minnesota	197	1,125	0.5	-	-	-
Mississippi	190	2,477	0.6	-	-	-
Missouri	450	7,639	0.8	9	9	1.0
Montana	145	603	1.9	-	-	-
Nebraska	266	4,645	0.9	-	-	-
Nevada	90	158	1.4	-	-	-
New Hampshire	99	278	0.7	-	-	-
New Jersey	291	9,337	0.5	25	250	0.3
New Mexico	357	3,073	3.2	-	-	-
New York	754	21,510	0.5	-	-	-
North Carolina	624	10,062	0.7	-	-	-
North Dakota	44	143	0.9	-	-	-
Ohio	621	3,344	0.6	-	-	-
Oklahoma	170	1,566	0.9	-	-	-
Oregon	1,639	63,779	1.6	-	-	-
Pennsylvania	1,072	12,567	0.9	-	-	-
Rhode Island	55	212	0.8	-	-	-
South Carolina	437	14,421	0.6	-	-	-
South Dakota	112	366	0.9	-	-	-
Tennessee	353	6,228	2.4	-	-	-
Texas	2,004	170,112	1.4	-	-	-
Utah	128	1,059	1.8	-	-	-
Vermont	146	377	0.8	-	-	-
Virginia	460	3,575	0.8	-	-	-
Washington	2,181	179,653	1.9	-	-	-
West Virginia	130	850	0.7	-	-	-
Wisconsin	411	1,862	0.8	-	-	-
Wyoming	30	36	1.1	-	-	-
Water Resource Regions						
Region 01 New England	868	5,982	0.6	14	563	0.3
Region 02 Mid-Atlantic	2,370	49,403	0.6	25	250	0.3
Region 03 South Atlantic-Gulf	5,624	479,514	1.0	-	-	-
Region 04 Great Lakes	1,915	43,657	0.6	-	-	-
Region 05 Ohio	1,507	5,746	0.8	-	-	-
Region 06 Tennessee	405	6,484	2.3	-	-	-
Region 07 Upper Mississippi	1,034	11,256	0.6	-	-	-
Region 08 Lower Mississippi	316	3,753	0.5	-	-	-
Region 09 Souris-Red-Rainy	28	145	0.8	-	-	-
Region 10 Missouri	1,328	19,143	0.9	9	9	1.0
Region 11 Arkansas-White-Red	745	16,296	1.2	-	-	-
Region 12 Texas-Gulf	1,774	162,924	1.4	-	-	-
Region 13 Rio Grande	394	3,745	2.8	-	-	-
Region 14 Upper Colorado	144	1,135	3.0	-	-	-
Region 15 Lower Colorado	470	48,594	3.1	-	-	-
Region 16 Great Basin	178	1,143	1.8	-	-	-
Region 17 Pacific Northwest	4,331	259,233	1.8	-	-	-
Region 18 California	18,869	2,757,181	2.6	-	-	-
Region 19 Alaska	102	156	0.9	-	-	-
Region 20 Hawaii	706	11,602	1.6	15	135	1.7

¹ Acres represent the acres of land with coverage by at least one of the systems. Acres are not double counted if multiple systems exist on the same acreage.

Table 36. Estimated Quantity of Water Applied in the Open Using Only Gravity Flow Systems: 2023 and 2018

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Total			Only down rows or furrows			Only controlled flooding (within borders, levees, or basins)		
	Farms	Acres irrigated ¹	Average acre-feet per acre	Farms	Acres irrigated	Average acre-feet per acre	Farms	Acres irrigated	Average acre-feet per acre
United States .....2023	47,494	12,732,761	1.7	16,212	4,128,574	1.3	20,370	3,253,277	2.5
.....2018	61,091	13,649,228	1.8	20,314	3,959,882	1.6	23,482	3,930,302	2.3
2023 DATA									
Alabama	-	-	-	-	-	-	-	-	-
Alaska	2	(D)	(D)	2	(D)	(D)	-	-	-
Arizona	1,746	618,876	4.4	340	131,381	4.2	1,017	276,508	4.7
Arkansas	1,897	3,641,203	1.2	609	820,257	0.9	78	24,988	1.8
California	6,631	1,507,018	3.5	1,840	331,179	2.9	3,569	813,478	3.9
Colorado	7,984	857,456	1.5	3,146	274,465	1.6	2,948	308,877	1.4
Connecticut	8	16	0.8	4	8	1.0	-	-	-
Delaware	7	1,256	0.6	2	(D)	(D)	-	-	-
Florida	281	369,859	0.8	145	24,968	1.3	39	155,004	1.0
Georgia	-	-	-	-	-	-	-	-	-
Hawaii	41	1,997	0.9	2	(D)	(D)	33	731	0.7
Idaho	4,497	345,329	1.5	2,070	124,811	1.8	1,622	139,178	1.4
Illinois	24	24	1.8	24	24	1.8	-	-	-
Indiana	1	(D)	(D)	-	-	-	-	-	-
Iowa	43	43	1.0	21	21	1.0	-	-	-
Kansas	203	13,657	1.0	203	13,657	1.0	-	-	-
Kentucky	6	6	1.0	6	6	1.0	-	-	-
Louisiana	1,121	1,015,537	1.2	509	500,837	0.8	421	267,382	1.9
Maine	10	10	1.0	5	(D)	(D)	-	-	-
Maryland	7	31	1.1	7	31	1.1	-	-	-
Massachusetts	44	282	0.6	-	-	-	36	(D)	0.6
Michigan	19	19	1.0	19	19	1.0	-	-	-
Minnesota	68	11,112	1.8	40	88	0.5	28	11,024	1.8
Mississippi	803	1,059,676	0.9	708	816,204	0.8	8	640	1.5
Missouri	530	571,235	0.9	394	340,463	0.9	23	10,980	0.5
Montana	2,892	586,782	1.2	412	52,534	1.1	1,752	343,305	1.2
Nebraska	921	110,495	1.0	805	87,334	1.1	29	841	0.3
Nevada	952	389,518	2.8	124	6,789	2.0	614	243,331	2.7
New Hampshire	4	21	4.6	1	(D)	(D)	3	(D)	5.0
New Jersey	21	2,420	0.6	-	-	-	21	2,420	0.6
New Mexico	5,270	262,713	2.2	1,432	109,087	2.0	3,195	130,517	2.5
New York	66	2,471	0.6	43	1,321	0.5	-	-	-
North Carolina	-	-	-	-	-	-	-	-	-
North Dakota	39	7,495	1.2	19	4,440	1.1	20	3,055	1.3
Ohio	-	-	-	-	-	-	-	-	-
Oklahoma	74	20,031	1.4	15	13,646	1.3	30	4,500	2.0
Oregon	1,935	148,453	1.5	411	23,868	1.9	726	85,332	1.5
Pennsylvania	33	669	1.0	27	69	0.8	6	600	1.0
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	49	274	0.3	49	274	0.3	-	-	-
South Dakota	124	9,123	0.9	43	7,403	0.9	54	1,126	0.9
Tennessee	51	154	1.5	25	50	1.5	26	104	1.5
Texas	1,825	302,190	1.3	591	207,288	1.2	974	59,016	1.8
Utah	4,125	284,182	1.9	742	16,352	1.2	2,333	205,948	1.9
Vermont	4	24	1.3	-	-	-	4	24	1.3
Virginia	-	-	-	-	-	-	-	-	-
Washington	430	28,485	1.9	218	22,854	2.1	82	1,097	1.3
West Virginia	4	4	(D)	4	4	1.0	-	-	-
Wisconsin	43	233	0.2	-	-	-	21	189	0.1
Wyoming	2,659	562,336	1.5	1,155	196,046	1.8	658	162,798	1.4
Water Resource Regions									
Region 01 New England	66	329	0.9	10	16	1.3	39	284	0.9
Region 02 Mid-Atlantic	115	6,828	0.6	60	1,408	0.5	27	3,020	0.6
Region 03 South Atlantic-Gulf	338	370,261	0.8	202	25,370	1.3	39	155,004	1.0
Region 04 Great Lakes	68	110	0.9	42	42	1.0	4	24	1.3
Region 05 Ohio	33	112	1.5	6	(D)	1.0	26	104	1.5
Region 06 Tennessee	25	(D)	(D)	25	(D)	1.5	-	-	-
Region 07 Upper Mississippi	159	9,244	1.1	81	2,709	0.3	56	6,513	1.4
Region 08 Lower Mississippi	3,869	5,747,739	1.1	2,052	2,413,085	0.8	462	278,176	1.9
Region 09 Souris-Red-Rainy	25	8,464	1.6	21	464	0.9	4	8,000	1.6
Region 10 Missouri	7,475	1,190,899	1.3	2,792	357,421	1.5	2,612	408,780	1.3
Region 11 Arkansas-White-Red	2,154	747,111	1.3	842	209,620	1.4	883	75,514	1.7
Region 12 Texas-Gulf	1,350	282,405	1.3	388	169,334	1.2	694	70,256	1.7
Region 13 Rio Grande	4,906	324,100	1.9	1,205	117,834	1.7	2,990	135,934	2.4
Region 14 Upper Colorado	6,447	683,771	1.5	2,651	165,598	1.8	2,479	319,714	1.5
Region 15 Lower Colorado	1,869	663,975	4.4	395	139,221	4.1	1,082	307,086	4.6
Region 16 Great Basin	4,588	657,434	2.4	836	21,653	1.5	2,575	431,570	2.4
Region 17 Pacific Northwest	7,274	550,694	1.5	2,760	172,782	1.8	2,755	254,727	1.3
Region 18 California	6,690	1,487,194	3.5	1,840	331,179	2.9	3,610	797,840	3.8
Region 19 Alaska	2	(D)	(D)	2	(D)	(D)	-	-	-
Region 20 Hawaii	41	1,997	0.9	2	(D)	(D)	33	731	0.7

See footnote(s) at end of table.

--continued

Table 36. Estimated Quantity of Water Applied in the Open Using Only Gravity Flow Systems: 2023 and 2018
(continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Only uncontrolled flooding (rangeland, pastureland, etc.)			Only other gravity systems, including water seepage		
	Farms	Acres irrigated	Average acre-feet per acre	Farms	Acres irrigated	Average acre-feet per acre
United States	6,325	679,910	1.5	891	254,905	0.7
2018	9,144	913,507	1.5	1,418	85,804	2.0
2023 DATA						
Alabama	-	-	-	-	-	-
Alaska	-	-	-	-	-	-
Arizona	263	16,969	1.0	19	38	0.5
Arkansas	13	469	0.4	-	-	-
California	767	51,502	2.1	79	2,400	1.6
Colorado	1,271	165,437	1.4	153	13,385	1.7
Connecticut	-	-	-	4	8	0.5
Delaware	-	-	-	5	(D)	0.6
Florida	60	780	1.2	35	179,807	0.5
Georgia	-	-	-	-	-	-
Hawaii	4	434	1.2	2	(D)	(D)
Idaho	583	53,055	1.3	68	13,580	1.9
Illinois	-	-	-	-	-	-
Indiana	-	-	-	1	(D)	(D)
Iowa	-	-	-	22	22	(D)
Kansas	-	-	-	-	-	-
Kentucky	-	-	-	-	-	-
Louisiana	34	3,704	0.4	-	-	-
Maine	-	-	-	5	(D)	1.0
Maryland	-	-	-	-	-	-
Massachusetts	-	-	-	8	(D)	0.5
Michigan	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-
Mississippi	-	-	-	-	-	-
Missouri	12	120	0.5	-	-	-
Montana	551	137,546	1.2	-	-	-
Nebraska	57	2,820	0.8	30	19,500	0.5
Nevada	116	34,475	3.5	-	-	-
New Hampshire	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-
New Mexico	314	18,519	1.1	99	440	1.7
New York	-	-	-	-	-	-
North Carolina	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-
Ohio	-	-	-	-	-	-
Oklahoma	29	1,885	0.5	-	-	-
Oregon	625	23,995	1.4	128	11,988	1.2
Pennsylvania	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-
South Carolina	-	-	-	-	-	-
South Dakota	27	594	1.3	-	-	-
Tennessee	-	-	-	-	-	-
Texas	198	11,585	1.7	32	661	1.3
Utah	765	46,015	2.0	65	1,543	1.8
Vermont	-	-	-	-	-	-
Virginia	-	-	-	-	-	-
Washington	89	2,914	1.2	41	1,620	1.8
West Virginia	-	-	-	-	-	-
Wisconsin	-	-	-	22	44	0.5
Wyoming	547	107,092	1.2	73	8,502	1.6
Water Resource Regions						
Region 01 New England	-	-	-	17	29	0.6
Region 02 Mid-Atlantic	-	-	-	5	1,250	0.6
Region 03 South Atlantic-Gulf	60	780	1.2	35	179,807	0.5
Region 04 Great Lakes	-	-	-	22	44	(D)
Region 05 Ohio	-	-	-	1	(D)	(D)
Region 06 Tennessee	-	-	-	-	-	-
Region 07 Upper Mississippi	-	-	-	22	22	1.0
Region 08 Lower Mississippi	46	3,824	0.4	-	-	-
Region 09 Souris-Red-Rainy	-	-	-	-	-	-
Region 10 Missouri	1,494	249,174	1.2	147	29,322	0.8
Region 11 Arkansas-White-Red	130	6,204	1.3	66	6,820	1.8
Region 12 Texas-Gulf	206	18,514	1.6	32	661	1.3
Region 13 Rio Grande	276	16,858	1.0	99	440	1.7
Region 14 Upper Colorado	941	167,641	1.4	65	5,817	1.7
Region 15 Lower Colorado	263	16,969	1.0	19	38	0.5
Region 16 Great Basin	816	83,993	2.5	43	971	2.0
Region 17 Pacific Northwest	1,301	61,522	1.1	237	27,188	1.6
Region 18 California	788	53,997	2.1	79	2,400	1.6
Region 19 Alaska	-	-	-	-	-	-
Region 20 Hawaii	4	434	1.2	2	(D)	(D)

¹ Acres represent the acres of land with coverage by at least one of the systems. Acres are not double counted if multiple systems exist on the same acreage.

Table 37. Estimated Quantity of Water Applied in the Open Using Only Sprinkler Systems: 2023 and 2018

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Only center pivot systems											
	All pressures			Only low pressure under 30 psi			Only medium pressure 30 to 59 psi			Only high pressure 60 psi or more		
	Farms	Acres irrigated	Average acre-feet per acre	Farms	Acres irrigated	Average acre-feet per acre	Farms	Acres irrigated	Average acre-feet per acre	Farms	Acres irrigated	Average acre-feet per acre
United States 2023	32,742	18,118,401	1.1	12,263	7,239,765	1.2	16,814	8,668,621	1.1	2,190	840,579	1.3
..... 2018	31,890	17,675,276	1.0	12,298	6,749,595	1.1	15,785	8,730,614	0.9	2,342	782,944	1.0
2023 DATA												
Alabama	323	103,183	0.7	95	38,015	0.5	191	53,613	0.7	30	8,580	1.1
Alaska	3	(D)	(D)	1	(D)	(D)	2	(D)	(D)	-	-	-
Arizona	52	64,844	3.7	51	(D)	(D)	1	(D)	(D)	-	-	-
Arkansas	119	64,696	0.7	49	38,870	0.6	49	19,386	0.7	21	6,440	0.7
California	361	51,969	1.9	285	23,975	2.0	72	27,974	1.8	-	-	-
Colorado	1,291	846,475	1.5	421	181,957	1.4	667	539,706	1.6	57	52,991	1.6
Connecticut	11	21	1.0	3	3	1.0	8	18	1.0	-	-	-
Delaware	225	96,965	0.7	59	17,336	0.6	155	70,881	0.7	5	725	0.7
Florida	444	159,875	1.0	137	67,628	0.8	273	83,607	1.0	33	3,750	0.5
Georgia	1,230	654,228	1.3	261	255,933	1.9	862	352,455	1.0	55	9,240	0.9
Hawaii	42	(D)	(D)	14	(D)	(D)	28	154	1.2	-	-	-
Idaho	1,451	1,282,076	1.6	538	466,864	1.5	721	593,010	1.6	150	129,778	1.8
Illinois	1,059	594,498	0.6	222	109,861	0.5	785	440,119	0.6	33	23,818	0.5
Indiana	1,228	516,025	0.5	281	145,858	0.5	811	301,820	0.5	92	29,627	0.5
Iowa	498	199,350	0.5	203	70,001	0.5	217	103,229	0.5	64	8,196	0.5
Kansas	2,773	1,882,917	1.1	1,881	1,434,097	1.1	730	365,338	1.1	104	6,071	1.0
Kentucky	117	69,071	0.5	27	12,329	0.3	69	37,091	0.6	14	(D)	0.5
Louisiana	11	1,355	(D)	5	(D)	0.7	6	(D)	0.7	-	-	-
Maine	24	2,932	0.3	11	125	(D)	4	827	0.1	9	1,980	(D)
Maryland	252	86,941	0.5	121	40,568	0.5	111	35,607	0.5	8	3,255	0.3
Massachusetts	104	900	0.6	36	252	0.5	68	648	0.6	-	-	-
Michigan	934	420,389	0.6	82	34,185	0.5	644	251,088	0.6	187	92,821	0.7
Minnesota	1,257	458,462	0.7	551	156,338	0.7	535	226,139	0.7	122	26,553	0.7
Mississippi	73	31,208	0.7	31	19,952	(D)	42	11,256	(D)	-	-	-
Missouri	559	309,717	0.6	111	54,278	0.7	362	213,251	0.6	45	7,916	0.6
Montana	503	171,806	1.1	168	53,793	1.2	270	105,643	1.0	44	6,490	0.9
Nebraska	8,308	4,733,830	0.9	1,739	1,078,524	1.0	5,451	2,931,151	0.9	509	172,817	0.7
Nevada	97	64,965	2.6	10	8,950	2.4	87	56,015	2.6	-	-	-
New Hampshire	3	30	3	3	30	0.2	-	-	-	-	-	-
New Jersey	102	10,978	0.5	53	(D)	0.4	44	(D)	0.4	4	3,000	0.8
New Mexico	286	154,149	1.6	205	114,477	1.8	81	39,672	1.3	-	-	-
New York	48	838	1.3	1	(D)	(D)	24	670	(D)	23	(D)	(D)
North Carolina	262	85,877	0.7	77	26,085	0.7	160	54,214	0.6	17	3,978	0.5
North Dakota	393	209,031	0.7	106	51,617	0.6	240	128,442	0.7	25	5,190	0.8
Ohio	119	24,579	0.5	39	3,608	0.5	71	18,196	0.5	9	2,775	0.5
Oklahoma	861	348,574	1.3	506	237,243	1.3	303	80,151	1.6	-	-	-
Oregon	474	281,048	2.1	268	144,059	1.9	162	133,599	2.3	44	3,390	1.0
Pennsylvania	33	3,203	0.5	-	-	-	10	1,371	0.5	23	1,832	0.5
Rhode Island	7	10	1.0	4	4	1.0	3	6	1.0	-	-	-
South Carolina	280	143,194	0.8	110	41,441	0.8	138	92,103	0.8	-	-	-
South Dakota	857	347,417	0.7	189	78,952	0.5	521	215,338	0.7	100	23,545	0.7
Tennessee	250	138,311	0.4	117	48,179	0.4	125	82,965	0.4	8	7,167	0.3
Texas	3,273	2,069,924	1.3	2,485	1,638,711	1.2	603	306,144	1.3	90	33,830	2.2
Utah	464	258,980	2.9	177	84,220	3.0	287	174,760	2.9	-	-	-
Vermont	6	9	1.0	3	6	1.0	3	3	1.0	-	-	-
Virginia	98	22,365	0.5	58	10,874	0.4	40	11,491	0.6	-	-	-
Washington	673	729,693	2.2	218	348,636	2.0	316	241,059	2.2	103	98,130	3.0
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	649	364,232	0.9	137	59,714	0.8	345	190,539	1.0	138	50,605	0.7
Wyoming	255	56,558	1.7	114	12,887	1.2	117	33,327	1.8	24	10,344	2.1
Water Resource Regions												
Region 01 New England	152	3,896	0.4	57	414	(D)	86	1,502	0.4	9	1,980	(D)
Region 02 Mid-Atlantic	727	218,095	0.6	265	70,034	0.5	380	122,696	0.6	63	8,906	0.6
Region 03 South Atlantic-Gulf	2,486	1,119,588	1.1	677	407,010	1.5	1,580	632,515	0.9	129	24,348	0.9
Region 04 Great Lakes	1,369	586,622	0.6	123	55,330	0.5	939	359,713	0.6	259	110,624	0.6
Region 05 Ohio	952	413,056	0.6	281	111,084	0.5	612	253,033	0.6	35	14,669	0.3
Region 06 Tennessee	160	54,243	0.4	38	(D)	(D)	108	(D)	(D)	14	8,367	(D)
Region 07 Upper Mississippi	3,318	1,513,277	0.7	1,047	382,206	0.6	1,808	887,566	0.7	363	110,265	0.7
Region 08 Lower Mississippi	457	323,669	0.6	179	101,558	0.5	253	202,249	0.6	7	560	0.4
Region 09 Souris-Red-Rainy	337	166,927	0.7	119	49,309	0.7	155	95,183	0.7	40	10,535	0.5
Region 10 Missouri	12,216	6,585,687	0.9	3,116	1,699,776	0.9	7,441	3,906,567	1.0	779	256,781	0.9
Region 11 Arkansas-White-Red	3,895	3,109,349	1.3	2,755	2,381,943	1.3	980	560,190	1.3	56	9,450	0.9
Region 12 Texas-Gulf	2,362	972,661	1.1	1,730	746,619	1.1	468	169,993	1.1	90	33,830	2.2
Region 13 Rio Grande	347	205,253	1.7	144	62,046	1.7	198	128,157	1.8	5	15,050	1.2
Region 14 Upper Colorado	308	93,715	2.0	151	46,818	2.3	132	46,096	1.6	22	66	1.7
Region 15 Lower Colorado	96	77,780	3.7	73	(D)	(D)	23	(D)	(D)	-	-	-
Region 16 Great Basin	499	308,015	2.8	167	74,710	2.8	332	233,305	2.8	-	-	-
Region 17 Pacific Northwest	2,645	2,310,736	1.9	1,031	962,819	1.8	1,217	978,477	1.8	319	235,148	2.3
Region 18 California	371	55,129	2.0	295	27,135	2.1	72	27,974	1.8	-	-	-
Region 19 Alaska	3	(D)	(D)	1	(D)	(D)	2	(D)	(D)	-	-	-
Region 20 Hawaii	42	(D)	(D)	14	(D)	(D)	28	154	1.2	-	-	-

--continued

Table 37. Estimated Quantity of Water Applied in the Open Using Only Sprinkler Systems: 2023 and 2018
(continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Only linear move tower systems								
	All pressures			Only low pressure under 30 psi			Only medium to high pressure 30 psi or more		
	Farms	Acres irrigated	Average acre-feet per acre	Farms	Acres irrigated	Average acre-feet per acre	Farms	Acres irrigated	Average acre-feet per acre
United States .....2023	2,159	279,010	1.7	812	132,665	1.4	1,347	146,345	1.9
.....2018	1,528	123,161	2.3	584	46,486	1.5	941	76,054	2.8
2023 DATA									
Alabama	-	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-
Arizona	21	594	5.2	21	594	5.2	-	-	-
Arkansas	6	600	1.2	6	600	1.2	-	-	-
California	221	42,430	3.7	67	10,580	2.5	154	31,850	4.2
Colorado	1	(D)	(D)	1	(D)	(D)	-	-	-
Connecticut	12	212	(D)	12	212	(D)	-	-	-
Delaware	14	5,105	0.5	5	1,815	0.5	9	3,290	0.6
Florida	61	1,454	0.7	-	-	-	61	1,454	0.7
Georgia	54	6,453	0.4	54	6,453	0.4	-	-	-
Hawaii	15	(D)	1.0	-	-	-	15	(D)	1.0
Idaho	173	20,600	1.9	54	12,096	1.4	119	8,504	2.7
Illinois	14	560	1.7	14	560	1.7	-	-	-
Indiana	35	6,528	0.4	19	6,400	0.4	16	128	0.3
Iowa	39	3,262	0.5	21	3,234	0.5	18	28	1.0
Kansas	14	17,500	1.6	14	17,500	1.6	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	12	60	0.4	12	60	0.4	-	-	-
Maine	-	-	-	-	-	-	-	-	-
Maryland	16	1,356	0.5	11	1,311	0.5	5	45	0.6
Massachusetts	19	305	0.5	2	(D)	(D)	17	(D)	(D)
Michigan	19	19	1.0	-	-	-	19	19	1.0
Minnesota	32	208	0.3	-	-	-	32	208	0.3
Mississippi	18	592	0.3	10	(D)	(D)	8	(D)	(D)
Missouri	-	-	-	-	-	-	-	-	-
Montana	21	84	0.8	21	84	0.8	-	-	-
Nebraska	58	12,470	0.7	29	8,700	0.7	29	3,770	0.8
Nevada	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	23	23	1.0	-	-	-	23	23	1.0
New Mexico	-	-	-	-	-	-	-	-	-
New York	-	-	-	-	-	-	-	-	-
North Carolina	3	150	1.2	3	150	1.2	-	-	-
North Dakota	5	275	0.5	5	275	0.5	-	-	-
Ohio	-	-	-	-	-	-	-	-	-
Oklahoma	59	1,165	1.2	30	150	1.2	29	1,015	1.2
Oregon	277	12,332	1.3	92	10,593	1.3	185	1,739	0.8
Pennsylvania	23	360	0.5	3	60	0.3	20	300	0.5
Rhode Island	2	(D)	(D)	-	-	-	2	(D)	(D)
South Carolina	74	1,092	0.4	74	1,092	0.4	-	-	-
South Dakota	2	(D)	(D)	2	(D)	(D)	-	-	-
Tennessee	-	-	-	-	-	-	-	-	-
Texas	284	108,790	1.3	119	38,694	1.5	165	70,096	1.2
Utah	351	13,055	2.0	21	1,260	5.4	330	11,795	1.7
Vermont	4	(D)	1.0	4	(D)	1.0	-	-	-
Virginia	2	(D)	(D)	-	-	-	2	(D)	(D)
Washington	136	9,865	1.4	69	4,773	2.2	67	5,092	0.6
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	22	4,900	0.8	-	-	-	22	4,900	0.8
Wyoming	17	5,100	1.9	17	5,100	1.9	-	-	-
Water Resource Regions									
Region 01 New England	33	1,507	0.7	14	250	0.9	19	1,257	0.7
Region 02 Mid-Atlantic	78	7,204	0.5	19	3,186	0.5	59	4,018	0.5
Region 03 South Atlantic-Gulf	210	9,741	0.4	141	7,935	0.4	69	1,806	0.6
Region 04 Great Lakes	23	(D)	1.0	4	4	1.0	19	(D)	1.0
Region 05 Ohio	32	1,728	0.2	16	1,600	0.2	16	128	0.3
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	89	10,496	0.7	17	5,360	0.6	72	5,136	0.8
Region 08 Lower Mississippi	12	60	0.4	12	60	0.4	-	-	-
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	104	21,116	1.0	75	17,346	1.0	29	3,770	0.8
Region 11 Arkansas-White-Red	152	78,733	1.5	101	35,780	1.7	51	42,953	1.3
Region 12 Texas-Gulf	164	48,607	1.2	45	21,049	1.2	119	27,558	1.1
Region 13 Rio Grande	47	715	0.9	23	115	0.2	24	600	1.0
Region 14 Upper Colorado	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	43	1,034	3.9	21	594	5.2	22	440	2.1
Region 16 Great Basin	387	17,984	2.3	21	1,260	5.4	366	16,724	2.1
Region 17 Pacific Northwest	529	37,472	1.4	236	27,546	1.5	293	9,926	1.1
Region 18 California	241	42,470	3.7	67	10,580	2.5	174	31,890	4.2
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	15	(D)	1.0	-	-	-	15	(D)	1.0

--continued

Table 37. Estimated Quantity of Water Applied in the Open Using Only Sprinkler Systems: 2023 and 2018
(continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Only solid set and permanent systems								
	All pressures			Only low pressure under 30 psi			Only medium to high pressure 30 psi or more		
	Farms	Acres irrigated	Average acre-feet per acre	Farms	Acres irrigated	Average acre-feet per acre	Farms	Acres irrigated	Average acre-feet per acre
United States .....2023	8,722	555,504	2.1	3,004	141,203	1.9	5,645	413,280	2.1
.....2018	10,016	614,055	2.0	2,466	176,676	1.9	7,218	400,866	2.0
2023 DATA									
Alabama	21	478	1.3	-	-	-	20	471	1.3
Alaska	7	21	1.0	-	-	-	7	21	1.0
Arizona	24	22,330	3.8	-	-	-	24	22,330	3.8
Arkansas	19	160	0.7	9	16	0.6	10	144	0.7
California	2,715	218,066	2.4	876	41,010	2.4	1,781	176,202	2.4
Colorado	64	667	1.5	37	467	1.3	27	200	1.9
Connecticut	21	(D)	(D)	4	20	(D)	12	(D)	(D)
Delaware	4	3,172	0.8	-	-	-	4	3,172	0.8
Florida	851	19,779	1.6	375	15,310	1.5	476	4,469	1.9
Georgia	177	19,648	1.5	67	396	0.7	110	19,252	1.5
Hawaii	23	615	1.0	-	-	-	23	615	1.0
Idaho	462	6,865	1.2	210	3,585	1.0	252	3,280	1.4
Illinois	25	35	(D)	15	15	2.0	10	20	(D)
Indiana	34	391	0.8	34	391	0.8	-	-	-
Iowa	21	105	1.0	21	105	1.0	-	-	-
Kansas	-	-	-	-	-	-	-	-	-
Kentucky	28	154	1.0	9	128	0.8	19	26	1.7
Louisiana	100	1,667	0.5	18	68	0.4	82	1,599	0.5
Maine	11	(D)	0.3	5	(D)	1.5	6	(D)	0.3
Maryland	5	(D)	1.0	-	-	-	5	(D)	1.0
Massachusetts	107	3,555	1.1	11	988	1.2	87	2,432	1.2
Michigan	170	10,474	1.2	77	7,848	1.3	93	2,626	1.0
Minnesota	69	330	1.1	61	274	1.1	8	56	0.9
Mississippi	18	276	0.6	10	58	0.5	8	218	0.6
Missouri	2	(D)	(D)	-	-	-	2	(D)	(D)
Montana	111	207	0.7	25	121	0.5	86	86	1.0
Nebraska	38	66,718	0.8	-	-	-	38	66,718	0.8
Nevada	33	312	5.2	2	(D)	(D)	31	(D)	(D)
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	79	2,105	0.6	56	264	1.4	23	1,841	0.4
New Mexico	59	8,556	2.0	22	7,480	1.8	37	1,076	3.0
New York	57	210	1.2	56	(D)	(D)	1	(D)	(D)
North Carolina	125	13,209	1.1	84	9,835	1.0	41	3,374	1.1
North Dakota	5	25	1.4	-	-	-	5	25	1.4
Ohio	37	887	0.6	15	569	0.4	22	318	1.0
Oklahoma	38	2,416	1.0	30	2,400	1.0	8	16	3.0
Oregon	887	22,270	1.8	177	9,975	1.5	710	12,295	2.1
Pennsylvania	7	646	0.2	-	-	-	7	646	0.2
Rhode Island	9	922	(D)	6	(D)	(D)	3	(D)	(D)
South Carolina	26	525	0.6	25	(D)	(D)	1	(D)	(D)
South Dakota	11	191	0.6	8	26	0.8	3	165	0.5
Tennessee	61	1,686	0.8	6	1,421	0.8	55	265	0.8
Texas	222	3,508	0.8	78	1,648	1.1	144	1,860	0.5
Utah	154	1,068	1.9	25	486	2.5	129	582	1.4
Vermont	4	20	0.4	-	-	-	4	20	0.4
Virginia	46	574	1.1	12	120	0.4	34	454	1.2
Washington	1,606	109,211	2.8	537	35,505	2.5	1,069	73,706	2.9
West Virginia	3	3	1.0	-	-	-	3	3	1.0
Wisconsin	109	5,835	1.2	1	(D)	(D)	108	(D)	(D)
Wyoming	17	136	1.0	-	-	-	17	136	1.0
Water Resource Regions									
Region 01 New England	152	9,958	0.7	26	1,340	1.2	112	8,458	0.7
Region 02 Mid-Atlantic	143	6,338	0.7	96	448	1.3	47	5,890	0.7
Region 03 South Atlantic-Gulf	1,242	53,904	1.4	570	25,799	1.3	671	28,098	1.5
Region 04 Great Lakes	208	11,479	1.2	110	8,453	1.2	98	3,026	1.0
Region 05 Ohio	133	1,393	0.8	29	887	0.8	104	506	0.8
Region 06 Tennessee	3	725	0.9	3	725	0.9	-	-	-
Region 07 Upper Mississippi	243	6,672	1.2	115	756	1.0	128	5,916	1.2
Region 08 Lower Mississippi	112	1,835	0.5	26	88	0.4	86	1,747	0.5
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	153	67,678	0.8	68	612	1.2	85	67,066	0.8
Region 11 Arkansas-White-Red	71	2,549	1.0	32	2,402	1.0	39	147	1.2
Region 12 Texas-Gulf	230	4,385	1.3	78	1,648	1.1	152	2,737	1.4
Region 13 Rio Grande	28	7,564	1.8	22	7,480	1.8	6	84	3.0
Region 14 Upper Colorado	32	211	1.8	-	-	-	32	211	1.8
Region 15 Lower Colorado	51	22,539	3.8	-	-	-	51	22,539	3.8
Region 16 Great Basin	155	1,160	2.8	27	488	2.5	128	672	3.0
Region 17 Pacific Northwest	3,021	138,412	2.5	926	49,067	2.2	2,095	89,345	2.7
Region 18 California	2,715	218,066	2.4	876	41,010	2.4	1,781	176,202	2.4
Region 19 Alaska	7	21	1.0	-	-	-	7	21	1.0
Region 20 Hawaii	23	615	1.0	-	-	-	23	615	1.0

--continued

Table 37. Estimated Quantity of Water Applied in the Open Using Only Sprinkler Systems: 2023 and 2018
(continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Mechanical Move Systems						Only hand move systems			Only other sprinkler systems		
	Only side roll, wheel move, or other mechanical move systems			Only big gun or traveler systems			Farms	Acres irrigated	Average acre-feet per acre	Farms	Acres irrigated	Average acre-feet per acre
	Farms	Acres irrigated	Average acre-feet per acre	Farms	Acres irrigated	Average acre-feet per acre						
United States .....2023	6,116	513,467	1.5	3,176	254,024	1.0	14,403	120,436	1.4	1,332	50,451	1.8
.....2018	6,234	499,268	1.5	3,456	269,030	0.9	13,234	183,221	1.4	3,704	131,549	1.6
2023 DATA												
Alabama	23	2,530	0.3	-	-	-	144	2,694	1.2	22	1,510	0.4
Alaska	1	(D)	(D)	1	(D)	(D)	52	231	0.5	-	-	-
Arizona	24	1,535	3.7	-	-	-	472	2,404	2.3	-	-	-
Arkansas	-	-	-	16	965	0.6	90	245	0.7	-	-	-
California	161	40,313	1.5	25	275	0.4	819	3,904	1.8	150	12,920	3.8
Colorado	339	23,208	1.3	118	565	2.1	365	2,221	1.2	50	925	1.5
Connecticut	-	-	-	10	44	(D)	109	229	0.8	7	7	1.4
Delaware	5	125	0.6	12	620	0.5	-	-	-	-	-	-
Florida	-	-	-	109	14,720	1.4	687	4,445	1.3	257	3,352	1.5
Georgia	44	8,466	0.7	6	108	1.4	145	1,587	0.8	-	-	-
Hawaii	-	-	-	-	-	-	229	521	0.9	47	(D)	(D)
Idaho	905	103,616	1.6	84	4,956	1.7	1,025	7,057	1.2	79	973	1.3
Illinois	-	-	-	-	-	-	161	237	1.5	14	14	2.0
Indiana	-	-	-	68	3,032	0.6	95	302	0.5	12	12	1.0
Iowa	53	4,923	0.5	-	-	-	61	91	1.3	-	-	-
Kansas	-	-	-	-	-	-	69	98	1.0	22	106	0.6
Kentucky	-	-	-	57	3,199	0.6	93	321	1.1	-	-	-
Louisiana	-	-	-	-	-	-	83	328	0.7	11	115	0.6
Maine	-	-	-	2	(D)	(D)	95	111	0.9	5	5	1.0
Maryland	1	(D)	(D)	13	755	0.2	62	106	0.7	4	2,448	0.5
Massachusetts	9	144	0.3	10	(D)	0.6	71	284	0.8	11	267	0.2
Michigan	20	(D)	(D)	74	5,440	0.4	395	1,371	0.6	-	-	-
Minnesota	11	3,784	0.4	35	684	0.7	105	194	0.7	19	966	0.9
Mississippi	9	153	0.9	22	1,032	0.3	107	245	0.7	5	43	0.4
Missouri	-	-	-	34	995	0.9	67	145	0.8	-	-	-
Montana	521	48,436	1.1	25	354	0.9	766	8,132	1.0	-	-	-
Nebraska	3	90	0.9	39	2,572	0.8	74	77	1.4	10	10	1.7
Nevada	123	6,524	2.6	31	124	4.0	3	3	1.0	-	-	-
New Hampshire	4	4	1.0	5	266	0.3	52	93	0.7	18	22	0.8
New Jersey	24	6,960	0.9	78	4,468	0.6	135	591	0.9	1	(D)	(D)
New Mexico	288	7,182	1.9	-	-	-	674	1,824	1.8	63	219	1.2
New York	-	-	-	54	6,113	0.2	238	425	0.8	-	-	-
North Carolina	72	2,125	1.9	280	10,088	1.0	491	2,382	0.9	3	120	0.9
North Dakota	9	2,450	0.7	8	204	1.5	9	10	1.0	-	-	-
Ohio	18	522	0.8	48	2,058	0.9	204	930	0.5	-	-	-
Oklahoma	20	6,060	1.9	59	2,640	0.6	58	609	0.4	-	-	-
Oregon	832	90,416	1.7	719	76,493	1.2	1,978	23,543	1.0	169	13,117	0.7
Pennsylvania	-	-	-	42	2,334	0.4	105	132	0.9	40	320	0.4
Rhode Island	7	33	0.5	4	623	0.4	31	108	1.0	-	-	-
South Carolina	24	456	0.7	24	480	1.0	73	147	0.8	50	(D)	(D)
South Dakota	27	3,240	1.9	-	-	-	28	66	1.3	-	-	-
Tennessee	-	-	-	26	(D)	(D)	128	216	1.4	25	125	1.8
Texas	182	31,091	1.3	121	5,970	0.9	429	26,664	2.1	25	3,760	(D)
Utah	1,422	65,608	2.0	130	1,425	1.2	1,196	8,086	1.7	-	-	-
Vermont	-	-	-	1	(D)	(D)	37	58	0.8	-	-	-
Virginia	10	300	0.8	96	16,023	0.7	227	419	0.8	-	-	-
Washington	621	39,366	1.6	632	77,318	0.8	1,526	15,471	1.6	210	4,346	1.8
West Virginia	-	-	-	9	261	0.8	42	165	0.8	-	-	-
Wisconsin	-	-	-	31	943	0.2	239	694	0.4	-	-	-
Wyoming	304	12,509	1.4	18	3,224	2.0	59	220	0.6	3	240	1.3
Water Resource Regions												
Region 01 New England	20	181	0.3	32	3,053	0.4	361	828	0.8	41	301	0.3
Region 02 Mid-Atlantic	40	8,593	0.8	265	29,394	0.5	494	1,203	0.9	45	4,268	0.4
Region 03 South Atlantic-Gulf	172	13,730	0.8	456	26,232	1.2	1,548	11,401	1.1	337	6,574	1.1
Region 04 Great Lakes	20	(D)	(D)	147	8,322	0.4	738	2,442	0.5	-	-	-
Region 05 Ohio	18	522	0.8	122	4,779	0.8	427	1,186	0.8	12	12	1.0
Region 06 Tennessee	-	-	-	33	889	0.5	246	394	1.2	25	125	1.8
Region 07 Upper Mississippi	42	5,407	0.4	64	2,903	0.7	490	1,088	0.7	33	980	0.9
Region 08 Lower Mississippi	-	-	-	9	(D)	(D)	112	438	0.6	11	115	0.6
Region 09 Souris-Red-Rainy	5	650	1.0	-	-	-	17	26	0.8	-	-	-
Region 10 Missouri	572	53,528	1.2	92	7,035	1.4	527	2,213	1.5	12	16	1.4
Region 11 Arkansas-White-Red	42	6,126	1.9	102	7,208	0.7	211	1,444	0.5	20	(D)	0.6
Region 12 Texas-Gulf	182	31,091	1.3	97	2,370	0.9	424	26,661	2.1	25	3,760	(D)
Region 13 Rio Grande	69	4,429	1.9	-	-	-	134	208	1.3	63	219	1.2
Region 14 Upper Colorado	892	48,327	1.7	110	462	2.4	874	2,940	1.9	53	1,165	1.4
Region 15 Lower Colorado	80	2,335	3.5	31	124	4.0	512	2,370	2.3	-	-	-
Region 16 Great Basin	1,304	50,922	1.9	155	4,784	1.7	1,186	9,283	1.5	-	-	-
Region 17 Pacific Northwest	2,396	236,108	1.6	1,435	155,762	1.0	4,982	51,555	1.2	438	18,376	1.0
Region 18 California	261	51,428	1.5	25	275	0.4	839	4,004	1.8	170	12,980	3.8
Region 19 Alaska	1	(D)	(D)	1	(D)	(D)	52	231	0.5	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	229	521	0.9	47	(D)	(D)

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Corn for grain or seed						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			1 to 99 acres	100 to 249 acres	250 to 499 acres	500 to 999 acres	1,000 acres or more
United States 2023	30,089	11,641,724	8,317	8,968	6,212	3,928	2,664
..... 2018	31,828	11,610,238	8,764	9,519	6,583	4,522	2,440
2023 DATA							
Alabama	203	46,636	83	71	33	4	12
Alaska	-	-	-	-	-	-	-
Arizona	29	32,396	24	1	1	-	3
Arkansas	1,241	712,483	96	249	326	379	191
California	203	65,055	49	75	55	11	13
Colorado	1,192	501,507	269	455	124	245	99
Connecticut	-	-	-	-	-	-	-
Delaware	281	67,164	106	84	50	34	7
Florida	113	51,317	-	30	40	39	4
Georgia	757	267,209	197	218	196	105	41
Hawaii	15	1,142	12	1	1	1	-
Idaho	448	78,099	281	85	42	22	18
Illinois	1,140	406,618	307	375	204	150	104
Indiana	1,199	308,165	550	285	172	146	46
Iowa	510	139,614	190	143	54	110	13
Kansas	2,476	1,145,431	531	804	503	312	326
Kentucky	107	40,923	37	27	23	4	16
Louisiana	511	377,187	36	104	106	118	147
Maine	-	-	-	-	-	-	-
Maryland	279	55,381	107	98	51	17	6
Massachusetts	-	-	-	-	-	-	-
Michigan	1,049	274,683	484	291	160	62	52
Minnesota	1,191	302,357	458	377	209	102	45
Mississippi	554	354,588	41	156	114	114	129
Missouri	871	398,800	204	192	267	98	110
Montana	88	20,233	28	33	15	12	-
Nebraska	10,597	4,440,928	2,389	3,266	2,513	1,432	997
Nevada	43	4,215	32	1	10	-	-
New Hampshire	5	325	5	-	-	-	-
New Jersey	62	9,241	40	8	11	1	2
New Mexico	35	19,736	6	-	-	21	8
New York	59	810	56	3	-	-	-
North Carolina	258	38,394	174	37	27	15	5
North Dakota	320	106,949	63	123	81	32	21
Ohio	105	13,404	69	22	11	2	1
Oklahoma	236	84,603	4	132	71	20	9
Oregon	260	48,771	181	43	20	10	6
Pennsylvania	57	2,406	51	6	-	-	-
Rhode Island	-	-	-	-	-	-	-
South Carolina	273	57,247	155	53	27	27	11
South Dakota	716	200,709	134	285	215	78	4
Tennessee	242	62,741	36	141	29	33	3
Texas	919	563,705	204	214	264	80	157
Utah	221	25,710	109	89	23	-	-
Vermont	-	-	-	-	-	-	-
Virginia	94	14,064	43	36	11	3	1
Washington	209	103,283	75	50	30	32	22
West Virginia	-	-	-	-	-	-	-
Wisconsin	634	159,574	244	212	100	47	31
Wyoming	287	37,921	157	93	23	10	4
Water Resource Regions							
Region 01 New England	5	325	5	-	-	-	-
Region 02 Mid-Atlantic	765	146,971	339	232	123	55	16
Region 03 South Atlantic-Gulf	1,565	443,794	604	382	326	189	64
Region 04 Great Lakes	1,574	361,305	797	428	193	91	65
Region 05 Ohio	868	234,940	367	220	154	91	36
Region 06 Tennessee	141	33,835	31	94	6	1	9
Region 07 Upper Mississippi	3,289	963,135	1,154	1,014	546	382	193
Region 08 Lower Mississippi	2,689	1,613,157	259	637	652	620	521
Region 09 Souris-Red-Rainy	276	94,495	77	79	70	33	17
Region 10 Missouri	14,145	5,605,354	3,362	4,545	3,185	1,869	1,184
Region 11 Arkansas-White-Red	2,758	1,614,090	395	829	600	475	459
Region 12 Texas-Gulf	457	154,818	110	107	157	46	37
Region 13 Rio Grande	30	276	30	-	-	-	-
Region 14 Upper Colorado	108	23,142	22	44	41	-	1
Region 15 Lower Colorado	32	32,840	24	4	1	-	3
Region 16 Great Basin	241	21,645	141	90	10	-	-
Region 17 Pacific Northwest	931	231,849	539	190	92	64	46
Region 18 California	200	64,611	49	72	55	11	13
Region 19 Alaska	-	-	-	-	-	-	-
Region 20 Hawaii	15	1,142	12	1	1	1	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Corn for silage or greenchop						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			1 to 24 acres	25 to 49 acres	50 to 99 acres	100 to 249 acres	250 acres or more
United States 2023	6,819	1,909,521	996	743	1,091	1,851	2,138
..... 2018	7,930	1,648,789	974	1,191	1,762	2,142	1,861
2023 DATA							
Alabama	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-
Arizona	155	72,539	37	-	-	41	77
Arkansas	9	591	3	-	6	-	-
California	1,483	519,228	74	107	288	385	629
Colorado	525	149,586	52	18	48	180	227
Connecticut	-	-	-	-	-	-	-
Delaware	10	1,050	-	-	5	5	-
Florida	39	7,640	-	30	-	8	1
Georgia	28	10,725	-	-	-	-	28
Hawaii	-	-	-	-	-	-	-
Idaho	915	284,691	121	85	188	225	296
Illinois	8	72	8	-	-	-	-
Indiana	70	12,757	8	17	17	16	12
Iowa	21	714	-	21	-	-	-
Kansas	301	98,779	-	-	27	166	108
Kentucky	7	1,540	-	-	-	7	-
Louisiana	-	-	-	-	-	-	-
Maine	-	-	-	-	-	-	-
Maryland	3	1,702	-	-	-	-	3
Massachusetts	-	-	-	-	-	-	-
Michigan	157	29,241	18	36	23	48	32
Minnesota	94	10,601	8	4	40	42	-
Mississippi	-	-	-	-	-	-	-
Missouri	-	-	-	-	-	-	-
Montana	175	32,405	-	21	56	64	34
Nebraska	849	119,913	290	87	185	177	110
Nevada	84	7,805	31	1	9	42	1
New Hampshire	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-
New Mexico	138	54,428	31	-	57	-	50
New York	1	(D)	-	-	-	-	1
North Carolina	22	880	-	22	-	-	-
North Dakota	61	7,780	-	13	19	20	9
Ohio	12	4,298	-	-	-	7	5
Oklahoma	59	32,220	-	-	-	-	59
Oregon	203	46,653	69	11	14	63	46
Pennsylvania	21	2,387	2	7	6	3	3
Rhode Island	-	-	-	-	-	-	-
South Carolina	6	600	-	-	-	6	-
South Dakota	48	7,520	26	-	-	20	2
Tennessee	-	-	-	-	-	-	-
Texas	357	202,710	-	5	15	117	220
Utah	356	61,121	65	176	-	47	68
Vermont	-	-	-	-	-	-	-
Virginia	27	2,354	8	-	11	7	1
Washington	290	84,553	86	20	57	53	74
West Virginia	-	-	-	-	-	-	-
Wisconsin	124	27,579	-	30	-	64	30
Wyoming	161	12,519	59	32	20	38	12
Water Resource Regions							
Region 01 New England	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	61	7,493	10	7	22	15	7
Region 03 South Atlantic-Gulf	95	19,845	-	52	-	14	29
Region 04 Great Lakes	227	44,322	18	66	23	71	49
Region 05 Ohio	19	1,703	-	-	17	-	2
Region 06 Tennessee	-	-	-	-	-	-	-
Region 07 Upper Mississippi	241	39,577	24	42	40	106	29
Region 08 Lower Mississippi	10	1,591	3	-	-	7	-
Region 09 Souris-Red-Rainy	16	1,760	-	5	4	4	3
Region 10 Missouri	1,749	333,641	405	166	324	468	386
Region 11 Arkansas-White-Red	561	268,340	5	5	33	210	308
Region 12 Texas-Gulf	258	85,174	-	-	46	90	122
Region 13 Rio Grande	70	12,423	31	-	26	5	8
Region 14 Upper Colorado	47	16,740	-	44	-	2	1
Region 15 Lower Colorado	162	76,034	37	-	-	41	84
Region 16 Great Basin	445	70,471	113	133	35	95	69
Region 17 Pacific Northwest	1,382	414,674	276	116	233	338	419
Region 18 California	1,476	515,733	74	107	288	385	622
Region 19 Alaska	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Sorghum for grain or seed						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			1 to 49 acres	50 to 99 acres	100 to 249 acres	250 to 499 acres	500 acres or more
United States 2023	2,063	430,947	630	239	668	329	197
..... 2018	1,594	286,851	417	239	688	154	96
2023 DATA							
Alabama	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-
Arizona	1	(D)	-	-	-	-	1
Arkansas	32	2,512	10	12	10	-	-
California	14	12,181	-	-	3	1	10
Colorado	197	27,398	79	35	41	36	6
Connecticut	-	-	-	-	-	-	-
Delaware	5	638	-	2	3	-	-
Florida	30	150	30	-	-	-	-
Georgia	51	7,271	27	-	1	23	-
Hawaii	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-
Illinois	5	30	5	-	-	-	-
Indiana	35	536	34	-	1	-	-
Iowa	-	-	-	-	-	-	-
Kansas	524	116,808	67	66	240	99	52
Kentucky	-	-	-	-	-	-	-
Louisiana	7	980	-	-	7	-	-
Maine	-	-	-	-	-	-	-
Maryland	7	391	2	5	-	-	-
Massachusetts	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-	-
Mississippi	-	-	-	-	-	-	-
Missouri	2	(D)	-	-	2	-	-
Montana	-	-	-	-	-	-	-
Nebraska	113	6,112	84	-	29	-	-
Nevada	1	(D)	-	-	-	-	1
New Hampshire	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-
New Mexico	130	20,029	86	23	-	-	21
New York	-	-	-	-	-	-	-
North Carolina	-	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-
Oklahoma	113	19,258	-	34	63	16	-
Oregon	27	495	19	8	-	-	-
Pennsylvania	4	8	4	-	-	-	-
Rhode Island	-	-	-	-	-	-	-
South Carolina	1	(D)	-	-	1	-	-
South Dakota	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-
Texas	740	213,202	159	54	267	154	106
Utah	24	128	24	-	-	-	-
Vermont	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-
Water Resource Regions							
Region 01 New England	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	16	1,037	6	7	3	-	-
Region 03 South Atlantic-Gulf	82	7,621	57	-	2	23	-
Region 04 Great Lakes	1	(D)	-	-	1	-	-
Region 05 Ohio	-	-	-	-	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-
Region 07 Upper Mississippi	39	438	39	-	-	-	-
Region 08 Lower Mississippi	22	(D)	10	-	12	-	-
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-
Region 10 Missouri	260	34,717	117	-	93	49	1
Region 11 Arkansas-White-Red	1,031	260,073	136	170	424	188	113
Region 12 Texas-Gulf	363	104,732	65	54	105	68	71
Region 13 Rio Grande	182	5,097	157	-	25	-	-
Region 14 Upper Colorado	-	-	-	-	-	-	-
Region 15 Lower Colorado	1	(D)	-	-	-	-	1
Region 16 Great Basin	25	728	24	-	-	-	1
Region 17 Pacific Northwest	27	495	19	8	-	-	-
Region 18 California	14	12,181	-	-	3	1	10
Region 19 Alaska	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Wheat for grain or seed						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			1 to 49 acres	50 to 99 acres	100 to 249 acres	250 to 499 acres	500 acres or more
United States 2023	7,960	2,143,635	1,469	1,375	2,940	1,196	980
..... 2018	8,760	2,311,703	1,742	1,619	2,724	1,641	1,034
2023 DATA							
Alabama	1	(D)	-	-	-	-	1
Alaska	2	(D)	2	-	-	-	-
Arizona	142	58,843	-	19	49	29	45
Arkansas	4	445	-	3	1	-	-
California	473	125,405	75	100	148	71	79
Colorado	391	51,269	70	60	225	27	9
Connecticut	-	-	-	-	-	-	-
Delaware	44	7,940	5	10	18	8	3
Florida	-	-	-	-	-	-	-
Georgia	70	35,477	-	1	54	-	15
Hawaii	-	-	-	-	-	-	-
Idaho	1,208	468,288	397	157	295	105	254
Illinois	54	16,158	16	13	1	-	24
Indiana	109	11,225	52	20	27	6	4
Iowa	-	-	-	-	-	-	-
Kansas	1,568	385,505	62	262	849	253	142
Kentucky	7	5,733	-	-	-	-	7
Louisiana	1	(D)	-	-	-	1	-
Maine	-	-	-	-	-	-	-
Maryland	59	7,436	15	13	26	2	3
Massachusetts	-	-	-	-	-	-	-
Michigan	219	26,386	90	38	74	12	5
Minnesota	15	4,435	8	-	5	-	2
Mississippi	8	1,600	-	-	8	-	-
Missouri	43	19,328	-	-	14	11	18
Montana	445	102,340	65	60	180	82	58
Nebraska	434	70,750	29	107	194	100	4
Nevada	15	8,292	1	9	-	2	3
New Hampshire	5	50	5	-	-	-	-
New Jersey	45	2,543	16	26	2	-	1
New Mexico	43	24,190	5	22	1	10	5
New York	-	-	-	-	-	-	-
North Carolina	79	4,449	71	-	3	4	1
North Dakota	113	21,228	15	22	48	19	9
Ohio	4	174	1	3	-	-	-
Oklahoma	319	113,028	4	42	143	61	69
Oregon	354	85,668	101	53	113	55	32
Pennsylvania	6	456	2	-	4	-	-
Rhode Island	-	-	-	-	-	-	-
South Carolina	18	3,348	-	-	15	3	-
South Dakota	19	1,819	-	18	-	-	1
Tennessee	28	3,936	-	25	-	2	1
Texas	839	277,648	48	118	356	211	106
Utah	350	22,646	215	114	-	-	21
Vermont	-	-	-	-	-	-	-
Virginia	16	392	9	7	-	-	-
Washington	388	170,971	90	38	83	119	58
West Virginia	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-
Wyoming	22	2,462	-	15	4	3	-
Water Resource Regions							
Region 01 New England	5	50	5	-	-	-	-
Region 02 Mid-Atlantic	170	18,767	47	56	50	10	7
Region 03 South Atlantic-Gulf	167	43,274	71	1	72	7	16
Region 04 Great Lakes	225	27,032	91	41	76	12	5
Region 05 Ohio	46	19,838	1	12	4	5	24
Region 06 Tennessee	1	(D)	-	-	-	-	1
Region 07 Upper Mississippi	131	14,241	75	21	27	1	7
Region 08 Lower Mississippi	75	25,094	-	25	22	3	25
Region 09 Souris-Red-Rainy	31	4,455	5	5	14	7	-
Region 10 Missouri	1,685	321,240	212	329	813	235	96
Region 11 Arkansas-White-Red	2,075	598,172	50	360	980	413	272
Region 12 Texas-Gulf	352	110,701	24	28	151	122	27
Region 13 Rio Grande	29	4,140	5	7	15	-	2
Region 14 Upper Colorado	45	(D)	43	-	-	-	2
Region 15 Lower Colorado	151	61,069	-	19	56	29	47
Region 16 Great Basin	342	31,240	193	123	-	2	24
Region 17 Pacific Northwest	1,941	726,521	550	248	519	279	345
Region 18 California	487	128,429	95	100	141	71	80
Region 19 Alaska	2	(D)	2	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Soybeans for beans						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			1 to 49 acres	50 to 99 acres	100 to 249 acres	250 to 499 acres	500 acres or more
United States 2023	20,417	8,190,426	2,410	3,480	6,363	3,724	4,440
..... 2018	21,316	8,215,031	2,040	3,666	6,677	4,356	4,577
2023 DATA							
Alabama	164	26,107	46	35	55	18	10
Alaska	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	-	-
Arkansas	2,104	2,385,373	77	107	217	242	1,461
California	-	-	-	-	-	-	-
Colorado	5	610	-	-	5	-	-
Connecticut	-	-	-	-	-	-	-
Delaware	265	42,818	36	86	105	23	15
Florida	-	-	-	-	-	-	-
Georgia	270	32,338	54	28	186	-	2
Hawaii	13	44	13	-	-	-	-
Idaho	-	-	-	-	-	-	-
Illinois	877	220,494	159	123	377	91	127
Indiana	919	198,775	220	169	319	114	97
Iowa	415	86,387	63	101	125	86	40
Kansas	1,309	270,451	107	251	568	282	101
Kentucky	67	27,997	-	18	23	7	19
Louisiana	551	385,000	24	11	107	116	293
Maine	-	-	-	-	-	-	-
Maryland	265	46,152	52	59	100	35	19
Massachusetts	-	-	-	-	-	-	-
Michigan	745	143,716	190	138	282	79	56
Minnesota	777	110,363	168	185	313	82	29
Mississippi	1,038	1,163,944	68	60	171	151	588
Missouri	969	644,367	71	112	208	178	400
Montana	24	3,135	-	-	24	-	-
Nebraska	7,624	2,015,309	635	1,610	2,490	1,851	1,038
Nevada	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-
New Jersey	53	4,161	33	8	6	6	-
New Mexico	-	-	-	-	-	-	-
New York	-	-	-	-	-	-	-
North Carolina	161	11,461	98	31	25	4	3
North Dakota	209	52,703	19	15	108	50	17
Ohio	55	7,031	5	27	15	8	-
Oklahoma	60	18,202	30	2	10	-	18
Oregon	-	-	-	-	-	-	-
Pennsylvania	41	1,244	31	6	4	-	-
Rhode Island	-	-	-	-	-	-	-
South Carolina	171	19,780	55	26	69	14	7
South Dakota	534	116,854	-	126	223	160	25
Tennessee	182	63,884	-	61	48	30	43
Texas	38	5,240	24	-	8	5	1
Utah	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-
Virginia	77	9,784	25	21	24	4	3
Washington	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-
Wisconsin	435	76,702	107	64	148	88	28
Wyoming	-	-	-	-	-	-	-
Water Resource Regions							
Region 01 New England	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	683	103,049	168	171	239	68	37
Region 03 South Atlantic-Gulf	698	76,314	262	100	282	39	15
Region 04 Great Lakes	1,099	197,389	317	234	366	102	80
Region 05 Ohio	644	166,463	73	140	263	75	93
Region 06 Tennessee	109	23,736	-	36	53	6	14
Region 07 Upper Mississippi	2,401	466,085	535	431	916	313	206
Region 08 Lower Mississippi	4,110	4,273,947	192	250	577	566	2,525
Region 09 Souris-Red-Rainy	180	33,709	14	31	96	36	3
Region 10 Missouri	9,139	2,318,105	730	1,962	3,126	2,196	1,125
Region 11 Arkansas-White-Red	1,313	530,025	82	125	441	323	342
Region 12 Texas-Gulf	28	1,560	24	-	4	-	-
Region 13 Rio Grande	-	-	-	-	-	-	-
Region 14 Upper Colorado	-	-	-	-	-	-	-
Region 15 Lower Colorado	-	-	-	-	-	-	-
Region 16 Great Basin	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	-	-	-	-	-	-
Region 18 California	-	-	-	-	-	-	-
Region 19 Alaska	-	-	-	-	-	-	-
Region 20 Hawaii	13	44	13	-	-	-	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Beans, dry edible						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			1 to 24 acres	25 to 49 acres	50 to 99 acres	100 to 249 acres	250 acres or more
United States 2023	1,647	314,147	362	185	228	491	381
..... 2018	2,275	416,608	304	362	464	602	543
2023 DATA							
Alabama	23	690	-	23	-	-	-
Alaska	-	-	-	-	-	-	-
Arizona	26	7,437	-	23	-	-	3
Arkansas	-	-	-	-	-	-	-
California	101	22,845	25	6	13	20	37
Colorado	196	29,256	32	-	22	105	37
Connecticut	-	-	-	-	-	-	-
Delaware	20	1,492	-	-	16	4	-
Florida	4	8	4	-	-	-	-
Georgia	27	27	27	-	-	-	-
Hawaii	-	-	-	-	-	-	-
Idaho	382	48,428	86	104	81	77	34
Illinois	22	1,334	14	-	-	8	-
Indiana	21	3,273	-	-	-	21	-
Iowa	-	-	-	-	-	-	-
Kansas	5	1,200	-	-	-	5	-
Kentucky	-	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-	-
Maine	5	20	5	-	-	-	-
Maryland	13	1,486	-	2	7	2	2
Massachusetts	9	9	9	-	-	-	-
Michigan	24	4,380	-	-	-	20	4
Minnesota	56	38,723	-	-	-	8	48
Mississippi	-	-	-	-	-	-	-
Missouri	7	42	7	-	-	-	-
Montana	1	(D)	-	-	-	-	1
Nebraska	252	67,775	-	-	30	107	115
Nevada	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-
New Mexico	73	290	73	-	-	-	-
New York	19	86	18	-	1	-	-
North Carolina	-	-	-	-	-	-	-
North Dakota	46	12,022	-	-	-	28	18
Ohio	-	-	-	-	-	-	-
Oklahoma	-	-	-	-	-	-	-
Oregon	42	4,702	20	8	10	1	3
Pennsylvania	2	(D)	2	-	-	-	-
Rhode Island	-	-	-	-	-	-	-
South Carolina	24	(D)	24	-	-	-	-
South Dakota	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-
Texas	26	12,090	-	-	-	3	23
Utah	3	3	3	-	-	-	-
Vermont	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-
Washington	146	41,881	13	3	21	66	43
West Virginia	-	-	-	-	-	-	-
Wisconsin	7	6,199	-	-	-	1	6
Wyoming	65	8,096	-	16	27	15	7
Water Resource Regions							
Region 01 New England	14	29	14	-	-	-	-
Region 02 Mid-Atlantic	35	2,980	2	2	23	6	2
Region 03 South Atlantic-Gulf	78	749	55	23	-	-	-
Region 04 Great Lakes	43	4,466	18	-	1	20	4
Region 05 Ohio	4	672	-	-	-	4	-
Region 06 Tennessee	-	-	-	-	-	-	-
Region 07 Upper Mississippi	102	48,857	14	-	-	34	54
Region 08 Lower Mississippi	-	-	-	-	-	-	-
Region 09 Souris-Red-Rainy	37	9,497	-	-	-	23	14
Region 10 Missouri	442	98,309	7	16	79	189	151
Region 11 Arkansas-White-Red	14	2,595	-	-	-	14	-
Region 12 Texas-Gulf	25	11,900	-	-	-	2	23
Region 13 Rio Grande	47	233	47	-	-	-	-
Region 14 Upper Colorado	106	8,564	58	-	-	35	13
Region 15 Lower Colorado	26	7,437	-	23	-	-	3
Region 16 Great Basin	3	3	3	-	-	-	-
Region 17 Pacific Northwest	570	95,011	119	115	112	144	80
Region 18 California	101	22,845	25	6	13	20	37
Region 19 Alaska	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Rice							Other small grains (barley, oats, rye, etc.)	
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested					Farms	Irrigated acres harvested
			1 to 99 acres	100 to 249 acres	250 to 499 acres	500 to 999 acres	1,000 acres or more		
United States 2023	3,550	2,268,904	310	851	846	841	702	4,689	1,141,657
..... 2018	3,813	2,370,113	484	880	896	789	764	5,767	1,026,289
2023 DATA									
Alabama	-	-	-	-	-	-	-	23	1,150
Alaska	-	-	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	-	-	112	29,852
Arkansas	1,505	1,129,261	137	248	332	426	362	6	204
California	875	430,483	31	385	217	104	138	422	133,859
Colorado	-	-	-	-	-	-	-	286	54,580
Connecticut	-	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	6	389
Florida	3	7,567	-	-	-	1	2	103	18,458
Georgia	-	-	-	-	-	-	-	41	2,725
Hawaii	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	1,047	422,348
Illinois	-	-	-	-	-	-	-	12	777
Indiana	-	-	-	-	-	-	-	19	130
Iowa	-	-	-	-	-	-	-	-	-
Kansas	-	-	-	-	-	-	-	124	24,239
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	654	426,876	57	102	194	179	122	-	-
Maine	-	-	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	-	8	908
Massachusetts	-	-	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-	22	1,033
Minnesota	-	-	-	-	-	-	-	68	3,108
Mississippi	125	89,846	10	28	21	39	27	-	-
Missouri	215	122,248	21	42	59	62	31	11	11
Montana	-	-	-	-	-	-	-	554	117,556
Nebraska	-	-	-	-	-	-	-	198	15,738
Nevada	-	-	-	-	-	-	-	109	13,262
New Hampshire	-	-	-	-	-	-	-	8	53
New Jersey	-	-	-	-	-	-	-	16	208
New Mexico	-	-	-	-	-	-	-	54	24,923
New York	-	-	-	-	-	-	-	-	-
North Carolina	-	-	-	-	-	-	-	23	690
North Dakota	-	-	-	-	-	-	-	15	2,725
Ohio	-	-	-	-	-	-	-	1	(D)
Oklahoma	-	-	-	-	-	-	-	117	65,054
Oregon	-	-	-	-	-	-	-	224	22,709
Pennsylvania	-	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	3	3
South Carolina	-	-	-	-	-	-	-	28	1,799
South Dakota	-	-	-	-	-	-	-	17	544
Tennessee	26	104	26	-	-	-	-	-	-
Texas	143	62,495	24	46	23	30	20	178	84,248
Utah	-	-	-	-	-	-	-	391	21,963
Vermont	4	24	4	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-	17	17
Washington	-	-	-	-	-	-	-	118	13,621
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-	4	3,218
Wyoming	-	-	-	-	-	-	-	304	59,546
Water Resource Regions									
Region 01 New England	-	-	-	-	-	-	-	11	56
Region 02 Mid-Atlantic	-	-	-	-	-	-	-	47	1,522
Region 03 South Atlantic-Gulf	3	7,567	-	-	-	1	2	218	24,822
Region 04 Great Lakes	4	24	4	-	-	-	-	22	1,033
Region 05 Ohio	26	104	26	-	-	-	-	2	(D)
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	-	-	-	-	-	-	-	102	7,186
Region 08 Lower Mississippi	2,179	1,555,958	194	344	560	610	471	6	(D)
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	-	-	-	-	-	-	-	1,159	218,722
Region 11 Arkansas-White-Red	320	212,273	31	76	46	96	71	233	130,492
Region 12 Texas-Gulf	143	62,495	24	46	23	30	20	155	45,197
Region 13 Rio Grande	-	-	-	-	-	-	-	195	50,067
Region 14 Upper Colorado	-	-	-	-	-	-	-	135	4,754
Region 15 Lower Colorado	-	-	-	-	-	-	-	118	36,100
Region 16 Great Basin	-	-	-	-	-	-	-	490	59,726
Region 17 Pacific Northwest	-	-	-	-	-	-	-	1,357	432,834
Region 18 California	875	430,483	31	385	217	104	138	439	128,886
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Alfalfa and alfalfa mixtures (dry hay, greenchop, and silage)						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			1 to 49 acres	50 to 99 acres	100 to 249 acres	250 to 499 acres	500 acres or more
United States 2023	39,673	5,408,531	21,612	6,179	6,293	3,265	2,324
..... 2018	48,697	6,165,406	26,651	7,400	8,654	3,284	2,708
2023 DATA							
Alabama	47	1,159	47	-	-	-	-
Alaska	-	-	-	-	-	-	-
Arizona	732	369,330	273	19	113	86	241
Arkansas	13	430	7	6	-	-	-
California	1,855	613,232	528	262	377	399	289
Colorado	5,407	531,638	3,357	744	705	381	220
Connecticut	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-
Florida	12	1,100	-	8	4	-	-
Georgia	-	-	-	-	-	-	-
Hawaii	1	(D)	-	1	-	-	-
Idaho	6,026	837,085	3,580	735	827	529	355
Illinois	14	140	14	-	-	-	-
Indiana	112	4,597	104	-	-	8	-
Iowa	49	1,407	49	-	-	-	-
Kansas	543	118,320	128	111	197	41	66
Kentucky	-	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-	-
Maine	-	-	-	-	-	-	-
Maryland	7	(D)	7	-	-	-	-
Massachusetts	-	-	-	-	-	-	-
Michigan	354	34,188	178	99	70	2	5
Minnesota	214	12,558	112	60	42	-	-
Mississippi	8	128	8	-	-	-	-
Missouri	23	1,220	12	-	11	-	-
Montana	3,464	558,762	1,199	753	869	401	242
Nebraska	2,575	256,206	942	786	574	241	32
Nevada	860	309,480	253	188	105	138	176
New Hampshire	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-
New Mexico	2,768	128,151	2,416	62	170	67	53
New York	1	(D)	-	1	-	-	-
North Carolina	-	-	-	-	-	-	-
North Dakota	67	7,885	17	19	28	3	-
Ohio	39	2,941	29	3	6	-	1
Oklahoma	149	28,236	21	79	20	14	15
Oregon	1,973	315,734	1,001	371	352	136	113
Pennsylvania	8	1,168	-	6	-	2	-
Rhode Island	3	3	3	-	-	-	-
South Carolina	-	-	-	-	-	-	-
South Dakota	314	35,872	133	46	99	34	2
Tennessee	-	-	-	-	-	-	-
Texas	550	44,788	308	110	100	29	3
Utah	6,699	523,658	4,570	828	744	336	221
Vermont	-	-	-	-	-	-	-
Virginia	33	981	33	-	-	-	-
Washington	1,848	278,355	1,100	212	223	197	116
West Virginia	-	-	-	-	-	-	-
Wisconsin	214	15,696	84	93	25	11	1
Wyoming	2,691	373,837	1,099	577	632	210	173
Water Resource Regions							
Region 01 New England	3	3	3	-	-	-	-
Region 02 Mid-Atlantic	48	2,234	40	6	-	2	-
Region 03 South Atlantic-Gulf	67	2,387	55	8	4	-	-
Region 04 Great Lakes	470	44,414	232	142	76	13	7
Region 05 Ohio	44	(D)	44	-	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-
Region 07 Upper Mississippi	479	26,466	287	106	78	8	-
Region 08 Lower Mississippi	12	120	12	-	-	-	-
Region 09 Souris-Red-Rainy	15	2,140	-	12	-	3	-
Region 10 Missouri	9,430	1,278,233	3,519	2,297	2,183	968	463
Region 11 Arkansas-White-Red	1,632	279,419	717	287	323	172	133
Region 12 Texas-Gulf	215	11,260	142	48	24	-	1
Region 13 Rio Grande	2,630	175,028	2,022	99	359	77	73
Region 14 Upper Colorado	4,977	333,003	3,633	493	478	262	111
Region 15 Lower Colorado	976	452,690	399	72	114	108	283
Region 16 Great Basin	6,531	757,720	4,100	953	770	322	386
Region 17 Pacific Northwest	10,054	1,444,600	5,820	1,333	1,416	905	580
Region 18 California	2,089	597,718	587	322	468	425	287
Region 19 Alaska	-	-	-	-	-	-	-
Region 20 Hawaii	1	(D)	-	1	-	-	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All other hay (dry hay, greenchop, and silage)						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			1 to 24 acres	25 to 49 acres	50 to 99 acres	100 to 249 acres	250 acres or more
United States 2023	25,421	3,196,249	10,527	3,993	3,995	3,808	3,098
..... 2018	25,402	3,263,946	11,357	3,873	2,854	4,175	3,143
2023 DATA							
Alabama	30	4,452	-	24	-	-	6
Alaska	4	(D)	2	1	-	-	1
Arizona	265	67,100	129	18	37	29	52
Arkansas	88	6,242	20	26	19	20	3
California	1,485	388,945	304	177	183	396	425
Colorado	4,239	473,742	1,865	743	518	675	438
Connecticut	3	3	3	-	-	-	-
Delaware	-	-	-	-	-	-	-
Florida	104	14,070	30	30	31	-	13
Georgia	265	27,836	108	80	27	27	23
Hawaii	14	14	14	-	-	-	-
Idaho	1,609	144,772	850	188	218	212	141
Illinois	-	-	-	-	-	-	-
Indiana	34	170	34	-	-	-	-
Iowa	21	105	21	-	-	-	-
Kansas	620	128,473	40	44	208	199	129
Kentucky	-	-	-	-	-	-	-
Louisiana	37	1,180	12	25	-	-	-
Maine	-	-	-	-	-	-	-
Maryland	1	(D)	1	-	-	-	-
Massachusetts	8	40	8	-	-	-	-
Michigan	36	486	36	-	-	-	-
Minnesota	-	-	-	-	-	-	-
Mississippi	32	1,656	8	8	16	-	-
Missouri	44	1,595	33	-	-	11	-
Montana	2,449	283,405	914	541	402	274	318
Nebraska	1,007	97,294	289	88	290	196	144
Nevada	565	162,040	128	62	96	99	180
New Hampshire	-	-	-	-	-	-	-
New Jersey	16	64	16	-	-	-	-
New Mexico	1,117	72,885	568	286	129	84	50
New York	19	38	19	-	-	-	-
North Carolina	251	7,586	135	90	22	3	1
North Dakota	17	1,662	5	3	-	5	4
Ohio	1	(D)	-	-	-	-	1
Oklahoma	477	82,954	1	29	215	117	115
Oregon	2,980	263,001	1,619	426	393	317	225
Pennsylvania	5	195	3	-	2	-	-
Rhode Island	-	-	-	-	-	-	-
South Carolina	82	2,796	56	-	25	-	1
South Dakota	92	7,499	19	27	26	19	1
Tennessee	25	125	25	-	-	-	-
Texas	2,596	405,113	928	364	461	470	373
Utah	1,807	84,304	1,057	305	265	134	46
Vermont	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-
Washington	1,365	105,463	850	197	123	97	98
West Virginia	6	120	6	-	-	-	-
Wisconsin	9	1,623	-	-	8	-	1
Wyoming	1,596	356,163	371	211	281	424	309
Water Resource Regions							
Region 01 New England	11	43	11	-	-	-	-
Region 02 Mid-Atlantic	41	305	39	-	2	-	-
Region 03 South Atlantic-Gulf	756	57,756	337	232	113	30	44
Region 04 Great Lakes	38	1,997	36	-	-	-	2
Region 05 Ohio	23	188	23	-	-	-	-
Region 06 Tennessee	25	(D)	25	-	-	-	-
Region 07 Upper Mississippi	68	2,167	49	-	8	11	-
Region 08 Lower Mississippi	67	4,006	19	37	8	-	3
Region 09 Souris-Red-Rainy	9	1,075	5	-	-	-	4
Region 10 Missouri	5,060	662,754	1,495	875	1,109	963	618
Region 11 Arkansas-White-Red	2,100	398,405	396	280	464	480	480
Region 12 Texas-Gulf	1,981	234,191	752	233	391	420	185
Region 13 Rio Grande	1,005	101,416	331	292	139	147	96
Region 14 Upper Colorado	3,180	472,322	1,379	499	410	450	442
Region 15 Lower Colorado	300	69,152	156	18	37	33	56
Region 16 Great Basin	2,267	229,584	1,193	321	298	245	210
Region 17 Pacific Northwest	6,915	560,911	3,921	1,053	833	587	521
Region 18 California	1,557	399,336	344	152	183	442	436
Region 19 Alaska	4	(D)	2	1	-	-	1
Region 20 Hawaii	14	14	14	-	-	-	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Peanuts						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			1 to 49 acres	50 to 99 acres	100 to 249 acres	250 to 499 acres	500 acres or more
United States 2023	1,875	540,245	270	396	598	320	291
..... 2018	1,701	460,155	316	330	571	274	210
2023 DATA							
Alabama	81	16,762	23	7	36	5	10
Alaska	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	-	-
Arkansas	57	22,435	-	14	4	7	32
California	14	14	14	-	-	-	-
Colorado	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-
Florida	144	56,469	-	30	61	30	23
Georgia	1,131	293,879	162	293	331	244	101
Hawaii	29	(D)	29	-	-	-	-
Idaho	-	-	-	-	-	-	-
Illinois	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-
Kansas	-	-	-	-	-	-	-
Kentucky	-	-	-	-	-	-	-
Louisiana	2	(D)	-	-	-	2	-
Maine	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	-
Massachusetts	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-	-
Mississippi	9	1,800	-	-	9	-	-
Missouri	34	11,840	-	-	15	11	8
Montana	-	-	-	-	-	-	-
Nebraska	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-
New Mexico	4	1,000	-	-	-	4	-
New York	-	-	-	-	-	-	-
North Carolina	42	7,258	9	3	24	2	4
North Dakota	-	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-
Oklahoma	9	5,356	-	-	4	-	5
Oregon	-	-	-	-	-	-	-
Pennsylvania	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-
South Carolina	143	18,311	33	49	45	11	5
South Dakota	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-
Texas	176	104,490	-	-	69	4	103
Utah	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-
Water Resource Regions							
Region 01 New England	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	-	-	-	-	-	-	-
Region 03 South Atlantic-Gulf	1,550	394,479	227	382	506	292	143
Region 04 Great Lakes	-	-	-	-	-	-	-
Region 05 Ohio	-	-	-	-	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-
Region 07 Upper Mississippi	-	-	-	-	-	-	-
Region 08 Lower Mississippi	93	(D)	-	14	19	20	40
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-
Region 10 Missouri	-	-	-	-	-	-	-
Region 11 Arkansas-White-Red	33	38,066	-	-	4	-	29
Region 12 Texas-Gulf	156	72,780	-	-	69	8	79
Region 13 Rio Grande	-	-	-	-	-	-	-
Region 14 Upper Colorado	-	-	-	-	-	-	-
Region 15 Lower Colorado	-	-	-	-	-	-	-
Region 16 Great Basin	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	-	-	-	-	-	-
Region 18 California	14	14	14	-	-	-	-
Region 19 Alaska	-	-	-	-	-	-	-
Region 20 Hawaii	29	(D)	29	-	-	-	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Cotton						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			1 to 99 acres	100 to 249 acres	250 to 499 acres	500 to 999 acres	1,000 acres or more
United States 2023	5,397	2,584,479	1,089	1,801	940	897	670
..... 2018	6,918	3,697,167	1,094	1,963	1,573	1,320	968
2023 DATA							
Alabama	129	34,888	53	47	7	7	15
Alaska	-	-	-	-	-	-	-
Arizona	208	99,820	1	103	49	26	29
Arkansas	374	378,707	31	21	49	147	126
California	296	153,218	14	139	62	55	26
Colorado	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-
Florida	33	8,665	-	31	-	-	2
Georgia	1,113	315,332	342	490	145	72	64
Hawaii	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-
Illinois	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-
Kansas	87	20,213	14	54	12	1	6
Kentucky	-	-	-	-	-	-	-
Louisiana	87	51,130	-	39	25	9	14
Maine	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	-
Massachusetts	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-	-
Mississippi	110	92,942	9	14	17	30	40
Missouri	268	273,892	47	29	14	86	92
Montana	-	-	-	-	-	-	-
Nebraska	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-
New Mexico	78	24,509	31	31	-	4	12
New York	-	-	-	-	-	-	-
North Carolina	76	14,417	35	20	12	8	1
North Dakota	-	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-
Oklahoma	74	34,257	4	40	15	4	11
Oregon	-	-	-	-	-	-	-
Pennsylvania	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-
South Carolina	175	32,108	77	67	21	5	5
South Dakota	-	-	-	-	-	-	-
Tennessee	41	27,383	-	-	26	11	4
Texas	2,234	1,021,768	420	673	486	432	223
Utah	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-
Virginia	14	1,230	11	3	-	-	-
Washington	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-
Water Resource Regions							
Region 01 New England	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	8	720	8	-	-	-	-
Region 03 South Atlantic-Gulf	1,528	392,034	512	666	185	90	75
Region 04 Great Lakes	-	-	-	-	-	-	-
Region 05 Ohio	-	-	-	-	-	-	-
Region 06 Tennessee	21	16,104	7	-	-	2	12
Region 07 Upper Mississippi	-	-	-	-	-	-	-
Region 08 Lower Mississippi	822	794,413	78	95	115	264	270
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-
Region 10 Missouri	-	-	-	-	-	-	-
Region 11 Arkansas-White-Red	576	251,101	135	250	79	57	55
Region 12 Texas-Gulf	1,790	848,727	255	521	427	388	199
Region 13 Rio Grande	148	28,342	79	27	23	15	4
Region 14 Upper Colorado	-	-	-	-	-	-	-
Region 15 Lower Colorado	219	110,110	1	103	49	33	33
Region 16 Great Basin	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	-	-	-	-	-	-
Region 18 California	285	142,928	14	139	62	48	22
Region 19 Alaska	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Land in vegetables						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			Less than 5.0 acres	5.0 to 24.9 acres	25.0 to 99.9 acres	100.0 to 249.9 acres	250.0 acres or more
United States 2023	23,547	2,986,059	14,921	4,085	1,347	1,094	2,100
..... 2018	23,087	3,127,705	12,999	4,722	1,768	1,351	2,247
2023 DATA							
Alabama	298	4,909	145	129	23	-	1
Alaska	119	569	114	1	3	1	-
Arizona	446	123,274	315	37	19	3	72
Arkansas	204	1,793	156	35	6	7	-
California	2,437	1,015,007	952	463	109	235	678
Colorado	597	88,335	370	71	65	-	91
Connecticut	226	781	186	33	7	-	-
Delaware	96	14,399	35	9	26	13	13
Florida	528	99,937	273	180	11	1	63
Georgia	488	67,594	365	59	22	-	42
Hawaii	452	6,534	267	136	45	2	2
Idaho	759	365,515	256	28	99	91	285
Illinois	385	22,173	233	66	24	34	28
Indiana	427	25,877	294	82	3	10	38
Iowa	253	3,006	205	20	21	7	-
Kansas	175	3,734	150	7	2	7	9
Kentucky	465	1,539	392	71	-	2	-
Louisiana	117	272	106	11	-	-	-
Maine	188	6,274	152	24	5	2	5
Maryland	258	7,493	147	51	41	15	4
Massachusetts	314	2,404	239	64	5	6	-
Michigan	1,120	162,433	587	130	127	160	116
Minnesota	505	52,582	212	113	48	54	78
Mississippi	195	994	150	36	9	-	-
Missouri	466	2,992	373	74	7	12	-
Montana	355	9,337	280	44	-	24	7
Nebraska	207	40,680	146	7	6	34	14
Nevada	93	(D)	87	3	1	-	2
New Hampshire	119	477	108	8	1	2	-
New Jersey	489	15,833	264	144	35	35	11
New Mexico	1,008	27,695	749	144	84	22	9
New York	789	10,724	499	214	60	12	4
North Carolina	862	29,560	525	255	40	23	19
North Dakota	68	31,703	36	5	-	5	22
Ohio	567	13,929	343	125	78	11	10
Oklahoma	169	4,979	90	68	-	4	7
Oregon	1,089	101,903	734	143	53	74	85
Pennsylvania	913	10,807	516	343	35	14	5
Rhode Island	79	148	73	5	1	-	-
South Carolina	542	15,919	431	73	24	3	11
South Dakota	81	(D)	68	13	-	-	-
Tennessee	479	9,102	431	41	-	-	7
Texas	722	91,962	566	49	-	30	77
Utah	479	1,900	397	55	24	3	-
Vermont	187	766	136	49	2	-	-
Virginia	458	13,568	322	84	36	9	7
Washington	1,220	290,520	856	137	45	51	131
West Virginia	125	955	110	6	8	-	1
Wisconsin	822	171,960	376	137	87	76	146
Wyoming	107	192	104	3	-	-	-
Water Resource Regions							
Region 01 New England	988	10,433	805	148	20	10	5
Region 02 Mid-Atlantic	2,459	62,790	1,483	651	203	82	40
Region 03 South Atlantic-Gulf	2,744	217,008	1,724	729	129	27	135
Region 04 Great Lakes	2,024	211,250	1,063	409	193	187	172
Region 05 Ohio	1,517	34,691	1,114	296	54	10	43
Region 06 Tennessee	456	6,235	420	30	-	-	6
Region 07 Upper Mississippi	1,776	213,973	959	279	180	171	187
Region 08 Lower Mississippi	324	5,515	272	31	6	14	1
Region 09 Souris-Red-Rainy	93	25,460	51	5	-	5	32
Region 10 Missouri	1,340	96,562	1,028	142	67	60	43
Region 11 Arkansas-White-Red	520	50,661	374	102	-	21	23
Region 12 Texas-Gulf	678	53,112	533	49	-	25	71
Region 13 Rio Grande	542	64,754	320	36	84	22	80
Region 14 Upper Colorado	767	14,818	647	103	13	1	3
Region 15 Lower Colorado	510	146,698	339	69	20	6	76
Region 16 Great Basin	578	25,707	447	58	44	2	27
Region 17 Pacific Northwest	3,227	746,077	2,009	348	177	216	477
Region 18 California	2,433	993,213	952	463	109	232	677
Region 19 Alaska	119	569	114	1	3	1	-
Region 20 Hawaii	452	6,534	267	136	45	2	2

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Sweet corn						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			Less than 5.0 acres	5.0 to 24.9 acres	25.0 to 49.9 acres	50.0 to 99.9 acres	100.0 acres or more
United States 2023	5,639	316,789	3,979	677	213	219	551
..... 2018	5,476	285,749	3,366	1,048	216	297	549
2023 DATA							
Alabama	140	468	94	46	-	-	-
Alaska	20	11	20	-	-	-	-
Arizona	42	42	42	-	-	-	-
Arkansas	38	160	31	7	-	-	-
California	342	27,061	252	4	25	-	61
Colorado	82	1,517	64	-	-	13	5
Connecticut	19	33	17	2	-	-	-
Delaware	37	7,608	10	5	5	2	15
Florida	108	18,645	90	4	-	-	14
Georgia	156	59,807	117	-	-	-	39
Hawaii	13	35	12	1	-	-	-
Idaho	114	4,306	49	31	2	26	6
Illinois	92	4,431	66	-	-	6	20
Indiana	94	10,734	42	17	8	1	26
Iowa	51	950	30	1	20	-	-
Kansas	41	117	37	2	2	-	-
Kentucky	92	51	92	-	-	-	-
Louisiana	8	4	8	-	-	-	-
Maine	62	157	56	5	-	1	-
Maryland	86	2,882	32	27	3	15	9
Massachusetts	80	593	27	47	6	-	-
Michigan	220	5,556	90	39	36	54	1
Minnesota	193	14,593	62	20	16	21	74
Mississippi	72	130	56	16	-	-	-
Missouri	131	278	117	14	-	-	-
Montana	109	103	101	8	-	-	-
Nebraska	51	546	38	7	3	-	3
Nevada	3	(D)	2	1	-	-	-
New Hampshire	16	239	14	-	-	-	2
New Jersey	133	1,260	119	4	-	2	8
New Mexico	80	33	80	-	-	-	-
New York	199	2,422	114	52	28	1	4
North Carolina	297	2,231	225	67	-	3	2
North Dakota	5	3	5	-	-	-	-
Ohio	184	3,503	116	41	23	-	4
Oklahoma	29	(D)	29	-	-	-	-
Oregon	345	24,529	256	25	1	20	43
Pennsylvania	225	2,572	134	74	5	2	10
Rhode Island	6	1	6	-	-	-	-
South Carolina	262	2,073	234	1	24	1	2
South Dakota	21	29	21	-	-	-	-
Tennessee	189	871	188	-	-	-	1
Texas	140	5,543	120	-	-	-	20
Utah	203	426	174	27	-	2	-
Vermont	28	54	27	1	-	-	-
Virginia	95	3,561	72	17	-	2	4
Washington	327	53,737	236	22	5	7	57
West Virginia	19	384	12	-	-	7	-
Wisconsin	302	52,464	105	42	1	33	121
Wyoming	38	15	38	-	-	-	-
Water Resource Regions							
Region 01 New England	186	1,023	123	54	6	1	2
Region 02 Mid-Atlantic	645	18,212	410	131	36	29	39
Region 03 South Atlantic-Gulf	1,017	82,255	797	136	24	4	56
Region 04 Great Lakes	478	20,038	239	95	43	56	45
Region 05 Ohio	366	14,293	276	32	21	1	36
Region 06 Tennessee	115	(D)	115	-	-	-	-
Region 07 Upper Mississippi	561	61,559	199	80	45	60	177
Region 08 Lower Mississippi	96	(D)	95	-	-	-	1
Region 09 Souris-Red-Rainy	30	9	30	-	-	-	-
Region 10 Missouri	299	1,457	275	11	5	-	8
Region 11 Arkansas-White-Red	67	299	48	19	-	-	-
Region 12 Texas-Gulf	140	5,543	120	-	-	-	20
Region 13 Rio Grande	44	23	44	-	-	-	-
Region 14 Upper Colorado	71	919	58	-	-	13	-
Region 15 Lower Colorado	48	(D)	47	1	-	-	-
Region 16 Great Basin	218	435	189	27	-	2	-
Region 17 Pacific Northwest	883	82,664	630	86	8	53	106
Region 18 California	342	27,061	252	4	25	-	61
Region 19 Alaska	20	11	20	-	-	-	-
Region 20 Hawaii	13	35	12	1	-	-	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Tomatoes in the open						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			Less than 5.0 acres	5.0 to 24.9 acres	25.0 to 49.9 acres	50.0 to 99.9 acres	100.0 acres or more
United States 2023	9,200	394,318	8,186	495	44	41	434
..... 2018	8,879	288,114	7,913	490	71	76	329
2023 DATA							
Alabama	186	422	140	46	-	-	-
Alaska	22	8	22	-	-	-	-
Arizona	8	8	8	-	-	-	-
Arkansas	120	309	100	20	-	-	-
California	1,140	350,643	617	69	28	28	398
Colorado	231	57	231	-	-	-	-
Connecticut	101	114	95	6	-	-	-
Delaware	11	5	11	-	-	-	-
Florida	229	23,700	156	60	-	-	13
Georgia	237	306	236	-	-	-	1
Hawaii	49	(D)	48	-	-	-	1
Idaho	118	34	118	-	-	-	-
Illinois	170	155	166	4	-	-	-
Indiana	168	2,132	138	25	-	-	5
Iowa	111	44	111	-	-	-	-
Kansas	54	20	54	-	-	-	-
Kentucky	222	139	215	7	-	-	-
Louisiana	56	22	56	-	-	-	-
Maine	98	27	98	-	-	-	-
Maryland	123	198	107	16	-	-	-
Massachusetts	139	122	139	-	-	-	-
Michigan	400	2,230	348	45	-	5	2
Minnesota	119	157	103	16	-	-	-
Mississippi	98	97	90	8	-	-	-
Missouri	211	131	211	-	-	-	-
Montana	107	28	107	-	-	-	-
Nebraska	120	47	120	-	-	-	-
Nevada	70	51	69	1	-	-	-
New Hampshire	59	16	59	-	-	-	-
New Jersey	319	846	302	9	-	7	1
New Mexico	222	78	222	-	-	-	-
New York	396	685	378	14	4	-	-
North Carolina	318	462	266	49	3	-	-
North Dakota	12	3	12	-	-	-	-
Ohio	229	262	218	11	-	-	-
Oklahoma	82	44	82	-	-	-	-
Oregon	419	138	419	-	-	-	-
Pennsylvania	397	1,184	388	4	-	1	4
Rhode Island	39	18	38	1	-	-	-
South Carolina	196	513	169	24	1	-	2
South Dakota	47	26	47	-	-	-	-
Tennessee	232	5,745	226	-	-	-	6
Texas	406	247	406	-	-	-	-
Utah	251	266	225	26	-	-	-
Vermont	28	3	28	-	-	-	-
Virginia	167	1,654	129	29	8	-	1
Washington	304	83	302	2	-	-	-
West Virginia	66	92	64	2	-	-	-
Wisconsin	251	128	250	1	-	-	-
Wyoming	42	(D)	42	-	-	-	-
Water Resource Regions							
Region 01 New England	443	297	436	7	-	-	-
Region 02 Mid-Atlantic	1,162	3,946	1,075	65	8	8	6
Region 03 South Atlantic-Gulf	1,117	25,468	910	187	4	-	16
Region 04 Great Lakes	715	2,881	645	59	4	5	2
Region 05 Ohio	710	1,011	678	31	-	-	1
Region 06 Tennessee	328	5,768	322	-	-	-	6
Region 07 Upper Mississippi	581	2,082	549	28	-	-	4
Region 08 Lower Mississippi	138	273	118	20	-	-	-
Region 09 Souris-Red-Rainy	16	8	16	-	-	-	-
Region 10 Missouri	545	206	545	-	-	-	-
Region 11 Arkansas-White-Red	254	159	254	-	-	-	-
Region 12 Texas-Gulf	360	199	360	-	-	-	-
Region 13 Rio Grande	177	104	177	-	-	-	-
Region 14 Upper Colorado	169	(D)	169	-	-	-	-
Region 15 Lower Colorado	48	27	47	1	-	-	-
Region 16 Great Basin	292	304	266	26	-	-	-
Region 17 Pacific Northwest	934	274	932	2	-	-	-
Region 18 California	1,140	350,643	617	69	28	28	398
Region 19 Alaska	22	8	22	-	-	-	-
Region 20 Hawaii	49	(D)	48	-	-	-	1

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Lettuce and romaine						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			Less than 5.0 acres	5.0 to 24.9 acres	25.0 to 49.9 acres	50.0 to 99.9 acres	100.0 acres or more
United States 2023	5,352	309,785	4,906	138	31	18	259
..... 2018	4,589	277,616	4,169	75	54	33	258
2023 DATA							
Alabama	23	46	23	-	-	-	-
Alaska	65	70	64	-	-	1	-
Arizona	65	67,201	8	-	-	-	57
Arkansas	53	19	53	-	-	-	-
California	718	225,003	477	28	28	-	185
Colorado	157	1,342	152	-	-	-	5
Connecticut	119	40	119	-	-	-	-
Delaware	16	28	12	4	-	-	-
Florida	128	(D)	126	-	-	-	2
Georgia	44	6	44	-	-	-	-
Hawaii	93	522	48	43	2	-	-
Idaho	59	1,015	47	-	-	12	-
Illinois	115	73	113	2	-	-	-
Indiana	63	18	63	-	-	-	-
Iowa	-	-	-	-	-	-	-
Kansas	34	8	34	-	-	-	-
Kentucky	102	22	102	-	-	-	-
Louisiana	19	3	19	-	-	-	-
Maine	106	150	104	1	-	-	1
Maryland	33	27	33	-	-	-	-
Massachusetts	93	79	93	-	-	-	-
Michigan	221	47	221	-	-	-	-
Minnesota	121	21	121	-	-	-	-
Mississippi	36	13	36	-	-	-	-
Missouri	56	20	56	-	-	-	-
Montana	88	23	88	-	-	-	-
Nebraska	60	19	60	-	-	-	-
Nevada	7	(D)	6	-	-	-	1
New Hampshire	42	12	42	-	-	-	-
New Jersey	154	698	129	21	-	4	-
New Mexico	84	1,479	79	-	-	-	5
New York	202	98	202	-	-	-	-
North Carolina	107	66	107	-	-	-	-
North Dakota	2	(D)	2	-	-	-	-
Ohio	85	108	81	3	1	-	-
Oklahoma	46	9	46	-	-	-	-
Oregon	252	94	247	5	-	-	-
Pennsylvania	153	161	150	2	-	1	-
Rhode Island	33	10	33	-	-	-	-
South Carolina	218	78	218	-	-	-	-
South Dakota	22	6	22	-	-	-	-
Tennessee	92	16	92	-	-	-	-
Texas	270	196	270	-	-	-	-
Utah	96	127	74	22	-	-	-
Vermont	98	78	96	2	-	-	-
Virginia	95	44	95	-	-	-	-
Washington	328	925	321	4	-	-	3
West Virginia	28	22	27	1	-	-	-
Wisconsin	227	109	227	-	-	-	-
Wyoming	24	3	24	-	-	-	-
Water Resource Regions							
Region 01 New England	423	308	420	2	-	-	1
Region 02 Mid-Atlantic	570	1,021	539	26	-	5	-
Region 03 South Atlantic-Gulf	560	(D)	558	-	-	-	2
Region 04 Great Lakes	421	240	416	4	1	-	-
Region 05 Ohio	244	79	242	2	-	-	-
Region 06 Tennessee	79	10	79	-	-	-	-
Region 07 Upper Mississippi	411	187	409	2	-	-	-
Region 08 Lower Mississippi	65	19	65	-	-	-	-
Region 09 Souris-Red-Rainy	25	3	25	-	-	-	-
Region 10 Missouri	285	1,384	280	-	-	-	5
Region 11 Arkansas-White-Red	130	68	130	-	-	-	-
Region 12 Texas-Gulf	224	127	224	-	-	-	-
Region 13 Rio Grande	105	1,502	100	-	-	-	5
Region 14 Upper Colorado	52	15	52	-	-	-	-
Region 15 Lower Colorado	65	67,201	8	-	-	-	57
Region 16 Great Basin	101	(D)	78	22	-	-	1
Region 17 Pacific Northwest	716	2,050	692	9	-	12	3
Region 18 California	718	225,003	477	28	28	-	185
Region 19 Alaska	65	70	64	-	-	1	-
Region 20 Hawaii	93	522	48	43	2	-	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Potatoes, excluding sweet potatoes						
	Farms	Irrigated acres harvested	Farms by irrigated acres harvested				
			Less than 15.0 acres	15.0 to 99.9 acres	100.0 to 249.9 acres	250.0 to 499.9 acres	500.0 acres or more
United States 2023	5,661	920,681	4,523	207	263	213	455
..... 2018	5,361	866,288	4,168	246	360	242	345
2023 DATA							
Alabama	107	330	107	-	-	-	-
Alaska	49	268	45	3	1	-	-
Arizona	3	(D)	-	-	2	-	1
Arkansas	21	7	21	-	-	-	-
California	201	13,576	176	3	-	6	16
Colorado	154	66,605	69	-	-	26	59
Connecticut	77	30	77	-	-	-	-
Delaware	20	1,142	7	10	3	-	-
Florida	91	1,153	90	-	-	-	1
Georgia	135	50	135	-	-	-	-
Hawaii	20	6	20	-	-	-	-
Idaho	449	328,780	88	65	47	87	162
Illinois	106	3,628	95	2	8	-	1
Indiana	52	7,301	42	-	-	8	2
Iowa	52	6	52	-	-	-	-
Kansas	60	3,016	46	-	5	9	-
Kentucky	97	42	97	-	-	-	-
Louisiana	34	5	34	-	-	-	-
Maine	87	2,329	83	-	1	1	2
Maryland	58	505	52	6	-	-	-
Massachusetts	75	46	75	-	-	-	-
Michigan	370	78,810	230	18	66	25	31
Minnesota	144	27,542	104	-	8	16	16
Mississippi	37	14	37	-	-	-	-
Missouri	141	1,626	129	-	12	-	-
Montana	125	8,688	94	-	24	-	7
Nebraska	127	39,295	85	-	28	-	14
Nevada	10	(D)	9	-	-	-	1
New Hampshire	39	10	39	-	-	-	-
New Jersey	143	1,625	138	-	3	2	-
New Mexico	70	(D)	68	-	-	-	2
New York	231	1,744	226	3	1	-	1
North Carolina	166	4,990	139	26	-	-	1
North Dakota	43	31,562	16	-	5	2	20
Ohio	90	1,806	82	4	-	4	-
Oklahoma	43	3,262	36	-	-	7	-
Oregon	323	33,536	295	-	7	11	10
Pennsylvania	150	1,033	140	7	3	-	-
Rhode Island	28	9	28	-	-	-	-
South Carolina	101	3,113	97	-	-	2	2
South Dakota	42	9	42	-	-	-	-
Tennessee	105	23	105	-	-	-	-
Texas	188	39,994	182	-	-	-	6
Utah	149	136	149	-	-	-	-
Vermont	87	58	87	-	-	-	-
Virginia	92	945	88	-	3	-	1
Washington	367	156,795	239	35	19	4	70
West Virginia	7	(D)	7	-	-	-	-
Wisconsin	239	45,562	165	25	17	3	29
Wyoming	56	28	56	-	-	-	-
Water Resource Regions							
Region 01 New England	331	2,430	327	-	1	1	2
Region 02 Mid-Atlantic	549	5,417	508	26	12	2	1
Region 03 South Atlantic-Gulf	597	9,644	565	26	-	-	4
Region 04 Great Lakes	658	90,662	481	43	67	25	42
Region 05 Ohio	303	9,079	288	1	-	12	2
Region 06 Tennessee	82	11	82	-	-	-	-
Region 07 Upper Mississippi	376	60,080	303	5	33	3	32
Region 08 Lower Mississippi	79	1,580	67	-	12	-	-
Region 09 Souris-Red-Rainy	62	25,241	25	-	5	18	14
Region 10 Missouri	476	72,578	387	-	52	-	37
Region 11 Arkansas-White-Red	126	46,189	99	-	5	16	6
Region 12 Texas-Gulf	161	78	161	-	-	-	-
Region 13 Rio Grande	141	52,924	66	-	-	26	49
Region 14 Upper Colorado	53	(D)	51	-	-	-	2
Region 15 Lower Colorado	9	(D)	6	-	2	-	1
Region 16 Great Basin	213	15,268	167	20	-	20	6
Region 17 Pacific Northwest	1,172	506,793	699	80	73	79	241
Region 18 California	204	14,626	176	3	-	9	16
Region 19 Alaska	49	268	45	3	1	-	-
Region 20 Hawaii	20	6	20	-	-	-	-

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All berries		Land in orchards, vineyards, and nut trees						
	Farms	Irrigated acres	Farms	Irrigated acres	Farms by irrigated acres				
					Less than 5.0 acres	5.0 to 14.9 acres	15.0 to 49.9 acres	50.0 to 99.9 acres	100.0 acres or more
United States 2023	11,008	246,361	48,784	5,105,937	17,672	9,535	9,609	4,256	7,712
..... 2018	11,562	219,254	52,959	5,021,860	19,242	10,761	9,917	4,356	8,683
2023 DATA									
Alabama	228	722	129	1,445	60	46	23	-	-
Alaska	43	25	36	8	36	-	-	-	-
Arizona	56	11	625	36,303	335	138	117	5	30
Arkansas	89	171	89	751	43	31	14	-	1
California	826	52,044	28,283	3,924,738	7,382	5,260	6,762	3,152	5,727
Colorado	83	290	580	3,239	467	22	91	-	-
Connecticut	72	137	47	243	39	7	-	-	1
Delaware	30	76	15	798	9	-	4	-	2
Florida	732	20,540	2,910	353,840	910	936	346	211	507
Georgia	390	10,094	1,240	111,966	287	383	271	83	216
Hawaii	40	127	976	20,789	806	150	4	5	11
Idaho	225	160	449	6,127	382	58	-	-	9
Illinois	144	260	95	527	80	-	13	-	2
Indiana	164	749	18	1,121	10	-	-	-	8
Iowa	31	6	137	539	74	63	-	-	-
Kansas	69	139	127	245	125	2	-	-	-
Kentucky	165	157	74	456	67	-	-	7	-
Louisiana	95	1,472	79	1,156	11	45	23	-	-
Maine	114	8,240	19	181	5	12	-	2	-
Maryland	75	389	39	558	23	4	7	5	-
Massachusetts	598	12,867	89	276	84	3	2	-	-
Michigan	562	18,514	595	22,008	184	183	127	18	83
Minnesota	153	523	219	889	155	48	16	-	-
Mississippi	105	1,367	103	867	68	27	-	8	-
Missouri	175	485	124	2,383	57	49	11	-	7
Montana	72	56	377	1,083	292	85	-	-	-
Nebraska	72	35	96	1,034	38	-	58	-	-
Nevada	35	12	16	18	16	-	-	-	-
New Hampshire	61	253	21	137	6	15	-	-	-
New Jersey	241	14,290	49	1,051	42	-	5	-	2
New Mexico	87	21	1,999	70,695	1,334	229	256	63	117
New York	215	940	199	14,239	39	66	23	33	38
North Carolina	427	13,131	281	2,309	199	44	26	9	3
North Dakota	-	-	15	11	15	-	-	-	-
Ohio	234	651	122	326	90	32	-	-	-
Oklahoma	9	9	163	5,649	74	30	29	-	30
Oregon	999	25,950	2,232	98,688	873	566	393	195	205
Pennsylvania	237	496	117	3,124	47	26	29	2	13
Rhode Island	23	(D)	18	65	13	3	2	-	-
South Carolina	295	481	226	11,713	171	24	23	-	8
South Dakota	38	16	146	248	120	26	-	-	-
Tennessee	184	78	66	39	66	-	-	-	-
Texas	446	1,258	1,946	59,188	1,022	385	306	163	70
Utah	154	95	387	886	382	-	-	5	-
Vermont	108	(D)	35	761	32	-	1	-	2
Virginia	198	474	101	397	84	16	-	-	1
Washington	984	34,695	2,876	342,037	888	458	621	290	619
West Virginia	72	273	6	132	-	-	6	-	-
Wisconsin	549	23,347	120	517	57	63	-	-	-
Wyoming	4	2	73	141	73	-	-	-	-
Water Resource Regions									
Region 01 New England	900	21,639	196	1,592	147	40	4	2	3
Region 02 Mid-Atlantic	836	15,999	346	16,707	183	44	56	16	47
Region 03 South Atlantic-Gulf	2,055	46,237	4,851	482,114	1,666	1,451	689	311	734
Region 04 Great Lakes	911	19,719	889	25,913	344	265	146	42	92
Region 05 Ohio	653	1,115	193	715	168	18	-	7	-
Region 06 Tennessee	185	262	78	30	78	-	-	-	-
Region 07 Upper Mississippi	746	24,100	500	3,564	264	197	29	-	10
Region 08 Lower Mississippi	167	1,523	146	3,079	57	52	30	-	7
Region 09 Souris-Red-Rainy	36	166	14	10	14	-	-	-	-
Region 10 Missouri	352	622	629	2,276	519	41	69	-	-
Region 11 Arkansas-White-Red	260	631	522	7,164	333	122	36	-	31
Region 12 Texas-Gulf	356	896	1,621	44,063	741	339	337	139	65
Region 13 Rio Grande	78	20	2,036	84,919	1,375	229	223	87	122
Region 14 Upper Colorado	90	293	591	3,179	478	22	91	-	-
Region 15 Lower Colorado	80	34	693	36,501	397	138	123	5	30
Region 16 Great Basin	141	72	327	845	322	-	-	5	-
Region 17 Pacific Northwest	2,253	60,837	5,861	447,797	2,362	1,167	1,014	485	833
Region 18 California	826	52,044	28,279	3,924,678	7,382	5,260	6,758	3,152	5,727
Region 19 Alaska	43	25	36	8	36	-	-	-	-
Region 20 Hawaii	40	127	976	20,789	806	150	4	5	11

--continued

Table 38. Crops Harvested in the Open from Irrigated Farms and Irrigated Pastureland: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Nursery and other horticultural crops		All other crops		Irrigated pastureland, all types		All other irrigated land types such as failed cropland, idle land, and land in summer fallow (see text)	
	Farms	Irrigated acres	Farms	Irrigated acres harvested	Farms	Irrigated acres	Farms	Irrigated acres
United States 2023	17,491	598,980	6,890	1,452,288	38,715	3,043,010	3,984	482,367
..... 2018	15,623	581,936	7,006	1,783,325	51,644	4,004,854	(NA)	(NA)
2023 DATA								
Alabama	215	17,404	46	184	77	3,534	1	(D)
Alaska	93	213	21	63	2	(D)	-	-
Arizona	176	10,510	243	13,755	1,067	42,917	93	13,410
Arkansas	94	5,282	2	(D)	13	169	2	(D)
California	1,903	38,776	642	164,869	4,116	334,639	298	27,757
Colorado	470	14,147	210	20,896	3,972	392,846	461	35,426
Connecticut	162	2,202	44	207	8	24	10	19
Delaware	24	2,116	2	(D)	-	-	4	(D)
Florida	2,209	96,419	277	373,975	437	22,902	94	20,892
Georgia	303	26,561	57	7,340	97	3,673	65	8,875
Hawaii	464	(D)	30	262	62	1,691	84	(D)
Idaho	286	8,805	593	192,506	6,031	311,627	107	20,513
Illinois	426	10,028	42	3,857	13	535	8	384
Indiana	235	2,816	82	15,919	84	1,461	55	(D)
Iowa	72	3,065	-	-	10	30	21	42
Kansas	126	6,559	159	23,650	64	18,816	131	32,391
Kentucky	195	1,827	166	3,032	22	509	-	-
Louisiana	199	4,826	80	50,225	46	4,664	-	-
Maine	94	945	43	507	5	5	22	(D)
Maryland	162	12,163	72	1,362	12	230	2	(D)
Massachusetts	179	1,820	129	994	45	81	39	(D)
Michigan	808	24,987	254	3,684	143	3,655	43	2,221
Minnesota	222	6,546	23	15,924	48	1,152	-	-
Mississippi	105	3,404	3	3	26	581	-	-
Missouri	260	7,155	10	5,600	45	357	12	24
Montana	157	2,411	133	31,524	2,705	395,110	134	3,359
Nebraska	131	5,570	321	100,243	636	60,848	199	13,369
Nevada	53	(D)	7	368	494	233,080	16	20,862
New Hampshire	103	467	22	54	4	4	4	4
New Jersey	334	16,838	82	5,438	16	(D)	24	2,880
New Mexico	105	(D)	411	5,005	2,145	95,626	265	13,540
New York	716	18,951	274	801	67	113	-	-
North Carolina	731	14,977	46	4,349	76	2,290	-	-
North Dakota	19	(D)	16	1,290	-	-	7	282
Ohio	507	9,437	117	1,269	32	458	28	28
Oklahoma	90	14,299	40	4,047	331	34,092	130	6,265
Oregon	1,317	50,845	790	155,334	5,292	211,797	339	16,007
Pennsylvania	385	3,677	244	1,986	30	647	20	80
Rhode Island	71	3,250	10	18	12	88	8	(D)
South Carolina	277	21,346	73	1,048	149	1,413	26	(D)
South Dakota	50	(D)	1	(D)	72	4,933	4	4
Tennessee	258	8,183	25	125	-	-	-	-
Texas	778	69,653	339	54,487	1,086	292,194	634	211,492
Utah	169	3,702	4	(D)	4,344	231,127	276	13,747
Vermont	78	139	34	227	13	260	-	-
Virginia	326	9,301	25	1,144	37	1,272	1	(D)
Washington	899	14,787	437	154,607	2,864	64,389	166	6,201
West Virginia	36	(D)	6	6	-	-	-	-
Wisconsin	394	8,180	68	654	68	1,129	50	(D)
Wyoming	25	305	135	26,938	1,797	266,024	101	4,288
Water Resource Regions								
Region 01 New England	618	8,691	239	1,735	87	462	83	(D)
Region 02 Mid-Atlantic	1,591	59,922	557	9,108	141	2,257	51	3,343
Region 03 South Atlantic-Gulf	3,715	179,571	518	388,034	831	33,728	186	31,492
Region 04 Great Lakes	1,362	30,440	391	4,749	223	3,905	55	2,233
Region 05 Ohio	889	13,789	406	11,385	87	1,198	53	494
Region 06 Tennessee	347	4,099	-	-	23	(D)	-	-
Region 07 Upper Mississippi	1,078	28,108	143	20,114	133	3,877	97	(D)
Region 08 Lower Mississippi	289	9,326	98	56,809	65	5,028	2	(D)
Region 09 Souris-Red-Rainy	19	(D)	11	8,285	-	-	6	(D)
Region 10 Missouri	745	24,691	835	183,921	4,314	595,847	573	42,137
Region 11 Arkansas-White-Red	317	24,465	173	38,759	984	169,702	340	69,413
Region 12 Texas-Gulf	768	69,489	285	38,950	999	272,243	562	154,522
Region 13 Rio Grande	112	(D)	46	1,813	1,798	124,235	244	49,481
Region 14 Upper Colorado	184	13,938	405	5,041	4,464	389,217	413	10,415
Region 15 Lower Colorado	193	10,718	256	13,768	1,242	53,639	96	13,413
Region 16 Great Basin	195	4,185	50	5,096	3,953	382,148	195	28,776
Region 17 Pacific Northwest	2,606	75,623	1,764	496,227	14,865	626,961	638	41,645
Region 18 California	1,906	38,769	662	168,169	4,442	376,525	306	28,955
Region 19 Alaska	93	213	21	63	2	(D)	-	-
Region 20 Hawaii	464	(D)	30	262	62	1,691	84	(D)

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Corn for grain or seed								
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution					
				Pressure system			Gravity system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023 2018	30,089 31,828	11,641,724 11,610,238	1.0 0.9	25,243 26,186	9,701,551 10,052,218	1.0 0.8	4,846 5,642	1,940,173 1,558,020	1.0 1.2
2023 DATA									
Alabama	203	46,636	0.5	202	(D)	(D)	1	(D)	(D)
Alaska	-	-	-	-	-	-	-	-	-
Arizona	29	32,396	2.6	23	(D)	(D)	6	(D)	(D)
Arkansas	1,241	712,483	1.0	89	32,157	0.6	1,152	680,326	1.0
California	203	65,055	2.9	35	11,027	3.0	168	54,028	2.9
Colorado	1,192	501,507	1.5	910	468,406	1.4	282	33,101	2.6
Connecticut	-	-	-	-	-	-	-	-	-
Delaware	281	67,164	0.6	276	66,164	0.6	5	1,000	0.6
Florida	113	51,317	1.2	104	48,400	1.2	9	2,917	1.0
Georgia	757	267,209	1.1	757	267,209	1.1	-	-	-
Hawaii	15	1,142	1.7	15	1,142	1.7	-	-	-
Idaho	448	78,099	2.2	252	58,782	2.3	196	19,317	2.1
Illinois	1,140	406,618	0.6	1,140	406,618	0.6	-	-	-
Indiana	1,199	308,165	0.6	1,195	304,165	0.6	4	4,000	0.4
Iowa	510	139,614	0.6	510	139,614	0.6	-	-	-
Kansas	2,476	1,145,431	1.2	2,314	1,131,316	1.2	162	14,115	1.2
Kentucky	107	40,923	0.4	107	40,923	0.4	-	-	-
Louisiana	511	377,187	0.6	33	24,460	0.5	478	352,727	0.6
Maine	-	-	-	-	-	-	-	-	-
Maryland	279	55,381	0.5	279	55,381	0.5	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-
Michigan	1,049	274,683	0.5	1,049	274,683	0.5	-	-	-
Minnesota	1,191	302,357	0.7	1,191	302,357	0.7	-	-	-
Mississippi	554	354,588	0.8	78	34,621	0.7	476	319,967	0.8
Missouri	871	398,800	0.7	517	223,111	0.7	354	175,689	0.8
Montana	88	20,233	1.2	59	11,389	1.2	29	8,844	1.4
Nebraska	10,597	4,440,928	1.0	9,705	4,275,242	1.0	892	165,686	1.1
Nevada	43	4,215	3.4	2	(D)	(D)	41	(D)	(D)
New Hampshire	5	325	0.2	5	325	0.2	-	-	-
New Jersey	62	9,241	0.4	62	9,241	0.4	-	-	-
New Mexico	35	19,736	1.4	31	15,336	1.5	4	4,400	1.0
New York	59	810	0.5	59	810	0.5	-	-	-
North Carolina	258	38,394	0.6	258	38,394	0.6	-	-	-
North Dakota	320	106,949	0.7	300	102,164	0.7	20	4,785	0.9
Ohio	105	13,404	0.5	105	13,404	0.5	-	-	-
Oklahoma	236	84,603	1.7	236	84,603	1.7	-	-	-
Oregon	260	48,771	2.6	201	44,189	2.6	59	4,582	3.3
Pennsylvania	57	2,406	0.3	57	2,406	0.3	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	273	57,247	0.8	273	57,247	0.8	-	-	-
South Dakota	716	200,709	0.7	716	200,709	0.7	-	-	-
Tennessee	242	62,741	0.4	242	62,741	0.4	-	-	-
Texas	919	563,705	1.4	738	512,995	1.4	181	50,710	0.9
Utah	221	25,710	2.5	89	13,998	2.8	132	11,712	2.2
Vermont	-	-	-	-	-	-	-	-	-
Virginia	94	14,064	0.5	94	14,064	0.5	-	-	-
Washington	209	103,283	2.2	189	92,174	2.3	20	11,109	1.9
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	634	159,574	0.9	634	159,574	0.9	-	-	-
Wyoming	287	37,921	1.5	112	21,768	1.5	175	16,153	1.5
Water Resource Regions									
Region 01 New England	5	325	0.2	5	325	0.2	-	-	-
Region 02 Mid-Atlantic	765	146,971	0.5	760	145,971	0.5	5	1,000	0.6
Region 03 South Atlantic-Gulf	1,565	443,794	1.0	1,555	440,137	1.0	10	3,657	0.9
Region 04 Great Lakes	1,574	361,305	0.6	1,570	357,305	0.6	4	4,000	0.4
Region 05 Ohio	868	234,940	0.6	868	234,940	0.6	-	-	-
Region 06 Tennessee	141	33,835	0.5	141	33,835	0.5	-	-	-
Region 07 Upper Mississippi	3,289	963,135	0.7	3,266	960,285	0.7	23	2,850	0.4
Region 08 Lower Mississippi	2,689	1,613,157	0.8	476	232,773	0.7	2,213	1,380,384	0.9
Region 09 Souris-Red-Rainy	276	94,495	0.7	276	94,495	0.7	-	-	-
Region 10 Missouri	14,145	5,605,354	1.0	12,816	5,387,119	1.0	1,329	218,235	1.2
Region 11 Arkansas-White-Red	2,758	1,614,090	1.3	2,363	1,452,648	1.3	395	161,442	0.9
Region 12 Texas-Gulf	457	154,818	1.0	320	105,028	1.0	137	49,790	0.8
Region 13 Rio Grande	30	276	1.7	6	(D)	(D)	24	(D)	(D)
Region 14 Upper Colorado	108	23,142	2.9	24	9,580	3.7	84	13,562	2.4
Region 15 Lower Colorado	32	32,840	2.6	23	(D)	(D)	9	(D)	(D)
Region 16 Great Basin	241	21,645	2.1	68	6,184	1.3	173	15,461	2.5
Region 17 Pacific Northwest	931	231,849	2.3	656	196,841	2.3	275	35,008	2.2
Region 18 California	200	64,611	2.9	35	11,027	3.0	165	53,584	2.9
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	15	1,142	1.7	15	1,142	1.7	-	-	-

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Corn for silage or greenchop								
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution					
				Pressure system			Gravity system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023	6,819	1,909,521	2.2	4,297	1,252,923	1.7	2,522	656,598	3.0
..... 2018	7,930	1,648,789	2.0	4,654	991,891	1.4	3,276	656,898	2.9
2023 DATA									
Alabama	-	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-
Arizona	155	72,539	4.1	11	17,436	3.1	144	55,103	4.5
Arkansas	9	591	0.3	6	540	0.3	3	51	0.8
California	1,483	519,228	3.1	118	34,745	3.1	1,365	484,483	3.1
Colorado	525	149,586	1.7	385	115,762	1.6	140	33,824	2.0
Connecticut	-	-	-	-	-	-	-	-	-
Delaware	10	1,050	1.7	10	1,050	1.7	-	-	-
Florida	39	7,640	2.0	39	7,640	2.0	-	-	-
Georgia	28	10,725	1.3	28	10,725	1.3	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-
Idaho	915	284,691	2.0	743	265,774	2.0	172	18,917	2.0
Illinois	8	72	0.4	8	72	0.4	-	-	-
Indiana	70	12,757	0.5	70	12,757	0.5	-	-	-
Iowa	21	714	0.4	21	714	0.4	-	-	-
Kansas	301	98,779	1.3	301	98,779	1.3	-	-	-
Kentucky	7	1,540	1.8	7	1,540	1.8	-	-	-
Louisiana	-	-	-	-	-	-	-	-	-
Maine	-	-	-	-	-	-	-	-	-
Maryland	3	1,702	0.3	3	1,702	0.3	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-
Michigan	157	29,241	0.7	157	29,241	0.7	-	-	-
Minnesota	94	10,601	0.8	94	10,601	0.8	-	-	-
Mississippi	-	-	-	-	-	-	-	-	-
Missouri	-	-	-	-	-	-	-	-	-
Montana	175	32,405	1.6	69	15,776	1.7	106	16,629	1.6
Nebraska	849	119,913	0.9	763	116,459	0.9	86	3,454	1.1
Nevada	84	7,805	3.8	2	(D)	(D)	82	(D)	(D)
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-
New Mexico	138	54,428	1.4	77	42,000	1.4	61	12,428	1.7
New York	1	(D)	(D)	1	(D)	(D)	-	-	-
North Carolina	22	880	2.0	22	880	2.0	-	-	-
North Dakota	61	7,780	0.8	35	(D)	(D)	26	(D)	(D)
Ohio	12	4,298	0.4	12	4,298	0.4	-	-	-
Oklahoma	59	32,220	2.1	59	32,220	2.1	-	-	-
Oregon	203	46,653	2.2	183	42,615	2.2	20	4,038	2.8
Pennsylvania	21	2,387	0.5	21	2,387	0.5	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	6	600	1.4	6	600	1.4	-	-	-
South Dakota	48	7,520	0.8	48	7,520	0.8	-	-	-
Tennessee	-	-	-	-	-	-	-	-	-
Texas	357	202,710	1.7	357	202,710	1.7	-	-	-
Utah	356	61,121	2.7	180	53,971	2.7	176	7,150	2.6
Vermont	-	-	-	-	-	-	-	-	-
Virginia	27	2,354	0.5	27	2,354	0.5	-	-	-
Washington	290	84,553	2.4	241	75,158	2.4	49	9,395	2.2
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	124	27,579	0.5	124	27,579	0.5	-	-	-
Wyoming	161	12,519	2.1	69	8,853	2.0	92	3,666	2.2
Water Resource Regions									
Region 01 New England	-	-	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	61	7,493	0.6	61	7,493	0.6	-	-	-
Region 03 South Atlantic-Gulf	95	19,845	1.6	95	19,845	1.6	-	-	-
Region 04 Great Lakes	227	44,322	0.6	227	44,322	0.6	-	-	-
Region 05 Ohio	19	1,703	0.2	19	1,703	0.2	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	241	39,577	0.6	241	39,577	0.6	-	-	-
Region 08 Lower Mississippi	10	1,591	1.8	7	1,540	1.8	3	51	0.8
Region 09 Souris-Red-Rainy	16	1,760	0.7	11	1,600	0.6	5	160	1.2
Region 10 Missouri	1,749	333,641	1.4	1,352	281,185	1.3	397	52,456	1.8
Region 11 Arkansas-White-Red	561	268,340	1.7	530	261,580	1.7	31	6,760	2.0
Region 12 Texas-Gulf	258	85,174	1.4	254	75,790	1.5	4	9,384	1.0
Region 13 Rio Grande	70	12,423	2.3	13	9,379	1.8	57	3,044	3.9
Region 14 Upper Colorado	47	16,740	1.1	47	16,740	1.1	-	-	-
Region 15 Lower Colorado	162	76,034	4.2	11	17,436	3.1	151	58,598	4.5
Region 16 Great Basin	445	70,471	2.8	170	57,664	2.7	275	12,807	3.1
Region 17 Pacific Northwest	1,382	414,674	2.1	1,141	382,324	2.1	241	32,350	2.2
Region 18 California	1,476	515,733	3.1	118	34,745	3.1	1,358	480,988	3.1
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Sorghum for grain or seed								
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution					
				Pressure system			Gravity system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023	2,063	430,947	1.1	1,714	378,958	1.1	349	51,989	1.7
..... 2018	1,594	286,851	1.3	1,220	228,197	1.0	374	58,654	2.2
2023 DATA									
Alabama	-	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-
Arizona	1	(D)	(D)	-	-	-	1	(D)	(D)
Arkansas	32	2,512	0.7	3	(D)	0.7	29	(D)	0.7
California	14	12,181	2.6	-	-	-	14	12,181	2.6
Colorado	197	27,398	1.2	129	19,291	0.8	68	8,107	2.1
Connecticut	-	-	-	-	-	-	-	-	-
Delaware	5	638	0.3	5	638	0.3	-	-	-
Florida	30	150	1.1	30	150	1.1	-	-	-
Georgia	51	7,271	1.0	51	7,271	1.0	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-
Illinois	5	30	0.6	5	30	0.6	-	-	-
Indiana	35	536	0.2	35	536	0.2	-	-	-
Iowa	-	-	-	-	-	-	-	-	-
Kansas	524	116,808	0.9	504	116,208	0.9	20	600	0.3
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	7	980	0.3	7	980	0.3	-	-	-
Maine	-	-	-	-	-	-	-	-	-
Maryland	7	391	0.2	7	391	0.2	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-	-	-	-
Mississippi	-	-	-	-	-	-	-	-	-
Missouri	2	(D)	(D)	2	(D)	(D)	-	-	-
Montana	-	-	-	-	-	-	-	-	-
Nebraska	113	6,112	0.7	85	5,384	(D)	28	728	(D)
Nevada	1	(D)	(D)	1	(D)	(D)	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-
New Mexico	130	20,029	1.6	68	19,502	1.5	62	527	2.8
New York	-	-	-	-	-	-	-	-	-
North Carolina	-	-	-	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-	-	-
Oklahoma	113	19,258	1.1	113	19,258	1.1	-	-	-
Oregon	27	495	1.1	8	476	1.0	19	19	2.0
Pennsylvania	4	8	0.3	4	8	0.3	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	1	(D)	(D)	1	(D)	(D)	-	-	-
South Dakota	-	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-	-	-
Texas	740	213,202	1.1	632	187,182	1.1	108	26,020	1.1
Utah	24	128	3.0	24	128	3.0	-	-	-
Vermont	-	-	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-
Water Resource Regions									
Region 01 New England	-	-	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	16	1,037	0.3	16	1,037	0.3	-	-	-
Region 03 South Atlantic-Gulf	82	7,621	1.0	82	7,621	1.0	-	-	-
Region 04 Great Lakes	1	(D)	(D)	1	(D)	(D)	-	-	-
Region 05 Ohio	-	-	-	-	-	-	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	39	438	0.1	39	438	0.1	-	-	-
Region 08 Lower Mississippi	22	(D)	0.5	12	(D)	(D)	10	(D)	(D)
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	260	34,717	0.6	231	33,839	0.6	29	878	0.9
Region 11 Arkansas-White-Red	1,031	260,073	1.2	925	249,704	1.1	106	10,369	1.8
Region 12 Texas-Gulf	363	104,732	1.1	326	79,620	1.1	37	25,112	1.1
Region 13 Rio Grande	182	5,097	(D)	49	3,662	2.1	133	1,435	(D)
Region 14 Upper Colorado	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	1	(D)	(D)	-	-	-	1	(D)	(D)
Region 16 Great Basin	25	728	1.3	25	728	1.3	-	-	-
Region 17 Pacific Northwest	27	495	1.1	8	476	1.0	19	19	2.0
Region 18 California	14	12,181	2.6	-	-	-	14	12,181	2.6
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Wheat for grain or seed									
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution						
				Pressure system			Gravity system			
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre	
United States 2023	7,960	2,143,635	1.3	6,441	1,863,002	1.1	1,519	280,633	2.1	
..... 2018	8,760	2,311,703	1.4	6,363	1,831,164	1.2	2,397	480,539	2.1	
2023 DATA										
Alabama	1	(D)	(D)	1	(D)	(D)	-	-	-	
Alaska	2	(D)	(D)	2	(D)	(D)	-	-	-	
Arizona	142	58,843	3.4	24	14,950	2.6	118	43,893	3.7	
Arkansas	4	445	0.6	-	-	-	4	445	0.6	
California	473	125,405	2.2	74	16,717	2.0	399	108,688	2.2	
Colorado	391	51,269	1.1	372	49,581	1.0	19	1,688	2.0	
Connecticut	-	-	-	-	-	-	-	-	-	
Delaware	44	7,940	0.2	44	7,940	0.2	-	-	-	
Florida	-	-	-	-	-	-	-	-	-	
Georgia	70	35,477	1.1	70	35,477	1.1	-	-	-	
Hawaii	-	-	-	-	-	-	-	-	-	
Idaho	1,208	468,288	1.6	852	431,779	1.5	356	36,509	2.2	
Illinois	54	16,158	0.4	54	16,158	0.4	-	-	-	
Indiana	109	11,225	0.4	109	11,225	0.4	-	-	-	
Iowa	-	-	-	-	-	-	-	-	-	
Kansas	1,568	385,505	0.8	1,508	380,985	0.8	60	4,520	0.5	
Kentucky	7	5,733	1.8	7	5,733	1.8	-	-	-	
Louisiana	1	(D)	(D)	-	-	-	1	(D)	(D)	
Maine	-	-	-	-	-	-	-	-	-	
Maryland	59	7,436	0.2	59	7,436	0.2	-	-	-	
Massachusetts	-	-	-	-	-	-	-	-	-	
Michigan	219	26,386	0.4	219	26,386	0.4	-	-	-	
Minnesota	15	4,435	0.5	15	4,435	0.5	-	-	-	
Mississippi	8	1,600	0.5	-	-	-	8	1,600	0.5	
Missouri	43	19,328	0.2	36	13,637	0.2	7	5,691	0.2	
Montana	445	102,340	0.8	273	79,524	0.8	172	22,816	0.8	
Nebraska	434	70,750	0.7	433	(D)	(D)	1	(D)	(D)	
Nevada	15	8,292	2.7	2	(D)	(D)	13	(D)	(D)	
New Hampshire	5	50	0.2	5	50	0.2	-	-	-	
New Jersey	45	2,543	0.2	45	2,543	0.2	-	-	-	
New Mexico	43	24,190	1.3	27	9,812	1.0	16	14,378	1.4	
New York	-	-	-	-	-	-	-	-	-	
North Carolina	79	4,449	1.1	79	4,449	1.1	-	-	-	
North Dakota	113	21,228	0.6	70	9,760	0.5	43	11,468	0.7	
Ohio	4	174	0.2	4	174	0.2	-	-	-	
Oklahoma	319	113,028	1.2	304	111,132	1.2	15	1,896	1.1	
Oregon	354	85,668	1.5	309	75,213	1.4	45	10,455	2.3	
Pennsylvania	6	456	0.2	6	456	0.2	-	-	-	
Rhode Island	-	-	-	-	-	-	-	-	-	
South Carolina	18	3,348	1.6	18	3,348	1.6	-	-	-	
South Dakota	19	1,819	2.1	2	(D)	(D)	17	(D)	(D)	
Tennessee	28	3,936	0.2	28	3,936	0.2	-	-	-	
Texas	839	277,648	1.1	838	(D)	(D)	1	(D)	(D)	
Utah	350	22,646	1.9	152	16,433	1.7	198	6,213	2.3	
Vermont	-	-	-	-	-	-	-	-	-	
Virginia	16	392	0.1	16	392	0.1	-	-	-	
Washington	388	170,971	1.5	372	166,558	1.5	16	4,413	1.9	
West Virginia	-	-	-	-	-	-	-	-	-	
Wisconsin	-	-	-	-	-	-	-	-	-	
Wyoming	22	2,462	0.9	12	1,505	0.7	10	957	1.2	
Water Resource Regions										
Region 01 New England	5	50	0.2	5	50	0.2	-	-	-	
Region 02 Mid-Atlantic	170	18,767	0.2	170	18,767	0.2	-	-	-	
Region 03 South Atlantic-Gulf	167	43,274	1.2	167	43,274	1.2	-	-	-	
Region 04 Great Lakes	225	27,032	0.4	225	27,032	0.4	-	-	-	
Region 05 Ohio	46	19,838	0.6	46	19,838	0.6	-	-	-	
Region 06 Tennessee	1	(D)	(D)	1	(D)	(D)	-	-	-	
Region 07 Upper Mississippi	131	14,241	0.4	131	14,241	0.4	-	-	-	
Region 08 Lower Mississippi	75	25,094	0.4	58	17,343	0.5	17	7,751	0.3	
Region 09 Souris-Red-Rainy	31	4,455	(D)	26	4,290	(D)	5	165	(D)	
Region 10 Missouri	1,685	321,240	0.8	1,434	284,657	0.8	251	36,583	0.8	
Region 11 Arkansas-White-Red	2,075	598,172	1.0	1,990	588,593	1.0	85	9,579	1.0	
Region 12 Texas-Gulf	352	110,701	1.2	342	97,203	1.1	10	13,498	1.4	
Region 13 Rio Grande	29	4,140	1.3	23	(D)	(D)	6	(D)	(D)	
Region 14 Upper Colorado	45	(D)	1.2	23	(D)	1.1	22	(D)	2.8	
Region 15 Lower Colorado	151	61,069	3.4	24	14,950	2.6	127	46,119	3.7	
Region 16 Great Basin	342	31,240	2.1	153	23,241	1.9	189	7,999	2.6	
Region 17 Pacific Northwest	1,941	726,521	1.5	1,524	675,144	1.5	417	51,377	2.2	
Region 18 California	487	128,429	2.1	97	21,967	1.8	390	106,462	2.2	
Region 19 Alaska	2	(D)	(D)	2	(D)	(D)	-	-	-	
Region 20 Hawaii	-	-	-	-	-	-	-	-	-	

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Soybeans for beans								
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution					
				Pressure system			Gravity system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023	20,417	8,190,426	0.7	15,968	4,068,288	0.7	4,449	4,122,138	0.8
..... 2018	21,316	8,215,031	0.6	16,326	4,496,694	0.5	4,990	3,718,337	0.7
2023 DATA									
Alabama	164	26,107	0.4	163	(D)	(D)	1	(D)	(D)
Alaska	-	-	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	-	-	-	-
Arkansas	2,104	2,385,373	0.8	149	181,036	0.7	1,955	2,204,337	0.8
California	-	-	-	-	-	-	-	-	-
Colorado	5	610	1.2	5	610	1.2	-	-	-
Connecticut	-	-	-	-	-	-	-	-	-
Delaware	265	42,818	0.5	260	42,568	0.5	5	250	0.6
Florida	-	-	-	-	-	-	-	-	-
Georgia	270	32,338	0.5	270	32,338	0.5	-	-	-
Hawaii	13	44	1.4	13	44	1.4	-	-	-
Idaho	-	-	-	-	-	-	-	-	-
Illinois	877	220,494	0.6	877	220,494	0.6	-	-	-
Indiana	919	198,775	0.4	919	198,775	0.4	-	-	-
Iowa	415	86,387	0.5	415	86,387	0.5	-	-	-
Kansas	1,309	270,451	1.0	1,187	261,349	1.0	122	9,102	0.9
Kentucky	67	27,997	0.4	67	27,997	0.4	-	-	-
Louisiana	551	385,000	0.7	38	13,655	0.5	513	371,345	0.7
Maine	-	-	-	-	-	-	-	-	-
Maryland	265	46,152	0.4	265	46,152	0.4	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-
Michigan	745	143,716	0.5	745	143,716	0.5	-	-	-
Minnesota	777	110,363	0.6	777	110,363	0.6	-	-	-
Mississippi	1,038	1,163,944	0.8	82	71,581	0.7	956	1,092,363	0.8
Missouri	969	644,367	0.7	530	261,918	0.7	439	382,449	0.7
Montana	24	3,135	0.5	21	(D)	(D)	3	(D)	(D)
Nebraska	7,624	2,015,309	0.8	7,217	1,961,086	0.8	407	54,223	1.0
Nevada	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	53	4,161	0.5	53	4,161	0.5	-	-	-
New Mexico	-	-	-	-	-	-	-	-	-
New York	-	-	-	-	-	-	-	-	-
North Carolina	161	11,461	0.5	161	11,461	0.5	-	-	-
North Dakota	209	52,703	0.6	190	48,598	0.5	19	4,105	0.9
Ohio	55	7,031	0.4	55	7,031	0.4	-	-	-
Oklahoma	60	18,202	1.3	60	18,202	1.3	-	-	-
Oregon	-	-	-	-	-	-	-	-	-
Pennsylvania	41	1,244	0.3	41	1,244	0.3	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	171	19,780	0.4	171	19,780	0.4	-	-	-
South Dakota	534	116,854	0.6	534	116,854	0.6	-	-	-
Tennessee	182	63,884	0.3	182	63,884	0.3	-	-	-
Texas	38	5,240	0.3	9	2,780	0.4	29	2,460	0.2
Utah	-	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-	-
Virginia	77	9,784	0.4	77	9,784	0.4	-	-	-
Washington	-	-	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	435	76,702	0.8	435	76,702	0.8	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-
Water Resource Regions									
Region 01 New England	-	-	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	683	103,049	0.4	678	102,799	0.4	5	250	0.6
Region 03 South Atlantic-Gulf	698	76,314	0.5	697	(D)	(D)	1	(D)	(D)
Region 04 Great Lakes	1,099	197,389	0.5	1,099	197,389	0.5	-	-	-
Region 05 Ohio	644	166,463	0.5	644	166,463	0.5	-	-	-
Region 06 Tennessee	109	23,736	0.4	109	23,736	0.4	-	-	-
Region 07 Upper Mississippi	2,401	466,085	0.6	2,367	462,973	0.6	34	3,112	0.5
Region 08 Lower Mississippi	4,110	4,273,947	0.7	598	485,150	0.7	3,512	3,788,797	0.8
Region 09 Souris-Red-Rainy	180	33,709	0.5	180	33,709	0.5	-	-	-
Region 10 Missouri	9,139	2,318,105	0.8	8,608	2,252,845	0.8	531	65,260	1.0
Region 11 Arkansas-White-Red	1,313	530,025	0.9	971	267,260	1.0	342	262,765	0.7
Region 12 Texas-Gulf	28	1,560	0.5	4	(D)	(D)	24	(D)	(D)
Region 13 Rio Grande	-	-	-	-	-	-	-	-	-
Region 14 Upper Colorado	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	-	-	-	-	-	-	-	-	-
Region 16 Great Basin	-	-	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	-	-	-	-	-	-	-	-
Region 18 California	-	-	-	-	-	-	-	-	-
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	13	44	1.4	13	44	1.4	-	-	-

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Beans, dry edible								
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution					
				Pressure system			Gravity system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023	1,647	314,147	1.2	1,161	269,005	1.1	486	45,142	2.0
..... 2018	2,275	416,608	1.4	1,558	328,169	1.2	717	88,439	2.0
2023 DATA									
Alabama	23	690	0.7	23	690	0.7	-	-	-
Alaska	-	-	-	-	-	-	-	-	-
Arizona	26	7,437	2.0	3	6,816	2.0	23	621	2.5
Arkansas	-	-	-	-	-	-	-	-	-
California	101	22,845	1.8	31	11,326	1.2	70	11,519	2.5
Colorado	196	29,256	1.5	143	21,881	1.3	53	7,375	2.1
Connecticut	-	-	-	-	-	-	-	-	-
Delaware	20	1,492	0.4	20	1,492	0.4	-	-	-
Florida	4	8	1.4	4	8	1.4	-	-	-
Georgia	27	27	0.3	27	27	0.3	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-
Idaho	382	48,428	1.4	232	38,804	1.4	150	9,624	1.5
Illinois	22	1,334	0.3	22	1,334	0.3	-	-	-
Indiana	21	3,273	0.4	21	3,273	0.4	-	-	-
Iowa	-	-	-	-	-	-	-	-	-
Kansas	5	1,200	0.7	5	1,200	0.7	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-	-	-	-
Maine	5	20	1.7	5	20	1.7	-	-	-
Maryland	13	1,486	0.4	13	1,486	0.4	-	-	-
Massachusetts	9	9	1.7	9	9	1.7	-	-	-
Michigan	24	4,380	0.3	24	4,380	0.3	-	-	-
Minnesota	56	38,723	0.6	56	38,723	0.6	-	-	-
Mississippi	-	-	-	-	-	-	-	-	-
Missouri	7	42	0.2	7	42	0.2	-	-	-
Montana	1	(D)	(D)	1	(D)	(D)	-	-	-
Nebraska	252	67,775	0.7	252	67,775	0.7	-	-	-
Nevada	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-
New Mexico	73	290	1.6	11	11	1.1	62	279	1.6
New York	19	86	0.3	19	86	0.3	-	-	-
North Carolina	-	-	-	-	-	-	-	-	-
North Dakota	46	12,022	0.5	46	12,022	0.5	-	-	-
Ohio	-	-	-	-	-	-	-	-	-
Oklahoma	-	-	-	-	-	-	-	-	-
Oregon	42	4,702	1.7	14	3,012	1.6	28	1,690	1.8
Pennsylvania	2	(D)	(D)	2	(D)	(D)	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	24	(D)	(D)	24	(D)	(D)	-	-	-
South Dakota	-	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-	-	-
Texas	26	12,090	0.7	26	12,090	0.7	-	-	-
Utah	3	3	4.0	3	3	4.0	-	-	-
Vermont	-	-	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-	-	-
Washington	146	41,881	1.9	111	35,943	1.9	35	5,938	2.0
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	7	6,199	1.8	7	6,199	1.8	-	-	-
Wyoming	65	8,096	1.6	-	-	-	65	8,096	1.6
Water Resource Regions									
Region 01 New England	14	29	1.7	14	29	1.7	-	-	-
Region 02 Mid-Atlantic	35	2,980	0.4	35	2,980	0.4	-	-	-
Region 03 South Atlantic-Gulf	78	749	0.7	78	749	0.7	-	-	-
Region 04 Great Lakes	43	4,466	0.3	43	4,466	0.3	-	-	-
Region 05 Ohio	4	672	0.4	4	672	0.4	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	102	48,857	0.7	102	48,857	0.7	-	-	-
Region 08 Lower Mississippi	-	-	-	-	-	-	-	-	-
Region 09 Souris-Red-Rainy	37	9,497	0.5	37	9,497	0.5	-	-	-
Region 10 Missouri	442	98,309	0.9	377	90,213	0.8	65	8,096	1.6
Region 11 Arkansas-White-Red	14	2,595	1.4	1	(D)	(D)	13	(D)	(D)
Region 12 Texas-Gulf	25	11,900	0.7	25	11,900	0.7	-	-	-
Region 13 Rio Grande	47	233	1.5	11	(D)	(D)	36	(D)	(D)
Region 14 Upper Colorado	106	8,564	2.1	40	3,537	1.6	66	5,027	2.4
Region 15 Lower Colorado	26	7,437	2.0	3	6,816	2.0	23	621	2.5
Region 16 Great Basin	3	3	4.0	3	3	4.0	-	-	-
Region 17 Pacific Northwest	570	95,011	1.6	357	77,759	1.6	213	17,252	1.7
Region 18 California	101	22,845	1.8	31	11,326	1.2	70	11,519	2.5
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Rice								
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution					
				Pressure system			Gravity system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023	3,550	2,268,904	2.5	70	45,644	2.5	3,480	2,223,260	2.5
..... 2018	3,813	2,370,113	2.5	33	10,600	1.2	3,780	2,359,513	2.5
2023 DATA									
Alabama	-	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	-	-	-	-
Arkansas	1,505	1,129,261	2.0	-	-	-	1,505	1,129,261	2.0
California	875	430,483	4.5	24	9,264	3.0	851	421,219	4.5
Colorado	-	-	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-
Florida	3	7,567	(D)	-	-	-	3	7,567	(D)
Georgia	-	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-
Illinois	-	-	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-
Kansas	-	-	-	-	-	-	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	654	426,876	1.9	-	-	-	654	426,876	1.9
Maine	-	-	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-	-	-	-
Mississippi	125	89,846	2.2	-	-	-	125	89,846	2.2
Missouri	215	122,248	1.5	15	5,380	1.1	200	116,868	1.6
Montana	-	-	-	-	-	-	-	-	-
Nebraska	-	-	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-
New Mexico	-	-	-	-	-	-	-	-	-
New York	-	-	-	-	-	-	-	-	-
North Carolina	-	-	-	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-	-	-
Oklahoma	-	-	-	-	-	-	-	-	-
Oregon	-	-	-	-	-	-	-	-	-
Pennsylvania	-	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	-	-	-	-	-	-	-	-	-
South Dakota	-	-	-	-	-	-	-	-	-
Tennessee	26	104	1.5	-	-	-	26	104	1.5
Texas	143	62,495	2.3	31	31,000	2.5	112	31,495	2.1
Utah	-	-	-	-	-	-	-	-	-
Vermont	4	24	1.2	-	-	-	4	24	1.2
Virginia	-	-	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-
Water Resource Regions									
Region 01 New England	-	-	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	-	-	-	-	-	-	-	-	-
Region 03 South Atlantic-Gulf	3	7,567	(D)	-	-	-	3	7,567	(D)
Region 04 Great Lakes	4	24	1.2	-	-	-	4	24	1.2
Region 05 Ohio	26	104	1.5	-	-	-	26	104	1.5
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	-	-	-	-	-	-	-	-	-
Region 08 Lower Mississippi	2,179	1,555,958	2.0	15	5,380	1.1	2,164	1,550,578	2.0
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	-	-	-	-	-	-	-	-	-
Region 11 Arkansas-White-Red	320	212,273	1.8	-	-	-	320	212,273	1.8
Region 12 Texas-Gulf	143	62,495	(D)	31	31,000	2.5	112	31,495	(D)
Region 13 Rio Grande	-	-	-	-	-	-	-	-	-
Region 14 Upper Colorado	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	-	-	-	-	-	-	-	-	-
Region 16 Great Basin	-	-	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	-	-	-	-	-	-	-	-
Region 18 California	875	430,483	4.5	24	9,264	3.0	851	421,219	4.5
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Other small grains (barley, oats, rye, etc.)								
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution					
				Pressure system			Gravity system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023 2018	4,689 5,767	1,141,657 1,026,289	1.3 1.5	3,222 3,372	860,715 713,678	1.2 1.4	1,467 2,395	280,942 312,611	1.7 1.8
2023 DATA									
Alabama	23	1,150	0.9	23	1,150	0.9	-	-	-
Alaska	-	-	-	-	-	-	-	-	-
Arizona	112	29,852	3.3	23	3,594	4.5	89	26,258	3.1
Arkansas	6	204	0.5	-	-	-	6	204	0.5
California	422	133,859	1.7	107	34,607	1.7	315	99,252	1.7
Colorado	286	54,580	1.5	157	44,380	1.6	129	10,200	1.1
Connecticut	-	-	-	-	-	-	-	-	-
Delaware	6	389	1.0	6	389	1.0	-	-	-
Florida	103	18,458	0.6	103	18,458	0.6	-	-	-
Georgia	41	2,725	0.4	41	2,725	0.4	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-
Idaho	1,047	422,348	1.2	732	392,437	1.2	315	29,911	1.1
Illinois	12	777	0.3	12	777	0.3	-	-	-
Indiana	19	130	0.3	19	130	0.3	-	-	-
Iowa	-	-	-	-	-	-	-	-	-
Kansas	124	24,239	0.7	124	24,239	0.7	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-	-	-	-
Maine	-	-	-	-	-	-	-	-	-
Maryland	8	908	0.3	8	908	0.3	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-
Michigan	22	1,033	0.7	22	1,033	0.7	-	-	-
Minnesota	68	3,108	0.7	68	3,108	0.7	-	-	-
Mississippi	-	-	-	-	-	-	-	-	-
Missouri	11	11	1.0	-	-	-	11	11	1.0
Montana	554	117,556	1.0	339	62,987	0.9	215	54,569	1.0
Nebraska	198	15,738	0.6	198	15,738	0.6	-	-	-
Nevada	109	13,262	3.2	2	(D)	(D)	107	(D)	(D)
New Hampshire	8	53	0.2	8	53	0.2	-	-	-
New Jersey	16	208	1.0	16	208	1.0	-	-	-
New Mexico	54	24,923	1.6	48	16,903	1.4	6	8,020	1.9
New York	-	-	-	-	-	-	-	-	-
North Carolina	23	690	0.1	23	690	0.1	-	-	-
North Dakota	15	2,725	0.7	10	(D)	(D)	5	(D)	(D)
Ohio	1	(D)	(D)	1	(D)	(D)	-	-	-
Oklahoma	117	65,054	0.8	117	65,054	0.8	-	-	-
Oregon	224	22,709	1.3	178	20,821	1.2	46	1,888	2.4
Pennsylvania	-	-	-	-	-	-	-	-	-
Rhode Island	3	3	1.0	3	3	1.0	-	-	-
South Carolina	28	1,799	1.3	28	1,799	1.3	-	-	-
South Dakota	17	544	0.8	-	-	-	17	544	0.8
Tennessee	-	-	-	-	-	-	-	-	-
Texas	178	84,248	1.4	178	84,248	1.4	-	-	-
Utah	391	21,963	1.6	325	19,338	1.5	66	2,625	2.7
Vermont	-	-	-	-	-	-	-	-	-
Virginia	17	17	0.7	17	17	0.7	-	-	-
Washington	118	13,621	1.6	107	11,011	1.6	11	2,610	1.5
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	4	3,218	0.3	4	3,218	0.3	-	-	-
Wyoming	304	59,546	2.0	175	27,030	1.7	129	32,516	2.2
Water Resource Regions									
Region 01 New England	11	56	0.2	11	56	0.2	-	-	-
Region 02 Mid-Atlantic	47	1,522	0.5	47	1,522	0.5	-	-	-
Region 03 South Atlantic-Gulf	218	24,822	0.6	218	24,822	0.6	-	-	-
Region 04 Great Lakes	22	1,033	0.7	22	1,033	0.7	-	-	-
Region 05 Ohio	2	(D)	(D)	2	(D)	(D)	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	102	7,186	0.5	102	7,186	0.5	-	-	-
Region 08 Lower Mississippi	6	(D)	(D)	-	-	-	6	(D)	(D)
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	1,159	218,722	1.2	738	126,462	1.0	421	92,260	1.4
Region 11 Arkansas-White-Red	233	130,492	1.1	233	130,492	1.1	-	-	-
Region 12 Texas-Gulf	155	45,197	1.3	154	(D)	(D)	1	(D)	(D)
Region 13 Rio Grande	195	50,067	1.6	132	43,430	(D)	63	6,637	(D)
Region 14 Upper Colorado	135	4,754	2.2	108	(D)	2.3	27	(D)	0.7
Region 15 Lower Colorado	118	36,100	3.3	27	4,286	4.1	91	31,814	3.2
Region 16 Great Basin	490	59,726	1.6	317	44,992	1.1	173	14,734	3.2
Region 17 Pacific Northwest	1,357	432,834	1.2	985	398,425	1.2	372	34,409	1.2
Region 18 California	439	128,886	1.6	126	35,190	1.7	313	93,696	1.5
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Alfalfa and alfalfa mixtures (dry hay, greenchop, and silage)								
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution					
				Pressure system			Gravity system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023	39,673	5,408,531	2.3	22,149	3,368,679	2.0	17,524	2,039,852	2.9
..... 2018	48,697	6,165,406	2.2	25,263	3,790,205	1.9	23,434	2,375,201	2.7
2023 DATA									
Alabama	47	1,159	0.4	47	1,159	0.4	-	-	-
Alaska	-	-	-	-	-	-	-	-	-
Arizona	732	369,330	5.2	97	61,283	5.0	635	308,047	5.3
Arkansas	13	430	0.2	6	360	(D)	7	70	(D)
California	1,855	613,232	3.6	437	148,578	2.8	1,418	464,654	3.8
Colorado	5,407	531,638	1.9	1,579	274,632	1.9	3,828	257,006	2.0
Connecticut	-	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-
Florida	12	1,100	0.6	10	(D)	(D)	2	(D)	(D)
Georgia	-	-	-	-	-	-	-	-	-
Hawaii	1	(D)	(D)	1	(D)	(D)	-	-	-
Idaho	6,026	837,085	1.8	3,878	680,772	1.8	2,148	156,313	1.8
Illinois	14	140	0.3	14	140	0.3	-	-	-
Indiana	112	4,597	0.6	111	(D)	(D)	1	(D)	(D)
Iowa	49	1,407	0.5	49	1,407	0.5	-	-	-
Kansas	543	118,320	1.4	543	118,320	1.4	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-	-	-	-
Maine	-	-	-	-	-	-	-	-	-
Maryland	7	(D)	(D)	7	(D)	(D)	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-
Michigan	354	34,188	0.6	354	34,188	0.6	-	-	-
Minnesota	214	12,558	0.6	198	12,478	0.6	16	80	0.8
Mississippi	8	128	1.0	-	-	-	8	128	1.0
Missouri	23	1,220	0.3	11	1,100	0.3	12	120	0.5
Montana	3,464	558,762	1.3	1,943	337,743	1.2	1,521	221,019	1.3
Nebraska	2,575	256,206	0.9	2,229	227,343	0.9	346	28,863	0.7
Nevada	860	309,480	3.1	325	128,769	3.1	535	180,711	3.2
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-
New Mexico	2,768	128,151	2.7	457	66,356	2.7	2,311	61,795	2.6
New York	1	(D)	(D)	1	(D)	(D)	-	-	-
North Carolina	-	-	-	-	-	-	-	-	-
North Dakota	67	7,885	0.9	42	5,920	0.8	25	1,965	1.0
Ohio	39	2,941	0.4	39	2,941	0.4	-	-	-
Oklahoma	149	28,236	1.4	138	20,646	1.6	11	7,590	1.0
Oregon	1,973	315,734	2.1	1,602	285,339	2.1	371	30,395	2.1
Pennsylvania	8	1,168	0.4	8	1,168	0.4	-	-	-
Rhode Island	3	3	1.0	3	3	1.0	-	-	-
South Carolina	-	-	-	-	-	-	-	-	-
South Dakota	314	35,872	0.7	190	28,920	0.7	124	6,952	0.7
Tennessee	-	-	-	-	-	-	-	-	-
Texas	550	44,788	2.1	385	32,936	2.3	165	11,852	1.5
Utah	6,699	523,658	2.4	4,271	391,854	2.6	2,428	131,804	2.0
Vermont	-	-	-	-	-	-	-	-	-
Virginia	33	981	0.4	33	981	0.4	-	-	-
Washington	1,848	278,355	2.7	1,815	277,808	2.7	33	547	2.3
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	214	15,696	0.5	214	15,696	0.5	-	-	-
Wyoming	2,691	373,837	1.7	1,112	204,198	1.8	1,579	169,639	1.6
Water Resource Regions									
Region 01 New England	3	3	1.0	3	3	1.0	-	-	-
Region 02 Mid-Atlantic	48	2,234	0.4	48	2,234	0.4	-	-	-
Region 03 South Atlantic-Gulf	67	2,387	0.5	57	(D)	(D)	10	(D)	(D)
Region 04 Great Lakes	470	44,414	0.6	470	44,414	0.6	-	-	-
Region 05 Ohio	44	(D)	(D)	43	(D)	(D)	1	(D)	(D)
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	479	26,466	0.6	463	26,386	0.6	16	80	0.8
Region 08 Lower Mississippi	12	120	0.5	-	-	-	12	120	0.5
Region 09 Souris-Red-Rainy	15	2,140	0.7	15	2,140	0.7	-	-	-
Region 10 Missouri	9,430	1,278,233	1.4	5,421	828,028	1.3	4,009	450,205	1.4
Region 11 Arkansas-White-Red	1,632	279,419	1.9	796	178,835	1.6	836	100,584	2.3
Region 12 Texas-Gulf	215	11,260	1.7	190	10,128	1.7	25	1,132	1.3
Region 13 Rio Grande	2,630	175,028	2.2	398	100,848	2.3	2,232	74,180	2.1
Region 14 Upper Colorado	4,977	333,003	2.0	2,073	205,664	2.2	2,904	127,339	1.7
Region 15 Lower Colorado	976	452,690	5.1	299	85,569	4.6	677	367,121	5.2
Region 16 Great Basin	6,531	757,720	2.7	3,810	444,984	2.7	2,721	312,736	2.7
Region 17 Pacific Northwest	10,054	1,444,600	2.0	7,375	1,251,885	2.1	2,679	192,715	1.8
Region 18 California	2,089	597,718	3.3	687	184,508	2.5	1,402	413,210	3.7
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	1	(D)	(D)	1	(D)	(D)	-	-	-

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All other hay (dry hay, greenchop, and silage)								
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution					
				Pressure system			Gravity system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023 2018	25,421 25,402	3,196,249 3,263,946	1.6 1.7	13,110 11,877	1,509,007 1,212,542	1.3 1.4	12,311 13,525	1,687,242 2,051,404	1.8 1.9
2023 DATA									
Alabama	30	4,452	1.3	30	4,452	1.3	-	-	-
Alaska	4	(D)	(D)	2	(D)	(D)	2	(D)	(D)
Arizona	265	67,100	2.6	67	33,099	2.0	198	34,001	3.3
Arkansas	88	6,242	0.8	67	4,031	0.7	21	2,211	1.0
California	1,485	388,945	2.6	383	54,044	1.8	1,102	334,901	2.8
Colorado	4,239	473,742	1.4	797	106,010	1.3	3,442	367,732	1.4
Connecticut	3	3	1.6	3	3	1.6	-	-	-
Delaware	-	-	-	-	-	-	-	-	-
Florida	104	14,070	0.7	104	14,070	0.7	-	-	-
Georgia	265	27,836	1.4	265	27,836	1.4	-	-	-
Hawaii	14	14	1.3	14	14	1.3	-	-	-
Idaho	1,609	144,772	1.4	864	93,270	1.4	745	51,502	1.4
Illinois	-	-	-	-	-	-	-	-	-
Indiana	34	170	0.4	34	170	0.4	-	-	-
Iowa	21	105	0.6	21	105	0.6	-	-	-
Kansas	620	128,473	0.9	620	128,473	0.9	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	37	1,180	0.2	25	(D)	(D)	12	(D)	(D)
Maine	-	-	-	-	-	-	-	-	-
Maryland	1	(D)	(D)	1	(D)	(D)	-	-	-
Massachusetts	8	40	1.9	8	40	1.9	-	-	-
Michigan	36	486	0.2	36	486	0.2	-	-	-
Minnesota	-	-	-	-	-	-	-	-	-
Mississippi	32	1,656	0.4	32	1,656	0.4	-	-	-
Missouri	44	1,595	0.8	44	1,595	0.8	-	-	-
Montana	2,449	283,405	1.4	1,088	92,783	1.2	1,361	190,622	1.5
Nebraska	1,007	97,294	0.9	890	94,314	0.9	117	2,980	0.9
Nevada	565	162,040	2.6	212	22,071	2.4	353	139,969	2.6
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	16	64	1.2	16	64	1.2	-	-	-
New Mexico	1,117	72,885	1.3	204	42,802	1.0	913	30,083	1.7
New York	19	38	2.1	19	38	2.1	-	-	-
North Carolina	251	7,586	1.0	251	7,586	1.0	-	-	-
North Dakota	17	1,662	0.9	9	1,500	0.9	8	162	1.1
Ohio	1	(D)	(D)	1	(D)	(D)	-	-	-
Oklahoma	477	82,954	0.8	477	82,954	0.8	-	-	-
Oregon	2,980	263,001	1.5	1,964	143,260	1.6	1,016	119,741	1.3
Pennsylvania	5	195	0.3	5	195	0.3	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	82	2,796	1.5	82	2,796	1.5	-	-	-
South Dakota	92	7,499	1.0	47	5,140	1.1	45	2,359	0.8
Tennessee	25	125	1.7	25	125	1.7	-	-	-
Texas	2,596	405,113	1.3	2,027	365,639	1.3	569	39,474	1.4
Utah	1,807	84,304	2.4	707	39,775	2.4	1,100	44,529	2.3
Vermont	-	-	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-	-	-
Washington	1,365	105,463	1.6	1,261	94,621	1.6	104	10,842	1.9
West Virginia	6	120	1.3	6	120	1.3	-	-	-
Wisconsin	9	1,623	0.8	9	1,623	0.8	-	-	-
Wyoming	1,596	356,163	1.3	393	40,391	1.8	1,203	315,772	1.3
Water Resource Regions									
Region 01 New England	11	43	1.9	11	43	1.9	-	-	-
Region 02 Mid-Atlantic	41	305	0.8	41	305	0.8	-	-	-
Region 03 South Atlantic-Gulf	756	57,756	1.1	756	57,756	1.1	-	-	-
Region 04 Great Lakes	38	1,997	0.7	38	1,997	0.7	-	-	-
Region 05 Ohio	23	188	(D)	23	188	(D)	-	-	-
Region 06 Tennessee	25	(D)	1.7	25	(D)	1.7	-	-	-
Region 07 Upper Mississippi	68	2,167	0.7	68	2,167	0.7	-	-	-
Region 08 Lower Mississippi	67	4,006	0.8	46	1,765	0.5	21	2,241	1.0
Region 09 Souris-Red-Rainy	9	1,075	0.9	4	(D)	(D)	5	(D)	(D)
Region 10 Missouri	5,060	662,754	1.3	2,139	261,884	1.2	2,921	400,870	1.4
Region 11 Arkansas-White-Red	2,100	398,405	1.1	1,443	352,976	1.1	657	45,429	1.5
Region 12 Texas-Gulf	1,981	234,191	1.3	1,586	213,080	1.3	395	21,111	1.3
Region 13 Rio Grande	1,005	101,416	1.5	260	37,832	1.6	745	63,584	1.5
Region 14 Upper Colorado	3,180	472,322	1.5	556	86,100	1.6	2,624	386,222	1.5
Region 15 Lower Colorado	300	69,152	2.6	95	34,521	2.0	205	34,631	3.3
Region 16 Great Basin	2,267	229,584	2.3	822	42,677	2.2	1,445	186,907	2.3
Region 17 Pacific Northwest	6,915	560,911	1.4	4,711	349,901	1.5	2,204	211,010	1.4
Region 18 California	1,557	399,336	2.6	470	64,176	1.8	1,087	335,160	2.8
Region 19 Alaska	4	(D)	(D)	2	(D)	(D)	2	(D)	(D)
Region 20 Hawaii	14	14	1.3	14	14	1.3	-	-	-

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Peanuts								
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution					
				Pressure system			Gravity system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023	1,875	540,245	1.0	1,815	514,215	1.0	60	26,030	0.7
..... 2018	1,701	460,155	0.7	1,629	447,984	0.7	72	12,171	0.5
2023 DATA									
Alabama	81	16,762	1.3	81	16,762	1.3	-	-	-
Alaska	-	-	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	-	-	-	-
Arkansas	57	22,435	0.7	9	905	0.6	48	21,530	0.7
California	14	14	1.0	14	14	1.0	-	-	-
Colorado	-	-	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-
Florida	144	56,469	0.6	144	56,469	0.6	-	-	-
Georgia	1,131	293,879	1.1	1,131	293,879	1.1	-	-	-
Hawaii	29	(D)	(D)	29	(D)	(D)	-	-	-
Idaho	-	-	-	-	-	-	-	-	-
Illinois	-	-	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-
Kansas	-	-	-	-	-	-	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	2	(D)	(D)	2	(D)	(D)	-	-	-
Maine	-	-	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-	-	-	-
Mississippi	9	1,800	0.5	9	1,800	0.5	-	-	-
Missouri	34	11,840	0.6	26	8,340	0.5	8	3,500	0.8
Montana	-	-	-	-	-	-	-	-	-
Nebraska	-	-	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-
New Mexico	4	1,000	0.5	-	-	-	4	1,000	0.5
New York	-	-	-	-	-	-	-	-	-
North Carolina	42	7,258	1.3	42	7,258	1.3	-	-	-
North Dakota	-	-	-	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-	-	-
Oklahoma	9	5,356	1.2	9	5,356	1.2	-	-	-
Oregon	-	-	-	-	-	-	-	-	-
Pennsylvania	-	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	143	18,311	0.7	143	18,311	0.7	-	-	-
South Dakota	-	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-	-	-
Texas	176	104,490	1.1	176	104,490	1.1	-	-	-
Utah	-	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-
Water Resource Regions									
Region 01 New England	-	-	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	-	-	-	-	-	-	-	-	-
Region 03 South Atlantic-Gulf	1,550	394,479	1.0	1,550	394,479	1.0	-	-	-
Region 04 Great Lakes	-	-	-	-	-	-	-	-	-
Region 05 Ohio	-	-	-	-	-	-	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	-	-	-	-	-	-	-	-	-
Region 08 Lower Mississippi	93	(D)	(D)	37	(D)	(D)	56	25,030	0.7
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	-	-	-	-	-	-	-	-	-
Region 11 Arkansas-White-Red	33	38,066	1.4	33	38,066	1.4	-	-	-
Region 12 Texas-Gulf	156	72,780	0.9	152	71,780	0.9	4	1,000	0.5
Region 13 Rio Grande	-	-	-	-	-	-	-	-	-
Region 14 Upper Colorado	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	-	-	-	-	-	-	-	-	-
Region 16 Great Basin	-	-	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	-	-	-	-	-	-	-	-
Region 18 California	14	14	1.0	14	14	1.0	-	-	-
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	29	(D)	(D)	29	(D)	(D)	-	-	-

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Cotton											
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution								
				Sprinkler system ¹			Gravity system			Drip, trickle, or low-flow micro system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States .....2023	5,397	2,584,479	1.1	3,507	1,428,131	0.8	1,382	958,524	1.5	508	197,824	1.2
.....2018	6,918	3,697,167	1.3	4,387	2,224,864	0.9	2,209	1,371,451	1.7	322	100,852	1.6
2023 DATA												
Alabama	129	34,888	0.4	128	(D)	(D)	1	(D)	(D)	-	-	-
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	208	99,820	4.2	3	2,243	4.4	205	97,577	4.2	-	-	-
Arkansas	374	378,707	0.9	52	64,403	0.7	322	314,304	0.9	-	-	-
California	296	153,218	2.8	-	-	-	202	109,698	3.1	94	43,520	2.0
Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-	-	-	-
Florida	33	8,665	0.5	33	8,665	0.5	-	-	-	-	-	-
Georgia	1,113	315,332	1.0	1,113	315,332	1.0	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-	-	-	-
Illinois	-	-	-	-	-	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	87	20,213	0.6	87	20,213	0.6	-	-	-	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-	-	-	-
Louisiana	87	51,130	0.6	15	17,200	(D)	72	33,930	(D)	-	-	-
Maine	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	-	-	-	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-	-	-	-	-	-	-
Mississippi	110	92,942	0.6	67	31,933	0.5	43	61,009	0.7	-	-	-
Missouri	268	273,892	0.8	43	40,742	0.7	225	233,150	0.8	-	-	-
Montana	-	-	-	-	-	-	-	-	-	-	-	-
Nebraska	-	-	-	-	-	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico	78	24,509	1.7	39	(D)	1.5	39	(D)	2.0	-	-	-
New York	-	-	-	-	-	-	-	-	-	-	-	-
North Carolina	76	14,417	0.6	76	14,417	0.6	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-	-	-	-	-	-
Oklahoma	74	34,257	0.9	70	33,897	0.9	4	360	2.0	-	-	-
Oregon	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania	-	-	-	-	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	175	32,108	0.5	175	32,108	0.5	-	-	-	-	-	-
South Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Tennessee	41	27,383	0.4	41	27,383	0.4	-	-	-	-	-	-
Texas	2,234	1,021,768	0.9	1,551	768,927	0.8	269	98,537	1.0	414	154,304	1.0
Utah	-	-	-	-	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	14	1,230	0.5	14	1,230	0.5	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-	-	-	-
Water Resource Regions												
Region 01 New England	-	-	-	-	-	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	8	720	0.7	8	720	0.7	-	-	-	-	-	-
Region 03 South Atlantic-Gulf	1,528	392,034	0.9	1,527	(D)	(D)	1	(D)	(D)	-	-	-
Region 04 Great Lakes	-	-	-	-	-	-	-	-	-	-	-	-
Region 05 Ohio	-	-	-	-	-	-	-	-	-	-	-	-
Region 06 Tennessee	21	16,104	0.4	21	16,104	0.4	-	-	-	-	-	-
Region 07 Upper Mississippi	-	-	-	-	-	-	-	-	-	-	-	-
Region 08 Lower Mississippi	822	794,413	0.8	198	176,443	0.6	624	617,970	0.8	-	-	-
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-	-	-	-
Region 10 Missouri	-	-	-	-	-	-	-	-	-	-	-	-
Region 11 Arkansas-White-Red	576	251,101	0.9	515	222,038	0.9	42	24,783	0.7	19	4,280	0.8
Region 12 Texas-Gulf	1,790	848,727	0.9	1,185	605,330	0.8	210	93,373	1.0	395	150,024	1.0
Region 13 Rio Grande	148	28,342	2.0	50	(D)	(D)	98	(D)	(D)	-	-	-
Region 14 Upper Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	219	110,110	4.2	3	2,243	4.4	212	104,267	4.3	4	3,600	2.8
Region 16 Great Basin	-	-	-	-	-	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	-	-	-	-	-	-	-	-	-	-	-
Region 18 California	285	142,928	2.7	-	-	-	195	103,008	3.0	90	39,920	1.9
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Land in vegetables											
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution								
				Sprinkler system ¹			Gravity system			Drip, trickle, or low-flow micro system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023	23,547	2,986,059	2.0	9,505	1,689,492	1.7	2,168	328,289	2.6	11,874	968,279	2.3
..... 2018	23,087	3,127,705	1.9	8,818	1,792,090	1.6	2,682	386,677	2.3	11,587	948,938	2.1
2023 DATA												
Alabama	298	4,909	1.2	154	3,968	1.4	-	-	-	144	941	0.7
Alaska	119	569	0.7	46	492	0.7	-	-	-	73	78	0.5
Arizona	446	123,274	2.8	287	27,535	2.9	117	75,045	2.9	42	20,694	2.3
Arkansas	204	1,793	0.4	90	1,190	0.4	-	-	-	114	603	0.5
California	2,437	1,015,007	2.8	318	135,910	3.7	371	162,528	2.8	1,748	716,569	2.6
Colorado	597	88,335	2.2	178	61,778	1.9	100	19,147	2.7	319	7,410	4.1
Connecticut	226	781	1.7	98	274	0.8	12	6	0.7	116	501	2.2
Delaware	96	14,399	0.9	34	12,330	0.8	2	(D)	(D)	60	(D)	(D)
Florida	528	99,937	0.8	170	25,099	0.7	116	29,091	1.0	242	45,747	0.8
Georgia	488	67,594	1.8	213	64,550	1.9	27	81	1.2	248	2,963	0.3
Hawaii	452	6,534	1.4	92	2,286	1.6	97	1,197	0.9	263	3,051	1.5
Idaho	759	365,515	2.0	516	347,437	2.0	114	10,269	2.0	129	7,809	3.0
Illinois	385	22,173	0.6	172	19,984	0.7	24	23	1.9	189	2,166	0.6
Indiana	427	25,877	0.6	118	17,041	0.7	12	12	0.1	297	8,823	0.5
Iowa	253	3,006	0.8	90	2,533	0.8	41	91	1.2	122	382	1.1
Kansas	175	3,734	1.6	53	3,463	1.6	-	-	-	122	271	0.6
Kentucky	465	1,539	0.8	54	42	1.4	6	3	0.6	405	1,494	0.7
Louisiana	117	272	0.5	61	98	0.5	-	-	-	56	174	0.6
Maine	188	6,274	0.4	90	5,859	0.4	10	6	0.6	88	410	0.7
Maryland	258	7,493	0.6	77	4,794	(D)	2	(D)	(D)	179	(D)	0.8
Massachusetts	314	2,404	0.4	156	1,761	0.4	8	16	0.5	150	627	0.5
Michigan	1,120	162,433	0.5	554	118,554	0.7	18	18	0.5	548	43,861	0.2
Minnesota	505	52,582	0.7	365	52,236	0.7	52	108	1.0	88	238	0.4
Mississippi	195	994	0.4	86	597	0.4	-	-	-	109	397	0.4
Missouri	466	2,992	0.8	73	1,843	0.9	99	240	0.8	294	910	0.7
Montana	355	9,337	0.9	220	9,073	0.9	70	89	0.9	65	174	1.4
Nebraska	207	40,680	1.6	125	40,429	1.7	-	-	-	82	251	0.9
Nevada	93	(D)	(D)	7	(D)	(D)	4	(D)	(D)	82	(D)	(D)
New Hampshire	119	477	0.5	64	302	0.4	-	-	-	55	175	0.6
New Jersey	489	15,833	0.6	309	13,029	0.5	-	-	-	180	2,803	0.8
New Mexico	1,008	27,695	3.2	516	17,874	3.0	366	8,727	3.6	126	1,094	2.6
New York	789	10,724	0.6	170	5,150	0.6	64	948	0.7	555	4,626	0.5
North Carolina	862	29,560	0.6	520	20,242	0.6	-	-	-	342	9,318	0.6
North Dakota	68	31,703	0.7	29	31,563	0.7	5	10	1.0	34	131	0.7
Ohio	567	13,929	0.5	233	7,928	0.5	-	-	-	334	6,001	0.5
Oklahoma	169	4,979	0.9	78	4,623	0.9	-	-	-	91	355	1.0
Oregon	1,089	101,903	2.0	601	90,022	2.0	53	2,286	2.9	435	9,596	2.4
Pennsylvania	913	10,807	0.7	178	2,925	0.5	42	142	0.3	693	7,740	0.8
Rhode Island	79	148	1.1	33	34	0.8	-	-	-	46	114	1.1
South Carolina	542	15,919	1.4	213	13,740	1.5	32	26	0.7	297	2,153	1.1
South Dakota	81	(D)	1.0	52	(D)	1.2	-	-	-	29	(D)	0.9
Tennessee	479	9,102	1.7	131	(D)	0.2	25	(D)	1.5	323	6,311	2.3
Texas	722	91,962	1.9	219	56,494	1.5	34	2,717	0.8	469	32,751	2.7
Utah	479	1,900	(D)	241	(D)	(D)	129	(D)	(D)	109	(D)	1.4
Vermont	187	766	0.5	70	371	0.3	-	-	-	117	394	0.7
Virginia	458	13,568	0.6	160	9,598	0.6	8	8	1.3	290	3,962	0.8
Washington	1,220	290,520	2.2	594	278,303	2.2	84	5,622	1.6	542	6,595	2.8
West Virginia	125	955	0.5	29	335	0.2	-	-	-	96	620	0.7
Wisconsin	822	171,960	0.7	512	170,728	0.7	21	84	1.7	289	1,148	0.9
Wyoming	107	192	2.0	56	90	0.9	3	4	1.6	48	98	3.1
Water Resource Regions												
Region 01 New England	988	10,433	0.5	453	8,289	0.4	30	28	0.6	505	2,116	1.0
Region 02 Mid-Atlantic	2,459	62,790	0.7	764	42,022	0.6	95	1,097	(D)	1,600	19,671	(D)
Region 03 South Atlantic-Gulf	2,744	217,008	1.2	1,297	126,457	1.4	175	29,198	1.0	1,272	61,354	0.8
Region 04 Great Lakes	2,024	211,250	0.5	904	159,422	0.7	53	53	0.2	1,067	51,775	0.2
Region 05 Ohio	1,517	34,691	0.7	411	21,340	0.7	6	3	0.6	1,100	13,348	0.6
Region 06 Tennessee	456	6,235	2.3	148	102	1.0	25	50	1.5	283	6,083	2.4
Region 07 Upper Mississippi	1,776	213,973	0.7	978	209,840	0.7	129	(D)	1.5	669	(D)	0.8
Region 08 Lower Mississippi	324	5,515	0.5	110	4,383	0.5	11	31	0.5	203	1,101	0.5
Region 09 Souris-Red-Rainy	93	25,460	0.6	53	25,270	0.6	21	58	0.5	19	132	0.8
Region 10 Missouri	1,340	96,562	1.9	516	69,731	1.4	153	18,417	2.7	671	8,414	3.6
Region 11 Arkansas-White-Red	520	50,661	1.5	197	49,058	1.5	17	28	1.0	306	1,576	1.0
Region 12 Texas-Gulf	678	53,112	2.3	192	18,304	1.7	34	2,717	0.8	452	32,090	2.7
Region 13 Rio Grande	542	64,754	2.2	194	55,060	1.9	242	8,448	3.7	106	1,246	2.7
Region 14 Upper Colorado	767	14,818	2.8	450	13,278	2.9	164	1,367	1.9	153	173	2.7
Region 15 Lower Colorado	510	146,698	3.1	299	28,049	2.9	127	97,898	3.4	84	20,752	2.3
Region 16 Great Basin	578	25,707	2.5	302	15,413	1.8	129	(D)	(D)	147	(D)	(D)
Region 17 Pacific Northwest	3,227	746,077	2.1	1,781	704,786	2.1	293	17,186	2.0	1,153	24,105	2.7
Region 18 California	2,433	993,213	2.8	318	135,910	3.7	367	140,734	2.4	1,748	716,569	2.6
Region 19 Alaska	119	569	0.7	46	492	0.7	-	-	-	73	78	0.5
Region 20 Hawaii	452	6,534	1.4	92	2,286	1.6	97	1,197	0.9	263	3,051	1.5

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Sweet corn											
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution								
				Sprinkler system ¹			Gravity system			Drip, trickle, or low-flow micro system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States .....2023	5,639	316,789	1.5	3,033	274,323	1.4	504	30,640	3.1	2,102	11,826	1.7
.....2018	5,476	285,749	1.3	2,915	234,771	1.1	751	23,468	2.6	1,810	27,511	1.4
2023 DATA												
Alabama	140	468	0.9	70	306	0.8	-	-	-	70	162	1.0
Alaska	20	11	0.5	20	11	0.5	-	-	-	-	-	-
Arizona	42	42	1.8	42	42	1.8	-	-	-	-	-	-
Arkansas	38	160	0.4	23	155	0.4	-	-	-	15	5	0.3
California	342	27,061	3.8	30	2,552	2.6	140	17,475	4.5	172	7,034	2.4
Colorado	82	1,517	1.3	1	(D)	(D)	28	1,497	1.3	53	(D)	(D)
Connecticut	19	33	0.4	16	27	0.3	-	-	-	3	6	0.6
Delaware	37	7,608	1.0	27	7,607	1.0	2	(D)	(D)	8	(D)	(D)
Florida	108	18,645	0.9	70	10,379	1.0	4	8,186	0.7	34	80	1.1
Georgia	156	59,807	1.8	147	59,806	1.8	-	-	-	9	1	0.6
Hawaii	13	35	1.2	-	-	-	-	-	-	13	35	1.2
Idaho	114	4,306	2.0	37	1,690	0.6	47	2,493	2.9	30	123	2.9
Illinois	92	4,431	0.3	78	4,430	0.3	14	1	1.0	-	-	-
Indiana	94	10,734	0.4	65	(D)	(D)	-	-	-	29	(D)	(D)
Iowa	51	950	0.4	31	910	0.4	-	-	-	20	40	1.2
Kansas	41	117	0.5	5	86	0.5	-	-	-	36	31	0.3
Kentucky	92	51	0.6	28	12	0.8	-	-	-	64	39	0.6
Louisiana	8	4	0.3	-	-	-	-	-	-	8	4	0.3
Maine	62	157	0.4	46	85	0.4	-	-	-	16	73	0.4
Maryland	86	2,882	0.8	47	2,495	0.7	2	(D)	(D)	37	(D)	(D)
Massachusetts	80	593	0.3	44	484	0.2	8	2	0.2	28	106	0.7
Michigan	220	5,556	0.2	148	5,519	0.2	-	-	-	72	37	0.2
Minnesota	193	14,593	0.6	152	14,579	0.6	32	13	0.8	9	1	0.7
Mississippi	72	130	0.3	24	66	0.4	-	-	-	48	65	0.3
Missouri	131	278	0.4	35	46	0.2	40	55	0.7	56	177	0.3
Montana	109	103	0.8	71	75	0.6	2	(D)	(D)	36	(D)	(D)
Nebraska	51	546	0.7	13	531	0.7	-	-	-	38	15	0.6
Nevada	3	(D)	(D)	3	(D)	(D)	-	-	-	-	-	-
New Hampshire	16	239	0.3	9	238	0.3	-	-	-	7	1	0.3
New Jersey	133	1,260	0.4	111	967	0.4	-	-	-	22	293	0.4
New Mexico	80	33	0.7	-	-	-	44	23	0.7	36	10	0.8
New York	199	2,422	0.8	65	1,029	0.7	23	575	1.1	111	819	0.7
North Carolina	297	2,231	0.6	252	2,224	0.6	-	-	-	45	7	0.6
North Dakota	5	3	0.3	-	-	-	5	3	0.3	-	-	-
Ohio	184	3,503	0.6	86	2,785	0.6	-	-	-	98	718	0.6
Oklahoma	29	(D)	0.1	29	(D)	0.1	-	-	-	-	-	-
Oregon	345	24,529	1.6	222	24,477	1.6	22	2	0.7	101	50	0.8
Pennsylvania	225	2,572	0.3	119	2,245	0.3	-	-	-	106	327	0.4
Rhode Island	6	1	0.7	6	1	0.7	-	-	-	-	-	-
South Carolina	262	2,073	0.8	92	1,889	0.8	-	-	-	170	185	0.7
South Dakota	21	29	1.5	13	19	1.8	-	-	-	8	10	1.0
Tennessee	189	871	0.5	81	(D)	(D)	25	(D)	1.5	83	(D)	(D)
Texas	140	5,543	0.6	28	5,463	0.6	3	3	0.4	109	77	0.7
Utah	203	426	2.5	99	46	2.0	51	201	3.6	53	179	1.4
Vermont	28	54	0.3	25	45	0.4	-	-	-	3	9	0.2
Virginia	95	3,561	0.6	42	3,461	0.6	-	-	-	53	100	0.9
Washington	327	53,737	2.4	201	53,637	2.4	11	76	1.0	115	24	0.7
West Virginia	19	384	0.1	6	(D)	(D)	-	-	-	13	(D)	(D)
Wisconsin	302	52,464	0.8	239	52,411	0.8	-	-	-	63	53	0.6
Wyoming	38	15	(D)	35	(D)	(D)	1	(D)	(D)	2	(D)	(D)
Water Resource Regions												
Region 01 New England	186	1,023	0.3	124	834	0.3	8	2	0.2	54	186	0.6
Region 02 Mid-Atlantic	645	18,212	0.8	364	16,487	0.8	27	582	1.1	254	1,143	0.9
Region 03 South Atlantic-Gulf	1,017	82,255	1.6	638	73,560	1.7	4	8,186	0.7	375	509	0.8
Region 04 Great Lakes	478	20,038	0.5	270	19,138	0.5	-	-	-	208	900	0.6
Region 05 Ohio	366	14,293	0.4	183	13,159	0.4	-	-	-	183	1,133	0.8
Region 06 Tennessee	115	(D)	0.9	49	(D)	0.2	25	25	1.5	41	53	0.8
Region 07 Upper Mississippi	561	61,559	0.7	469	61,477	0.7	30	9	1.0	62	72	1.0
Region 08 Lower Mississippi	96	(D)	(D)	33	(D)	(D)	11	11	0.5	52	(D)	(D)
Region 09 Souris-Red-Rainy	30	9	(D)	-	-	-	21	8	0.4	9	1	(D)
Region 10 Missouri	299	1,457	0.9	90	709	0.7	47	646	1.1	162	102	0.5
Region 11 Arkansas-White-Red	67	299	0.3	45	151	(D)	-	-	-	22	148	(D)
Region 12 Texas-Gulf	140	5,543	0.6	28	5,463	0.6	3	3	0.4	109	77	0.7
Region 13 Rio Grande	44	23	0.7	-	-	-	44	23	0.7	-	-	-
Region 14 Upper Colorado	71	919	1.4	3	(D)	(D)	13	897	1.4	55	(D)	(D)
Region 15 Lower Colorado	48	(D)	1.6	43	59	1.6	-	-	-	5	(D)	0.8
Region 16 Great Basin	218	435	2.4	116	(D)	1.8	51	201	3.6	51	(D)	1.4
Region 17 Pacific Northwest	883	82,664	2.1	528	79,873	2.1	80	2,571	2.8	275	221	2.0
Region 18 California	342	27,061	3.8	30	2,552	2.6	140	17,475	4.5	172	7,034	2.4
Region 19 Alaska	20	11	0.5	20	11	0.5	-	-	-	-	-	-
Region 20 Hawaii	13	35	1.2	-	-	-	-	-	-	13	35	1.2

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Tomatoes in the open											
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution								
				Sprinkler system ¹			Gravity system			Drip, trickle, or low-flow micro system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States .....2023	9,200	394,318	2.4	2,752	9,315	1.7	574	15,413	2.1	5,874	369,590	2.5
.....2018	8,879	288,114	2.3	2,216	16,485	1.9	1,086	38,846	2.5	5,577	232,784	2.2
2023 DATA												
Alabama	186	422	2.0	93	260	2.5	-	-	-	93	162	1.0
Alaska	22	8	0.4	3	(D)	(D)	-	-	-	19	(D)	(D)
Arizona	8	8	0.7	5	5	0.5	-	-	-	3	3	1.0
Arkansas	120	309	0.4	25	20	0.4	-	-	-	95	289	0.3
California	1,140	350,643	2.6	72	4,168	3.0	106	14,428	2.2	962	332,046	2.6
Colorado	231	57	1.6	13	7	1.3	10	8	5.6	208	42	0.9
Connecticut	101	114	1.7	42	22	0.8	8	1	0.1	51	91	1.9
Delaware	11	5	1.0	-	-	-	2	(D)	(D)	9	(D)	(D)
Florida	229	23,700	0.8	60	6	1.1	62	726	0.6	107	22,968	0.8
Georgia	237	306	0.2	93	35	0.3	-	-	-	144	271	0.2
Hawaii	49	(D)	(D)	15	(D)	(D)	-	-	-	34	(D)	(D)
Idaho	118	34	2.2	27	(D)	(D)	2	(D)	(D)	89	27	2.5
Illinois	170	155	0.7	57	(D)	0.7	14	(D)	1.0	99	116	0.7
Indiana	168	2,132	0.4	48	1,685	0.4	-	-	-	120	447	0.3
Iowa	111	44	0.5	31	(D)	0.4	-	-	-	80	(D)	0.6
Kansas	54	20	0.5	9	2	1.3	-	-	-	45	17	0.4
Kentucky	222	139	0.5	54	14	0.6	-	-	-	168	125	0.5
Louisiana	56	22	0.4	11	1	0.2	-	-	-	45	21	0.4
Maine	98	27	0.5	51	7	0.6	-	-	-	47	20	0.5
Maryland	123	198	0.7	16	14	0.6	-	-	-	107	184	0.7
Massachusetts	139	122	0.4	40	38	0.6	8	4	0.3	91	80	0.4
Michigan	400	2,230	0.3	124	311	0.1	-	-	-	276	1,919	0.3
Minnesota	119	157	0.7	52	129	0.8	16	8	(D)	51	20	(D)
Mississippi	98	97	0.4	52	65	0.4	-	-	-	46	33	0.5
Missouri	211	131	0.9	59	43	0.4	48	20	0.6	104	67	1.2
Montana	107	28	1.2	57	(D)	(D)	2	(D)	(D)	48	18	1.5
Nebraska	120	47	(D)	67	33	(D)	-	-	-	53	14	0.5
Nevada	70	51	1.4	3	(D)	(D)	-	-	-	67	(D)	(D)
New Hampshire	59	16	0.4	36	13	0.4	-	-	-	23	3	0.4
New Jersey	319	846	0.6	173	345	0.6	-	-	-	146	501	0.7
New Mexico	222	78	1.4	62	37	1.3	78	26	1.5	82	15	1.3
New York	396	685	0.6	73	268	0.4	41	4	0.5	282	413	0.7
North Carolina	318	462	0.9	186	68	0.4	-	-	-	132	394	1.0
North Dakota	12	3	0.2	-	-	-	-	-	-	12	3	0.2
Ohio	229	262	0.6	103	58	0.4	-	-	-	126	204	0.6
Oklahoma	82	44	0.5	29	3	0.1	-	-	-	53	41	0.5
Oregon	419	138	0.6	181	90	0.6	30	(D)	0.6	208	(D)	0.5
Pennsylvania	397	1,184	0.4	31	11	0.4	23	23	0.9	343	1,150	0.3
Rhode Island	39	18	0.3	18	5	0.4	-	-	-	21	13	0.3
South Carolina	196	513	1.2	75	309	1.0	-	-	-	121	204	1.4
South Dakota	47	26	1.0	31	8	1.4	-	-	-	16	19	0.8
Tennessee	232	5,745	2.5	100	18	1.0	25	25	1.5	107	5,702	2.5
Texas	406	247	0.4	133	122	0.3	-	-	-	273	125	0.6
Utah	251	266	1.6	79	21	1.4	77	95	2.1	95	150	1.3
Vermont	28	3	1.1	11	1	1.2	-	-	-	17	2	1.0
Virginia	167	1,654	0.8	64	322	0.6	-	-	-	103	1,332	0.8
Washington	304	83	1.2	66	(D)	(D)	1	(D)	(D)	237	38	0.8
West Virginia	66	92	0.5	23	23	0.5	-	-	-	43	69	0.5
Wisconsin	251	128	0.9	63	13	1.5	21	21	2.2	167	94	0.6
Wyoming	42	(D)	0.7	36	(D)	0.7	-	-	-	6	1	1.5
Water Resource Regions												
Region 01 New England	443	297	0.9	190	84	0.6	16	5	0.3	237	208	1.1
Region 02 Mid-Atlantic	1,162	3,946	0.6	297	699	0.6	43	25	0.9	822	3,222	0.6
Region 03 South Atlantic-Gulf	1,117	25,468	0.8	484	727	1.4	62	726	0.6	571	24,014	0.8
Region 04 Great Lakes	715	2,881	0.3	191	587	0.2	23	2	0.1	501	2,292	0.4
Region 05 Ohio	710	1,011	0.5	250	157	0.5	-	-	-	460	854	0.5
Region 06 Tennessee	328	5,768	2.5	148	(D)	0.6	25	(D)	1.5	155	5,719	2.5
Region 07 Upper Mississippi	581	2,082	0.5	191	1,817	0.5	35	24	2.1	355	241	0.6
Region 08 Lower Mississippi	138	273	0.4	34	12	(D)	11	2	(D)	93	258	0.4
Region 09 Souris-Red-Rainy	16	8	0.4	-	-	-	16	8	0.4	-	-	-
Region 10 Missouri	545	206	0.9	172	78	0.6	49	26	2.2	324	102	0.8
Region 11 Arkansas-White-Red	254	159	0.6	67	22	0.4	-	-	-	187	138	0.7
Region 12 Texas-Gulf	360	199	(D)	110	76	(D)	-	-	-	250	123	0.6
Region 13 Rio Grande	177	104	0.8	85	83	0.6	47	10	1.8	45	11	1.1
Region 14 Upper Colorado	169	(D)	1.2	10	6	1.4	31	(D)	1.3	128	(D)	1.2
Region 15 Lower Colorado	48	27	1.1	11	17	1.0	-	-	-	37	10	1.4
Region 16 Great Basin	292	304	1.5	91	29	1.1	77	95	2.1	124	181	1.3
Region 17 Pacific Northwest	934	274	1.0	331	134	(D)	33	21	(D)	570	119	1.2
Region 18 California	1,140	350,643	2.6	72	4,168	3.0	106	14,428	2.2	962	332,046	2.6
Region 19 Alaska	22	8	0.4	3	(D)	(D)	-	-	-	19	(D)	(D)
Region 20 Hawaii	49	(D)	(D)	15	(D)	(D)	-	-	-	34	(D)	(D)

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Lettuce and romaine											
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution								
				Sprinkler system ¹			Gravity system			Drip, trickle, or low-flow micro system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States .....2023	5,352	309,785	2.2	1,732	66,780	2.4	384	79,527	2.7	3,236	163,477	2.0
.....2018	4,589	277,616	2.5	1,568	105,171	2.4	359	60,464	2.7	2,662	111,981	2.6
2023 DATA												
Alabama	23	46	1.7	-	-	-	-	-	-	23	46	1.7
Alaska	65	70	(D)	12	(D)	(D)	-	-	-	53	(D)	0.3
Arizona	65	67,201	2.7	12	13,487	(D)	41	43,710	(D)	12	10,004	2.1
Arkansas	53	19	0.3	18	8	0.1	-	-	-	35	11	0.4
California	718	225,003	2.2	125	(D)	2.6	110	(D)	2.3	483	150,480	2.0
Colorado	157	1,342	2.5	19	2	0.6	-	-	-	138	1,341	2.5
Connecticut	119	40	0.3	55	23	0.3	8	1	0.1	56	16	0.4
Delaware	16	28	0.2	-	-	-	-	-	-	16	28	0.2
Florida	128	(D)	(D)	32	(D)	(D)	32	10	0.4	64	22	0.4
Georgia	44	6	0.6	29	3	0.5	-	-	-	15	3	0.7
Hawaii	93	522	0.7	72	506	0.7	-	-	-	21	16	0.9
Idaho	59	1,015	1.3	22	1,010	1.3	-	-	-	37	6	1.4
Illinois	115	73	1.0	36	24	1.3	14	1	1.0	65	47	0.8
Indiana	63	18	0.3	-	-	-	-	-	-	63	18	0.3
Iowa	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	34	8	0.4	-	-	-	-	-	-	34	8	0.4
Kentucky	102	22	0.7	40	7	0.7	-	-	-	62	15	0.6
Louisiana	19	3	0.2	-	-	-	-	-	-	19	3	0.2
Maine	106	150	0.9	48	(D)	(D)	-	-	-	58	(D)	(D)
Maryland	33	27	0.6	7	4	0.9	-	-	-	26	23	0.6
Massachusetts	93	79	0.2	21	11	0.2	-	-	-	72	67	0.2
Michigan	221	47	0.6	122	28	0.7	18	5	0.1	81	14	0.5
Minnesota	121	21	0.3	53	7	0.3	16	2	0.4	52	13	0.3
Mississippi	36	13	0.3	8	1	0.3	-	-	-	28	12	0.3
Missouri	56	20	0.6	20	7	0.9	11	1	0.5	25	13	0.5
Montana	88	23	1.3	46	9	1.1	3	3	1.6	39	11	1.3
Nebraska	60	19	1.3	10	7	1.4	-	-	-	50	12	1.2
Nevada	7	(D)	(D)	-	-	-	1	(D)	(D)	6	2	(D)
New Hampshire	42	12	0.6	19	5	(D)	-	-	-	23	7	(D)
New Jersey	154	698	0.9	79	332	0.7	-	-	-	75	366	1.1
New Mexico	84	1,479	4.3	9	14	1.6	37	(D)	4.3	38	(D)	1.5
New York	202	98	0.7	24	10	1.8	41	4	0.5	137	85	0.6
North Carolina	107	66	0.7	59	59	0.7	-	-	-	48	7	0.6
North Dakota	2	(D)	(D)	-	-	-	-	-	-	2	(D)	(D)
Ohio	85	108	0.2	35	60	0.1	-	-	-	50	49	0.3
Oklahoma	46	9	0.3	29	3	0.1	-	-	-	17	6	0.4
Oregon	252	94	0.7	51	26	0.7	15	43	0.5	186	25	0.9
Pennsylvania	153	161	0.3	25	11	0.3	3	2	1.7	125	149	0.3
Rhode Island	33	10	0.7	9	(D)	1.2	-	-	-	24	(D)	0.5
South Carolina	218	78	0.7	95	40	0.8	-	-	-	123	37	0.5
South Dakota	22	6	0.4	9	1	0.2	-	-	-	13	5	0.4
Tennessee	92	16	1.5	50	10	1.6	-	-	-	42	6	1.3
Texas	270	196	0.7	93	51	0.3	24	7	0.9	153	138	0.8
Utah	96	127	1.4	54	(D)	(D)	2	(D)	(D)	40	118	1.4
Vermont	98	78	0.3	46	67	0.3	-	-	-	52	12	0.4
Virginia	95	44	0.5	46	15	0.5	-	-	-	49	29	0.5
Washington	328	925	1.0	94	885	0.9	8	1	1.8	226	39	1.1
West Virginia	28	22	0.5	-	-	-	-	-	-	28	22	0.5
Wisconsin	227	109	0.7	82	16	1.8	-	-	-	145	93	0.5
Wyoming	24	3	0.7	17	2	0.7	-	-	-	7	2	0.6
Water Resource Regions												
Region 01 New England	423	308	0.6	161	172	0.7	8	1	0.1	254	135	0.4
Region 02 Mid-Atlantic	570	1,021	0.8	173	364	0.7	21	3	1.3	376	654	0.8
Region 03 South Atlantic-Gulf	560	(D)	(D)	211	(D)	(D)	32	10	0.4	317	137	0.9
Region 04 Great Lakes	421	240	0.3	165	127	0.3	41	8	0.1	215	105	0.3
Region 05 Ohio	244	79	0.4	94	31	0.4	-	-	-	150	48	0.4
Region 06 Tennessee	79	10	1.3	37	(D)	1.4	-	-	-	42	(D)	1.3
Region 07 Upper Mississippi	411	187	0.8	163	47	1.4	14	1	1.0	234	139	0.6
Region 08 Lower Mississippi	65	19	0.7	32	15	0.8	-	-	-	33	5	0.2
Region 09 Souris-Red-Rainy	25	3	0.6	-	-	-	16	2	0.4	9	2	0.7
Region 10 Missouri	285	1,384	2.4	54	16	1.1	11	1	0.5	220	1,367	2.4
Region 11 Arkansas-White-Red	130	68	0.5	45	5	0.2	-	-	-	85	64	0.5
Region 12 Texas-Gulf	224	127	0.8	70	28	0.5	24	7	0.9	130	92	0.9
Region 13 Rio Grande	105	1,502	4.2	32	37	0.7	37	1,458	4.3	36	7	1.6
Region 14 Upper Colorado	52	15	0.7	12	1	0.7	-	-	-	40	14	0.7
Region 15 Lower Colorado	65	67,201	2.7	12	13,487	(D)	41	43,710	(D)	12	10,004	2.1
Region 16 Great Basin	101	(D)	(D)	54	9	1.1	3	(D)	(D)	44	119	1.4
Region 17 Pacific Northwest	716	2,050	1.1	208	1,926	1.1	26	47	0.6	482	77	1.0
Region 18 California	718	225,003	2.2	125	(D)	2.6	110	(D)	2.3	483	150,480	2.0
Region 19 Alaska	65	70	(D)	12	(D)	(D)	-	-	-	53	(D)	0.3
Region 20 Hawaii	93	522	0.7	72	506	0.7	-	-	-	21	16	0.9

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Potatoes, excluding sweet potatoes											
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution								
				Sprinkler system ¹			Gravity system			Drip, trickle, or low-flow micro system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States .....2023 2018	5,661 5,361	920,681 866,288	1.7 1.8	2,895 2,584	899,967 839,073	1.7 1.8	275 480	4,446 19,373	1.8 2.9	2,491 2,297	16,269 7,842	3.1 1.4
2023 DATA												
Alabama	107	330	0.9	37	53	0.7	-	-	-	70	277	0.9
Alaska	49	268	0.6	16	263	0.6	-	-	-	33	5	0.3
Arizona	3	(D)	(D)	3	(D)	(D)	-	-	-	-	-	-
Arkansas	21	7	0.3	4	(Z)	0.5	-	-	-	17	7	0.3
California	201	13,576	2.6	76	6,976	2.3	-	-	-	125	6,601	2.9
Colorado	154	66,605	2.0	92	59,930	1.8	5	1	1.4	57	6,674	4.3
Connecticut	77	30	0.5	45	16	0.3	8	1	0.1	24	13	0.6
Delaware	20	1,142	0.8	13	1,140	0.8	2	(D)	(D)	5	(D)	(D)
Florida	91	1,153	(D)	60	(D)	0.2	-	-	-	31	(D)	(D)
Georgia	135	50	0.3	98	37	0.4	-	-	-	37	13	0.3
Hawaii	20	6	0.5	-	-	-	-	-	-	20	6	0.5
Idaho	449	328,780	1.9	368	326,350	1.9	6	2,420	2.0	75	10	1.4
Illinois	106	3,628	0.4	56	(D)	0.4	14	(D)	1.0	36	(D)	0.8
Indiana	52	7,301	1.2	11	(D)	(D)	-	-	-	41	(D)	(D)
Iowa	52	6	0.8	32	4	0.7	-	-	-	20	2	1.1
Kansas	60	3,016	1.8	19	3,002	1.8	-	-	-	41	14	0.5
Kentucky	97	42	0.5	21	2	0.5	-	-	-	76	40	0.5
Louisiana	34	5	0.3	14	1	0.4	-	-	-	20	4	0.3
Maine	87	2,329	0.4	50	2,313	0.4	-	-	-	37	16	0.8
Maryland	58	505	0.4	18	444	0.4	-	-	-	40	62	0.5
Massachusetts	75	46	0.2	18	14	0.2	-	-	-	57	33	0.2
Michigan	370	78,810	0.8	271	78,798	0.8	18	4	0.1	81	8	0.3
Minnesota	144	27,542	0.7	60	27,521	0.7	16	2	0.4	68	20	0.2
Mississippi	37	14	0.5	16	2	0.6	-	-	-	21	11	0.5
Missouri	141	1,626	0.7	29	1,571	0.7	40	17	0.8	72	39	0.4
Montana	125	8,688	0.9	85	8,666	0.9	3	3	0.8	37	19	1.3
Nebraska	127	39,295	1.7	103	39,284	1.7	8	2	1.2	16	10	1.4
Nevada	10	(D)	(D)	4	(D)	(D)	3	1	0.8	3	(Z)	1.5
New Hampshire	39	10	0.5	20	5	0.3	-	-	-	19	5	0.7
New Jersey	143	1,625	0.3	61	1,612	0.3	-	-	-	82	13	0.9
New Mexico	70	(D)	(D)	33	(D)	(D)	3	(D)	(D)	34	3	1.0
New York	231	1,744	0.5	61	1,599	0.5	42	24	0.4	128	121	0.3
North Carolina	166	4,990	0.7	86	4,961	0.7	-	-	-	80	29	0.3
North Dakota	43	31,562	0.7	27	31,555	0.7	-	-	-	16	7	0.3
Ohio	90	1,806	0.7	40	1,766	0.7	-	-	-	50	40	0.4
Oklahoma	43	3,262	0.9	36	3,261	0.9	-	-	-	7	1	0.5
Oregon	323	33,536	2.0	131	32,458	2.0	25	1,052	2.0	167	27	0.9
Pennsylvania	150	1,033	0.2	62	961	0.2	-	-	-	88	72	0.5
Rhode Island	28	9	0.8	13	6	1.0	-	-	-	15	3	0.4
South Carolina	101	3,113	1.5	52	3,105	1.5	-	-	-	49	7	0.9
South Dakota	42	9	0.3	30	3	0.1	-	-	-	12	6	0.4
Tennessee	105	23	1.1	80	18	(D)	-	-	-	25	5	(D)
Texas	188	39,994	1.4	29	39,916	1.4	24	7	0.3	135	71	0.4
Utah	149	136	1.5	61	10	1.7	27	11	3.2	61	115	1.4
Vermont	87	58	0.3	42	41	0.3	-	-	-	45	17	0.4
Virginia	92	945	0.9	53	925	0.9	-	-	-	39	20	1.3
Washington	367	156,795	2.3	208	155,875	2.3	31	901	0.9	128	19	0.9
West Virginia	7	(D)	(D)	-	-	-	-	-	-	7	(D)	(D)
Wisconsin	239	45,562	0.8	117	45,469	0.8	-	-	-	122	94	0.4
Wyoming	56	28	0.8	34	10	0.4	-	-	-	22	18	1.0
Water Resource Regions												
Region 01 New England	331	2,430	0.4	150	2,357	0.4	8	1	0.1	173	72	0.5
Region 02 Mid-Atlantic	549	5,417	0.5	234	5,196	0.5	21	19	0.5	294	201	0.6
Region 03 South Atlantic-Gulf	597	9,644	0.9	349	8,311	1.0	-	-	-	248	1,332	0.6
Region 04 Great Lakes	658	90,662	0.8	388	90,535	0.8	41	8	0.1	229	119	0.2
Region 05 Ohio	303	9,079	1.1	120	8,316	(D)	-	-	-	183	763	(D)
Region 06 Tennessee	82	11	1.1	25	3	0.3	-	-	-	57	8	1.4
Region 07 Upper Mississippi	376	60,080	0.8	168	59,962	0.8	14	1	1.0	194	116	0.5
Region 08 Lower Mississippi	79	1,580	0.7	49	1,574	0.7	-	-	-	30	6	0.4
Region 09 Souris-Red-Rainy	62	25,241	0.6	37	25,238	0.6	16	2	0.4	9	2	0.7
Region 10 Missouri	476	72,578	1.7	235	65,787	1.4	48	18	0.8	193	6,773	4.2
Region 11 Arkansas-White-Red	126	46,189	1.4	65	46,176	1.4	-	-	-	61	13	0.3
Region 12 Texas-Gulf	161	78	0.4	25	3	0.2	24	7	0.3	112	69	0.4
Region 13 Rio Grande	141	52,924	1.8	106	52,920	1.8	3	(Z)	1.2	32	3	1.0
Region 14 Upper Colorado	53	(D)	(D)	11	(D)	(D)	5	1	1.4	37	5	(D)
Region 15 Lower Colorado	9	(D)	(D)	6	(D)	(D)	-	-	-	3	(Z)	1.5
Region 16 Great Basin	213	15,268	1.8	122	15,142	1.8	30	11	3.1	61	115	1.4
Region 17 Pacific Northwest	1,172	506,793	2.1	713	503,407	2.1	62	3,326	1.7	397	60	1.2
Region 18 California	204	14,626	2.5	76	6,976	2.3	3	1,050	2.0	125	6,601	2.9
Region 19 Alaska	49	268	0.6	16	263	0.6	-	-	-	33	5	0.3
Region 20 Hawaii	20	6	0.5	-	-	-	-	-	-	20	6	0.5

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All berries											
	Farms	Irrigated acres	Average acre-feet applied per acre	Primary method of distribution								
				Sprinkler system ¹			Gravity system			Drip, trickle, or low-flow micro system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023	11,008	246,361	1.5	3,692	88,357	1.2	641	13,757	3.5	6,675	144,247	1.4
..... 2018	11,562	219,254	1.4	4,224	102,042	1.1	712	7,643	2.1	6,626	109,570	1.7
2023 DATA												
Alabama	228	722	0.6	38	240	0.3	-	-	-	190	482	0.8
Alaska	43	25	0.6	11	1	0.5	-	-	-	32	24	0.6
Arizona	56	11	0.7	19	4	0.5	-	-	-	37	7	0.8
Arkansas	89	171	0.4	4	(Z)	0.6	-	-	-	85	170	0.4
California	826	52,044	2.0	78	84	1.0	50	8	1.7	698	51,952	2.0
Colorado	83	290	5.2	2	(D)	(D)	5	(D)	(D)	76	287	5.2
Connecticut	72	137	(D)	27	77	(D)	8	1	0.1	37	59	0.3
Delaware	30	76	0.4	2	(D)	(D)	-	-	-	28	(D)	(D)
Florida	732	20,540	1.5	282	6,124	1.4	30	90	0.8	420	14,326	1.6
Georgia	390	10,094	0.7	75	388	0.5	-	-	-	315	9,706	0.7
Hawaii	40	127	2.0	-	-	-	-	-	-	40	127	2.0
Idaho	225	160	1.2	69	41	1.0	26	31	1.0	130	89	1.5
Illinois	144	260	0.7	83	205	0.6	14	1	1.0	47	53	1.1
Indiana	164	749	0.5	53	433	0.7	-	-	-	111	316	0.3
Iowa	31	6	2.2	11	(D)	(D)	20	(D)	(D)	-	-	-
Kansas	69	139	0.5	8	3	1.0	-	-	-	61	137	0.5
Kentucky	165	157	0.7	14	5	0.5	-	-	-	151	152	0.7
Louisiana	95	1,472	0.3	11	176	0.2	-	-	-	84	1,296	0.3
Maine	114	8,240	0.3	47	7,257	0.3	5	5	0.1	62	979	0.2
Maryland	75	389	0.5	10	130	0.7	-	-	-	65	259	0.4
Massachusetts	598	12,867	0.7	338	9,191	0.8	52	1,350	0.9	208	2,326	0.2
Michigan	562	18,514	1.2	242	9,336	1.3	18	54	0.5	302	9,124	1.2
Minnesota	153	523	0.3	72	344	0.4	20	4	0.5	61	175	0.2
Mississippi	105	1,367	0.7	33	40	0.5	-	-	-	72	1,328	0.7
Missouri	175	485	1.9	22	208	2.9	40	18	2.9	113	260	0.9
Montana	72	56	0.9	36	25	(D)	-	-	-	36	31	(D)
Nebraska	72	35	0.5	-	-	-	-	-	-	72	35	0.5
Nevada	35	12	1.4	-	-	-	31	9	1.3	4	2	1.8
New Hampshire	61	253	0.6	22	154	0.3	3	18	5.0	36	81	0.4
New Jersey	241	14,290	0.4	104	4,974	0.6	38	2,879	0.4	99	6,437	0.3
New Mexico	87	21	0.6	-	-	-	36	6	0.5	51	15	0.7
New York	215	940	0.5	31	121	0.8	20	20	0.7	164	799	0.4
North Carolina	427	13,131	0.9	275	11,742	1.0	-	-	-	152	1,389	0.7
North Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Ohio	234	651	0.5	46	121	0.6	-	-	-	188	530	0.4
Oklahoma	9	9	0.4	-	-	-	-	-	-	9	9	0.4
Oregon	999	25,950	1.5	379	10,955	1.1	40	260	1.0	580	14,735	1.9
Pennsylvania	237	496	0.7	28	97	0.5	3	3	0.6	206	396	0.7
Rhode Island	23	(D)	(D)	7	(D)	(D)	-	-	-	16	7	0.7
South Carolina	295	481	1.8	130	101	1.9	-	-	-	165	380	1.8
South Dakota	38	16	0.6	34	12	0.4	-	-	-	4	4	1.0
Tennessee	184	78	0.5	75	20	0.5	-	-	-	109	58	0.6
Texas	446	1,258	1.2	89	285	1.1	-	-	-	357	973	1.2
Utah	154	95	1.1	74	30	1.4	44	46	1.0	36	19	1.0
Vermont	108	(D)	0.3	33	(D)	0.4	8	8	0.6	67	108	0.3
Virginia	198	474	0.5	24	42	0.3	-	-	-	174	432	0.5
Washington	984	34,695	1.3	398	11,109	1.8	-	-	-	586	23,586	1.1
West Virginia	72	273	0.7	19	38	1.0	4	4	0.8	49	231	0.6
Wisconsin	549	23,347	2.9	337	14,131	1.6	126	8,936	5.0	86	281	1.0
Wyoming	4	2	0.4	-	-	-	-	-	-	4	2	0.4
Water Resource Regions												
Region 01 New England	900	21,639	0.6	448	16,786	0.6	72	1,377	1.0	380	3,476	0.2
Region 02 Mid-Atlantic	836	15,999	0.4	180	5,322	0.6	61	2,902	0.4	595	7,774	0.3
Region 03 South Atlantic-Gulf	2,055	46,237	1.1	777	18,524	1.1	30	90	0.8	1,248	27,622	1.2
Region 04 Great Lakes	911	19,719	1.2	319	9,580	1.3	22	58	0.5	570	10,081	1.1
Region 05 Ohio	653	1,115	0.6	168	390	0.6	4	4	0.8	481	721	0.5
Region 06 Tennessee	185	262	2.1	84	97	4.6	-	-	-	101	166	0.7
Region 07 Upper Mississippi	746	24,100	2.8	427	14,549	1.6	164	8,943	5.0	155	608	0.6
Region 08 Lower Mississippi	167	1,523	0.3	36	189	0.2	11	2	0.5	120	1,333	0.3
Region 09 Souris-Red-Rainy	36	166	0.4	20	164	0.4	16	2	0.4	-	-	-
Region 10 Missouri	352	622	1.5	99	245	2.6	20	5	0.8	233	372	0.8
Region 11 Arkansas-White-Red	260	631	0.9	11	4	0.7	11	11	4.2	238	616	0.8
Region 12 Texas-Gulf	356	896	1.3	82	282	1.1	-	-	-	274	615	1.3
Region 13 Rio Grande	78	20	0.6	-	-	-	36	6	0.5	42	13	0.7
Region 14 Upper Colorado	90	293	5.1	-	-	-	3	3	1.0	87	290	5.2
Region 15 Lower Colorado	80	34	1.2	40	25	1.3	-	-	-	40	9	1.0
Region 16 Great Basin	141	72	1.1	53	9	1.1	75	56	1.0	13	8	1.5
Region 17 Pacific Northwest	2,253	60,837	1.4	859	22,107	1.4	66	291	1.0	1,328	38,439	1.4
Region 18 California	826	52,044	2.0	78	84	1.0	50	8	1.7	698	51,952	2.0
Region 19 Alaska	43	25	0.6	11	1	0.5	-	-	-	32	24	0.6
Region 20 Hawaii	40	127	2.0	-	-	-	-	-	-	40	127	2.0

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Farms	Irrigated acres	Average acre-feet applied per acre	Land in orchards, vineyards, and nut trees								
				Primary method of distribution								
				Sprinkler system ¹			Gravity system			Drip, trickle, or low-flow micro system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023	48,784	5,105,937	2.4	9,592	580,240	2.5	6,049	349,449	2.8	33,143	4,176,249	2.4
..... 2018	52,959	5,021,860	2.4	10,340	713,894	2.3	7,928	366,748	3.5	34,691	3,941,218	2.3
2023 DATA												
Alabama	129	1,445	1.1	37	260	1.4	-	-	-	92	1,185	1.0
Alaska	36	8	0.3	5	2	0.3	-	-	-	31	6	0.3
Arizona	625	36,303	3.9	80	24,293	4.0	211	6,003	5.1	334	6,008	2.7
Arkansas	89	751	0.5	14	39	0.4	-	-	-	75	713	0.5
California	28,283	3,924,738	2.6	3,867	324,589	2.6	2,926	232,294	2.6	21,490	3,367,855	2.6
Colorado	580	3,239	1.5	186	1,153	1.5	192	858	1.5	202	1,228	1.4
Connecticut	47	243	0.4	22	35	0.3	4	8	0.3	21	200	0.4
Delaware	15	798	0.4	-	-	-	-	-	-	15	798	0.4
Florida	2,910	353,840	1.3	790	7,921	(D)	30	390	(D)	2,090	345,529	1.3
Georgia	1,240	111,966	0.7	64	11,336	1.1	-	-	-	1,176	100,630	0.6
Hawaii	976	20,789	1.7	242	(D)	(D)	24	(D)	(D)	710	10,375	1.9
Idaho	449	6,127	1.4	123	279	1.0	105	384	1.1	221	5,464	1.4
Illinois	95	527	0.5	29	48	0.6	14	3	0.1	52	476	0.5
Indiana	18	1,121	0.3	-	-	-	-	-	-	18	1,121	0.3
Iowa	137	539	0.8	52	118	1.0	22	22	0.1	63	399	0.7
Kansas	127	245	0.6	8	16	0.7	20	40	0.9	99	190	0.6
Kentucky	74	456	1.4	21	7	1.0	-	-	-	53	449	1.4
Louisiana	79	1,156	0.5	35	562	0.4	-	-	-	44	594	0.6
Maine	19	181	0.3	5	26	(D)	-	-	-	14	155	(D)
Maryland	39	558	0.3	-	-	-	-	-	-	39	558	0.3
Massachusetts	89	276	0.2	20	98	0.2	-	-	-	69	178	0.2
Michigan	595	22,008	0.6	68	739	1.7	-	-	-	527	21,269	0.5
Minnesota	219	889	0.6	111	297	0.7	4	2	0.5	104	590	0.7
Mississippi	103	867	0.5	21	37	0.6	-	-	-	82	830	0.5
Missouri	124	2,383	1.1	20	20	0.9	22	28	1.1	82	2,336	1.1
Montana	377	1,083	1.3	237	538	0.9	63	105	0.9	77	440	2.1
Nebraska	96	1,034	0.2	-	-	-	4	2	0.2	92	1,032	0.2
Nevada	16	18	1.4	2	(D)	(D)	3	(D)	(D)	11	16	1.3
New Hampshire	21	137	0.7	12	(D)	0.5	-	-	-	9	(D)	0.8
New Jersey	49	1,051	0.4	-	-	-	-	-	-	49	1,051	0.4
New Mexico	1,999	70,695	3.5	262	1,699	2.9	1,429	65,681	3.6	308	3,315	3.7
New York	199	14,239	0.4	4	(D)	(D)	2	(D)	(D)	193	12,639	0.3
North Carolina	281	2,309	0.3	159	678	0.3	-	-	-	122	1,631	0.3
North Dakota	15	11	1.0	5	(D)	0.8	5	(D)	0.7	5	5	1.3
Ohio	122	326	0.6	18	14	0.3	-	-	-	104	312	0.6
Oklahoma	163	5,649	1.8	29	29	0.6	60	4,530	2.0	74	1,090	1.0
Oregon	2,232	98,688	1.2	895	35,836	1.2	106	1,438	0.8	1,231	61,414	1.3
Pennsylvania	117	3,124	1.0	2	(D)	(D)	4	(D)	(D)	111	3,101	1.0
Rhode Island	18	65	0.7	2	(D)	(D)	-	-	-	16	(D)	(D)
South Carolina	226	11,713	0.5	26	(D)	(D)	-	-	-	200	(D)	(D)
South Dakota	146	248	0.6	32	32	0.2	26	26	0.4	88	190	0.7
Tennessee	66	39	0.3	41	29	0.3	-	-	-	25	10	0.3
Texas	1,946	59,188	2.4	412	3,678	1.0	597	27,497	2.8	937	28,014	2.1
Utah	387	886	1.8	158	185	1.3	77	394	2.0	152	307	1.7
Vermont	35	761	2.0	21	7	0.8	-	-	-	14	754	2.0
Virginia	101	397	0.3	35	24	0.4	-	-	-	66	373	0.3
Washington	2,876	342,037	2.4	1,357	153,274	2.7	63	7,634	2.3	1,456	181,129	2.2
West Virginia	6	132	0.5	-	-	-	-	-	-	6	132	0.5
Wisconsin	120	517	0.3	46	180	(D)	-	-	-	74	337	(D)
Wyoming	73	141	1.0	17	17	0.5	36	(D)	1.6	20	(D)	0.1
Water Resource Regions												
Region 01 New England	196	1,592	1.1	61	223	0.3	4	8	0.3	131	1,360	1.3
Region 02 Mid-Atlantic	346	16,707	0.5	30	335	0.6	6	1,287	0.5	310	15,085	0.5
Region 03 South Atlantic-Gulf	4,851	482,114	1.1	1,060	22,304	1.0	30	390	0.8	3,761	459,419	1.1
Region 04 Great Lakes	889	25,913	0.6	111	812	1.6	-	-	-	778	25,101	0.5
Region 05 Ohio	193	715	1.1	65	91	0.6	-	-	-	128	623	1.2
Region 06 Tennessee	78	30	0.3	53	20	0.3	-	-	-	25	10	0.3
Region 07 Upper Mississippi	500	3,564	0.5	186	535	0.5	40	27	0.1	274	3,002	0.5
Region 08 Lower Mississippi	146	3,079	0.8	60	575	0.4	-	-	-	86	2,504	0.9
Region 09 Souris-Red-Rainy	14	10	0.8	9	9	0.8	5	1	0.7	-	-	-
Region 10 Missouri	629	2,276	0.6	162	(D)	0.9	91	(D)	1.2	376	1,948	0.5
Region 11 Arkansas-White-Red	522	7,164	1.6	111	480	1.4	105	4,598	2.0	306	2,086	0.8
Region 12 Texas-Gulf	1,621	44,063	1.7	373	4,230	1.4	471	16,826	1.5	777	23,006	1.9
Region 13 Rio Grande	2,036	84,919	3.7	193	655	2.7	1,490	76,177	3.8	353	8,086	3.4
Region 14 Upper Colorado	591	3,179	1.6	204	1,165	(D)	195	890	(D)	192	1,123	1.5
Region 15 Lower Colorado	693	36,501	3.9	101	24,314	4.0	248	6,118	5.1	344	6,070	2.7
Region 16 Great Basin	327	845	1.8	137	(D)	1.3	77	(D)	2.0	113	288	1.8
Region 17 Pacific Northwest	5,861	447,797	2.2	2,562	189,875	2.4	337	9,561	2.0	2,962	248,361	2.0
Region 18 California	28,279	3,924,678	2.6	3,867	324,589	2.6	2,926	232,294	2.6	21,486	3,367,795	2.6
Region 19 Alaska	36	8	0.3	5	2	0.3	-	-	-	31	6	0.3
Region 20 Hawaii	976	20,789	1.7	242	(D)	(D)	24	(D)	(D)	710	10,375	1.9

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Nursery and other horticultural crops											
	Farms	Irrigated acres	Average acre-feet applied per acre	Primary method of distribution								
				Sprinkler system ¹			Gravity system			Drip, trickle, or low-flow micro system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023 2018	17,491 15,623	598,980 581,936	1.4 1.3	9,235 8,781	415,148 425,773	1.5 1.2	569 652	16,619 41,991	1.6 2.4	7,687 6,190	167,213 114,173	1.3 1.2
2023 DATA												
Alabama	215	17,404	1.3	137	17,309	1.3	-	-	-	78	95	0.6
Alaska	93	213	0.7	21	83	0.8	7	14	0.3	65	116	0.6
Arizona	176	10,510	2.6	58	4,787	2.9	33	3,350	2.9	85	2,374	1.8
Arkansas	94	5,282	0.8	56	5,163	0.8	-	-	-	38	120	0.6
California	1,903	38,776	2.0	788	13,375	2.3	60	342	1.8	1,055	25,060	1.9
Colorado	470	14,147	2.1	192	9,480	2.3	124	2,204	2.2	154	2,463	1.3
Connecticut	162	2,202	1.3	76	959	2.3	8	2	0.1	78	1,241	0.6
Delaware	24	2,116	0.9	13	2,082	0.9	2	(D)	(D)	9	(D)	(D)
Florida	2,209	96,419	1.7	1,480	61,114	1.8	12	3,743	1.1	717	31,562	1.7
Georgia	303	26,561	1.7	110	17,035	2.1	-	-	-	193	9,526	0.9
Hawaii	464	(D)	0.9	234	(D)	0.8	-	-	-	230	933	1.0
Idaho	286	8,805	1.7	126	5,892	1.9	33	1,446	1.4	127	1,467	1.2
Illinois	426	10,028	0.7	247	1,853	1.0	-	-	-	179	8,175	0.6
Indiana	235	2,816	1.4	122	1,638	1.4	-	-	-	113	1,178	1.3
Iowa	72	3,065	0.6	32	2,399	0.6	-	-	-	40	666	0.3
Kansas	126	6,559	0.8	76	6,436	0.8	-	-	-	50	123	0.6
Kentucky	195	1,827	1.1	106	1,702	1.1	6	6	0.9	83	119	1.1
Louisiana	199	4,826	0.6	156	3,679	0.7	-	-	-	43	1,147	0.5
Maine	94	945	0.3	37	786	0.1	-	-	-	57	159	0.8
Maryland	162	12,163	0.8	87	10,246	0.9	5	15	0.9	70	1,901	0.7
Massachusetts	179	1,820	0.8	94	1,493	0.9	28	28	0.8	57	299	0.4
Michigan	808	24,987	0.9	455	13,203	0.6	18	18	1.0	335	11,766	1.3
Minnesota	222	6,546	0.7	128	6,148	0.7	-	-	-	94	398	0.4
Mississippi	105	3,404	0.6	73	3,105	0.6	-	-	-	32	300	0.6
Missouri	260	7,155	1.1	78	3,695	1.1	13	4	0.7	169	3,456	1.1
Montana	157	2,411	2.1	108	2,214	2.2	-	-	-	49	197	1.5
Nebraska	131	5,570	1.2	68	3,920	1.0	-	-	-	63	1,650	1.5
Nevada	53	(D)	3.1	15	467	3.3	(D)	(D)	(D)	38	(D)	0.9
New Hampshire	103	467	0.8	50	198	1.0	1	(D)	(D)	52	(D)	(D)
New Jersey	334	16,838	0.7	243	11,461	0.7	-	-	-	91	5,377	0.6
New Mexico	105	(D)	(D)	57	(D)	(D)	17	252	2.1	31	104	(D)
New York	716	18,951	0.5	330	10,972	0.4	23	230	0.9	363	7,749	0.6
North Carolina	731	14,977	1.5	395	11,335	1.4	-	-	-	336	3,642	1.5
North Dakota	19	(D)	1.6	15	(D)	1.7	-	-	-	4	16	0.5
Ohio	507	9,437	1.4	224	7,672	1.3	-	-	-	283	1,765	1.6
Oklahoma	90	14,299	1.8	63	14,254	1.8	-	-	-	27	45	0.9
Oregon	1,317	50,845	1.4	861	39,514	1.3	16	41	1.0	440	11,290	1.5
Pennsylvania	385	3,677	0.9	78	421	(D)	23	146	(D)	284	3,110	1.0
Rhode Island	71	3,250	0.7	39	2,836	0.7	2	(D)	(D)	30	(D)	(D)
South Carolina	277	21,346	0.8	81	12,892	0.9	25	250	0.2	171	8,205	0.6
South Dakota	50	(D)	0.8	34	686	0.8	-	-	-	16	(D)	0.7
Tennessee	258	8,183	(D)	150	7,423	(D)	-	-	-	108	760	(D)
Texas	778	69,653	1.5	373	56,254	1.6	61	3,500	1.0	344	9,899	1.1
Utah	169	3,702	2.6	87	2,977	2.7	19	32	1.5	63	694	2.0
Vermont	78	139	1.3	30	85	1.7	5	(D)	(D)	43	(D)	(D)
Virginia	326	9,301	1.1	229	8,874	1.1	-	-	-	97	427	1.2
Washington	899	14,787	1.1	474	7,818	0.9	24	695	1.3	401	6,275	1.2
West Virginia	36	(D)	0.6	25	(D)	0.6	4	(D)	(D)	7	(D)	(D)
Wisconsin	394	8,180	0.7	203	7,393	0.7	-	-	-	191	788	0.6
Wyoming	25	305	2.1	21	304	2.1	-	-	-	4	1	3.2
Water Resource Regions												
Region 01 New England	618	8,691	0.8	300	6,276	0.9	44	328	0.7	274	2,088	0.6
Region 02 Mid-Atlantic	1,591	59,922	0.7	769	41,412	0.7	57	397	1.0	765	18,114	0.7
Region 03 South Atlantic-Gulf	3,715	179,571	1.5	2,262	122,457	1.6	37	3,993	1.1	1,416	53,121	1.3
Region 04 Great Lakes	1,362	30,440	1.0	743	17,962	0.9	18	18	1.0	601	12,460	1.3
Region 05 Ohio	889	13,789	1.1	442	10,393	1.0	6	6	0.9	441	3,390	1.4
Region 06 Tennessee	347	4,099	0.9	140	3,756	0.9	-	-	-	207	343	0.7
Region 07 Upper Mississippi	1,078	28,108	0.7	585	17,931	0.8	-	-	-	493	10,177	0.6
Region 08 Lower Mississippi	289	9,326	0.7	225	8,169	0.7	-	-	-	64	1,157	0.5
Region 09 Souris-Red-Rainy	19	(D)	0.8	13	(D)	1.0	-	-	-	6	(D)	0.6
Region 10 Missouri	745	24,691	1.4	334	17,828	1.4	75	1,260	1.5	336	5,603	1.3
Region 11 Arkansas-White-Red	317	24,465	1.6	168	23,753	1.6	23	212	1.5	126	500	0.9
Region 12 Texas-Gulf	768	69,489	1.5	368	56,249	1.6	59	3,350	1.0	341	9,890	1.1
Region 13 Rio Grande	112	(D)	1.6	68	801	1.4	12	235	2.2	32	(D)	1.3
Region 14 Upper Colorado	184	13,938	2.7	88	11,217	2.9	44	901	3.1	52	1,820	1.0
Region 15 Lower Colorado	193	10,718	2.6	70	4,981	2.8	35	3,352	2.9	88	2,386	1.8
Region 16 Great Basin	195	4,185	2.6	88	3,434	2.8	19	32	1.5	88	719	1.9
Region 17 Pacific Northwest	2,606	75,623	1.4	1,532	54,243	1.4	73	2,181	1.4	1,001	19,199	1.4
Region 18 California	1,906	38,769	2.0	785	13,363	2.3	60	342	1.8	1,061	25,064	1.9
Region 19 Alaska	93	213	0.7	21	83	0.8	7	14	0.3	65	116	0.6
Region 20 Hawaii	464	(D)	0.9	234	(D)	0.8	-	-	-	230	933	1.0

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All other crops									
	Farms	Irrigated acres harvested	Average acre-feet applied per acre	Primary method of distribution						
				Pressure system			Gravity system			
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre	
United States 2023	6,890	1,452,288	1.4	5,720	773,753	1.5	1,170	678,535	1.4	
..... 2018	7,006	1,783,325	1.6	5,229	967,090	1.5	1,777	816,235	1.7	
2023 DATA										
Alabama	46	184	3.3	46	184	3.3	-	-	-	-
Alaska	21	63	0.2	19	(D)	(D)	2	(D)	(D)	(D)
Arizona	243	13,755	3.3	180	8,337	2.4	63	5,418	4.5	4.5
Arkansas	2	(D)	(D)	2	(D)	(D)	-	-	-	-
California	642	164,869	2.6	361	27,333	2.2	281	137,536	2.6	2.6
Colorado	210	20,896	1.5	136	14,157	1.5	74	6,739	1.3	1.3
Connecticut	44	207	0.6	44	207	0.6	-	-	-	-
Delaware	2	(D)	(D)	2	(D)	(D)	-	-	-	-
Florida	277	373,975	0.7	194	5,164	0.9	83	368,811	0.7	0.7
Georgia	57	7,340	0.3	57	7,340	0.3	-	-	-	-
Hawaii	30	262	2.9	30	262	2.9	-	-	-	-
Idaho	593	192,506	2.0	384	155,421	1.9	209	37,085	2.6	2.6
Illinois	42	3,857	1.6	42	3,857	1.6	-	-	-	-
Indiana	82	15,919	0.4	82	15,919	0.4	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-	-
Kansas	159	23,650	1.1	159	23,650	1.1	-	-	-	-
Kentucky	166	3,032	0.4	160	3,026	(D)	6	6	(D)	(D)
Louisiana	80	50,225	0.7	-	-	-	80	50,225	0.7	0.7
Maine	43	507	0.2	43	507	0.2	-	-	-	-
Maryland	72	1,362	0.6	72	1,362	0.6	-	-	-	-
Massachusetts	129	994	0.8	129	994	0.8	-	-	-	-
Michigan	254	3,684	0.4	235	3,665	0.4	19	19	0.7	0.7
Minnesota	23	15,924	1.7	11	4,980	1.4	12	10,944	1.8	1.8
Mississippi	3	3	1.0	3	3	1.0	-	-	-	-
Missouri	10	5,600	0.6	-	-	-	10	5,600	0.6	0.6
Montana	133	31,524	0.9	91	18,741	0.8	42	12,783	1.0	1.0
Nebraska	321	100,243	1.4	292	97,923	1.4	29	2,320	2.4	2.4
Nevada	7	368	3.8	7	368	3.8	-	-	-	-
New Hampshire	22	54	0.3	22	54	0.3	-	-	-	-
New Jersey	82	5,438	0.2	82	5,438	0.2	-	-	-	-
New Mexico	411	5,005	1.3	348	4,847	1.2	63	158	2.6	2.6
New York	274	801	0.4	274	801	0.4	-	-	-	-
North Carolina	46	4,349	0.3	46	4,349	0.3	-	-	-	-
North Dakota	16	1,290	0.4	16	1,290	0.4	-	-	-	-
Ohio	117	1,269	0.4	117	1,269	0.4	-	-	-	-
Oklahoma	40	4,047	1.8	40	4,047	1.8	-	-	-	-
Oregon	790	155,334	1.3	723	142,805	1.2	67	12,529	2.7	2.7
Pennsylvania	244	1,986	0.6	224	(D)	0.6	20	(D)	0.4	0.4
Rhode Island	10	18	0.5	10	18	0.5	-	-	-	-
South Carolina	73	1,048	0.3	73	1,048	0.3	-	-	-	-
South Dakota	1	(D)	(D)	1	(D)	(D)	-	-	-	-
Tennessee	25	125	0.3	25	125	0.3	-	-	-	-
Texas	339	54,487	1.5	279	41,533	1.2	60	12,954	2.6	2.6
Utah	4	(D)	1.9	4	(D)	1.9	-	-	-	-
Vermont	34	227	0.5	34	227	0.5	-	-	-	-
Virginia	25	1,144	0.2	25	1,144	0.2	-	-	-	-
Washington	437	154,607	1.7	424	151,171	1.7	13	3,436	2.2	2.2
West Virginia	6	6	0.5	6	6	0.5	-	-	-	-
Wisconsin	68	654	1.0	68	654	1.0	-	-	-	-
Wyoming	135	26,938	2.9	98	15,030	2.4	37	11,908	3.4	3.4
Water Resource Regions										
Region 01 New England	239	1,735	0.6	239	1,735	0.6	-	-	-	-
Region 02 Mid-Atlantic	557	9,108	0.4	537	9,088	0.4	20	20	0.4	0.4
Region 03 South Atlantic-Gulf	518	388,034	0.7	435	19,223	0.5	83	368,811	0.7	0.7
Region 04 Great Lakes	391	4,749	0.4	372	4,730	(D)	19	19	(D)	(D)
Region 05 Ohio	406	11,385	0.3	400	11,379	0.3	6	6	0.6	0.6
Region 06 Tennessee	-	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	143	20,114	1.2	135	17,170	1.1	8	2,944	2.3	2.3
Region 08 Lower Mississippi	98	56,809	0.7	8	984	0.3	90	55,825	0.7	0.7
Region 09 Souris-Red-Rainy	11	8,285	1.6	7	285	0.2	4	8,000	1.6	1.6
Region 10 Missouri	835	183,921	1.5	684	152,260	1.4	151	31,661	2.0	2.0
Region 11 Arkansas-White-Red	173	38,759	1.4	147	36,675	1.4	26	2,084	1.4	1.4
Region 12 Texas-Gulf	285	38,950	1.5	251	26,120	1.0	34	12,830	2.6	2.6
Region 13 Rio Grande	46	1,813	1.7	20	(D)	1.7	26	(D)	2.4	2.4
Region 14 Upper Colorado	405	5,041	1.3	337	4,878	1.2	68	163	2.5	2.5
Region 15 Lower Colorado	256	13,768	3.2	193	8,350	2.4	63	5,418	4.5	4.5
Region 16 Great Basin	50	5,096	1.8	50	5,096	1.8	-	-	-	-
Region 17 Pacific Northwest	1,764	496,227	1.7	1,475	443,177	1.6	289	53,050	2.6	2.6
Region 18 California	662	168,169	2.5	381	30,633	2.0	281	137,536	2.6	2.6
Region 19 Alaska	21	63	0.2	19	(D)	(D)	2	(D)	(D)	(D)
Region 20 Hawaii	30	262	2.9	30	262	2.9	-	-	-	-

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Irrigated pastureland, all types								
	Farms	Irrigated acres	Average acre-feet applied per acre	Primary method of distribution					
				Pressure system			Gravity system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023	38,715	3,043,010	1.6	18,156	999,499	1.3	20,559	2,043,511	1.7
..... 2018	51,644	4,004,854	1.6	19,940	998,032	1.4	31,704	3,006,822	1.7
2023 DATA									
Alabama	77	3,534	0.4	77	3,534	0.4	-	-	-
Alaska	2	(D)	(D)	2	(D)	(D)	-	-	-
Arizona	1,067	42,917	2.5	253	14,989	2.6	814	27,928	2.4
Arkansas	13	169	0.5	-	-	-	13	169	0.5
California	4,116	334,639	2.6	1,443	45,821	1.6	2,673	288,818	2.8
Colorado	3,972	392,846	1.4	608	36,985	1.6	3,364	355,861	1.4
Connecticut	8	24	0.8	8	24	0.8	-	-	-
Delaware	-	-	-	-	-	-	-	-	-
Florida	437	22,902	0.7	374	9,522	1.0	63	13,380	0.5
Georgia	97	3,673	0.3	97	3,673	0.3	-	-	-
Hawaii	62	1,691	2.1	56	1,163	(D)	6	528	(D)
Idaho	6,031	311,627	1.5	2,668	143,945	1.5	3,363	167,682	1.4
Illinois	13	535	1.0	13	535	1.0	-	-	-
Indiana	84	1,461	0.6	84	1,461	0.6	-	-	-
Iowa	10	30	1.7	10	30	1.7	-	-	-
Kansas	64	18,816	0.8	64	18,816	0.8	-	-	-
Kentucky	22	509	2.2	15	474	2.3	7	35	1.6
Louisiana	46	4,664	0.4	12	120	0.1	34	4,544	0.4
Maine	5	5	1.8	5	5	1.8	-	-	-
Maryland	12	230	0.8	12	230	0.8	-	-	-
Massachusetts	45	81	1.5	36	72	1.5	9	9	1.7
Michigan	143	3,655	0.5	143	3,655	0.5	-	-	-
Minnesota	48	1,152	0.9	48	1,152	0.9	-	-	-
Mississippi	26	581	0.6	18	261	(D)	8	320	(D)
Missouri	45	357	1.1	45	357	1.1	-	-	-
Montana	2,705	395,110	1.1	1,006	85,050	1.3	1,699	310,060	1.1
Nebraska	636	60,848	0.7	490	51,026	0.8	146	9,822	0.6
Nevada	494	233,080	2.7	66	2,101	2.4	428	230,979	2.7
New Hampshire	4	4	1.0	4	4	1.0	-	-	-
New Jersey	16	(D)	(D)	16	(D)	(D)	-	-	-
New Mexico	2,145	95,626	1.3	348	26,665	1.5	1,797	68,961	1.2
New York	67	113	0.2	67	113	0.2	-	-	-
North Carolina	76	2,290	0.7	76	2,290	0.7	-	-	-
North Dakota	-	-	-	-	-	-	-	-	-
Ohio	32	458	1.3	32	458	1.3	-	-	-
Oklahoma	331	34,092	0.6	298	28,271	0.5	33	5,821	1.5
Oregon	5,292	211,797	1.6	3,756	106,464	1.5	1,536	105,333	1.7
Pennsylvania	30	647	1.1	24	47	1.3	6	600	1.1
Rhode Island	12	88	0.5	12	88	0.5	-	-	-
South Carolina	149	1,413	0.7	149	1,413	0.7	-	-	-
South Dakota	72	4,933	0.7	19	3,800	0.6	53	1,133	1.2
Tennessee	-	-	-	-	-	-	-	-	-
Texas	1,086	292,194	1.1	832	282,619	1.1	254	9,575	1.5
Utah	4,344	231,127	1.7	1,954	46,798	1.8	2,390	184,329	1.7
Vermont	13	260	1.6	13	260	1.6	-	-	-
Virginia	37	1,272	0.4	37	1,272	0.4	-	-	-
Washington	2,864	64,389	1.6	2,589	57,276	1.5	275	7,113	1.8
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	68	1,129	0.4	46	1,085	0.4	22	44	0.3
Wyoming	1,797	266,024	1.5	231	15,557	2.2	1,566	250,467	1.4
Water Resource Regions									
Region 01 New England	87	462	1.3	78	453	1.3	9	9	1.7
Region 02 Mid-Atlantic	141	2,257	0.6	135	1,657	0.5	6	600	1.1
Region 03 South Atlantic-Gulf	831	33,728	0.6	768	20,348	0.7	63	13,380	0.5
Region 04 Great Lakes	223	3,905	0.5	201	3,861	0.5	22	44	0.3
Region 05 Ohio	87	1,198	1.5	80	1,163	(D)	7	35	(D)
Region 06 Tennessee	23	(D)	(D)	23	(D)	(D)	-	-	-
Region 07 Upper Mississippi	133	3,877	0.7	133	3,877	0.7	-	-	-
Region 08 Lower Mississippi	65	5,028	0.4	23	164	0.2	42	4,864	0.4
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	4,314	595,847	1.3	1,182	159,212	1.3	3,132	436,635	1.3
Region 11 Arkansas-White-Red	984	169,702	1.3	463	72,711	1.0	521	96,991	1.5
Region 12 Texas-Gulf	999	272,243	1.0	762	259,840	1.0	237	12,403	1.5
Region 13 Rio Grande	1,798	124,235	1.2	207	18,443	1.3	1,591	105,792	1.2
Region 14 Upper Colorado	4,464	389,217	1.5	1,038	37,547	1.7	3,426	351,670	1.4
Region 15 Lower Colorado	1,242	53,639	2.4	309	24,122	2.5	933	29,517	2.3
Region 16 Great Basin	3,953	382,148	2.3	1,680	19,998	1.6	2,273	362,150	2.3
Region 17 Pacific Northwest	14,865	626,961	1.4	9,467	325,154	1.5	5,398	301,807	1.4
Region 18 California	4,442	376,525	2.5	1,549	49,439	1.6	2,893	327,086	2.7
Region 19 Alaska	2	(D)	(D)	2	(D)	(D)	-	-	-
Region 20 Hawaii	62	1,691	2.1	56	1,163	(D)	6	528	(D)

See footnote(s) at end of table.

--continued

Table 39. Field Water Distribution for Selected Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All other irrigated land types such as failed cropland, idle land, and land in summer fallow (see text)								
	Farms	Irrigated acres	Average acre-feet applied per acre	Primary method of distribution					
				Pressure system			Gravity system		
				Farms	Acres	Average acre-feet applied per acre	Farms	Acres	Average acre-feet applied per acre
United States 2023 2018	3,984 (NA)	482,367 (NA)	1.2 (NA)	2,866 (NA)	356,831 (NA)	1.0 (NA)	1,118 (NA)	125,536 (NA)	1.8 (NA)
2023 DATA									
Alabama	1	(D)	(D)	1	(D)	(D)	-	-	-
Alaska	-	-	-	-	-	-	-	-	-
Arizona	93	13,410	2.2	74	470	2.1	19	12,940	2.2
Arkansas	2	(D)	(D)	2	(D)	(D)	-	-	-
California	298	27,757	2.0	129	5,679	1.3	169	22,078	2.2
Colorado	461	35,426	0.9	180	29,784	0.8	281	5,642	1.4
Connecticut	10	19	0.4	6	15	0.3	4	4	1.0
Delaware	4	(D)	0.4	4	(D)	0.4	-	-	-
Florida	94	20,892	1.0	91	339	0.8	3	20,553	1.0
Georgia	65	8,875	0.9	65	8,875	0.9	-	-	-
Hawaii	84	(D)	1.2	84	(D)	1.2	-	-	-
Idaho	107	20,513	0.7	39	19,967	0.7	68	546	1.6
Illinois	8	384	0.2	8	384	0.2	-	-	-
Indiana	55	(D)	0.5	55	(D)	0.5	-	-	-
Iowa	21	42	0.6	21	42	0.6	-	-	-
Kansas	131	32,391	0.7	110	31,971	0.7	21	420	0.5
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-	-	-	-
Maine	22	(D)	(D)	22	(D)	(D)	-	-	-
Maryland	2	(D)	(D)	2	(D)	(D)	-	-	-
Massachusetts	39	(D)	0.5	39	(D)	0.5	-	-	-
Michigan	43	2,221	1.0	43	2,221	1.0	-	-	-
Minnesota	-	-	-	-	-	-	-	-	-
Mississippi	-	-	-	-	-	-	-	-	-
Missouri	12	24	1.0	12	24	1.0	-	-	-
Montana	134	3,359	0.7	107	2,441	0.8	27	918	0.2
Nebraska	199	13,369	0.7	169	12,853	0.7	30	516	0.9
Nevada	16	20,862	3.3	9	522	3.6	7	20,340	3.3
New Hampshire	4	4	(D)	4	4	(D)	-	-	-
New Jersey	24	2,880	1.0	24	2,880	1.0	-	-	-
New Mexico	265	13,540	1.8	32	8,933	1.8	233	4,607	1.8
New York	-	-	-	-	-	-	-	-	-
North Carolina	-	-	-	-	-	-	-	-	-
North Dakota	7	282	0.9	7	282	0.9	-	-	-
Ohio	28	28	1.0	28	28	1.0	-	-	-
Oklahoma	130	6,265	0.2	130	6,265	0.2	-	-	-
Oregon	339	16,007	1.1	331	(D)	(D)	8	(D)	(D)
Pennsylvania	20	80	0.2	20	80	0.2	-	-	-
Rhode Island	8	(D)	1.9	8	(D)	1.9	-	-	-
South Carolina	26	(D)	1.0	26	(D)	1.0	-	-	-
South Dakota	4	4	1.0	4	4	1.0	-	-	-
Tennessee	-	-	-	-	-	-	-	-	-
Texas	634	211,492	1.1	547	179,068	1.0	87	32,424	1.1
Utah	276	13,747	2.4	185	11,264	2.7	91	2,483	1.1
Vermont	-	-	-	-	-	-	-	-	-
Virginia	1	(D)	(D)	1	(D)	(D)	-	-	-
Washington	166	6,201	1.8	164	(D)	(D)	2	(D)	(D)
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	50	(D)	1.6	50	(D)	1.6	-	-	-
Wyoming	101	4,288	1.8	33	2,299	1.0	68	1,989	2.7
Water Resource Regions									
Region 01 New England	83	(D)	0.2	79	(D)	0.2	4	4	1.0
Region 02 Mid-Atlantic	51	3,343	0.9	51	3,343	0.9	-	-	-
Region 03 South Atlantic-Gulf	186	31,492	1.0	183	10,939	0.9	3	20,553	1.0
Region 04 Great Lakes	55	2,233	1.0	55	2,233	1.0	-	-	-
Region 05 Ohio	53	494	0.6	53	494	0.6	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	97	(D)	0.6	97	(D)	0.6	-	-	-
Region 08 Lower Mississippi	2	(D)	(D)	2	(D)	(D)	-	-	-
Region 09 Souris-Red-Rainy	6	(D)	(D)	6	(D)	(D)	-	-	-
Region 10 Missouri	573	42,137	0.8	386	36,450	0.6	187	5,687	1.7
Region 11 Arkansas-White-Red	340	69,413	0.7	253	67,494	0.7	87	1,919	0.9
Region 12 Texas-Gulf	562	154,522	1.2	490	145,198	1.2	72	9,324	1.0
Region 13 Rio Grande	244	49,481	1.1	98	24,052	0.8	146	25,429	1.3
Region 14 Upper Colorado	413	10,415	1.5	161	6,306	1.8	252	4,109	1.1
Region 15 Lower Colorado	96	13,413	2.2	77	473	2.1	19	12,940	2.2
Region 16 Great Basin	195	28,776	3.2	97	5,953	3.5	98	22,823	3.1
Region 17 Pacific Northwest	638	41,645	1.1	557	40,975	1.1	81	670	1.6
Region 18 California	306	28,955	2.0	137	6,877	1.2	169	22,078	2.2
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	84	(D)	1.2	84	(D)	1.2	-	-	-

¹ Includes other pressurized systems including hydroponics. Excludes Low-Flow Irrigation (Drip, Trickle, or Micro sprinkler systems).

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Corn for grain or seed											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	30,089 31,828	11,641,724 11,610,238	6,434 7,107	2,806,437 2,870,237	1,191 1,469	582,036 551,291	25,394 26,697	10,484,289 10,280,942	3,476 3,747	490,629 514,594	3,828 5,125	820,420 1,062,051
2023 DATA												
Alabama	203	46,636	-	-	-	-	136	24,074	52	20,668	31	4,050
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	29	32,396	20	(D)	1	(D)	24	(D)	-	-	5	(D)
Arkansas	1,241	712,483	101	31,199	82	22,994	1,200	655,865	273	61,552	8	1,304
California	203	65,055	47	9,796	12	5,469	78	17,213	13	5,389	135	47,277
Colorado	1,192	501,507	391	209,988	51	20,780	680	380,246	131	23,029	528	127,283
Connecticut	-	-	-	-	-	-	-	-	-	-	-	-
Delaware	281	67,164	73	17,760	18	3,440	272	64,007	43	3,783	-	-
Florida	113	51,317	62	28,160	-	-	110	50,300	-	-	3	1,017
Georgia	757	267,209	150	23,758	50	6,762	626	222,400	305	57,835	-	-
Hawaii	15	1,142	1	(D)	1	(D)	2	(D)	-	-	15	(D)
Idaho	448	78,099	53	20,545	10	1,535	81	21,679	62	8,712	345	49,108
Illinois	1,140	406,618	203	57,750	8	1,736	1,112	402,082	-	-	42	4,536
Indiana	1,199	308,165	86	25,072	1	(D)	1,052	287,001	170	31,682	76	8,056
Iowa	510	139,614	74	16,971	-	-	419	130,738	70	5,642	21	3,234
Kansas	2,476	1,145,431	813	411,108	94	40,821	2,215	1,102,783	227	30,933	168	22,755
Kentucky	107	40,923	1	(D)	-	-	83	28,228	23	(D)	1	(D)
Louisiana	511	377,187	12	2,400	24	3,324	511	363,515	44	11,362	11	2,365
Maine	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	279	55,381	44	5,655	11	1,515	246	47,264	58	8,129	7	510
Massachusetts	-	-	-	-	-	-	-	-	-	-	-	-
Michigan	1,049	274,683	154	40,950	21	5,261	816	237,473	295	40,263	86	8,965
Minnesota	1,191	302,357	202	58,578	-	-	1,142	289,599	90	8,608	13	4,150
Mississippi	554	354,588	22	25,088	6	14,400	529	348,410	73	12,202	-	-
Missouri	871	398,800	44	28,215	11	22,000	758	385,034	123	11,615	34	2,151
Montana	88	20,233	18	6,900	3	540	-	-	16	2,623	72	17,610
Nebraska	10,597	4,440,928	2,686	1,291,359	594	310,347	9,938	4,172,224	607	35,991	1,111	258,722
Nevada	43	4,215	1	(D)	1	(D)	2	(D)	-	-	41	(D)
New Hampshire	5	325	-	-	-	-	-	-	-	-	5	325
New Jersey	62	9,241	2	(D)	-	-	52	5,787	31	3,454	-	-
New Mexico	35	19,736	-	-	-	-	31	15,336	-	-	8	9,200
New York	59	810	-	-	-	-	19	(D)	38	272	2	(D)
North Carolina	258	38,394	46	6,522	24	(D)	71	17,469	199	21,075	-	-
North Dakota	320	106,949	75	22,932	3	1,206	248	87,936	16	2,035	73	17,178
Ohio	105	13,404	14	2,773	6	1,036	67	8,327	24	2,839	20	3,090
Oklahoma	236	84,603	118	54,660	14	15,042	232	84,031	4	(D)	2	(D)
Oregon	260	48,771	44	12,566	12	5,206	65	7,437	49	20,533	174	26,960
Pennsylvania	57	2,406	10	893	4	164	11	842	40	1,084	6	480
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	273	57,247	21	11,796	3	666	225	51,901	69	4,446	3	900
South Dakota	716	200,709	190	44,765	-	-	617	172,618	54	7,695	72	20,396
Tennessee	242	62,741	7	3,903	-	-	211	55,926	25	5,825	6	990
Texas	919	563,705	242	171,185	29	35,675	830	523,681	27	4,900	94	42,924
Utah	221	25,710	86	15,945	44	8,910	-	-	21	630	200	25,080
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	94	14,064	25	3,541	-	-	4	1,094	78	10,641	16	2,329
Washington	209	103,283	114	48,447	35	28,892	78	29,062	8	2,799	146	71,652
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	634	159,574	120	60,589	1	(D)	567	154,105	98	5,869	4	880
Wyoming	287	37,921	62	9,290	17	187	34	5,530	20	5,354	244	27,617
Water Resource Regions												
Region 01 New England	5	325	-	-	-	-	-	-	-	-	5	325
Region 02 Mid-Atlantic	765	146,971	154	27,909	33	5,119	603	119,012	224	25,788	29	3,319
Region 03 South Atlantic-Gulf	1,565	443,794	287	71,324	77	8,420	1,139	358,116	634	97,863	12	3,147
Region 04 Great Lakes	1,574	361,305	261	64,689	26	5,921	1,215	318,524	422	45,674	120	9,925
Region 05 Ohio	868	234,940	70	22,278	3	453	760	207,440	121	26,332	54	10,444
Region 06 Tennessee	141	33,835	-	-	-	-	66	15,328	50	14,697	31	3,810
Region 07 Upper Mississippi	3,289	963,135	464	174,024	19	23,736	3,011	930,473	299	32,730	84	10,562
Region 08 Lower Mississippi	2,689	1,613,157	128	61,202	112	40,718	2,646	1,552,289	310	68,881	8	1,304
Region 09 Souris-Red-Rainy	276	94,495	72	26,675	3	1,206	261	82,915	10	(D)	18	(D)
Region 10 Missouri	14,145	5,605,354	3,645	1,641,903	688	336,194	12,458	5,122,966	969	88,263	2,020	448,565
Region 11 Arkansas-White-Red	2,758	1,614,090	916	557,513	110	81,198	2,507	1,553,111	282	46,527	191	32,192
Region 12 Texas-Gulf	457	154,818	71	26,606	4	6,000	368	115,594	-	-	98	49,524
Region 13 Rio Grande	30	276	-	-	-	-	30	276	-	-	-	-
Region 14 Upper Colorado	108	23,142	23	8,280	23	8,280	-	-	-	-	108	23,142
Region 15 Lower Colorado	32	32,840	23	(D)	4	(D)	24	(D)	-	-	8	(D)
Region 16 Great Basin	241	21,645	64	8,006	22	(D)	2	(D)	21	(D)	218	20,549
Region 17 Pacific Northwest	931	231,849	211	81,558	57	35,633	224	58,178	121	32,120	677	149,340
Region 18 California	200	64,611	44	9,352	9	5,025	78	17,213	13	5,389	132	46,833
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	15	1,142	1	(D)	1	(D)	2	(D)	-	-	15	(D)

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Corn for silage or greenchop											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	6,819 7,930	1,909,521 1,648,789	1,858 1,912	539,059 479,350	594 630	183,975 153,271	3,817 4,169	1,152,317 1,005,446	1,396 1,431	376,434 320,085	3,099 3,581	711,629 606,782
2023 DATA												
Alabama	-	-	-	-	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	155	72,539	70	45,656	26	22,107	55	46,893	1	(D)	107	36,526
Arkansas	9	591	3	51	-	-	-	9	591	-	-	-
California	1,483	519,228	355	78,931	222	71,416	761	253,333	566	189,252	939	300,409
Colorado	525	149,586	172	32,818	41	9,770	292	74,666	126	13,908	278	85,670
Connecticut	-	-	-	-	-	-	-	-	-	-	-	-
Delaware	10	1,050	-	-	-	-	10	675	5	375	-	-
Florida	39	7,640	31	6,000	-	-	39	7,640	1	(D)	8	(D)
Georgia	28	10,725	1	(D)	-	-	28	7,875	28	10,725	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-	-	-
Idaho	915	284,691	194	53,678	57	36,369	286	125,409	132	37,052	631	130,014
Illinois	8	72	-	-	-	-	8	72	-	-	-	-
Indiana	70	12,757	4	5,600	-	-	70	12,541	8	216	-	-
Iowa	21	714	-	-	-	-	21	714	-	-	-	-
Kansas	301	98,779	70	30,935	-	-	301	94,993	45	8,500	14	546
Kentucky	7	1,540	-	-	-	-	7	1,540	-	-	-	-
Louisiana	-	-	-	-	-	-	-	-	-	-	-	-
Maine	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	3	1,702	-	-	-	-	3	1,702	-	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-	-	-	-
Michigan	157	29,241	5	6,000	-	-	76	20,715	93	10,461	-	-
Minnesota	94	10,601	1	(D)	-	-	94	10,601	-	-	-	-
Mississippi	-	-	-	-	-	-	-	-	-	-	-	-
Missouri	-	-	-	-	-	-	-	-	-	-	-	-
Montana	175	32,405	31	3,939	28	2,805	-	-	10	8,204	165	24,201
Nebraska	849	119,913	293	23,182	50	1,656	800	117,542	70	23,798	57	1,321
Nevada	84	7,805	9	819	-	-	2	(D)	-	-	82	(D)
New Hampshire	-	-	-	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico	138	54,428	94	23,099	35	2,344	111	28,064	4	(D)	58	27,108
New York	1	(D)	-	-	-	-	-	-	-	-	1	(D)
North Carolina	22	880	-	-	22	(D)	-	-	22	880	-	-
North Dakota	61	7,780	-	-	-	-	21	2,003	4	1,640	44	4,137
Ohio	12	4,298	2	(D)	-	-	8	3,250	6	3,048	2	(D)
Oklahoma	59	32,220	59	32,220	-	-	59	32,220	-	-	-	-
Oregon	203	46,653	61	6,880	7	1,240	83	7,844	45	21,312	93	19,390
Pennsylvania	21	2,387	-	-	-	-	3	1,332	5	330	13	725
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	6	600	6	600	-	-	6	600	-	-	-	-
South Dakota	48	7,520	26	520	-	-	22	7,000	-	-	26	520
Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Texas	357	202,710	161	95,747	32	16,160	353	199,590	16	7,600	9	6,000
Utah	356	61,121	131	45,196	66	9,742	70	36,899	88	6,859	287	17,363
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	27	2,354	-	-	-	-	-	-	11	424	16	1,930
Washington	290	84,553	29	24,839	7	9,450	99	27,429	42	20,644	161	41,840
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	124	27,579	42	14,878	-	-	103	25,289	32	2,290	-	-
Wyoming	161	12,519	8	1,936	1	(D)	26	1,686	27	4,105	108	6,728
Water Resource Regions												
Region 01 New England	-	-	-	-	-	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	61	7,493	-	-	-	-	16	3,709	21	1,129	29	2,655
Region 03 South Atlantic-Gulf	95	19,845	38	9,900	22	880	73	16,115	51	13,705	8	488
Region 04 Great Lakes	227	44,322	10	8,900	-	-	122	34,030	129	13,887	1	(D)
Region 05 Ohio	19	1,703	-	-	-	-	17	935	2	(D)	2	(D)
Region 06 Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	241	39,577	44	19,813	-	-	241	38,217	8	1,360	-	-
Region 08 Lower Mississippi	10	1,591	3	51	-	-	7	1,540	3	51	-	-
Region 09 Souris-Red-Rainy	16	1,760	-	-	-	-	11	1,408	-	-	8	352
Region 10 Missouri	1,749	333,641	511	73,110	117	13,892	1,152	215,989	248	52,955	618	113,903
Region 11 Arkansas-White-Red	561	268,340	243	133,292	8	11,600	524	257,254	56	15,340	41	6,806
Region 12 Texas-Gulf	258	85,174	93	27,920	28	6,160	250	72,670	-	-	13	15,384
Region 13 Rio Grande	70	12,423	64	9,699	31	744	48	10,443	4	320	53	2,724
Region 14 Upper Colorado	47	16,740	-	-	-	-	-	-	22	(D)	25	(D)
Region 15 Lower Colorado	162	76,034	77	49,151	26	22,107	55	46,893	1	(D)	114	40,021
Region 16 Great Basin	445	70,471	146	46,483	66	9,742	78	39,567	66	5,979	390	24,925
Region 17 Pacific Northwest	1,382	414,674	281	85,304	74	47,434	462	160,214	219	79,008	865	190,489
Region 18 California	1,476	515,733	348	75,436	222	71,416	761	253,333	566	189,252	932	296,914
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Sorghum for grain or seed											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	2,063 1,594	430,947 286,851	588 193	114,669 37,603	98 54	13,440 10,597	1,707 1,307	368,482 232,714	71 128	6,431 11,277	349 241	56,827 50,682
2023 DATA												
Alabama	-	-	-	-	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	1	(D)	1	(D)	-	-	-	-	-	-	1	(D)
Arkansas	32	2,512	-	-	-	-	32	2,392	3	120	-	-
California	14	12,181	-	-	-	-	-	-	1	(D)	13	(D)
Colorado	197	27,398	22	7,260	-	-	124	18,199	34	5,659	64	4,157
Connecticut	-	-	-	-	-	-	-	-	-	-	-	-
Delaware	5	638	3	480	-	-	5	638	-	-	-	-
Florida	30	150	-	-	-	-	30	150	-	-	-	-
Georgia	51	7,271	23	6,900	-	-	24	7,055	27	216	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-	-	-	-
Illinois	5	30	-	-	-	-	5	30	-	-	-	-
Indiana	35	536	-	-	-	-	18	162	-	-	17	374
Iowa	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	524	116,808	147	24,045	-	-	524	114,198	-	-	34	2,610
Kentucky	-	-	-	-	-	-	-	-	-	-	-	-
Louisiana	7	980	-	-	-	-	7	980	-	-	-	-
Maine	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	7	391	5	(D)	-	-	7	391	-	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-	-	-	-	-	-	-
Mississippi	-	-	-	-	-	-	-	-	-	-	-	-
Missouri	2	(D)	-	-	-	-	2	(D)	-	-	-	-
Montana	-	-	-	-	-	-	-	-	-	-	-	-
Nebraska	113	6,112	29	3,480	29	3,480	85	5,384	-	-	28	728
Nevada	1	(D)	-	-	-	-	1	(D)	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico	130	20,029	53	1,125	22	660	99	19,967	-	-	31	62
New York	-	-	-	-	-	-	-	-	-	-	-	-
North Carolina	-	-	-	-	-	-	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-	-	-	-	-	-
Oklahoma	113	19,258	57	8,578	11	1,320	113	19,258	-	-	-	-
Oregon	27	495	-	-	-	-	2	(D)	2	(D)	25	(D)
Pennsylvania	4	8	-	-	-	-	-	-	4	8	-	-
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	1	(D)	-	-	-	-	1	(D)	-	-	-	-
South Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Texas	740	213,202	248	60,786	36	7,980	628	178,382	-	-	112	34,820
Utah	24	128	-	-	-	-	-	-	-	-	24	128
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-	-	-	-
Water Resource Regions												
Region 01 New England	-	-	-	-	-	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	16	1,037	8	(D)	-	-	12	1,029	4	8	-	-
Region 03 South Atlantic-Gulf	82	7,621	23	6,900	-	-	55	7,405	27	216	-	-
Region 04 Great Lakes	1	(D)	-	-	-	-	1	(D)	-	-	-	-
Region 05 Ohio	-	-	-	-	-	-	-	-	-	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	39	438	-	-	-	-	22	64	-	-	17	374
Region 08 Lower Mississippi	22	(D)	-	-	-	-	22	1,880	3	(D)	-	-
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-	-	-	-
Region 10 Missouri	260	34,717	51	10,740	29	3,480	231	32,782	1	(D)	49	(D)
Region 11 Arkansas-White-Red	1,031	260,073	310	63,443	20	5,020	959	249,471	31	5,269	77	5,707
Region 12 Texas-Gulf	363	104,732	119	27,206	4	1,520	322	70,820	-	-	41	33,912
Region 13 Rio Grande	182	5,097	76	3,885	45	3,420	80	4,127	2	(D)	102	970
Region 14 Upper Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	1	(D)	1	(D)	-	-	-	-	-	-	1	(D)
Region 16 Great Basin	25	728	-	-	-	-	1	(D)	-	-	24	(D)
Region 17 Pacific Northwest	27	495	-	-	-	-	2	(D)	2	(D)	25	(D)
Region 18 California	14	12,181	-	-	-	-	-	-	1	(D)	13	(D)
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Wheat for grain or seed											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	7,960 8,760	2,143,635 2,311,703	1,611 1,859	495,054 619,104	296 562	139,022 241,876	5,416 5,042	1,512,061 1,423,482	891 712	186,836 165,315	2,201 3,669	492,349 826,783
2023 DATA												
Alabama	1	(D)	-	-	-	-	1	(D)	1	(D)	-	-
Alaska	2	(D)	-	-	-	-	2	(D)	-	-	-	-
Arizona	142	58,843	58	18,911	29	13,600	20	15,915	29	12,567	99	34,721
Arkansas	4	445	-	-	-	-	4	445	-	-	-	-
California	473	125,405	86	27,743	44	12,866	330	69,196	61	13,870	203	54,079
Colorado	391	51,269	99	14,685	14	1,680	316	40,938	52	5,188	48	5,839
Connecticut	-	-	-	-	-	-	-	-	-	-	-	-
Delaware	44	7,940	3	1,260	-	-	44	6,563	9	1,377	-	-
Florida	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	70	35,477	-	-	-	-	70	35,477	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-	-	-
Idaho	1,208	468,288	176	84,152	43	35,507	368	213,544	249	75,136	753	185,707
Illinois	54	16,158	19	2,825	-	-	54	16,158	-	-	-	-
Indiana	109	11,225	8	480	-	-	91	10,977	26	728	-	-
Iowa	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	1,568	385,505	283	64,042	6	780	1,548	384,285	40	1,480	1	(D)
Kentucky	7	5,733	-	-	-	-	-	-	6	(D)	1	(D)
Louisiana	1	(D)	-	-	-	-	1	(D)	-	-	-	-
Maine	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	59	7,436	-	-	-	-	57	6,986	6	562	2	(D)
Massachusetts	-	-	-	-	-	-	-	-	-	-	-	-
Michigan	219	26,386	1	(D)	-	-	159	22,517	65	4,352	-	-
Minnesota	15	4,435	-	-	-	-	15	4,435	-	-	-	-
Mississippi	8	1,600	-	-	-	-	8	1,600	-	-	-	-
Missouri	43	19,328	-	-	-	-	42	(D)	1	(D)	-	-
Montana	445	102,340	48	14,268	3	1,200	49	8,069	89	35,996	312	58,503
Nebraska	434	70,750	236	41,878	-	-	434	69,650	-	-	31	1,100
Nevada	15	8,292	1	(D)	1	(D)	2	(D)	-	-	13	(D)
New Hampshire	5	50	-	-	-	-	-	-	5	50	-	-
New Jersey	45	2,543	-	-	-	-	45	(D)	2	(D)	-	-
New Mexico	43	24,190	1	(D)	-	-	37	15,433	-	-	11	8,762
New York	-	-	-	-	-	-	-	-	-	-	-	-
North Carolina	79	4,449	2	(D)	22	(D)	8	3,091	72	1,358	-	-
North Dakota	113	21,228	19	2,085	5	450	50	7,025	5	435	63	13,768
Ohio	4	174	-	-	-	-	1	(D)	3	(D)	-	-
Oklahoma	319	113,028	71	32,367	14	5,762	308	111,268	-	-	11	1,760
Oregon	354	85,668	83	17,168	33	9,334	215	33,456	70	16,411	140	47,439
Pennsylvania	6	456	4	440	4	440	2	(D)	4	(D)	-	-
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	18	3,348	6	1,080	-	-	18	3,348	-	-	-	-
South Dakota	19	1,819	-	-	-	-	1	(D)	-	-	18	(D)
Tennessee	28	3,936	-	-	-	-	28	3,936	-	-	-	-
Texas	839	277,648	149	66,081	14	5,335	815	274,528	48	3,120	5	6,500
Utah	350	22,646	86	12,716	-	-	64	11,488	-	-	286	11,158
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	16	392	-	-	-	-	-	-	9	27	7	365
Washington	388	170,971	172	87,862	64	47,342	203	110,816	28	8,725	189	54,540
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-	-	-	-	-	-
Wyoming	22	2,462	-	-	-	-	6	1,380	11	1,382	8	480
Water Resource Regions												
Region 01 New England	5	50	-	-	-	-	-	-	5	50	-	-
Region 02 Mid-Atlantic	170	18,767	7	1,700	4	(D)	148	16,070	30	2,444	9	485
Region 03 South Atlantic-Gulf	167	43,274	8	1,562	22	440	96	41,916	72	1,358	-	-
Region 04 Great Lakes	225	27,032	1	(D)	-	-	164	23,153	66	4,362	-	-
Region 05 Ohio	46	19,838	-	-	-	-	42	16,937	3	(D)	1	(D)
Region 06 Tennessee	1	(D)	-	-	-	-	1	(D)	1	(D)	-	-
Region 07 Upper Mississippi	131	14,241	27	3,305	-	-	114	14,003	25	718	-	-
Region 08 Lower Mississippi	75	25,094	-	-	-	-	69	22,094	6	3,000	-	-
Region 09 Souris-Red-Rainy	31	4,455	4	580	-	-	21	3,530	5	435	10	490
Region 10 Missouri	1,685	321,240	410	76,166	8	1,650	1,196	213,911	93	33,963	435	74,378
Region 11 Arkansas-White-Red	2,075	598,172	392	129,081	30	10,717	1,982	585,876	137	9,468	23	4,660
Region 12 Texas-Gulf	352	110,701	77	27,209	4	1,160	348	109,221	-	-	9	7,980
Region 13 Rio Grande	29	4,140	20	2,180	14	1,680	28	(D)	2	(D)	6	(D)
Region 14 Upper Colorado	45	(D)	22	(D)	-	-	-	-	-	-	45	(D)
Region 15 Lower Colorado	151	61,069	63	20,537	32	13,984	20	15,915	29	12,567	108	36,947
Region 16 Great Basin	342	31,240	65	16,782	1	(D)	66	17,774	-	-	276	13,466
Region 17 Pacific Northwest	1,941	726,521	434	189,572	140	92,183	786	353,654	336	103,137	1,085	290,577
Region 18 California	487	128,429	81	26,117	41	12,482	333	73,546	81	14,770	194	51,853
Region 19 Alaska	2	(D)	-	-	-	-	2	(D)	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Soybeans for beans											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	20,417 21,316	8,190,426 8,215,031	982 1,224	289,540 383,511	540 597	188,516 204,007	18,841 19,508	7,604,347 7,594,411	2,271 2,970	482,723 604,100	1,171 1,428	167,851 224,447
2023 DATA												
Alabama	164	26,107	-	-	-	-	63	8,527	80	13,380	30	4,200
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas	2,104	2,385,373	107	95,611	119	99,065	2,023	2,166,851	525	224,867	9	3,860
California	-	-	-	-	-	-	-	-	-	-	-	-
Colorado	5	610	5	610	-	-	5	610	-	-	-	-
Connecticut	-	-	-	-	-	-	-	-	-	-	-	-
Delaware	265	42,818	14	2,845	3	750	250	38,926	53	4,345	-	-
Florida	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	270	32,338	23	4,140	23	4,140	243	29,064	83	6,082	-	-
Hawaii	13	44	1	(D)	-	-	-	-	-	-	13	44
Idaho	-	-	-	-	-	-	-	-	-	-	-	-
Illinois	877	220,494	5	2,650	8	1,600	863	220,032	-	-	14	462
Indiana	919	198,775	13	2,080	17	2,160	843	183,276	110	21,590	51	3,094
Iowa	415	86,387	1	(D)	-	-	394	85,715	21	672	-	-
Kansas	1,309	270,451	190	45,649	64	17,220	1,124	240,306	127	16,160	113	15,545
Kentucky	67	27,997	-	-	-	-	50	13,542	16	(D)	1	(D)
Louisiana	551	385,000	-	-	-	-	522	334,087	91	41,737	31	11,510
Maine	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	265	46,152	12	1,343	-	-	227	39,098	60	7,402	5	500
Massachusetts	-	-	-	-	-	-	-	-	-	-	-	-
Michigan	745	143,716	8	698	-	-	595	112,810	204	28,317	66	7,477
Minnesota	777	110,363	5	150	-	-	761	109,387	40	976	-	-
Mississippi	1,038	1,163,944	16	29,360	14	4,286	1,029	1,135,602	160	47,058	6	1,050
Missouri	969	644,367	34	3,845	-	-	864	619,657	96	21,639	48	3,071
Montana	24	3,135	3	510	3	510	21	2,625	3	510	-	-
Nebraska	7,624	2,015,309	432	77,029	257	56,771	7,336	1,939,966	302	10,501	623	73,515
Nevada	-	-	-	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-	-	-	-
New Jersey	53	4,161	-	-	-	-	51	3,111	8	1,050	-	-
New Mexico	-	-	-	-	-	-	-	-	-	-	-	-
New York	-	-	-	-	-	-	-	-	-	-	-	-
North Carolina	161	11,461	2	(D)	22	(D)	34	6,308	129	5,153	-	-
North Dakota	209	52,703	19	2,980	-	-	165	42,333	-	-	47	10,450
Ohio	55	7,031	2	(D)	6	830	40	4,960	17	(D)	5	1,280
Oklahoma	60	18,202	12	10,288	3	732	57	15,010	1	(D)	3	(D)
Oregon	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania	41	1,244	20	20	-	-	25	219	10	545	6	480
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	171	19,780	-	-	-	-	147	16,468	30	3,312	-	-
South Dakota	534	116,854	27	3,645	-	-	488	99,108	-	-	63	17,746
Tennessee	182	63,884	-	-	-	-	175	58,144	1	(D)	6	(D)
Texas	38	5,240	-	-	-	-	29	2,860	9	1,940	4	440
Utah	-	-	-	-	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	77	9,784	3	420	-	-	3	219	53	7,320	27	2,245
Washington	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	435	76,702	28	2,165	1	(D)	414	75,526	42	1,176	-	-
Wyoming	-	-	-	-	-	-	-	-	-	-	-	-
Water Resource Regions												
Region 01 New England	-	-	-	-	-	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	683	103,049	49	4,628	3	750	553	81,354	166	19,771	38	3,225
Region 03 South Atlantic-Gulf	698	76,314	25	6,590	45	4,580	436	53,561	331	25,081	6	480
Region 04 Great Lakes	1,099	197,389	31	2,020	7	842	903	164,352	262	30,762	84	7,858
Region 05 Ohio	644	166,463	7	(D)	17	2,160	593	148,272	76	18,196	22	6,320
Region 06 Tennessee	109	23,736	-	-	-	-	61	7,389	19	7,587	30	8,760
Region 07 Upper Mississippi	2,401	466,085	45	7,183	8	1,600	2,266	441,919	158	24,331	56	2,695
Region 08 Lower Mississippi	4,110	4,273,947	123	124,971	133	103,351	4,027	3,987,570	694	303,032	35	15,650
Region 09 Souris-Red-Rainy	180	33,709	9	1,830	-	-	170	32,994	-	-	10	715
Region 10 Missouri	9,139	2,318,105	532	88,609	282	58,821	8,635	2,199,895	407	22,606	786	104,357
Region 11 Arkansas-White-Red	1,313	530,025	160	51,997	45	16,412	1,169	485,481	158	31,357	91	17,747
Region 12 Texas-Gulf	28	1,560	-	-	-	-	28	1,560	-	-	-	-
Region 13 Rio Grande	-	-	-	-	-	-	-	-	-	-	-	-
Region 14 Upper Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Region 16 Great Basin	-	-	-	-	-	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	-	-	-	-	-	-	-	-	-	-	-
Region 18 California	-	-	-	-	-	-	-	-	-	-	-	-
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	13	44	1	(D)	-	-	-	-	-	-	13	44

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Beans, dry edible											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States	2023 2018	314,147 416,608	324 546	60,308 115,139	124 198	21,137 38,593	843 1,053	194,853 209,978	151 211	13,758 17,040	764 1,265	105,939 204,990
2023 DATA												
Alabama	23	690	-	-	-	-	-	-	23	690	-	-
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	26	7,437	1	(D)	1	(D)	3	6,816	-	-	23	621
Arkansas	-	-	-	-	-	-	-	-	-	-	-	-
California	101	22,845	45	2,025	35	525	57	6,081	4	2,612	79	14,447
Colorado	196	29,256	24	6,735	5	(D)	103	18,344	-	-	93	10,912
Connecticut	-	-	-	-	-	-	-	-	-	-	-	-
Delaware	20	1,492	-	-	-	-	20	1,492	-	-	-	-
Florida	4	8	-	-	-	-	-	-	4	8	-	-
Georgia	27	27	27	27	-	-	27	27	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-	-	-
Idaho	382	48,428	40	5,318	12	1,764	66	8,330	63	3,948	285	36,150
Illinois	22	1,334	-	-	-	-	22	1,334	-	-	-	-
Indiana	21	3,273	-	-	-	-	21	3,273	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	5	1,200	-	-	-	-	5	1,200	-	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-	-	-	-	-	-	-
Maine	5	20	-	-	-	-	5	20	-	-	-	-
Maryland	13	1,486	2	(D)	-	-	13	(D)	2	(D)	-	-
Massachusetts	9	9	-	-	-	-	9	9	-	-	-	-
Michigan	24	4,380	-	-	-	-	6	2,380	2	(D)	18	(D)
Minnesota	56	38,723	17	10,423	-	-	56	38,723	-	-	-	-
Mississippi	-	-	-	-	-	-	-	-	-	-	-	-
Missouri	7	42	-	-	-	-	-	-	7	42	-	-
Montana	1	(D)	-	-	-	-	-	-	1	(D)	-	-
Nebraska	252	67,775	49	6,685	-	-	223	59,343	-	-	30	8,432
Nevada	-	-	-	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico	73	290	-	-	-	-	36	222	-	-	42	73
New York	19	86	-	-	-	-	-	-	18	(D)	1	(D)
North Carolina	-	-	-	-	-	-	-	-	-	-	-	-
North Dakota	46	12,022	6	(D)	-	-	37	8,797	2	(D)	11	(D)
Ohio	-	-	-	-	-	-	-	-	-	-	-	-
Oklahoma	-	-	-	-	-	-	-	-	-	-	-	-
Oregon	42	4,702	6	2,470	-	-	30	860	7	384	25	3,558
Pennsylvania	2	(D)	-	-	-	-	-	-	2	(D)	-	-
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	24	(D)	24	24	24	24	24	(D)	-	-	-	-
South Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Texas	26	12,090	-	-	-	-	26	12,090	-	-	-	-
Utah	3	3	-	-	-	-	3	3	-	-	3	3
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Washington	146	41,881	76	17,723	40	9,328	41	17,738	16	5,061	92	19,082
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	7	6,199	-	-	-	-	7	6,199	-	-	-	-
Wyoming	65	8,096	7	3,220	7	3,220	3	150	-	-	62	7,946
Water Resource Regions												
Region 01 New England	14	29	-	-	-	-	14	29	-	-	-	-
Region 02 Mid-Atlantic	35	2,980	2	(D)	-	-	33	2,890	4	90	-	-
Region 03 South Atlantic-Gulf	78	749	51	51	24	24	51	51	27	698	-	-
Region 04 Great Lakes	43	4,466	-	-	-	-	6	(D)	20	(D)	19	1,850
Region 05 Ohio	4	672	-	-	-	-	4	672	-	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	102	48,857	17	10,423	-	-	102	48,857	-	-	-	-
Region 08 Lower Mississippi	-	-	-	-	-	-	-	-	-	-	-	-
Region 09 Souris-Red-Rainy	37	9,497	6	(D)	-	-	33	8,137	2	(D)	2	(D)
Region 10 Missouri	442	98,309	80	16,640	12	(D)	338	79,697	8	369	101	18,243
Region 11 Arkansas-White-Red	14	2,595	-	-	-	-	1	(D)	-	-	13	(D)
Region 12 Texas-Gulf	25	11,900	-	-	-	-	25	11,900	-	-	-	-
Region 13 Rio Grande	47	233	-	-	-	-	36	222	-	-	16	16
Region 14 Upper Colorado	106	8,564	-	-	-	-	-	-	-	-	106	8,564
Region 15 Lower Colorado	26	7,437	1	(D)	1	(D)	3	6,816	-	-	23	621
Region 16 Great Basin	3	3	-	-	-	-	3	3	-	-	3	3
Region 17 Pacific Northwest	570	95,011	122	25,511	52	11,092	137	26,928	86	9,393	402	58,790
Region 18 California	101	22,845	45	2,025	35	525	57	6,081	4	2,612	79	14,447
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Rice											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	3,550 3,813	2,268,904 2,370,113	227 279	126,873 143,997	188 134	101,435 78,359	2,609 2,812	1,578,232 1,689,334	681 902	313,378 378,735	921 958	451,047 500,941
2023 DATA												
Alabama	-	-	-	-	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas	1,505	1,129,261	119	72,093	111	67,155	1,381	909,925	515	229,348	15	5,368
California	875	430,483	37	30,225	55	28,835	243	84,142	13	10,200	788	389,669
Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-	-	-	-
Florida	3	7,567	-	-	-	-	-	-	-	-	3	7,567
Georgia	-	-	-	-	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-	-	-	-
Illinois	-	-	-	-	-	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-	-	-	-
Louisiana	654	426,876	56	14,055	22	5,445	539	333,807	136	66,972	54	27,208
Maine	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	-	-	-	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-	-	-	-	-	-	-
Mississippi	125	89,846	-	-	-	-	123	86,746	13	6,834	-	-
Missouri	215	122,248	-	-	-	-	215	122,248	-	-	-	-
Montana	-	-	-	-	-	-	-	-	-	-	-	-
Nebraska	-	-	-	-	-	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico	-	-	-	-	-	-	-	-	-	-	-	-
New York	-	-	-	-	-	-	-	-	-	-	-	-
North Carolina	-	-	-	-	-	-	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-	-	-	-	-	-
Oklahoma	-	-	-	-	-	-	-	-	-	-	-	-
Oregon	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania	-	-	-	-	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	-	-	-	-	-	-	-	-	-	-	-	-
South Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Tennessee	26	104	-	-	-	-	26	104	-	-	-	-
Texas	143	62,495	15	10,500	-	-	82	41,260	-	-	61	21,235
Utah	-	-	-	-	-	-	-	-	-	-	-	-
Vermont	4	24	-	-	-	-	-	-	4	24	-	-
Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-	-	-	-
Water Resource Regions												
Region 01 New England	-	-	-	-	-	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	-	-	-	-	-	-	-	-	-	-	-	-
Region 03 South Atlantic-Gulf	3	7,567	-	-	-	-	-	-	-	-	3	7,567
Region 04 Great Lakes	4	24	-	-	-	-	-	-	4	24	-	-
Region 05 Ohio	26	104	-	-	-	-	26	104	-	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	-	-	-	-	-	-	-	-	-	-	-	-
Region 08 Lower Mississippi	2,179	1,555,958	169	85,728	127	72,180	1,976	1,261,561	590	282,046	69	32,576
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-	-	-	-
Region 10 Missouri	-	-	-	-	-	-	-	-	-	-	-	-
Region 11 Arkansas-White-Red	320	212,273	6	420	6	420	282	191,165	74	21,108	-	-
Region 12 Texas-Gulf	143	62,495	15	10,500	-	-	82	41,260	-	-	61	21,235
Region 13 Rio Grande	-	-	-	-	-	-	-	-	-	-	-	-
Region 14 Upper Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Region 16 Great Basin	-	-	-	-	-	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	-	-	-	-	-	-	-	-	-	-	-
Region 18 California	875	430,483	37	30,225	55	28,835	243	84,142	13	10,200	788	389,669
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Other small grains (barley, oats, rye, etc.)											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	4,689 5,767	1,141,657 1,026,289	652 677	189,469 147,936	243 289	48,308 68,478	1,973 1,621	558,272 370,265	730 948	214,275 157,088	2,321 3,606	468,278 566,757
2023 DATA												
Alabama	23	1,150	-	-	-	-	23	1,150	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	112	29,852	36	9,704	10	2,440	38	16,957	2	(D)	79	15,454
Arkansas	6	204	-	-	-	-	-	6	204	-	-	-
California	422	133,859	32	13,306	10	6,000	135	65,587	94	27,232	287	70,401
Colorado	286	54,580	71	22,535	43	16,790	169	44,605	29	3,535	148	12,315
Connecticut	-	-	-	-	-	-	-	-	-	-	-	-
Delaware	6	389	-	-	-	-	6	389	-	-	-	-
Florida	103	18,458	30	10,200	30	10,200	71	(D)	30	10,200	2	(D)
Georgia	41	2,725	-	-	-	-	41	(D)	41	1,607	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-	-	-
Idaho	1,047	422,348	120	35,282	27	1,639	375	159,458	212	97,698	527	172,637
Illinois	12	777	-	-	-	-	12	777	-	-	-	-
Indiana	19	130	-	-	-	-	19	130	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	124	24,239	16	2,019	-	-	124	24,239	-	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-	-	-	-	-	-	-
Maine	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	8	908	-	-	-	-	8	(D)	1	(D)	-	-
Massachusetts	-	-	-	-	-	-	-	-	-	-	-	-
Michigan	22	1,033	-	-	-	-	22	1,033	-	-	-	-
Minnesota	68	3,108	-	-	-	-	68	3,108	-	-	-	-
Mississippi	-	-	-	-	-	-	-	-	-	-	-	-
Missouri	11	11	-	-	-	-	-	-	11	11	-	-
Montana	554	117,556	41	4,633	6	1,860	27	1,674	86	12,623	448	103,541
Nebraska	198	15,738	28	3,360	-	-	198	(D)	-	-	1	(D)
Nevada	109	13,262	76	5,421	3	(D)	2	(D)	5	(D)	102	12,009
New Hampshire	8	53	-	-	-	-	-	8	53	-	-	-
New Jersey	16	208	-	-	-	-	16	208	-	-	-	-
New Mexico	54	24,923	5	1,320	-	-	49	23,603	-	-	9	4,520
New York	-	-	-	-	-	-	-	-	-	-	-	-
North Carolina	23	690	-	-	-	-	23	690	-	-	-	-
North Dakota	15	2,725	-	-	-	-	5	2,200	-	-	10	525
Ohio	1	(D)	-	-	-	-	1	(D)	-	-	1	(D)
Oklahoma	117	65,054	30	54,000	-	-	117	65,054	-	-	-	-
Oregon	224	22,709	23	1,890	-	-	74	10,667	71	4,172	99	7,870
Pennsylvania	-	-	-	-	-	-	-	-	-	-	-	-
Rhode Island	3	3	-	-	-	-	3	3	-	-	-	-
South Carolina	28	1,799	-	-	-	-	28	1,799	-	-	-	-
South Dakota	17	544	-	-	-	-	-	-	-	-	17	544
Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Texas	178	84,248	19	8,510	24	3,768	178	84,248	15	40,125	15	7,770
Utah	391	21,963	108	13,243	66	1,464	64	11,313	44	1,874	284	8,776
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	17	17	-	-	-	-	8	8	9	9	-	-
Washington	118	13,621	9	3,046	8	2,916	57	8,118	23	1,024	39	4,479
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	4	3,218	-	-	-	-	4	3,218	-	-	-	-
Wyoming	304	59,546	8	1,000	16	(D)	8	1,120	43	11,435	253	46,991
Water Resource Regions												
Region 01 New England	11	56	-	-	-	-	3	3	8	53	-	-
Region 02 Mid-Atlantic	47	1,522	-	-	-	-	38	1,481	10	41	-	-
Region 03 South Atlantic-Gulf	218	24,822	30	10,200	30	10,200	186	(D)	71	11,807	2	(D)
Region 04 Great Lakes	22	1,033	-	-	-	-	22	1,033	-	-	-	-
Region 05 Ohio	2	(D)	-	-	-	-	2	(D)	-	-	1	(D)
Region 06 Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	102	7,186	-	-	-	-	102	7,186	-	-	-	-
Region 08 Lower Mississippi	6	(D)	-	-	-	-	-	-	6	(D)	-	-
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-	-	-	-
Region 10 Missouri	1,159	218,722	82	9,218	6	1,860	331	42,124	140	24,069	701	155,311
Region 11 Arkansas-White-Red	233	130,492	61	63,789	-	-	233	130,492	15	40,125	15	7,770
Region 12 Texas-Gulf	155	45,197	4	740	24	3,768	155	45,197	-	-	4	3,200
Region 13 Rio Grande	195	50,067	71	23,630	43	16,790	154	44,300	28	3,475	68	5,667
Region 14 Upper Colorado	135	4,754	21	168	23	460	-	-	1	(D)	134	(D)
Region 15 Lower Colorado	118	36,100	38	15,260	10	2,440	38	16,957	6	(D)	81	21,010
Region 16 Great Basin	490	59,726	189	26,940	46	1,915	72	12,910	69	4,174	350	42,642
Region 17 Pacific Northwest	1,357	432,834	126	31,774	51	4,875	482	177,527	286	100,694	677	162,058
Region 18 California	439	128,886	30	7,750	10	6,000	155	66,187	90	26,540	288	65,520
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Alfalfa and alfalfa mixtures (dry hay, greenchop, and silage)											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	39,673 48,697	5,408,531 6,165,406	3,568 4,191	691,981 822,568	1,661 1,516	427,274 422,141	10,297 12,313	2,055,832 2,154,456	5,131 6,460	782,786 828,537	26,272 32,974	2,776,676 3,469,156
2023 DATA												
Alabama	47	1,159	-	-	-	-	-	-	47	1,159	-	-
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	732	369,330	241	163,333	159	82,363	285	170,279	76	29,135	420	177,402
Arkansas	13	430	-	-	-	-	-	-	13	430	-	-
California	1,855	613,232	302	107,224	171	74,230	891	243,839	365	122,691	1,075	360,326
Colorado	5,407	531,638	450	25,495	154	23,755	717	124,581	912	111,213	4,080	321,911
Connecticut	-	-	-	-	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-	-	-	-
Florida	12	1,100	-	-	-	-	10	(D)	-	-	2	(D)
Georgia	-	-	-	-	-	-	-	-	-	-	-	-
Hawaii	1	(D)	-	-	-	-	-	-	-	-	1	(D)
Idaho	6,026	837,085	434	99,141	275	76,103	1,112	336,308	827	115,963	4,371	392,389
Illinois	14	140	-	-	-	-	14	140	-	-	-	-
Indiana	112	4,597	-	-	-	-	95	4,512	-	-	17	85
Iowa	49	1,407	-	-	-	-	49	1,407	-	-	-	-
Kansas	543	118,320	145	18,262	75	15,190	523	117,016	48	5,700	15	2,504
Kentucky	-	-	-	-	-	-	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-	-	-	-	-	-	-
Maine	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	7	(D)	-	-	-	-	2	(D)	5	25	-	-
Massachusetts	-	-	-	-	-	-	-	-	-	-	-	-
Michigan	354	34,188	-	-	-	-	257	29,569	116	4,847	-	-
Minnesota	214	12,558	-	-	-	-	190	11,838	24	720	-	-
Mississippi	8	128	-	-	-	-	-	-	-	-	8	128
Missouri	23	1,220	-	-	-	-	23	1,220	-	-	-	-
Montana	3,464	558,762	232	38,936	89	8,558	206	20,719	651	149,166	2,724	389,717
Nebraska	2,575	256,206	90	12,065	29	580	2,082	212,660	57	2,881	507	40,665
Nevada	860	309,480	218	60,572	85	33,565	324	162,188	96	36,361	467	118,521
New Hampshire	-	-	-	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico	2,768	128,151	213	7,047	119	4,205	482	46,346	163	6,224	2,248	77,201
New York	1	(D)	-	-	-	-	-	-	-	-	1	(D)
North Carolina	-	-	-	-	-	-	-	-	-	-	-	-
North Dakota	67	7,885	15	2,090	-	-	32	3,915	10	265	38	3,705
Ohio	39	2,941	-	-	-	-	35	2,521	29	821	28	1,356
Oklahoma	149	28,236	10	750	-	-	128	19,546	-	-	21	8,690
Oregon	1,973	315,734	73	10,219	11	3,939	791	194,582	308	47,173	1,007	88,623
Pennsylvania	8	1,168	-	-	-	-	2	(D)	-	-	6	(D)
Rhode Island	3	3	-	-	-	-	3	3	-	-	-	-
South Carolina	-	-	-	-	-	-	-	-	-	-	-	-
South Dakota	314	35,872	28	810	2	(D)	57	12,160	26	5,720	231	17,992
Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Texas	550	44,788	67	9,216	23	1,012	383	30,334	70	3,912	97	10,542
Utah	6,699	523,658	615	77,982	308	62,496	644	162,291	508	36,515	5,612	324,873
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	33	981	-	-	-	-	8	16	17	765	8	200
Washington	1,848	278,355	210	28,701	86	37,476	551	88,439	229	25,748	1,231	176,048
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	214	15,696	-	-	-	-	164	12,453	53	3,243	-	-
Wyoming	2,691	373,837	225	30,138	75	3,772	237	45,402	481	72,109	2,057	262,857
Water Resource Regions												
Region 01 New England	3	3	-	-	-	-	3	3	-	-	-	-
Region 02 Mid-Atlantic	48	2,234	-	-	-	-	12	764	22	790	14	680
Region 03 South Atlantic-Gulf	67	2,387	-	-	-	-	10	800	47	1,159	10	428
Region 04 Great Lakes	470	44,414	-	-	-	-	330	37,849	145	6,322	22	(D)
Region 05 Ohio	44	(D)	-	-	-	-	44	1,026	24	696	24	936
Region 06 Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	479	26,466	-	-	-	-	426	23,853	53	2,613	-	-
Region 08 Lower Mississippi	12	120	-	-	-	-	15	120	-	-	-	-
Region 09 Souris-Red-Rainy	15	2,140	-	-	-	-	15	1,720	-	-	3	420
Region 10 Missouri	9,430	1,278,233	580	76,376	256	31,737	3,105	359,768	1,239	235,201	5,481	708,032
Region 11 Arkansas-White-Red	1,632	279,419	176	22,032	68	17,266	727	159,333	173	29,669	806	99,217
Region 12 Texas-Gulf	215	11,260	23	1,840	23	1,012	188	7,894	24	3,360	3	6
Region 13 Rio Grande	2,630	175,028	250	22,788	132	6,610	696	73,911	239	26,327	1,908	82,300
Region 14 Upper Colorado	4,977	333,003	454	29,921	114	20,590	108	721	652	48,055	4,282	285,128
Region 15 Lower Colorado	976	452,690	280	190,727	162	85,882	416	192,196	80	37,075	529	230,905
Region 16 Great Basin	6,531	757,720	713	125,367	365	76,041	890	342,913	621	72,437	5,094	349,960
Region 17 Pacific Northwest	10,054	1,444,600	793	139,515	373	117,425	2,295	590,080	1,407	200,956	6,923	686,723
Region 18 California	2,089	597,718	299	83,415	168	70,711	1,020	262,881	405	118,126	1,172	331,275
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	1	(D)	-	-	-	-	-	-	-	-	1	(D)

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All other hay and haylage including small grain, other tame, and wild hay (dry hay, greenchop, and silage)											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	25,421 25,402	3,196,249 3,263,946	2,587 2,348	388,365 408,310	466 667	91,950 111,137	7,417 7,074	1,082,038 1,077,251	5,142 4,672	816,280 750,536	14,037 15,157	1,417,370 1,611,602
2023 DATA												
Alabama	30	4,452	-	-	-	-	-	-	24	1,152	6	3,300
Alaska	4	(D)	1	(D)	-	-	2	(D)	-	-	2	(D)
Arizona	265	67,100	75	37,475	1	(D)	131	46,307	19	1,962	115	18,831
Arkansas	88	6,242	13	621	6	600	28	3,745	46	1,867	14	630
California	1,485	388,945	200	78,454	57	27,657	639	132,927	404	89,647	860	240,884
Colorado	4,239	473,742	247	22,910	-	-	283	51,241	913	143,315	3,147	292,356
Connecticut	3	3	-	-	-	-	3	3	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-	-	-	-
Florida	104	14,070	-	-	-	-	91	2,670	10	8,400	3	3,000
Georgia	265	27,836	27	(D)	27	135	108	4,752	134	4,546	23	18,538
Hawaii	14	14	-	-	-	-	-	-	-	-	14	14
Idaho	1,609	144,772	190	8,149	61	554	339	42,767	385	49,658	963	52,939
Illinois	-	-	-	-	-	-	-	-	-	-	-	-
Indiana	34	170	-	-	-	-	34	170	-	-	-	-
Iowa	21	105	-	-	-	-	21	105	-	-	-	-
Kansas	620	128,473	122	33,221	-	-	620	127,123	30	5,429	-	-
Kentucky	-	-	-	-	-	-	-	-	-	-	-	-
Louisiana	37	1,180	-	-	-	-	25	(D)	-	-	12	(D)
Maine	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	1	(D)	-	-	-	-	-	-	1	(D)	-	-
Massachusetts	8	40	-	-	-	-	-	-	8	40	-	-
Michigan	36	486	-	-	-	-	-	-	36	486	-	-
Minnesota	-	-	-	-	-	-	-	-	-	-	-	-
Mississippi	32	1,656	8	640	-	-	16	760	16	896	-	-
Missouri	44	1,595	-	-	-	-	11	1,100	33	495	-	-
Montana	2,449	283,405	275	36,045	21	630	193	8,753	535	113,617	1,821	166,435
Nebraska	1,007	97,294	145	17,680	-	-	804	92,412	58	1,537	176	3,432
Nevada	565	162,040	16	8,875	5	500	236	18,665	134	85,422	232	60,224
New Hampshire	-	-	-	-	-	-	-	-	-	-	-	-
New Jersey	16	64	-	-	-	-	16	64	-	-	-	-
New Mexico	1,117	72,885	172	10,432	22	(D)	203	19,424	132	12,551	808	44,270
New York	19	38	-	-	-	-	-	-	19	38	-	-
North Carolina	251	7,586	-	-	-	-	22	1,100	229	6,486	-	-
North Dakota	17	1,662	-	-	-	-	4	1,000	-	-	13	662
Ohio	1	(D)	-	-	-	-	1	(D)	-	-	-	-
Oklahoma	477	82,954	63	9,520	-	-	418	79,377	59	3,577	-	-
Oregon	2,980	263,001	280	26,662	41	9,154	597	61,545	608	76,184	1,953	132,463
Pennsylvania	5	195	-	-	-	-	2	(D)	3	(D)	-	-
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	82	2,796	-	-	-	-	58	2,460	24	336	-	-
South Dakota	92	7,499	-	-	-	-	19	3,610	-	-	73	3,889
Tennessee	25	125	-	-	-	-	25	125	-	-	-	-
Texas	2,596	405,113	298	53,519	81	19,967	1,783	330,076	383	47,974	519	32,724
Utah	1,807	84,304	221	7,058	48	381	181	8,195	202	3,935	1,446	72,174
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Washington	1,365	105,463	53	12,243	36	3,432	419	27,889	298	13,534	699	67,155
West Virginia	6	120	-	-	-	-	-	-	-	-	6	120
Wisconsin	9	1,623	-	-	-	-	9	1,623	-	-	-	-
Wyoming	1,596	356,163	181	24,406	60	3,680	76	10,220	399	143,155	1,132	202,788
Water Resource Regions												
Region 01 New England	11	43	-	-	-	-	3	3	8	40	-	-
Region 02 Mid-Atlantic	41	305	-	-	-	-	18	(D)	23	(D)	-	-
Region 03 South Atlantic-Gulf	756	57,756	27	(D)	27	135	287	11,102	437	21,816	32	24,838
Region 04 Great Lakes	38	1,997	-	-	-	-	2	(D)	36	(D)	-	-
Region 05 Ohio	23	188	-	-	-	-	17	(D)	-	-	6	(D)
Region 06 Tennessee	25	(D)	-	-	-	-	25	(D)	-	-	-	-
Region 07 Upper Mississippi	68	2,167	-	-	-	-	57	1,947	11	220	-	-
Region 08 Lower Mississippi	67	4,006	8	640	-	-	42	3,245	13	221	12	540
Region 09 Souris-Red-Rainy	9	1,075	-	-	-	-	4	1,000	-	-	5	75
Region 10 Missouri	5,060	662,754	494	56,295	41	3,120	1,311	153,824	865	191,435	2,958	323,632
Region 11 Arkansas-White-Red	2,100	398,405	254	53,617	10	4,200	1,156	308,166	451	67,059	592	29,103
Region 12 Texas-Gulf	1,981	234,191	242	30,581	62	5,402	1,488	206,489	221	12,636	346	18,927
Region 13 Rio Grande	1,005	101,416	161	24,044	37	12,725	299	49,523	159	10,073	578	45,480
Region 14 Upper Colorado	3,180	472,322	216	25,666	3	240	5	3,000	645	158,730	2,565	322,768
Region 15 Lower Colorado	300	69,152	77	37,477	3	(D)	133	46,309	23	3,162	144	19,681
Region 16 Great Basin	2,267	229,584	214	15,784	51	(D)	434	28,758	434	97,617	1,458	105,480
Region 17 Pacific Northwest	6,915	560,911	682	62,927	175	14,090	1,461	127,667	1,386	160,369	4,428	283,273
Region 18 California	1,557	399,336	211	80,879	57	27,657	673	138,575	430	92,337	897	243,437
Region 19 Alaska	4	(D)	1	(D)	-	-	2	(D)	-	-	2	(D)
Region 20 Hawaii	14	14	-	-	-	-	-	-	-	-	14	14

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Peanuts											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	1,875 1,701	540,245 460,155	100 126	27,997 27,220	85 108	22,269 29,124	1,565 1,427	480,644 417,239	509 428	62,191 60,826	29 6	(D) 600
2023 DATA												
Alabama	81	16,762	1	(D)	-	-	43	(D)	45	4,105	-	-
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	-	-	-	-	-	-	-
Arkansas	57	22,435	-	-	-	-	57	22,435	-	-	-	-
California	14	14	-	-	-	-	14	14	-	-	-	-
Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-	-	-	-
Florida	144	56,469	-	-	3	4,080	144	56,469	-	-	-	-
Georgia	1,131	293,879	23	5,750	51	8,805	946	242,984	401	53,464	-	-
Hawaii	29	(D)	15	17	-	-	-	-	-	-	29	(D)
Idaho	-	-	-	-	-	-	-	-	-	-	-	-
Illinois	-	-	-	-	-	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	-	-	-	-	-	-	-	-	-	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-	-	-	-
Louisiana	2	(D)	-	-	-	-	2	(D)	-	-	-	-
Maine	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	-	-	-	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-	-	-	-	-	-	-
Mississippi	9	1,800	-	-	-	-	9	1,800	-	-	-	-
Missouri	34	11,840	-	-	-	-	34	11,840	-	-	-	-
Montana	-	-	-	-	-	-	-	-	-	-	-	-
Nebraska	-	-	-	-	-	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico	4	1,000	-	-	-	-	4	1,000	-	-	-	-
New York	-	-	-	-	-	-	-	-	-	-	-	-
North Carolina	42	7,258	-	-	-	-	9	2,925	35	4,333	-	-
North Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-	-	-	-	-	-
Oklahoma	9	5,356	3	(D)	-	-	9	5,356	-	-	-	-
Oregon	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania	-	-	-	-	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	143	18,311	27	2,712	27	2,712	118	18,025	28	289	-	-
South Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Texas	176	104,490	31	15,974	4	6,672	176	104,490	-	-	-	-
Utah	-	-	-	-	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-	-	-	-
Water Resource Regions												
Region 01 New England	-	-	-	-	-	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	-	-	-	-	-	-	-	-	-	-	-	-
Region 03 South Atlantic-Gulf	1,550	394,479	51	9,366	81	15,597	1,269	(D)	509	62,191	-	-
Region 04 Great Lakes	-	-	-	-	-	-	-	-	-	-	-	-
Region 05 Ohio	-	-	-	-	-	-	-	-	-	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	-	-	-	-	-	-	-	-	-	-	-	-
Region 08 Lower Mississippi	93	(D)	-	-	-	-	93	(D)	-	-	-	-
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-	-	-	-
Region 10 Missouri	-	-	-	-	-	-	-	-	-	-	-	-
Region 11 Arkansas-White-Red	33	38,066	3	2,640	-	-	33	38,066	-	-	-	-
Region 12 Texas-Gulf	156	72,780	31	15,974	4	6,672	156	72,780	-	-	-	-
Region 13 Rio Grande	-	-	-	-	-	-	-	-	-	-	-	-
Region 14 Upper Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Region 16 Great Basin	-	-	-	-	-	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	-	-	-	-	-	-	-	-	-	-	-
Region 18 California	14	14	-	-	-	-	14	14	-	-	-	-
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	29	(D)	15	17	-	-	-	-	-	-	29	(D)

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Cotton											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	5,397 6,918	2,584,479 3,697,167	977 1,394	462,835 751,823	453 498	226,768 302,550	4,634 5,766	2,215,867 3,181,982	765 896	168,452 242,212	439 951	249,001 469,060
2023 DATA												
Alabama	129	34,888	1	(D)	-	-	68	17,487	74	17,651	1	(D)
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	208	99,820	66	41,413	53	42,968	98	47,648	38	6,365	100	56,607
Arkansas	374	378,707	26	12,275	38	12,515	361	361,489	45	14,818	6	2,400
California	296	153,218	126	67,236	75	26,188	84	30,779	87	34,694	176	98,324
Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-	-	-	-
Florida	33	8,665	2	(D)	-	-	33	8,665	-	-	-	-
Georgia	1,113	315,332	51	33,585	51	17,370	955	248,654	381	76,244	-	-
Hawaii	-	-	-	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-	-	-	-
Illinois	-	-	-	-	-	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	87	20,213	41	4,990	-	-	87	20,213	-	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-	-	-	-
Louisiana	87	51,130	-	-	-	-	87	51,060	8	483	-	-
Maine	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	-	-	-	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-	-	-	-	-	-	-
Mississippi	110	92,942	6	17,400	6	17,400	102	91,102	8	1,840	-	-
Missouri	268	273,892	-	-	-	-	268	273,892	-	-	-	-
Montana	-	-	-	-	-	-	-	-	-	-	-	-
Nebraska	-	-	-	-	-	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-	-	-	-
New Mexico	78	24,509	31	9,060	30	8,860	74	20,013	-	-	39	(D)
New York	-	-	-	-	-	-	-	-	-	-	-	-
North Carolina	76	14,417	1	(D)	-	-	26	6,386	53	8,231	-	-
North Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-	-	-	-	-	-
Oklahoma	74	34,257	14	6,490	-	-	74	34,257	-	-	-	-
Oregon	-	-	-	-	-	-	-	-	-	-	-	-
Pennsylvania	-	-	-	-	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
South Carolina	175	32,108	27	2,058	27	2,058	151	29,352	28	1,856	3	900
South Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Tennessee	41	27,383	-	-	-	-	41	27,383	-	-	-	-
Texas	2,234	1,021,768	585	265,069	173	99,409	2,125	947,487	29	5,040	114	80,461
Utah	-	-	-	-	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	14	1,230	-	-	-	-	-	-	14	1,230	-	-
Washington	-	-	-	-	-	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-	-	-	-
Water Resource Regions												
Region 01 New England	-	-	-	-	-	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	8	720	-	-	-	-	-	-	8	720	-	-
Region 03 South Atlantic-Gulf	1,528	392,034	82	38,902	78	19,428	1,234	305,996	532	95,654	3	(D)
Region 04 Great Lakes	-	-	-	-	-	-	-	-	-	-	-	-
Region 05 Ohio	-	-	-	-	-	-	-	-	-	-	-	-
Region 06 Tennessee	21	16,104	-	-	-	-	8	4,926	18	(D)	1	(D)
Region 07 Upper Mississippi	-	-	-	-	-	-	-	-	-	-	-	-
Region 08 Lower Mississippi	822	794,413	32	29,675	44	29,915	809	777,125	46	14,888	6	2,400
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-	-	-	-
Region 10 Missouri	-	-	-	-	-	-	-	-	-	-	-	-
Region 11 Arkansas-White-Red	576	251,101	163	34,269	23	1,840	576	251,101	7	(D)	-	-
Region 12 Texas-Gulf	1,790	848,727	439	225,311	116	81,400	1,716	779,490	5	3,600	79	76,737
Region 13 Rio Grande	148	28,342	69	26,029	64	25,029	109	18,802	24	1,440	74	13,533
Region 14 Upper Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	219	110,110	69	43,303	56	44,858	98	47,648	42	9,965	107	63,297
Region 16 Great Basin	-	-	-	-	-	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	-	-	-	-	-	-	-	-	-	-	-
Region 18 California	285	142,928	123	65,346	72	24,298	84	30,779	83	31,094	169	91,634
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Land in vegetables											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	23,547 23,087	2,986,059 3,127,705	3,638 3,695	1,266,660 1,251,019	1,644 1,456	668,822 605,283	14,084 13,757	1,661,546 1,709,434	4,309 5,542	382,238 437,063	6,752 6,069	1,073,412 1,135,408
2023 DATA												
Alabama	298	4,909	61	2,909	23	460	209	3,623	23	1,150	66	136
Alaska	119	569	11	4	-	-	90	552	4	2	31	18
Arizona	446	123,274	32	57,324	38	28,550	185	27,940	47	17,138	225	82,336
Arkansas	204	1,793	22	745	-	-	122	1,611	35	97	51	87
California	2,437	1,015,007	964	559,886	656	316,257	1,625	474,713	337	138,346	845	487,844
Colorado	597	88,335	124	31,554	62	34,534	273	71,374	94	23,933	298	9,354
Connecticut	226	781	16	107	3	165	162	300	58	450	20	32
Delaware	96	14,399	13	1,576	7	540	89	13,943	8	1,006	2	(D)
Florida	528	99,937	78	25,430	70	21,440	479	77,324	43	15,671	11	10,980
Georgia	488	67,594	105	42,520	27	135	356	67,270	92	(D)	68	34
Hawaii	452	6,534	68	765	34	295	20	1,081	43	1,472	390	3,981
Idaho	759	365,515	175	149,443	69	83,804	390	155,665	155	46,541	361	169,059
Illinois	385	22,173	25	150	2	(D)	303	21,806	33	248	49	119
Indiana	427	25,877	55	3,671	19	32	336	21,238	68	2,016	68	(D)
Iowa	253	3,006	38	1,634	1	(D)	192	2,648	40	310	61	51
Kansas	175	3,734	13	19	9	8	98	3,420	7	135	79	183
Kentucky	465	1,539	109	364	43	121	116	(D)	175	726	174	202
Louisiana	117	272	-	-	-	-	66	197	-	-	51	75
Maine	188	6,274	12	(D)	1	(D)	149	541	31	3,833	8	1,901
Maryland	258	7,493	59	2,874	22	1,070	173	5,111	110	2,568	19	83
Massachusetts	314	2,404	44	212	27	5	171	1,506	86	819	66	83
Michigan	1,120	162,433	118	48,857	-	-	880	133,997	218	26,311	116	5,467
Minnesota	505	52,582	34	16,341	-	-	481	51,130	41	813	25	718
Mississippi	195	994	11	11	-	-	140	872	3	3	61	137
Missouri	466	2,992	104	315	39	56	220	2,226	149	543	121	223
Montana	355	9,337	16	1,876	-	-	215	(D)	51	5,709	171	902
Nebraska	207	40,680	38	4,772	31	4,763	193	40,643	29	29	17	38
Nevada	93	(D)	4	(D)	4	(D)	43	(D)	10	(D)	40	(D)
New Hampshire	119	477	11	(D)	5	(D)	77	83	36	343	15	59
New Jersey	489	15,833	51	1,403	24	29	302	12,454	123	3,900	87	210
New Mexico	1,008	27,695	112	11,934	108	11,930	213	11,870	80	87	817	18,271
New York	789	10,724	175	769	19	133	400	4,064	291	4,586	131	2,078
North Carolina	862	29,560	62	10,818	12	4,194	474	23,310	267	6,075	126	176
North Dakota	68	31,703	13	17,044	2	(D)	38	26,646	14	1,829	27	3,229
Ohio	567	13,929	84	2,209	19	408	295	10,592	167	1,936	110	1,406
Oklahoma	169	4,979	40	1,827	33	506	74	4,507	58	435	37	37
Oregon	1,089	101,903	46	5,390	14	4,281	554	40,136	223	22,561	429	43,007
Pennsylvania	913	10,807	139	1,093	32	89	593	3,514	244	4,716	116	2,659
Rhode Island	79	148	3	3	-	-	59	113	8	7	12	28
South Carolina	542	15,919	91	3,496	26	644	394	12,720	111	3,574	43	43
South Dakota	81	(D)	-	-	-	-	52	(D)	6	(D)	28	(D)
Tennessee	479	9,102	59	259	-	-	265	8,687	122	326	92	90
Texas	722	91,962	78	62,914	21	34,122	507	62,719	59	10,975	159	18,272
Utah	479	1,900	9	96	2	(D)	62	87	29	71	399	1,795
Vermont	187	766	-	-	-	-	135	435	52	337	13	31
Virginia	458	13,568	68	808	12	3,980	348	(D)	104	9,909	35	(D)
Washington	1,220	290,520	150	101,570	115	88,806	597	79,185	162	17,334	488	195,366
West Virginia	125	955	1	(D)	4	4	69	562	44	386	12	7
Wisconsin	822	171,960	97	88,796	9	23,092	758	170,269	113	2,421	21	42
Wyoming	107	192	-	-	-	-	42	92	6	23	61	78
Water Resource Regions												
Region 01 New England	988	10,433	86	1,277	36	905	671	2,846	229	5,498	125	2,104
Region 02 Mid-Atlantic	2,459	62,790	400	8,024	98	5,709	1,689	39,109	642	22,198	271	3,122
Region 03 South Atlantic-Gulf	2,744	217,008	407	85,215	158	26,873	1,968	183,320	541	26,999	279	11,363
Region 04 Great Lakes	2,024	211,250	290	67,004	42	831	1,345	172,711	542	33,921	266	8,594
Region 05 Ohio	1,517	34,691	270	(D)	62	140	653	26,636	551	4,078	382	4,003
Region 06 Tennessee	456	6,235	17	17	-	-	313	6,071	-	-	152	183
Region 07 Upper Mississippi	1,776	213,973	148	87,642	11	22,870	1,577	212,321	187	1,452	127	874
Region 08 Lower Mississippi	324	5,515	17	47	-	-	246	5,381	36	83	42	51
Region 09 Souris-Red-Rainy	93	25,460	9	11,967	2	(D)	62	22,138	25	2,612	15	710
Region 10 Missouri	1,340	96,562	202	15,360	70	4,819	781	73,077	204	19,767	552	11,401
Region 11 Arkansas-White-Red	520	50,661	90	34,800	47	31,764	269	49,820	112	586	153	262
Region 12 Texas-Gulf	678	53,112	67	30,679	16	2,872	475	23,904	59	10,975	147	18,236
Region 13 Rio Grande	542	64,754	124	35,364	137	39,864	300	62,660	54	8,848	297	4,576
Region 14 Upper Colorado	767	14,818	49	(D)	33	(D)	34	69	97	152	645	14,606
Region 15 Lower Colorado	510	146,698	35	57,768	41	28,994	208	27,976	54	17,145	264	105,720
Region 16 Great Basin	578	25,707	56	15,219	11	6,263	73	6,315	37	96	479	19,350
Region 17 Pacific Northwest	3,227	746,077	331	243,617	193	172,491	1,685	270,848	555	88,010	1,294	398,210
Region 18 California	2,433	993,213	961	559,442	653	315,813	1,625	474,713	337	138,346	841	466,050
Region 19 Alaska	119	569	11	4	-	-	90	552	4	2	31	18
Region 20 Hawaii	452	6,534	68	765	34	295	20	1,081	43	1,472	390	3,981

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Sweet corn											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	5,639 5,476	316,789 285,749	739 708	127,439 110,117	354 234	46,826 41,535	3,219 3,058	203,471 167,972	1,347 1,562	29,059 32,385	1,330 1,060	88,120 87,579
2023 DATA												
Alabama	140	468	23	69	23	69	93	231	23	230	24	7
Alaska	20	11	-	-	-	-	20	11	-	-	-	-
Arizona	42	42	-	-	19	19	23	23	19	19	-	-
Arkansas	38	160	-	-	-	-	22	130	9	29	7	1
California	342	27,061	79	22,928	62	17,610	186	2,106	69	3,779	121	21,557
Colorado	82	1,517	21	4	-	-	10	25	6	576	66	916
Connecticut	19	33	3	3	-	-	10	14	8	16	3	3
Delaware	37	7,608	1	(D)	-	-	37	7,608	2	(D)	-	-
Florida	108	18,645	-	-	-	-	93	5,927	7	(D)	10	9,475
Georgia	156	59,807	91	55,144	50	12,837	156	59,807	27	3	-	-
Hawaii	13	35	1	(D)	-	-	-	-	-	-	13	35
Idaho	114	4,306	25	367	25	(D)	29	1,655	22	247	63	2,404
Illinois	92	4,431	2	(D)	-	-	64	4,428	-	-	28	3
Indiana	94	10,734	-	-	-	-	55	10,649	29	(D)	10	(D)
Iowa	51	950	21	51	1	(D)	31	910	20	40	-	-
Kansas	41	117	4	1	-	-	7	(D)	2	(D)	34	17
Kentucky	92	51	14	4	7	(D)	36	6	7	7	49	39
Louisiana	8	4	-	-	-	-	4	4	-	-	4	(Z)
Maine	62	157	-	-	-	-	50	151	12	6	-	-
Maryland	86	2,882	20	937	4	214	57	2,122	48	985	2	(D)
Massachusetts	80	593	-	-	-	-	50	384	30	209	-	-
Michigan	220	5,556	-	-	-	-	130	2,879	108	(D)	1	(D)
Minnesota	193	14,593	8	2,400	-	-	184	13,967	9	1	21	657
Mississippi	72	130	8	40	-	-	49	123	3	1	20	6
Missouri	131	278	7	21	7	21	52	165	61	79	25	34
Montana	109	103	3	2	-	-	53	12	10	41	46	50
Nebraska	51	546	-	-	-	-	48	544	-	-	3	1
Nevada	3	(D)	-	-	-	-	-	-	2	(D)	1	(D)
New Hampshire	16	239	-	-	-	-	11	9	5	230	-	-
New Jersey	133	1,260	26	315	23	5	125	500	9	760	-	-
New Mexico	80	33	-	-	31	9	11	(D)	5	1	69	31
New York	199	2,422	28	55	-	-	75	943	103	762	47	718
North Carolina	297	2,231	23	5	-	-	131	1,492	145	737	22	2
North Dakota	5	3	-	-	-	-	-	-	5	2	5	2
Ohio	184	3,503	15	2	15	2	97	2,825	44	640	45	40
Oklahoma	29	(D)	29	3	29	3	-	-	29	(D)	-	-
Oregon	345	24,529	32	90	1	(D)	141	11,236	88	3,550	161	10,598
Pennsylvania	225	2,572	16	121	3	42	146	943	85	1,645	-	-
Rhode Island	6	1	-	-	-	-	3	(Z)	3	(Z)	-	-
South Carolina	262	2,073	65	33	24	12	213	1,695	50	379	-	-
South Dakota	21	29	-	-	-	-	8	12	-	-	13	17
Tennessee	189	871	-	-	-	-	92	833	55	31	42	7
Texas	140	5,543	8	1	8	1	82	5,518	-	-	58	25
Utah	203	426	6	21	-	-	26	5	25	47	155	410
Vermont	28	54	-	-	-	-	15	10	14	44	-	-
Virginia	95	3,561	10	18	4	3,300	68	100	27	3,461	-	-
Washington	327	53,737	54	13,452	11	5,244	165	12,219	53	746	115	40,772
West Virginia	19	384	1	(D)	-	-	1	(D)	6	312	12	(D)
Wisconsin	302	52,464	94	30,942	6	7,034	258	51,161	62	1,309	-	-
Wyoming	38	15	1	(D)	1	(D)	2	(D)	1	(D)	35	12
Water Resource Regions												
Region 01 New England	186	1,023	3	3	-	-	127	559	58	461	3	3
Region 02 Mid-Atlantic	645	18,212	96	1,613	31	3,519	452	11,902	215	7,104	26	63
Region 03 South Atlantic-Gulf	1,017	82,255	212	55,300	97	12,918	742	68,172	257	6,290	49	9,483
Region 04 Great Lakes	478	20,038	68	7,618	16	(D)	233	14,185	235	4,928	47	925
Region 05 Ohio	366	14,293	18	116	10	43	154	13,245	90	976	124	74
Region 06 Tennessee	115	(D)	-	-	-	-	66	(D)	-	-	49	12
Region 07 Upper Mississippi	561	61,559	72	25,877	6	6,820	493	60,859	52	68	30	637
Region 08 Lower Mississippi	96	(D)	-	-	-	-	46	(D)	36	36	14	(D)
Region 09 Souris-Red-Rainy	30	9	-	-	-	-	16	5	14	2	5	2
Region 10 Missouri	299	1,457	32	28	8	23	130	647	63	736	131	105
Region 11 Arkansas-White-Red	67	299	33	4	29	3	27	267	38	(D)	2	(D)
Region 12 Texas-Gulf	140	5,543	8	(D)	8	1	82	5,518	-	-	58	25
Region 13 Rio Grande	44	23	-	-	-	-	6	1	-	-	38	22
Region 14 Upper Colorado	71	919	2	(D)	31	(D)	-	-	1	(D)	70	(D)
Region 15 Lower Colorado	48	(D)	-	-	19	19	28	24	24	20	1	(D)
Region 16 Great Basin	218	435	4	20	-	-	26	5	27	47	168	418
Region 17 Pacific Northwest	883	82,664	111	13,909	37	5,636	385	25,120	168	4,579	381	53,821
Region 18 California	342	27,061	79	22,928	62	17,610	186	2,106	69	3,779	121	21,557
Region 19 Alaska	20	11	-	-	-	-	20	11	-	-	-	-
Region 20 Hawaii	13	35	1	(D)	-	-	-	-	-	-	13	35

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Tomatoes in the open											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	9,200 8,879	394,318 288,114	1,450 1,246	229,325 162,695	548 433	168,116 40,017	5,432 4,984	142,433 147,928	1,700 2,269	61,818 45,702	2,453 2,061	226,609 128,300
2023 DATA												
Alabama	186	422	46	92	23	69	139	300	23	115	24	7
Alaska	22	8	-	-	-	-	20	8	2	(D)	2	(D)
Arizona	8	8	-	-	-	-	8	8	-	-	-	-
Arkansas	120	309	15	39	-	-	63	255	24	45	33	10
California	1,140	350,643	423	214,296	214	154,835	672	105,312	205	58,005	429	223,088
Colorado	231	57	43	4	-	-	81	17	33	18	120	22
Connecticut	101	114	6	48	-	-	53	24	34	83	14	7
Delaware	11	5	-	-	-	-	11	5	-	-	-	-
Florida	229	23,700	45	13,118	45	12,968	195	23,422	34	278	-	-
Georgia	237	306	64	31	27	3	114	63	65	236	58	7
Hawaii	49	(D)	28	21	-	-	-	-	-	-	49	(D)
Idaho	118	34	6	(D)	6	(D)	60	8	22	2	58	26
Illinois	170	155	25	36	4	7	106	125	17	15	47	15
Indiana	168	2,132	2	(D)	2	(D)	101	1,985	18	(D)	50	35
Iowa	111	44	20	20	-	-	71	22	20	20	20	2
Kansas	54	20	2	(D)	5	4	23	10	2	(D)	29	(D)
Kentucky	222	139	33	9	7	1	62	65	61	36	99	38
Louisiana	56	22	-	-	-	-	41	11	-	-	15	11
Maine	98	27	5	1	-	-	81	22	12	(D)	5	(D)
Maryland	123	198	27	121	11	79	69	120	61	91	-	-
Massachusetts	139	122	38	15	-	-	89	62	41	51	9	9
Michigan	400	2,230	18	180	-	-	341	704	72	442	7	1,086
Minnesota	119	157	16	8	-	-	116	156	-	-	3	(Z)
Mississippi	98	97	8	8	8	8	58	79	3	1	37	18
Missouri	211	131	46	44	7	14	97	56	47	28	67	47
Montana	107	28	8	3	-	-	92	22	6	1	11	5
Nebraska	120	47	-	-	-	-	116	44	29	3	7	2
Nevada	70	51	-	-	-	-	34	(D)	2	(D)	34	44
New Hampshire	59	16	-	-	-	-	44	10	15	6	-	-
New Jersey	319	846	48	268	23	2	195	710	57	303	87	35
New Mexico	222	78	4	(D)	-	-	73	11	36	32	149	39
New York	396	685	97	95	19	8	192	116	137	151	72	418
North Carolina	318	462	3	15	3	15	185	278	111	181	22	2
North Dakota	12	3	-	-	-	-	12	3	-	-	-	-
Ohio	229	262	31	7	15	5	119	83	48	89	64	90
Oklahoma	82	44	36	4	29	3	24	12	29	3	29	29
Oregon	419	138	31	21	39	22	196	24	52	32	179	83
Pennsylvania	397	1,184	67	492	7	9	254	345	97	474	49	365
Rhode Island	39	18	3	2	-	-	32	12	3	(D)	4	(D)
South Carolina	196	513	48	173	24	5	147	452	50	61	-	-
South Dakota	47	26	-	-	-	-	34	15	-	-	13	11
Tennessee	232	5,745	34	10	-	-	123	5,715	42	11	67	19
Texas	406	247	31	3	8	(D)	289	196	-	-	117	51
Utah	251	266	6	24	-	-	32	11	29	(D)	199	254
Vermont	28	3	-	-	-	-	24	2	-	-	4	(Z)
Virginia	167	1,654	36	32	-	-	124	1,323	32	285	11	45
Washington	304	83	8	(D)	1	(D)	189	48	24	4	95	31
West Virginia	66	92	21	32	20	20	22	47	38	44	6	1
Wisconsin	251	128	22	16	1	(D)	207	107	65	43	21	21
Wyoming	42	(D)	-	-	-	-	2	(D)	2	(D)	38	(D)
Water Resource Regions												
Region 01 New England	443	297	52	65	-	-	302	131	105	144	36	22
Region 02 Mid-Atlantic	1,162	3,946	256	960	58	107	738	2,529	263	1,149	191	483
Region 03 South Atlantic-Gulf	1,117	25,468	224	13,449	130	13,068	760	24,573	288	875	70	20
Region 04 Great Lakes	715	2,881	79	245	37	18	486	809	197	595	57	1,479
Region 05 Ohio	710	1,011	88	41	10	4	288	556	196	293	228	162
Region 06 Tennessee	328	5,768	17	7	-	-	215	5,745	-	-	113	22
Region 07 Upper Mississippi	581	2,082	54	70	4	7	443	1,999	82	567	99	58
Region 08 Lower Mississippi	138	273	6	36	-	-	83	259	36	10	19	4
Region 09 Souris-Red-Rainy	16	8	-	-	-	-	16	8	-	-	-	-
Region 10 Missouri	545	206	76	31	7	14	343	116	71	31	168	62
Region 11 Arkansas-White-Red	254	159	59	20	34	7	101	57	55	49	98	53
Region 12 Texas-Gulf	360	199	31	3	8	1	266	150	-	-	94	49
Region 13 Rio Grande	177	104	-	-	-	-	96	57	34	31	83	(D)
Region 14 Upper Colorado	169	(D)	6	1	-	-	-	-	35	18	134	(D)
Region 15 Lower Colorado	48	27	-	-	-	-	42	(D)	2	(D)	4	(D)
Region 16 Great Basin	292	304	4	24	-	-	32	(D)	29	(D)	240	293
Region 17 Pacific Northwest	934	274	47	57	46	55	529	98	100	39	339	140
Region 18 California	1,140	350,643	423	214,296	214	154,835	672	105,312	205	58,005	429	223,088
Region 19 Alaska	22	8	-	-	-	-	20	8	2	(D)	2	(D)
Region 20 Hawaii	49	(D)	28	21	-	-	-	-	-	(D)	49	(D)

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Lettuce and romaine											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	5,352 4,589	309,785 277,616	573 581	187,932 155,144	200 98	74,165 53,276	3,483 2,801	183,895 156,588	730 1,070	48,217 40,288	1,284 959	92,829 98,421
2023 DATA												
Alabama	23	46	-	-	-	-	23	46	-	-	-	-
Alaska	65	70	10	1	-	-	42	(D)	2	(D)	25	5
Arizona	65	67,201	26	30,260	18	15,300	9	(D)	9	(D)	49	43,698
Arkansas	53	19	7	(D)	-	-	16	11	4	(Z)	33	8
California	718	225,003	193	155,171	126	58,110	533	168,298	117	27,590	134	43,237
Colorado	157	1,342	27	3	-	-	86	10	10	1,316	64	17
Connecticut	119	40	3	3	-	-	85	(D)	25	(D)	11	4
Delaware	16	28	-	-	-	-	14	(D)	-	-	2	(D)
Florida	128	(D)	-	-	-	-	126	47	1	(D)	1	(D)
Georgia	44	6	-	-	-	-	13	3	-	-	31	3
Hawaii	93	522	29	149	-	-	15	(D)	-	-	78	(D)
Idaho	59	1,015	-	-	-	-	26	(D)	2	(D)	39	759
Illinois	115	73	14	1	-	-	83	66	-	-	32	7
Indiana	63	18	-	-	-	-	37	15	16	2	10	1
Iowa	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	34	8	-	-	-	-	7	1	-	-	27	7
Kentucky	102	22	14	2	-	-	36	6	26	5	40	11
Louisiana	19	3	-	-	-	-	15	2	-	-	4	(Z)
Maine	106	150	-	-	-	-	97	(D)	9	(D)	-	-
Maryland	33	27	4	10	-	-	25	13	8	14	-	-
Massachusetts	93	79	-	-	-	-	63	60	30	19	-	-
Michigan	221	47	-	-	-	-	221	47	-	-	-	-
Minnesota	121	21	-	-	-	-	101	19	17	3	3	(Z)
Mississippi	36	13	-	-	-	-	16	10	3	1	17	2
Missouri	56	20	2	(D)	-	-	34	17	11	2	11	1
Montana	88	23	-	-	-	-	60	12	2	(D)	26	11
Nebraska	60	19	-	-	-	-	52	15	-	-	8	4
Nevada	7	(D)	-	-	-	-	3	(Z)	-	-	4	(D)
New Hampshire	42	12	5	5	-	-	29	5	8	2	5	5
New Jersey	154	698	1	(D)	-	-	89	689	16	5	49	5
New Mexico	84	1,479	5	1,455	-	-	50	1,476	2	(D)	68	10
New York	202	98	31	35	-	-	90	47	72	40	40	12
North Carolina	107	66	-	-	-	-	60	42	3	1	44	24
North Dakota	2	(D)	-	-	-	-	2	(D)	-	-	-	-
Ohio	85	108	-	-	-	-	46	44	6	4	35	60
Oklahoma	46	9	29	3	29	3	17	6	29	3	-	-
Oregon	252	94	10	1	-	-	121	20	50	(D)	89	62
Pennsylvania	153	161	8	8	-	-	52	27	74	115	27	20
Rhode Island	33	10	3	2	-	-	30	9	3	1	-	-
South Carolina	218	78	89	31	24	2	193	75	25	3	-	-
South Dakota	22	6	-	-	-	-	9	3	-	-	13	3
Tennessee	92	16	17	3	-	-	42	6	25	8	25	3
Texas	270	196	-	-	-	-	236	147	-	-	34	49
Utah	96	127	7	2	-	-	28	6	2	(D)	68	121
Vermont	98	78	-	-	-	-	56	16	43	66	5	1
Virginia	95	44	8	1	-	-	81	41	12	3	2	(D)
Washington	328	925	10	751	3	750	230	823	6	3	96	99
West Virginia	28	22	-	-	-	-	1	(D)	15	10	12	(D)
Wisconsin	227	109	21	11	-	-	183	92	44	17	-	-
Wyoming	24	3	-	-	-	-	-	-	3	1	23	3
Water Resource Regions												
Region 01 New England	423	308	11	10	-	-	324	148	85	155	20	9
Region 02 Mid-Atlantic	570	1,021	48	72	-	-	305	831	143	164	122	26
Region 03 South Atlantic-Gulf	560	(D)	89	31	24	2	447	232	32	(D)	81	(D)
Region 04 Great Lakes	421	240	21	11	-	-	298	114	121	81	4	46
Region 05 Ohio	244	79	32	10	-	-	97	23	43	13	106	43
Region 06 Tennessee	79	10	17	3	-	-	42	6	-	-	37	4
Region 07 Upper Mississippi	411	187	-	-	-	-	365	174	23	7	23	6
Region 08 Lower Mississippi	65	19	-	-	-	-	29	10	25	8	11	2
Region 09 Souris-Red-Rainy	25	3	-	-	-	-	16	2	9	2	-	-
Region 10 Missouri	285	1,384	24	3	-	-	166	41	19	1,318	105	26
Region 11 Arkansas-White-Red	130	68	36	4	29	3	43	11	33	3	54	53
Region 12 Texas-Gulf	224	127	-	-	-	-	213	124	-	-	11	3
Region 13 Rio Grande	105	1,502	5	1,455	-	-	73	1,499	-	-	68	10
Region 14 Upper Colorado	52	15	7	1	-	-	5	2	7	1	40	13
Region 15 Lower Colorado	65	67,201	26	30,260	18	15,300	9	(D)	9	(D)	49	43,698
Region 16 Great Basin	101	(D)	5	2	-	-	31	6	2	(D)	70	(D)
Region 17 Pacific Northwest	716	2,050	20	752	3	750	430	1,107	60	17	246	(D)
Region 18 California	718	225,003	193	155,171	126	58,110	533	168,298	117	27,590	134	43,237
Region 19 Alaska	65	70	10	1	-	-	42	(D)	2	(D)	25	5
Region 20 Hawaii	93	522	29	149	-	-	15	(D)	-	-	78	(D)

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Potatoes, excluding sweet potatoes											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	5,661 5,361	920,681 866,288	700 914	405,017 417,732	343 466	243,310 211,425	3,515 3,095	559,436 457,307	1,119 1,220	95,575 66,273	1,468 1,371	295,314 352,375
2023 DATA												
Alabama	107	330	23	230	23	230	93	323	-	-	14	7
Alaska	49	268	5	1	-	-	24	265	2	(D)	27	4
Arizona	3	(D)	-	-	-	-	2	(D)	-	-	1	(D)
Arkansas	21	7	-	-	-	-	10	3	4	1	7	4
California	201	13,576	17	6,784	13	6,008	130	9,331	31	921	60	8,285
Colorado	154	66,605	49	30,034	62	34,534	102	66,599	22	8,802	47	6,670
Connecticut	77	30	-	-	-	-	51	18	15	8	11	4
Delaware	20	1,142	7	660	2	(D)	15	692	6	450	-	-
Florida	91	1,153	-	-	-	-	91	1,153	-	-	-	-
Georgia	135	50	27	27	-	-	89	36	64	16	9	1
Hawaii	20	6	-	-	-	-	-	-	-	-	20	6
Idaho	449	328,780	168	158,023	76	89,002	255	142,184	112	42,522	209	148,894
Illinois	106	3,628	-	-	-	-	73	3,618	-	-	33	11
Indiana	52	7,301	8	3,568	-	-	35	(D)	16	2	11	(D)
Iowa	52	6	1	(D)	1	(D)	32	4	-	-	20	2
Kansas	60	3,016	4	(Z)	-	-	28	3,003	-	-	32	13
Kentucky	97	42	21	3	7	1	43	19	14	1	40	22
Louisiana	34	5	-	-	-	-	30	5	-	-	4	(Z)
Maine	87	2,329	2	(D)	1	(D)	75	(D)	9	(D)	3	1,900
Maryland	58	505	7	439	-	-	37	492	21	14	-	-
Massachusetts	75	46	-	-	-	-	45	(D)	30	(D)	-	-
Michigan	370	78,810	33	34,390	-	-	262	68,677	127	10,453	19	1,190
Minnesota	144	27,542	10	13,638	-	-	124	26,778	21	763	3	1
Mississippi	37	14	-	-	-	-	16	10	3	1	18	3
Missouri	141	1,626	11	1	-	-	90	1,604	31	17	27	6
Montana	125	8,688	8	1,861	-	-	87	2,535	39	5,626	43	569
Nebraska	127	39,295	28	4,760	28	4,760	123	39,292	29	3	4	3
Nevada	10	(D)	4	(D)	4	(D)	4	(D)	-	-	6	1
New Hampshire	39	10	2	(D)	-	-	22	5	10	2	7	4
New Jersey	143	1,625	-	-	-	-	78	1,494	2	(D)	65	(D)
New Mexico	70	(D)	1	(D)	1	(D)	63	9	2	(D)	37	(D)
New York	231	1,744	5	10	-	-	108	183	89	1,551	42	13
North Carolina	166	4,990	-	-	-	-	116	4,673	28	314	22	2
North Dakota	43	31,562	13	17,044	2	(D)	36	26,631	2	(D)	9	(D)
Ohio	90	1,806	3	1,129	-	-	53	1,726	22	8	17	73
Oklahoma	43	3,262	40	1,804	29	3	14	3,259	29	3	-	-
Oregon	323	33,536	11	3,345	9	2,841	166	8,778	48	12,597	121	14,378
Pennsylvania	150	1,033	21	21	-	-	67	89	47	921	39	23
Rhode Island	28	9	-	-	-	-	20	7	5	2	3	(Z)
South Carolina	101	3,113	28	3,100	24	2	76	2,128	27	985	-	-
South Dakota	42	9	-	-	-	-	30	3	-	-	12	6
Tennessee	105	23	-	-	-	-	25	3	55	16	25	5
Texas	188	39,994	13	31,251	13	31,251	118	39,961	-	-	70	33
Utah	149	136	5	3	-	-	32	6	22	2	98	129
Vermont	87	58	-	-	-	-	57	21	23	35	9	4
Virginia	92	945	8	2	-	-	72	82	26	863	10	6
Washington	367	156,795	61	60,039	46	55,146	198	51,987	15	5,641	163	99,167
West Virginia	7	(D)	1	(D)	-	-	1	(D)	6	1	-	-
Wisconsin	239	45,562	55	24,551	2	(D)	195	45,405	62	765	-	-
Wyoming	56	28	-	-	-	-	2	(D)	3	1	51	27
Water Resource Regions												
Region 01 New England	331	2,430	4	(D)	1	(D)	229	74	74	448	28	1,908
Region 02 Mid-Atlantic	549	5,417	48	1,132	2	(D)	326	2,894	89	2,481	143	43
Region 03 South Atlantic-Gulf	597	9,644	78	3,357	47	232	449	8,320	122	1,315	55	12
Region 04 Great Lakes	658	90,662	77	36,071	-	-	412	78,887	268	12,643	32	(D)
Region 05 Ohio	303	9,079	33	4,705	7	1	139	(D)	105	24	87	(D)
Region 06 Tennessee	82	11	-	-	-	-	57	6	-	-	25	5
Region 07 Upper Mississippi	376	60,080	18	34,149	3	(D)	309	60,041	32	35	44	13
Region 08 Lower Mississippi	79	1,580	-	-	-	-	42	1,565	25	13	12	2
Region 09 Souris-Red-Rainy	62	25,241	9	11,967	2	(D)	46	22,060	15	2,482	5	700
Region 10 Missouri	476	72,578	52	13,549	28	4,760	321	65,870	95	4,141	149	9,277
Region 11 Arkansas-White-Red	126	46,189	49	33,054	34	31,253	61	46,179	33	4	32	6
Region 12 Texas-Gulf	161	78	8	1	8	1	114	47	-	-	47	31
Region 13 Rio Grande	141	52,924	49	30,034	62	34,534	138	52,923	12	8,800	35	4
Region 14 Upper Colorado	53	(D)	1	(D)	1	(D)	5	2	12	2	36	(D)
Region 15 Lower Colorado	9	(D)	-	-	-	-	5	-	-	-	4	(D)
Region 16 Great Basin	213	15,268	54	15,126	9	6,223	38	6,229	22	(D)	156	9,038
Region 17 Pacific Northwest	1,172	506,793	198	208,618	126	142,589	670	198,560	182	62,266	468	253,004
Region 18 California	204	14,626	17	6,784	13	6,008	130	9,331	31	921	63	9,335
Region 19 Alaska	49	268	5	1	-	-	24	265	2	(D)	27	4
Region 20 Hawaii	20	6	-	-	-	-	-	-	-	-	20	6

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All berries											
	Farms ¹	Irrigated acres ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	11,008 11,562	246,361 219,254	1,969 1,859	79,261 61,560	1,250 955	39,178 41,033	6,673 6,929	161,406 136,303	2,849 3,002	79,770 70,367	2,138 2,256	18,185 27,230
2023 DATA												
Alabama	228	722	75	298	-	-	163	441	37	260	52	45
Alaska	43	25	-	-	-	-	11	6	9	13	25	7
Arizona	56	11	-	-	-	-	56	11	-	-	-	-
Arkansas	89	171	17	70	8	8	44	124	19	14	28	33
California	826	52,044	149	31,264	73	8,953	600	50,429	81	928	218	2,725
Colorado	83	290	-	-	-	-	15	2	4	(Z)	79	290
Connecticut	72	137	-	-	-	-	38	58	15	56	19	23
Delaware	30	76	13	42	9	40	30	76	2	(D)	-	-
Florida	732	20,540	280	4,975	245	4,445	732	20,210	33	660	38	1,439
Georgia	390	10,094	33	1,297	27	1,296	299	8,782	99	2,295	55	(D)
Hawaii	40	127	-	-	-	-	-	-	-	-	40	127
Idaho	225	160	40	62	-	-	129	105	24	10	97	48
Illinois	144	260	5	3	2	(D)	85	223	26	32	33	4
Indiana	164	749	17	13	4	10	91	644	45	53	28	52
Iowa	31	6	1	(D)	1	(D)	11	2	20	4	-	-
Kansas	69	139	2	(D)	-	-	20	15	46	124	7	4
Kentucky	165	157	57	37	31	25	40	46	65	44	60	68
Louisiana	95	1,472	3	12	12	1,140	46	189	26	1,262	23	21
Maine	114	8,240	12	54	5	(D)	61	6,675	35	1,324	19	241
Maryland	75	389	33	172	17	87	51	225	24	164	-	-
Massachusetts	598	12,867	167	5,854	267	9,763	110	844	399	11,520	111	740
Michigan	562	18,514	60	1,546	18	54	471	14,621	119	3,876	18	18
Minnesota	153	523	-	-	-	-	138	515	12	5	3	3
Mississippi	105	1,367	16	1,001	-	-	50	1,106	11	201	52	61
Missouri	175	485	36	71	22	220	130	454	22	12	23	20
Montana	72	56	-	-	-	-	41	31	26	24	7	1
Nebraska	72	35	-	-	-	-	39	20	-	-	33	15
Nevada	35	12	31	9	-	-	31	(D)	-	-	4	2
New Hampshire	61	253	19	50	15	41	32	73	32	174	10	5
New Jersey	241	14,290	29	1,840	37	628	149	9,152	86	5,149	41	4
New Mexico	87	21	4	(Z)	-	-	41	14	8	1	42	7
New York	215	940	58	300	-	-	39	239	138	525	41	176
North Carolina	427	13,131	73	332	28	175	254	(D)	189	8,033	1	(D)
North Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Ohio	234	651	62	213	44	187	139	184	80	457	20	30
Oklahoma	9	9	-	-	-	-	-	-	-	-	9	9
Oregon	999	25,950	110	11,307	63	1,119	591	11,200	204	14,010	252	1,306
Pennsylvania	237	496	49	68	22	42	137	315	80	179	20	2
Rhode Island	23	(D)	1	(D)	1	(D)	16	5	4	3	3	(Z)
South Carolina	295	481	48	74	48	74	246	438	26	20	23	23
South Dakota	38	16	-	-	26	(D)	30	9	6	(D)	2	(D)
Tennessee	184	78	17	2	-	-	100	58	42	14	42	7
Texas	446	1,258	79	101	32	49	307	1,083	74	101	71	83
Utah	154	95	2	(D)	-	-	3	1	-	-	151	94
Vermont	108	(D)	16	(D)	-	-	85	111	16	(D)	12	6
Virginia	198	474	34	46	-	-	153	250	35	128	10	96
Washington	984	34,695	298	14,030	171	6,735	522	21,608	242	6,488	228	7,082
West Virginia	72	273	-	-	-	-	40	227	7	7	25	39
Wisconsin	549	23,347	23	3,996	22	3,974	255	5,764	379	21,466	63	2,930
Wyoming	4	2	-	-	-	-	2	(D)	2	(D)	-	-
Water Resource Regions												
Region 01 New England	900	21,639	199	6,058	288	9,909	278	7,684	492	13,183	166	1,009
Region 02 Mid-Atlantic	836	15,999	185	2,294	85	797	525	10,081	267	5,918	81	24
Region 03 South Atlantic-Gulf	2,055	46,237	444	7,773	348	5,990	1,689	35,754	346	11,315	179	1,936
Region 04 Great Lakes	911	19,719	157	1,891	65	246	644	15,149	254	4,378	67	201
Region 05 Ohio	653	1,115	102	114	33	35	270	545	217	414	171	176
Region 06 Tennessee	185	262	75	205	-	-	122	81	45	180	42	26
Region 07 Upper Mississippi	746	24,100	28	3,995	24	3,972	403	6,608	406	21,369	85	2,935
Region 08 Lower Mississippi	167	1,523	11	13	12	1,140	72	220	62	1,277	33	27
Region 09 Souris-Red-Rainy	36	166	-	-	-	-	32	162	4	4	-	-
Region 10 Missouri	352	622	25	60	48	225	192	415	88	163	84	48
Region 11 Arkansas-White-Red	260	631	30	85	8	8	175	550	45	37	42	43
Region 12 Texas-Gulf	356	896	79	101	32	49	247	748	51	78	64	79
Region 13 Rio Grande	78	20	-	-	-	-	41	14	3	(Z)	38	7
Region 14 Upper Colorado	90	293	6	1	-	-	5	1	6	1	88	293
Region 15 Lower Colorado	80	34	-	-	-	-	56	11	-	-	24	23
Region 16 Great Basin	141	72	31	9	-	-	34	10	-	-	107	63
Region 17 Pacific Northwest	2,253	60,837	448	25,398	234	7,854	1,277	32,941	473	20,512	584	8,438
Region 18 California	826	52,044	149	31,264	73	8,953	600	50,429	81	928	218	2,725
Region 19 Alaska	43	25	-	-	-	-	11	6	9	13	25	7
Region 20 Hawaii	40	127	-	-	-	-	-	-	-	-	40	127

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Land in orchards, vineyards, and nut trees											
	Farms ¹	Irrigated acres ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	48,784 52,959	5,105,937 5,021,860	13,051 15,498	2,107,977 2,637,957	6,269 4,489	832,052 992,013	30,296 31,660	3,070,049 3,245,887	3,904 4,809	473,115 360,275	20,252 23,685	2,380,384 2,136,981
2023 DATA												
Alabama	129	1,445	-	-	-	-	92	1,208	-	-	37	237
Alaska	36	8	-	-	-	-	6	3	9	2	21	3
Arizona	625	36,303	129	27,227	64	18,299	369	29,939	-	-	260	6,365
Arkansas	89	751	4	8	2	(D)	43	383	33	282	15	86
California	28,283	3,924,738	10,648	1,857,498	5,412	776,327	18,198	2,389,968	1,760	343,879	12,904	1,949,022
Colorado	580	3,239	27	32	22	88	33	85	27	19	527	3,138
Connecticut	47	243	-	-	-	-	35	219	5	15	7	9
Delaware	15	798	9	110	-	-	15	798	2	(D)	-	-
Florida	2,910	353,840	718	112,988	101	11,186	2,736	303,723	243	31,999	75	53,149
Georgia	1,240	111,966	136	19,755	-	-	1,051	102,561	232	10,160	-	-
Hawaii	976	20,789	51	(D)	20	10	48	2,395	40	3,928	890	14,719
Idaho	449	6,127	11	2,043	20	18	210	1,826	63	292	206	4,174
Illinois	95	527	-	-	-	-	57	521	-	-	38	6
Indiana	18	1,121	-	-	-	-	8	1,120	-	-	10	1
Iowa	137	539	-	-	-	-	94	506	22	22	21	11
Kansas	127	245	23	92	21	84	119	207	5	14	25	24
Kentucky	74	456	19	31	19	31	27	398	21	10	26	49
Louisiana	79	1,156	-	-	-	-	68	1,123	-	-	22	33
Maine	19	181	-	-	-	-	12	139	7	42	-	-
Maryland	39	558	-	-	-	-	29	84	10	475	-	-
Massachusetts	89	276	-	-	-	-	39	55	5	110	45	111
Michigan	595	22,008	23	858	18	144	537	21,656	58	352	-	-
Minnesota	219	889	-	-	-	-	204	884	12	(D)	3	(D)
Mississippi	103	867	8	8	-	-	70	124	11	641	31	121
Missouri	124	2,383	11	220	11	220	86	2,231	36	99	24	54
Montana	377	1,083	-	-	21	21	130	381	88	198	163	504
Nebraska	96	1,034	29	577	-	-	38	443	-	-	58	592
Nevada	16	18	-	-	-	-	8	(D)	3	6	5	2
New Hampshire	21	137	2	(D)	-	-	16	(D)	5	(D)	-	-
New Jersey	49	1,051	-	-	-	-	19	948	5	100	25	3
New Mexico	1,999	70,695	474	12,325	154	6,974	1,517	64,534	155	2,697	796	16,098
New York	199	14,239	3	375	-	-	46	3,927	47	7,910	111	2,502
North Carolina	281	2,309	-	-	-	-	269	1,855	12	454	-	-
North Dakota	15	11	-	-	-	-	5	5	10	6	-	-
Ohio	122	326	15	8	15	8	34	102	45	133	43	92
Oklahoma	163	5,649	-	-	-	-	104	1,120	-	-	59	4,529
Oregon	2,232	98,688	103	7,316	43	1,033	1,192	39,566	370	19,811	789	41,569
Pennsylvania	117	3,124	22	60	2	(D)	63	(D)	62	2,568	2	(D)
Rhode Island	18	65	-	-	-	-	16	(D)	2	(D)	-	-
South Carolina	226	11,713	-	-	-	-	125	3,878	79	7,898	23	437
South Dakota	146	248	27	27	-	-	60	162	6	6	80	80
Tennessee	66	39	-	-	-	-	41	26	25	13	-	-
Texas	1,946	59,188	231	14,097	165	1,672	1,342	36,368	109	2,497	553	21,117
Utah	387	886	2	(D)	-	-	52	263	22	44	313	579
Vermont	35	761	4	18	-	-	25	25	10	734	4	2
Virginia	101	397	8	1	-	-	84	226	9	(D)	8	(D)
Washington	2,876	342,037	314	49,714	159	15,916	792	52,854	219	35,220	1,980	260,764
West Virginia	6	132	-	-	-	-	6	72	6	60	-	-
Wisconsin	120	517	-	-	-	-	108	494	12	23	-	-
Wyoming	73	141	-	-	-	-	18	(D)	2	(D)	53	91
Water Resource Regions												
Region 01 New England	196	1,592	2	(D)	-	-	118	557	26	915	52	120
Region 02 Mid-Atlantic	346	16,707	42	546	2	(D)	222	5,647	112	11,207	35	119
Region 03 South Atlantic-Gulf	4,851	482,114	862	132,751	101	11,186	4,306	413,353	585	51,167	157	53,899
Region 04 Great Lakes	889	25,913	42	884	33	152	628	22,655	135	746	130	2,512
Region 05 Ohio	193	715	19	31	19	31	78	540	37	40	78	135
Region 06 Tennessee	78	30	-	-	-	-	78	30	-	-	-	-
Region 07 Upper Mississippi	500	3,564	-	-	-	-	450	3,491	23	23	38	49
Region 08 Lower Mississippi	146	3,079	-	-	-	-	88	2,923	25	13	33	143
Region 09 Souris-Red-Rainy	14	10	-	-	-	-	-	-	14	10	-	-
Region 10 Missouri	629	2,276	88	908	54	392	267	1,139	95	229	284	910
Region 11 Arkansas-White-Red	522	7,164	6	16	2	(D)	326	1,990	59	518	170	4,656
Region 12 Texas-Gulf	1,621	44,063	261	10,389	165	1,672	1,166	24,567	86	2,267	378	17,231
Region 13 Rio Grande	2,036	84,919	378	15,908	123	6,912	1,556	75,869	93	2,573	905	19,902
Region 14 Upper Colorado	591	3,179	93	(D)	31	62	5	1	84	135	507	3,044
Region 15 Lower Colorado	693	36,501	129	27,227	64	18,299	406	30,051	-	-	291	6,450
Region 16 Great Basin	327	845	2	(D)	-	-	57	273	25	50	245	522
Region 17 Pacific Northwest	5,861	447,797	428	59,073	243	16,988	2,293	94,596	696	55,414	3,138	307,011
Region 18 California	28,279	3,924,678	10,648	1,857,498	5,412	776,327	18,198	2,389,968	1,760	343,879	12,904	1,948,962
Region 19 Alaska	36	8	-	-	-	-	6	3	9	2	21	3
Region 20 Hawaii	976	20,789	51	(D)	20	10	48	2,395	40	3,928	890	14,719

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Nursery and other horticultural crops											
	Farms ¹	Irrigated acres ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	17,491 15,623	598,980 581,936	1,343 1,443	45,951 70,297	577 497	9,826 36,335	10,930 10,044	406,845 360,058	3,121 2,752	133,153 119,916	4,684 4,260	83,061 131,836
2023 DATA												
Alabama	215	17,404	4	413	2	(D)	117	12,075	50	4,870	50	459
Alaska	93	213	14	17	7	14	68	160	25	53	-	-
Arizona	176	10,510	12	3,536	5	295	124	6,242	4	900	64	4,469
Arkansas	94	5,282	3	26	1	(D)	29	2,293	21	2,248	49	741
California	1,903	38,776	475	12,385	288	4,369	993	24,065	141	3,537	947	15,118
Colorado	470	14,147	8	14	-	-	160	7,398	92	2,461	237	4,348
Connecticut	162	2,202	1	(D)	-	-	78	683	39	1,332	59	193
Delaware	24	2,116	-	-	-	-	21	2,016	2	(D)	1	(D)
Florida	2,209	96,419	163	7,269	67	1,030	1,998	74,924	291	20,535	39	3,760
Georgia	303	26,561	14	235	8	195	249	21,627	63	6,247	54	1,056
Hawaii	464	(D)	45	150	22	91	22	(D)	4	(D)	442	1,554
Idaho	286	8,805	6	642	2	(D)	155	4,245	39	1,216	113	3,530
Illinois	426	10,028	14	3	-	-	290	5,087	84	4,903	62	38
Indiana	235	2,816	22	26	20	30	148	2,061	35	878	65	84
Iowa	72	3,065	11	14	-	-	49	1,805	2	(D)	23	(D)
Kansas	126	6,559	5	1,084	5	73	52	3,134	19	3,365	64	83
Kentucky	195	1,827	-	-	11	3	26	270	48	1,107	127	(D)
Louisiana	199	4,826	-	-	-	-	168	3,813	32	1,186	19	67
Maine	94	945	-	-	-	-	79	609	8	(D)	8	(D)
Maryland	162	12,163	26	158	20	28	123	6,532	52	5,755	7	(D)
Massachusetts	179	1,820	1	(D)	-	-	83	331	85	862	18	639
Michigan	808	24,987	59	4,117	-	-	545	22,680	111	2,031	195	(D)
Minnesota	222	6,546	9	9	-	-	198	6,522	13	(D)	23	21
Mississippi	105	3,404	8	3	-	-	83	2,809	13	666	19	20
Missouri	260	7,155	23	17	1	(D)	125	2,724	75	4,285	67	146
Montana	157	2,411	11	38	3	3	113	463	10	400	47	1,698
Nebraska	131	5,570	6	336	-	-	116	4,979	5	131	23	534
Nevada	53	(D)	7	64	7	64	28	392	3	(D)	22	110
New Hampshire	103	467	16	28	2	(D)	61	291	20	288	24	18
New Jersey	334	16,838	25	839	25	839	307	13,670	79	3,168	-	-
New Mexico	105	(D)	2	(D)	-	-	50	(D)	10	7	54	(D)
New York	716	18,951	60	73	27	14	366	15,101	201	2,977	176	873
North Carolina	731	14,977	32	32	-	-	400	7,021	305	6,410	89	1,546
North Dakota	19	(D)	2	(D)	-	-	5	(D)	8	8	6	13
Ohio	507	9,437	16	(D)	-	-	329	5,701	145	4,022	128	2,253
Oklahoma	90	14,299	-	-	-	-	61	9,742	11	39	18	4,518
Oregon	1,317	50,845	62	6,821	10	1,101	799	32,573	275	10,800	379	9,030
Pennsylvania	385	3,677	28	46	-	-	262	1,273	110	2,292	27	165
Rhode Island	71	3,250	-	-	-	-	39	1,536	14	1,002	23	713
South Carolina	277	21,346	1	(D)	-	-	197	21,148	55	630	51	51
South Dakota	50	(D)	-	-	-	-	36	647	6	(D)	10	(D)
Tennessee	258	8,183	25	5	-	-	147	5,508	48	2,544	65	131
Texas	778	69,653	30	1,507	19	860	500	55,655	108	14,727	210	5,373
Utah	169	3,702	14	1,655	2	(D)	39	2,378	15	518	125	828
Vermont	78	139	5	(D)	-	-	71	110	19	(D)	5	(D)
Virginia	326	9,301	34	34	17	17	205	(D)	124	7,613	34	(D)
Washington	899	14,787	21	1,461	5	200	486	4,478	98	3,924	339	6,478
West Virginia	36	(D)	-	-	-	-	20	24	9	(D)	7	5
Wisconsin	394	8,180	19	572	-	-	304	7,669	89	665	55	120
Wyoming	25	305	4	(D)	1	(D)	6	(D)	6	(D)	15	175
Water Resource Regions												
Region 01 New England	618	8,691	18	161	2	(D)	349	3,458	166	3,801	132	1,582
Region 02 Mid-Atlantic	1,591	59,922	106	1,073	62	884	1,155	39,277	428	20,097	117	1,194
Region 03 South Atlantic-Gulf	3,715	179,571	225	8,962	77	1,550	3,006	138,239	732	40,241	277	6,831
Region 04 Great Lakes	1,362	30,440	127	5,151	27	14	818	23,704	295	5,849	391	3,076
Region 05 Ohio	889	13,789	39	38	31	33	441	9,535	238	4,247	293	1,052
Region 06 Tennessee	347	4,099	31	17	-	-	144	1,806	106	2,084	103	209
Region 07 Upper Mississippi	1,078	28,108	47	597	-	-	833	21,462	167	6,999	124	(D)
Region 08 Lower Mississippi	289	9,326	8	3	-	-	230	7,919	42	1,430	40	217
Region 09 Souris-Red-Rainy	19	(D)	2	(D)	-	-	10	(D)	8	(D)	1	(D)
Region 10 Missouri	745	24,691	31	538	2	(D)	387	13,104	120	8,119	275	3,746
Region 11 Arkansas-White-Red	317	24,465	8	1,110	6	79	174	16,656	47	2,448	109	5,361
Region 12 Texas-Gulf	768	69,489	30	1,507	19	860	499	55,648	108	14,727	201	5,216
Region 13 Rio Grande	112	(D)	2	(D)	-	-	66	958	8	(D)	47	302
Region 14 Upper Colorado	184	13,938	4	4	-	-	17	37	44	1,827	128	12,109
Region 15 Lower Colorado	193	10,718	14	3,646	5	295	128	6,300	6	1,010	77	4,509
Region 16 Great Basin	195	4,185	13	(D)	5	64	62	2,721	14	415	127	1,070
Region 17 Pacific Northwest	2,606	75,623	100	8,961	20	1,306	1,525	41,712	422	16,116	853	19,782
Region 18 California	1,906	38,769	479	12,389	292	4,373	996	24,057	141	3,537	947	15,118
Region 19 Alaska	93	213	14	17	7	14	68	160	25	53	-	-
Region 20 Hawaii	464	(D)	45	150	22	91	22	(D)	4	(D)	442	1,554

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All other crops											
	Farms ¹	Irrigated acres harvested ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	6,890 7,006	1,452,288 1,783,325	988 1,178	207,758 311,472	394 485	102,020 116,943	3,354 3,368	620,046 624,442	1,328 1,435	313,222 366,646	2,790 2,781	638,741 861,828
2023 DATA												
Alabama	46	184	-	-	-	-	23	69	23	115	-	-
Alaska	21	63	-	-	-	-	-	-	2	(D)	19	(D)
Arizona	243	13,755	72	13,276	57	8,760	18	4,485	57	5,834	169	4,236
Arkansas	2	(D)	-	-	-	-	2	(D)	-	-	-	-
California	642	164,869	202	31,861	78	12,409	298	70,178	117	30,821	359	88,871
Colorado	210	20,896	61	4,391	14	1,680	86	11,306	8	33	148	11,303
Connecticut	44	207	3	27	3	27	30	(D)	10	121	4	(D)
Delaware	2	(D)	-	-	-	-	2	(D)	-	-	-	-
Florida	277	373,975	60	60	30	30	220	71,677	3	(D)	59	202,933
Georgia	57	7,340	-	-	-	-	47	7,330	-	-	10	10
Hawaii	30	262	16	194	-	-	2	(D)	-	-	28	(D)
Idaho	593	192,506	102	54,561	75	29,770	170	76,440	79	14,483	396	108,366
Illinois	42	3,857	9	2,605	-	-	42	3,857	-	-	-	-
Indiana	82	15,919	3	6	-	-	82	15,887	3	201	16	48
Iowa	-	-	-	-	-	-	-	-	-	-	-	-
Kansas	159	23,650	-	-	-	-	159	23,650	15	(D)	-	-
Kentucky	166	3,032	-	-	-	-	15	991	79	1,948	72	93
Louisiana	80	50,225	11	1,485	-	-	57	32,854	16	7,456	31	9,915
Maine	43	507	5	20	-	-	31	132	17	375	-	-
Maryland	72	1,362	7	409	5	75	48	1,040	24	322	-	-
Massachusetts	129	994	3	342	5	492	30	54	62	903	37	37
Michigan	254	3,684	42	1,806	-	-	174	2,164	60	1,482	38	38
Minnesota	23	15,924	-	-	-	-	11	4,455	8	2,944	9	8,525
Mississippi	3	3	-	-	-	-	3	3	-	-	-	-
Missouri	10	5,600	-	-	-	-	10	5,600	-	-	-	-
Montana	133	31,524	3	2,703	3	180	24	2,640	18	4,020	91	24,864
Nebraska	321	100,243	41	20,425	-	-	264	92,014	-	-	89	8,229
Nevada	7	368	-	-	-	-	7	368	3	60	-	-
New Hampshire	22	54	-	-	-	-	18	50	4	4	-	-
New Jersey	82	5,438	4	1,140	7	1,590	53	3,342	13	2,080	16	16
New Mexico	411	5,005	1	(D)	1	(D)	3	6	-	-	408	4,999
New York	274	801	79	264	-	-	98	214	99	464	77	123
North Carolina	46	4,349	-	-	-	-	9	1,350	37	2,999	-	-
North Dakota	16	1,290	5	5	-	-	9	1,005	-	-	7	285
Ohio	117	1,269	-	-	-	-	57	1,049	28	98	33	122
Oklahoma	40	4,047	9	18	-	-	11	4,018	-	-	29	29
Oregon	790	155,334	32	9,878	12	6,578	462	75,594	195	28,216	251	56,260
Pennsylvania	244	1,986	81	542	39	338	130	858	107	1,076	7	52
Rhode Island	10	18	-	-	-	-	5	(D)	3	3	2	(D)
South Carolina	73	1,048	-	-	-	-	25	1,000	24	24	24	24
South Dakota	1	(D)	-	-	-	-	-	-	-	-	1	(D)
Tennessee	25	125	-	-	-	-	-	-	25	125	-	-
Texas	339	54,487	29	8,815	5	3,720	252	39,774	74	5,650	74	21,858
Utah	4	(D)	-	-	-	-	2	(D)	-	-	2	(D)
Vermont	34	227	3	105	-	-	27	106	9	121	-	-
Virginia	25	1,144	4	520	-	-	22	619	3	525	-	-
Washington	437	154,607	82	43,425	51	31,071	247	62,996	54	26,835	193	66,674
West Virginia	6	6	-	-	-	-	-	-	6	6	-	-
Wisconsin	68	654	-	-	-	-	68	654	-	-	-	-
Wyoming	135	26,938	19	4,875	9	1,300	1	(D)	43	(D)	91	18,032
Water Resource Regions												
Region 01 New England	239	1,735	11	389	8	519	114	279	87	1,361	43	95
Region 02 Mid-Atlantic	557	9,108	135	2,319	51	2,003	319	5,441	176	3,542	62	125
Region 03 South Atlantic-Gulf	518	388,034	64	(D)	30	30	340	82,039	90	165,052	93	202,967
Region 04 Great Lakes	391	4,749	84	1,953	-	-	228	(D)	125	1,839	58	(D)
Region 05 Ohio	406	11,385	-	-	-	-	126	8,734	161	2,587	139	281
Region 06 Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	143	20,114	9	2,605	-	-	135	16,645	8	2,944	5	525
Region 08 Lower Mississippi	98	56,809	11	1,485	-	-	75	39,438	16	7,456	31	9,915
Region 09 Souris-Red-Rainy	11	8,285	5	5	-	-	-	-	-	-	11	8,285
Region 10 Missouri	835	183,921	89	29,769	12	(D)	444	110,039	61	12,804	389	62,794
Region 11 Arkansas-White-Red	173	38,759	35	4,683	5	3,720	117	35,508	21	4,804	65	11,108
Region 12 Texas-Gulf	285	38,950	24	5,095	-	-	224	25,492	48	4,395	59	12,858
Region 13 Rio Grande	46	1,813	14	1,680	14	1,680	23	1,698	23	115	-	-
Region 14 Upper Colorado	405	5,041	1	(D)	1	(D)	-	-	5	(D)	405	5,041
Region 15 Lower Colorado	256	13,768	72	13,276	57	8,760	18	4,485	57	5,834	182	4,249
Region 16 Great Basin	50	5,096	19	4,560	19	4,560	28	4,930	3	60	22	(D)
Region 17 Pacific Northwest	1,764	496,227	197	103,304	119	62,859	863	212,270	308	66,234	820	231,140
Region 18 California	662	168,169	202	31,861	78	12,409	298	70,178	137	34,121	359	88,871
Region 19 Alaska	21	63	-	-	-	-	-	-	2	(D)	19	(D)
Region 20 Hawaii	30	262	16	194	-	-	2	(D)	-	-	28	(D)

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Irrigated pastureland, all types											
	Farms ¹	Irrigated acres ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	38,715 51,644	3,043,010 4,004,854	1,502 1,792	59,127 112,226	409 510	17,963 14,626	8,967 10,964	569,491 807,532	5,777 7,836	655,132 1,038,599	25,155 35,358	1,874,944 2,241,043
2023 DATA												
Alabama	77	3,534	-	-	-	-	31	1,740	46	1,794	-	-
Alaska	2	(D)	-	-	-	-	2	(D)	-	-	2	(D)
Arizona	1,067	42,917	46	3,164	-	-	380	22,922	132	6,363	612	13,689
Arkansas	13	169	7	49	-	-	-	-	13	169	-	-
California	4,116	334,639	74	570	-	-	1,517	108,567	544	114,863	2,335	136,565
Colorado	3,972	392,846	49	96	66	462	139	29,131	818	85,435	3,080	278,372
Connecticut	8	24	-	-	-	-	8	24	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-	-	-	-
Florida	437	22,902	-	-	-	-	374	9,835	62	(D)	2	(D)
Georgia	97	3,673	27	54	-	-	43	2,017	41	1,440	27	216
Hawaii	62	1,691	2	(D)	2	(D)	15	(D)	3	(D)	44	(D)
Idaho	6,031	311,627	274	7,255	81	899	771	52,138	827	71,742	4,565	188,578
Illinois	13	535	-	-	-	-	13	535	-	-	-	-
Indiana	84	1,461	-	-	-	-	52	1,269	32	192	-	-
Iowa	10	30	-	-	-	-	10	30	-	-	-	-
Kansas	64	18,816	6	1,096	-	-	44	18,716	20	100	-	-
Kentucky	22	509	12	(D)	-	-	-	-	3	450	19	59
Louisiana	46	4,664	-	-	-	-	35	1,430	11	3,234	-	-
Maine	5	5	-	-	-	-	5	5	-	-	-	-
Maryland	12	230	-	-	-	-	7	199	7	(D)	2	(D)
Massachusetts	45	81	-	-	-	-	17	(D)	28	(D)	-	-
Michigan	143	3,655	-	-	-	-	89	2,431	54	1,224	-	-
Minnesota	48	1,152	16	144	-	-	48	1,152	-	-	-	-
Mississippi	26	581	8	320	8	320	18	261	8	320	-	-
Missouri	45	357	-	-	-	-	23	47	23	(D)	22	(D)
Montana	2,705	395,110	118	8,023	24	1,950	226	3,175	529	156,405	2,017	235,530
Nebraska	636	60,848	88	15,768	-	-	491	51,106	-	-	146	9,742
Nevada	494	233,080	-	-	-	-	135	42,972	133	47,401	257	143,544
New Hampshire	4	4	-	-	-	-	4	4	-	-	-	-
New Jersey	16	(D)	-	-	-	-	16	(D)	16	16	-	-
New Mexico	2,145	95,626	129	9,624	-	-	484	31,348	186	4,278	1,538	60,374
New York	67	113	-	-	-	-	27	54	3	3	37	56
North Carolina	76	2,290	-	-	-	-	45	274	53	2,016	-	-
North Dakota	-	-	-	-	-	-	-	-	-	-	-	-
Ohio	32	458	-	-	14	350	14	350	18	108	-	-
Oklahoma	331	34,092	4	240	-	-	231	25,211	100	8,881	-	-
Oregon	5,292	211,797	242	5,375	50	3,222	1,306	50,495	794	45,249	3,383	124,742
Pennsylvania	30	647	-	-	-	-	19	19	5	28	6	600
Rhode Island	12	88	-	-	-	-	10	(D)	2	(D)	-	-
South Carolina	149	1,413	-	-	-	-	124	1,188	-	-	25	225
South Dakota	72	4,933	-	-	-	-	19	3,800	-	-	53	1,133
Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Texas	1,086	292,194	70	2,377	-	-	733	69,698	134	5,132	253	235,244
Utah	4,344	231,127	174	1,904	68	9,742	547	9,016	419	34,141	3,486	188,411
Vermont	13	260	-	-	-	-	-	-	13	260	-	-
Virginia	37	1,272	-	-	-	-	26	1,220	11	52	-	-
Washington	2,864	64,389	105	1,148	62	244	799	14,058	388	11,729	1,709	40,074
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	68	1,129	-	-	-	-	26	184	42	945	-	-
Wyoming	1,797	266,024	51	1,802	34	680	44	12,744	259	45,652	1,535	208,138
Water Resource Regions												
Region 01 New England	87	462	-	-	-	-	44	126	43	336	-	-
Region 02 Mid-Atlantic	141	2,257	-	-	-	-	95	1,508	39	125	27	640
Region 03 South Atlantic-Gulf	831	33,728	27	54	-	-	635	15,315	179	8,972	54	9,441
Region 04 Great Lakes	223	3,905	-	-	-	-	111	2,475	94	1,412	18	18
Region 05 Ohio	87	1,198	12	(D)	14	350	31	469	37	(D)	19	(D)
Region 06 Tennessee	23	(D)	-	-	-	-	-	-	23	(D)	-	-
Region 07 Upper Mississippi	133	3,877	16	144	-	-	112	3,013	33	864	-	-
Region 08 Lower Mississippi	65	5,028	8	320	8	320	46	1,441	19	3,554	11	33
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-	-	-	-
Region 10 Missouri	4,314	595,847	213	24,688	58	2,630	689	73,439	642	167,780	3,027	355,230
Region 11 Arkansas-White-Red	984	169,702	17	1,385	-	-	325	66,641	275	17,810	399	101,601
Region 12 Texas-Gulf	999	272,243	70	2,377	-	-	693	53,087	111	4,672	214	216,014
Region 13 Rio Grande	1,798	124,235	124	1,674	-	-	509	41,810	256	10,720	1,110	72,079
Region 14 Upper Colorado	4,464	389,217	49	96	89	9,662	65	343	628	86,330	3,820	302,544
Region 15 Lower Colorado	1,242	53,639	75	11,226	2	(D)	462	31,646	156	6,545	681	15,505
Region 16 Great Basin	3,953	382,148	150	1,792	43	540	603	62,290	475	68,407	3,014	252,729
Region 17 Pacific Northwest	14,865	626,961	645	13,883	173	1,265	2,902	91,762	2,191	156,783	10,151	388,558
Region 18 California	4,442	376,525	94	1,370	20	3,100	1,628	124,109	573	118,713	2,564	159,909
Region 19 Alaska	2	(D)	-	-	-	-	2	(D)	-	-	2	(D)
Region 20 Hawaii	62	1,691	2	(D)	2	(D)	15	(D)	3	(D)	44	(D)

See footnote(s) at end of table.

--continued

Table 40. Chemigation and Water Sources for Irrigated Items in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All other irrigated land types such as failed cropland, idle land, and land in summer fallow (see text)											
	Farms ¹	Irrigated acres ¹	Chemigation				Water source					
			Commercial fertilizer		Pesticide application		Ground water from wells		On-farm surface water		Water from off-farm suppliers	
			Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres	Farms	Acres
United States 2023 2018	3,984 (NA)	482,367 (NA)	157 (NA)	49,376 (NA)	18 (NA)	23,340 (NA)	1,947 (NA)	337,622 (NA)	559 (NA)	48,012 (NA)	1,560 (NA)	97,496 (NA)
2023 DATA												
Alabama	1	(D)	-	-	-	-	1	(D)	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	93	13,410	-	-	-	-	20	(D)	18	5,040	55	(D)
Arkansas	2	(D)	-	-	-	-	2	(D)	-	-	-	-
California	298	27,757	3	240	3	240	111	8,872	78	8,361	120	10,779
Colorado	461	35,426	13	1,625	-	-	107	28,436	71	1,394	283	5,596
Connecticut	10	19	-	-	-	-	7	16	3	3	-	-
Delaware	4	(D)	-	-	-	-	4	(D)	-	-	-	-
Florida	94	20,892	-	-	-	-	61	309	-	-	33	20,583
Georgia	65	8,875	-	-	-	-	56	8,866	-	-	9	9
Hawaii	84	(D)	-	-	-	-	3	30	1	(D)	80	712
Idaho	107	20,513	-	-	-	-	27	16,596	5	1,322	75	2,595
Illinois	8	384	-	-	-	-	6	(D)	2	(D)	-	-
Indiana	55	(D)	-	-	-	-	55	370	8	232	-	-
Iowa	21	42	-	-	-	-	21	42	-	-	-	-
Kansas	131	32,391	14	1,820	-	-	131	32,391	-	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-	-	-	-	-	-	-
Maine	22	(D)	-	-	-	-	22	238	-	-	1	(D)
Maryland	2	(D)	-	-	-	-	2	(D)	-	-	-	-
Massachusetts	39	(D)	-	-	-	-	11	65	28	(D)	-	-
Michigan	43	2,221	-	-	-	-	43	2,141	5	85	-	-
Minnesota	-	-	-	-	-	-	-	-	-	-	-	-
Mississippi	-	-	-	-	-	-	-	-	-	-	-	-
Missouri	12	24	-	-	-	-	12	24	-	-	-	-
Montana	134	3,359	-	-	-	-	6	10	48	1,158	80	2,191
Nebraska	199	13,369	29	1,160	-	-	171	12,653	-	-	29	716
Nevada	16	20,862	-	-	-	-	11	712	5	20,150	-	-
New Hampshire	4	4	-	-	-	-	4	4	-	-	-	-
New Jersey	24	2,880	-	-	-	-	24	2,880	-	-	-	-
New Mexico	265	13,540	-	-	-	-	75	7,795	67	284	123	5,461
New York	-	-	-	-	-	-	-	-	-	-	-	-
North Carolina	-	-	-	-	-	-	-	-	-	-	-	-
North Dakota	7	282	6	142	-	-	7	282	-	-	1	(D)
Ohio	28	28	-	-	-	-	14	14	-	-	14	14
Oklahoma	130	6,265	-	-	-	-	90	6,215	-	-	40	50
Oregon	339	16,007	-	-	-	-	169	7,414	98	3,710	106	5,141
Pennsylvania	20	80	-	-	-	-	20	80	-	-	-	-
Rhode Island	8	(D)	-	-	-	-	6	9	-	-	2	(D)
South Carolina	26	(D)	-	-	-	-	1	(D)	25	(D)	-	-
South Dakota	4	4	-	-	-	-	4	4	-	-	-	-
Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Texas	634	211,492	85	42,639	15	23,100	559	182,018	26	189	49	29,285
Utah	276	13,747	-	-	-	-	44	5,245	21	2,100	211	6,402
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Virginia	1	(D)	-	-	-	-	-	-	1	(D)	-	-
Washington	166	6,201	7	1,750	-	-	32	4,548	5	100	129	1,553
West Virginia	-	-	-	-	-	-	-	-	-	-	-	-
Wisconsin	50	(D)	-	-	-	-	8	80	42	84	21	63
Wyoming	101	4,288	-	-	-	-	-	-	2	(D)	99	(D)
Water Resource Regions												
Region 01 New England	83	(D)	-	-	-	-	50	332	31	(D)	3	(D)
Region 02 Mid-Atlantic	51	3,343	-	-	-	-	50	(D)	1	(D)	-	-
Region 03 South Atlantic-Gulf	186	31,492	-	-	-	-	119	9,900	25	1,000	42	20,592
Region 04 Great Lakes	55	2,233	-	-	-	-	55	2,153	5	85	-	-
Region 05 Ohio	53	494	-	-	-	-	39	328	8	232	14	(D)
Region 06 Tennessee	-	-	-	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	97	(D)	-	-	-	-	53	496	44	138	21	63
Region 08 Lower Mississippi	2	(D)	-	-	-	-	2	(D)	-	-	-	-
Region 09 Souris-Red-Rainy	6	(D)	-	-	-	-	6	(D)	-	-	-	-
Region 10 Missouri	573	42,137	43	2,887	-	-	303	31,940	47	1,535	225	8,764
Region 11 Arkansas-White-Red	340	69,413	14	1,820	-	-	182	63,996	9	808	149	4,609
Region 12 Texas-Gulf	562	154,522	70	19,539	-	-	503	148,153	25	184	34	6,185
Region 13 Rio Grande	244	49,481	15	23,100	15	23,100	166	25,557	31	248	47	23,676
Region 14 Upper Colorado	413	10,415	-	-	-	-	-	-	100	795	313	9,620
Region 15 Lower Colorado	96	13,413	-	-	-	-	23	(D)	18	5,040	55	(D)
Region 16 Great Basin	195	28,776	-	-	-	-	52	(D)	26	22,250	117	(D)
Region 17 Pacific Northwest	638	41,645	7	1,750	-	-	225	28,430	105	5,014	337	8,329
Region 18 California	306	28,955	3	240	3	240	116	9,002	83	8,491	123	11,847
Region 19 Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	84	(D)	-	-	-	-	3	30	1	(D)	80	712

¹ Number of farms and acres may not equal total farms and acres because farms could report more than one source of water applied on the same acreage.

Table 41. Irrigated Items in the Open by Primary Method of Water Distribution - United States: 2023

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Irrigated item	All methods		Pressure systems		Gravity systems					
	Farms	Acres	Farms	Acres	Farms	Acres				
Corn for grain or seed	30,089	11,641,724	25,243	9,701,551	4,846	1,940,173				
Corn for silage or greenchop	6,819	1,909,521	4,297	1,252,923	2,522	656,598				
Sorghum for grain or seed	2,063	430,947	1,714	378,958	349	51,989				
Wheat for grain or seed	7,960	2,143,635	6,441	1,863,002	1,519	280,633				
Soybeans for beans	20,417	8,190,426	15,968	4,068,288	4,449	4,122,138				
Beans, dry edible	1,647	314,147	1,161	269,005	486	45,142				
Rice	3,550	2,268,904	70	45,644	3,480	2,223,260				
Other small grains (barley, oats, rye, etc.)	4,689	1,141,657	3,222	860,715	1,467	280,942				
Alfalfa and alfalfa mixtures (dry hay, greenchop, and silage)	39,673	5,408,531	22,149	3,368,679	17,524	2,039,852				
All other hay (dry hay, greenchop, and silage)	25,421	3,196,249	13,110	1,509,007	12,311	1,687,242				
Peanuts	1,875	540,245	1,815	514,215	60	26,030				
Cotton	5,397	2,584,479	4,015	1,625,955	1,382	958,524				
Land in vegetables	23,547	2,986,059	21,379	2,657,770	2,168	328,289				
Selected vegetables:										
Sweet corn	5,639	316,789	5,135	286,149	504	30,640				
Tomatoes in the open	9,200	394,318	8,626	378,905	574	15,413				
Lettuce and romaine	5,352	309,785	4,968	230,257	384	79,527				
Potatoes, excluding sweet potatoes	5,661	920,681	5,386	916,235	275	4,446				
All berries	11,008	246,361	10,367	232,604	641	13,757				
Land in orchards, vineyards, and nut trees	48,784	5,105,937	42,735	4,756,489	6,049	349,449				
Nursery and other horticultural crops	17,491	598,980	16,922	582,360	569	16,619				
All other crops	6,890	1,452,288	5,720	773,753	1,170	678,535				
Irrigated pastureland, all types	38,715	3,043,010	18,156	999,499	20,559	2,043,511				
All other irrigated land types such as failed cropland, idle land, and land in summer fallow (see text)	3,984	482,367	2,866	356,831	1,118	125,536				
	Pressure irrigation distribution systems ¹									
Irrigated item	Hand move		Solid or permanent set		Side roll or wheel line		Big gun		Low-flow irrigation (drip, trickle, or micro sprinklers)	
	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²
Corn for grain or seed	0.3	(Z)	0.3	0.5	0.6	0.2	1.3	0.1	1.2	0.3
Corn for silage or greenchop	0.7	(Z)	0.4	0.5	1.0	0.9	4.7	2.0	1.4	0.9
Sorghum for grain or seed	0.1	(D)	1.1	0.2	1.4	0.1	1.1	(D)	3.4	3.5
Wheat for grain or seed	0.1	(Z)	0.7	0.3	6.3	3.3	1.5	0.2	2.2	1.2
Soybeans for beans	0.1	(Z)	0.5	0.3	0.6	0.1	1.3	0.2	1.0	0.2
Beans, dry edible	2.4	0.2	2.4	0.7	5.0	3.2	0.5	0.3	7.6	4.9
Rice	0.4	0.5	-	-	-	-	-	-	-	-
Other small grains (barley, oats, rye, etc.)	3.4	0.3	1.4	2.7	12.3	4.5	3.1	0.9	0.7	0.6
Alfalfa and alfalfa mixtures (dry hay, greenchop, and silage)	5.8	0.4	1.1	0.5	15.8	8.8	1.9	0.8	0.7	1.2
All other hay (dry hay, greenchop, and silage)	6.8	1.0	2.8	1.1	11.3	4.2	3.9	1.6	1.0	0.4
Peanuts	-	-	0.2	0.1	1.4	0.3	1.5	0.5	4.9	2.5
Cotton	-	-	0.9	0.2	0.5	(D)	(Z)	(D)	9.4	7.7
Land in vegetables	18.9	0.5	4.5	4.6	1.2	1.7	2.9	2.1	50.4	32.4
Selected vegetables:										
Sweet corn	20.5	0.5	6.4	0.9	0.9	1.2	9.4	7.3	37.3	3.7
Tomatoes in the open	19.2	0.2	4.5	1.1	(Z)	(D)	1.3	0.2	63.8	93.7
Lettuce and romaine	17.4	5.5	6.0	7.1	0.7	(D)	1.4	(D)	60.5	52.8
Potatoes, excluding sweet potatoes	18.6	0.4	6.3	0.7	0.5	3.3	3.0	0.7	44.0	1.8
All berries	12.6	1.7	15.4	28.1	0.3	0.1	0.9	1.8	60.6	58.6
Land in orchards, vineyards, and nut trees	5.8	0.2	11.1	10.0	0.2	0.1	0.3	0.1	67.9	81.8
Nursery and other horticultural crops	26.6	3.5	12.8	11.2	1.6	5.0	3.0	8.9	43.9	27.9
All other crops	12.2	0.3	4.9	0.9	5.5	5.2	6.0	5.2	29.8	6.8
Irrigated pastureland, all types	15.2	1.8	7.2	0.9	7.3	3.9	4.1	1.9	1.5	7.6
All other irrigated land types such as failed cropland, idle land, and land in summer fallow (see text)	7.1	0.2	6.9	1.1	5.9	2.1	3.4	2.4	14.9	4.5

See footnote(s) at end of table.

--continued

Table 41. Irrigated Items in the Open by Primary Method of Water Distribution - United States: 2023 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Irrigated item	Pressure irrigation distribution systems ¹ - con.									
	Center pivot and linear move tower systems								Other pressure systems including hydroponic	
	Less than 15 psi		15 to 29 psi		30 to 59 psi		60 psi or more			
	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²
Corn for grain or seed	3.3	3.3	24.0	27.6	47.2	47.7	5.6	3.8	(Z)	(Z)
Corn for silage or greenchop	7.0	7.9	16.6	21.3	26.7	28.1	4.2	4.4	0.3	(Z)
Sorghum for grain or seed	24.0	22.7	36.9	50.9	14.5	10.6	0.5	0.1	-	-
Wheat for grain or seed	9.5	9.0	29.3	38.4	26.7	30.0	4.3	4.4	0.3	0.1
Soybeans for beans	2.1	0.8	19.7	12.4	47.5	32.8	5.2	2.8	(Z)	(Z)
Beans, dry edible	3.1	3.8	11.4	22.9	35.0	44.4	3.0	5.3	-	-
Rice	-	-	-	-	1.1	0.8	0.4	0.8	-	-
Other small grains (barley, oats, rye, etc.)	2.8	2.3	18.1	27.4	23.1	29.6	3.3	6.9	0.5	0.2
Alfalfa and alfalfa mixtures (dry hay, greenchop, and silage)	1.9	3.6	8.9	13.8	16.4	28.0	3.3	5.2	0.1	(Z)
All other hay (dry hay, greenchop, and silage)	3.8	6.0	9.0	15.7	11.0	14.5	1.7	2.8	0.5	(Z)
Peanuts	3.5	4.7	27.1	35.1	53.9	50.2	4.4	1.6	-	-
Cotton	14.1	12.7	21.8	23.4	23.3	16.8	4.4	2.0	-	-
Land in vegetables	0.9	1.6	3.0	15.8	6.1	22.9	1.8	6.7	1.0	0.8
Selected vegetables:										
Sweet corn	1.7	2.5	4.3	37.6	8.1	31.3	1.4	5.3	1.0	(Z)
Tomatoes in the open	0.4	(Z)	1.7	0.2	2.3	0.4	0.1	(D)	0.4	(D)
Lettuce and romaine	0.4	(Z)	2.4	0.5	2.0	(D)	0.4	1.1	1.7	3.7
Potatoes, excluding sweet potatoes	1.0	2.9	4.9	30.8	11.4	43.6	4.2	15.3	1.2	(Z)
All berries	0.6	0.8	0.6	0.3	1.5	0.7	0.2	0.5	1.4	1.8
Land in orchards, vineyards, and nut trees	0.3	(D)	0.8	0.2	0.5	0.4	(Z)	(D)	0.6	0.2
Nursery and other horticultural crops	0.6	1.0	1.8	12.7	2.9	21.1	0.5	3.9	3.0	2.0
All other crops	1.5	2.0	8.7	11.8	11.8	19.2	1.2	1.3	1.4	0.6
Irrigated pastureland, all types	1.5	1.8	2.6	5.6	5.5	8.9	0.6	0.3	1.4	0.2
All other irrigated land types such as failed cropland, idle land, and land in summer fallow (see text)	3.4	4.3	11.4	27.6	14.0	23.9	2.3	2.1	2.6	5.7
Irrigated item	Gravity irrigation distribution systems ¹									
	Down rows or furrows from unlined open ditches		Down rows or furrows from lined open ditches		Down rows or furrows from poly pipe, lay-flat tubing, or above or underground pipe		Controlled flooding within field borders from unlined open ditches			
	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²
Corn for grain or seed	1.7	1.3	0.8	0.4	12.9	14.6	0.5	0.2	0.5	0.2
Corn for silage or greenchop	9.2	8.5	3.3	3.6	11.3	6.5	4.1	4.7	4.1	4.7
Sorghum for grain or seed	4.2	0.8	1.6	0.5	8.5	9.8	1.2	0.1	1.2	0.1
Wheat for grain or seed	4.7	4.2	2.2	1.9	4.1	1.3	5.6	3.7	5.6	3.7
Soybeans for beans	0.9	1.5	0.1	0.1	20.4	48.6	0.2	0.1	0.2	0.1
Beans, dry edible	4.6	3.4	7.3	3.8	14.4	6.1	3.2	1.1	3.2	1.1
Rice	0.8	0.9	0.6	0.1	7.0	6.4	39.6	37.0	39.6	37.0
Other small grains (barley, oats, rye, etc.)	5.7	5.6	3.0	1.7	5.1	3.4	7.8	5.6	7.8	5.6
Alfalfa and alfalfa mixtures (dry hay, greenchop, and silage)	6.9	4.0	2.1	2.4	8.4	2.9	12.9	12.7	12.9	12.7
All other hay (dry hay, greenchop, and silage)	5.2	6.1	1.1	1.1	6.3	3.0	18.6	24.3	18.6	24.3
Peanuts	-	-	0.4	0.1	2.8	4.7	-	-	-	-
Cotton	3.9	2.8	3.8	3.8	15.6	27.3	0.5	2.1	0.5	2.1
Land in vegetables	1.9	3.1	1.4	4.2	3.8	2.4	0.7	0.5	0.7	0.5
Selected vegetables:										
Sweet corn	1.5	2.0	2.7	5.4	4.0	(D)	-	-	-	-
Tomatoes in the open	1.2	3.7	0.3	(Z)	3.7	(Z)	-	-	-	-
Lettuce and romaine	0.9	3.9	1.0	14.0	4.7	3.5	(Z)	(D)	(Z)	(D)
Potatoes, excluding sweet potatoes	0.8	0.3	0.1	(Z)	3.8	(Z)	0.1	0.1	0.1	0.1
All berries	0.6	(Z)	0.2	(Z)	2.5	0.2	1.5	2.7	1.5	2.7
Land in orchards, vineyards, and nut trees	1.5	0.7	0.7	0.7	3.1	1.5	2.9	1.0	2.9	1.0
Nursery and other horticultural crops	0.6	1.4	0.3	0.4	1.4	0.6	0.3	(Z)	0.3	(Z)
All other crops	4.5	6.2	1.9	2.8	5.3	6.6	2.4	14.5	2.4	14.5
Irrigated pastureland, all types	6.9	6.3	0.8	0.4	5.4	5.1	15.6	24.7	15.6	24.7
All other irrigated land types such as failed cropland, idle land, and land in summer fallow (see text)	5.2	7.9	0.1	(D)	8.3	2.7	6.0	9.3	6.0	9.3

See footnote(s) at end of table.

--continued

Table 41. Irrigated Items in the Open by Primary Method of Water Distribution - United States: 2023 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Irrigated item	Gravity irrigation distribution systems ¹ - con.									
	Controlled flooding within field borders from lined open ditches		Controlled flooding within field borders from poly pipe, lay-flat tubing, or above ground pipe		Controlled flooding within field borders from underground pipe		Uncontrolled flooding of rangeland, pastureland, etc. including open discharge from well or pump		Other gravity systems	
	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²	Percent of farms	Percent of acres ²
Corn for grain or seed	0.3	0.1	(Z)	(Z)	-	-	-	-	(Z)	(Z)
Corn for silage or greenchop	3.5	2.9	1.3	1.5	4.2	6.7	-	-	-	-
Sorghum for grain or seed	-	-	0.2	0.7	1.3	0.2	-	-	-	-
Wheat for grain or seed	2.0	1.7	(Z)	(D)	0.1	(D)	0.4	0.1	-	-
Soybeans for beans	0.1	(Z)	0.1	(Z)	-	-	-	-	(Z)	(Z)
Beans, dry edible	-	-	-	-	-	-	-	-	-	-
Rice	6.9	5.8	23.3	28.1	19.2	18.9	0.5	0.8	-	-
Other small grains (barley, oats, rye, etc.)	4.4	2.8	2.2	2.6	1.9	2.8	1.2	0.3	-	-
Alfalfa and alfalfa mixtures (dry hay, greenchop, and silage)	5.1	8.7	2.6	1.5	1.8	2.3	3.6	2.3	0.8	0.8
All other hay (dry hay, greenchop, and silage)	2.7	3.3	3.2	1.2	1.4	2.5	8.8	10.5	1.1	0.8
Peanuts	-	-	-	-	-	-	-	-	-	-
Cotton	1.1	0.5	0.6	0.6	-	-	-	-	-	-
Land in vegetables	0.4	0.4	0.2	(Z)	0.6	0.1	0.2	(D)	0.2	(D)
Selected vegetables:										
Sweet corn	-	-	(Z)	(D)	0.4	(Z)	-	-	0.2	(D)
Tomatoes in the open	-	-	0.3	(Z)	0.6	0.2	0.1	(Z)	0.1	(Z)
Lettuce and romaine	0.4	(D)	-	-	-	-	0.1	(Z)	-	-
Potatoes, excluding sweet potatoes	-	-	0.1	(Z)	-	-	-	-	-	-
All berries	0.4	1.7	0.2	0.1	0.2	0.7	-	-	0.3	0.2
Land in orchards, vineyards, and nut trees	0.8	0.6	0.8	0.7	2.1	1.4	0.3	0.2	0.2	(Z)
Nursery and other horticultural crops	0.1	0.2	(Z)	0.1	(Z)	(Z)	0.1	(Z)	0.4	(Z)
All other crops	0.9	2.3	(Z)	(D)	1.3	(D)	-	-	0.6	13.3
Irrigated pastureland, all types	2.8	1.6	2.1	0.9	1.9	2.1	16.3	25.0	1.2	1.1
All other irrigated land types such as failed cropland, idle land, and land in summer fallow (see text)	0.7	(D)	0.2	(Z)	1.5	1.5	5.6	3.0	0.6	(Z)

¹ For each irrigated crop, percentages are calculated by evaluating each primary method as a percentage of all primary methods.

² The sum of percent acres irrigated across systems for a crop may not add to 100 percent.

Table 42. Water Management Practices Used by Producers with Gravity Systems for Acres in the Open: 2023 and 2018

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All farms	Acres irrigated ¹	Utilized computer software for planning gravity irrigation systems (see text)	Any water management practice used		Water management practice used	
				Farms	Acres irrigated ^{2 3}	Tailwater pits, diking, time limits, or alternative row irrigation	
						Farms	Acres irrigated
United States .....2023 2018	67,994 85,888	18,265,880 20,187,048	1,631 (NA)	19,190 25,799	7,178,217 (NA)	11,743 16,720	2,682,978 2,834,636
2023 DATA							
Alabama	56	2,645	-	1	(D)	-	-
Alaska	22	71	-	8	50	4	4
Arizona	1,867	693,836	41	747	501,667	264	137,158
Arkansas	2,259	4,306,198	352	651	1,152,906	360	349,098
California	10,642	2,948,897	209	3,618	1,734,788	2,265	761,633
Colorado	9,814	1,121,454	136	2,476	250,942	1,740	167,204
Connecticut	26	76	-	8	8	-	-
Delaware	9	1,260	-	2	(D)	-	-
Florida	570	447,391	39	147	104,870	115	18,432
Georgia	164	1,008	-	10	10	-	-
Hawaii	197	3,093	1	69	235	19	171
Idaho	5,925	550,086	6	1,713	183,707	1,127	83,988
Illinois	104	4,832	-	29	2,955	14	980
Indiana	44	4,075	-	10	10	-	-
Iowa	63	123	-	-	-	-	-
Kansas	598	47,296	6	311	36,411	285	20,895
Kentucky	47	82	-	14	28	-	-
Louisiana	1,287	1,220,292	95	349	539,851	158	166,526
Maine	31	31	-	-	-	-	-
Maryland	30	54	-	5	10	5	5
Massachusetts	213	4,855	9	82	1,577	46	887
Michigan	194	392	-	56	74	18	18
Minnesota	84	11,160	-	4	8,000	-	-
Mississippi	1,085	1,516,326	289	296	617,335	122	132,315
Missouri	881	920,038	96	392	567,137	92	67,354
Montana	3,945	855,611	-	654	137,524	539	88,517
Nebraska	3,957	485,241	157	2,033	273,995	1,614	171,721
Nevada	1,156	563,060	32	319	159,797	65	44,320
New Hampshire	21	191	-	3	(D)	3	(D)
New Jersey	61	5,115	-	25	1,839	25	1,659
New Mexico	5,800	290,530	8	1,556	98,774	622	18,236
New York	264	2,809	-	59	726	23	690
North Carolina	80	206	-	-	-	-	-
North Dakota	76	19,676	5	38	13,321	22	3,790
Ohio	46	792	-	18	554	-	-
Oklahoma	122	20,645	-	4	364	-	-
Oregon	2,980	309,870	-	494	54,808	425	34,051
Pennsylvania	113	1,249	-	6	6	-	-
Rhode Island	7	318	-	2	(D)	2	(D)
South Carolina	138	428	-	24	24	-	-
South Dakota	198	12,410	-	32	922	-	-
Tennessee	82	2,279	6	57	6,814	6	2,100
Texas	2,568	582,926	50	690	405,041	284	268,031
Utah	5,411	405,148	22	1,260	121,910	836	39,137
Vermont	49	847	-	11	48	-	-
Virginia	34	42	-	9	9	9	9
Washington	739	72,791	20	175	40,153	104	15,459
West Virginia	39	184	-	23	80	-	-
Wisconsin	313	12,202	21	105	6,174	84	2,163
Wyoming	3,583	815,739	31	595	151,252	446	86,114
Water Resource Regions							
Region 01 New England	313	6,174	9	103	1,916	51	1,200
Region 02 Mid-Atlantic	418	10,476	-	106	2,598	62	2,363
Region 03 South Atlantic-Gulf	968	451,758	39	182	106,088	115	18,432
Region 04 Great Lakes	395	5,451	-	63	650	18	18
Region 05 Ohio	169	552	-	87	236	-	-
Region 06 Tennessee	106	131	-	25	50	-	-
Region 07 Upper Mississippi	556	27,153	33	158	12,849	98	3,143
Region 08 Lower Mississippi	4,785	7,330,622	758	1,460	2,602,151	681	658,567
Region 09 Souris-Red-Rainy	30	8,469	-	9	8,005	5	5
Region 10 Missouri	13,005	2,064,836	186	3,835	605,635	2,984	376,412
Region 11 Arkansas-White-Red	2,870	949,276	118	678	368,083	396	101,798
Region 12 Texas-Gulf	1,898	540,081	26	458	329,240	191	264,005
Region 13 Rio Grande	5,473	383,624	54	1,795	223,821	744	45,922
Region 14 Upper Colorado	7,889	897,710	77	1,888	121,674	1,331	96,170
Region 15 Lower Colorado	2,082	786,617	43	765	616,607	273	170,132
Region 16 Great Basin	5,719	908,247	54	1,485	281,601	812	82,895
Region 17 Pacific Northwest	10,272	982,403	26	2,399	272,951	1,691	129,357
Region 18 California	10,827	2,909,136	207	3,617	1,623,777	2,268	732,384
Region 19 Alaska	22	71	-	8	50	4	4
Region 20 Hawaii	197	3,093	1	69	235	19	171

See footnote(s) at end of table.

--continued

Table 42. Water Management Practices Used by Producers with Gravity Systems for Acres in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Water management practice used - con.					
	Surge flow (see text)		Cablegation (see text)		Mulch, or other types of row covers (see text)	
	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated
United States 2023	1,817	317,423	892	103,944	1,694	102,188
..... 2018	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
2023 DATA						
Alabama	-	-	-	-	-	-
Alaska	2	(D)	-	-	2	(D)
Arizona	9	10,440	-	-	38	5,660
Arkansas	86	60,902	34	31,898	16	1,543
California	239	34,058	150	31,332	332	23,980
Colorado	382	33,836	140	3,374	145	231
Connecticut	-	-	-	-	8	8
Delaware	-	-	-	-	2	(D)
Florida	8	13,680	3	4,200	81	17,390
Georgia	-	-	-	-	10	10
Hawaii	-	-	-	-	50	64
Idaho	188	25,511	136	971	109	4,342
Illinois	-	-	-	-	15	15
Indiana	-	-	-	-	10	10
Iowa	-	-	-	-	-	-
Kansas	6	618	-	-	20	40
Kentucky	-	-	7	(D)	14	(D)
Louisiana	16	6,720	-	-	-	-
Maine	-	-	-	-	-	-
Maryland	-	-	-	-	5	5
Massachusetts	8	(D)	-	-	37	(D)
Michigan	-	-	-	-	56	56
Minnesota	-	-	-	-	-	-
Mississippi	31	14,704	8	1,280	15	9,058
Missouri	53	34,923	-	-	61	143
Montana	39	4,300	21	(D)	2	(D)
Nebraska	308	20,133	78	12,059	54	4,809
Nevada	-	-	-	-	34	20,153
New Hampshire	-	-	-	-	3	3
New Jersey	-	-	-	-	-	-
New Mexico	157	7,178	68	6,288	196	10,508
New York	-	-	-	-	36	36
North Carolina	-	-	-	-	-	-
North Dakota	5	130	-	-	-	-
Ohio	-	-	-	-	14	14
Oklahoma	-	-	-	-	4	364
Oregon	26	4,092	-	-	66	1,238
Pennsylvania	-	-	-	-	6	6
Rhode Island	-	-	-	-	-	-
South Carolina	-	-	24	24	-	-
South Dakota	28	918	-	-	4	4
Tennessee	6	360	-	-	51	154
Texas	51	5,004	73	545	50	153
Utah	90	18,538	45	401	59	1,058
Vermont	4	4	-	-	11	44
Virginia	-	-	-	-	-	-
Washington	-	-	21	693	32	905
West Virginia	-	-	-	-	23	42
Wisconsin	-	-	-	-	21	63
Wyoming	75	21,314	84	10,032	2	(D)
Water Resource Regions						
Region 01 New England	12	(D)	-	-	56	(D)
Region 02 Mid-Atlantic	-	-	-	-	49	51
Region 03 South Atlantic-Gulf	8	13,680	27	4,224	91	17,400
Region 04 Great Lakes	-	-	-	-	59	92
Region 05 Ohio	-	-	7	7	87	191
Region 06 Tennessee	-	-	-	-	25	50
Region 07 Upper Mississippi	-	-	-	-	36	78
Region 08 Lower Mississippi	154	106,762	42	33,178	32	9,127
Region 09 Souris-Red-Rainy	-	-	-	-	-	-
Region 10 Missouri	528	48,132	183	22,931	119	4,967
Region 11 Arkansas-White-Red ...	105	17,424	44	1,936	53	1,938
Region 12 Texas-Gulf	51	5,004	50	453	50	153
Region 13 Rio Grande	130	17,799	89	6,378	184	10,434
Region 14 Upper Colorado	272	16,779	98	1,440	130	296
Region 15 Lower Colorado	9	10,440	-	-	41	5,684
Region 16 Great Basin	69	17,278	45	401	89	21,127
Region 17 Pacific Northwest	238	30,003	157	1,664	209	6,489
Region 18 California	239	34,058	150	31,332	332	23,980
Region 19 Alaska	2	(D)	-	-	2	(D)
Region 20 Hawaii	-	-	-	-	50	64

See footnote(s) at end of table.

--continued

Table 42. Water Management Practices Used by Producers with Gravity Systems for Acres in the Open: 2023 and 2018 (continued)

[Excludes area under protection and institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Water management practice used - con.						
	Precision-leveling, including zero-grade				Shorter furrow length, PAM, or special furrow practices		
	Any precision-leveling ¹ (see text)		Zero grade (see text)				
	Farms	Acres irrigated	Farms	Acres irrigated	Farms	Acres irrigated	
United States	2023 2018	6,963 9,070	3,275,860 3,417,886	1,911 (NA)	693,497 (NA)	1,981 3,572	695,824 798,454
2023 DATA							
Alabama		1	(D)	-	-	-	-
Alaska		-	-	-	-	-	-
Arizona		622	283,384	250	114,234	95	65,025
Arkansas		440	606,929	194	97,056	108	102,536
California		1,976	735,026	666	191,811	434	148,759
Colorado		161	26,409	-	-	266	19,888
Connecticut		-	-	-	-	-	-
Delaware		2	(D)	2	(D)	-	-
Florida		99	40,550	21	25,080	44	10,618
Georgia		-	-	-	-	-	-
Hawaii		-	-	-	-	-	-
Idaho		202	19,168	-	-	285	49,727
Illinois		14	980	-	-	14	980
Indiana		-	-	-	-	-	-
Iowa		-	-	-	-	-	-
Kansas		87	8,740	20	120	32	6,118
Kentucky		-	-	-	-	-	-
Louisiana		332	342,396	166	138,927	32	24,209
Maine		-	-	-	-	-	-
Maryland		-	-	-	-	-	-
Massachusetts		20	628	-	-	-	-
Michigan		-	-	-	-	-	-
Minnesota		4	8,000	-	-	-	-
Mississippi		271	349,320	28	20,726	82	110,658
Missouri		294	446,373	46	57,326	31	18,344
Montana		129	30,426	3	(D)	63	13,437
Nebraska		223	62,456	-	-	86	2,817
Nevada		268	95,324	10	7,265	-	-
New Hampshire		3	3	-	-	-	-
New Jersey		5	180	5	180	-	-
New Mexico		833	50,464	223	12,377	4	6,100
New York		-	-	-	-	-	-
North Carolina		-	-	-	-	-	-
North Dakota		28	7,561	6	2,496	7	1,840
Ohio		4	540	-	-	-	-
Oklahoma		-	-	-	-	-	-
Oregon		58	5,582	5	1,600	75	9,845
Pennsylvania		-	-	-	-	-	-
Rhode Island		-	-	-	-	-	-
South Carolina		-	-	-	-	-	-
South Dakota		-	-	-	-	-	-
Tennessee		6	2,100	-	-	6	2,100
Texas		265	80,983	133	18,604	66	50,325
Utah		526	62,292	66	3,124	22	484
Vermont		-	-	-	-	-	-
Virginia		-	-	-	-	-	-
Washington		-	-	-	-	71	23,096
West Virginia		-	-	-	-	19	38
Wisconsin		42	1,974	42	1,974	42	1,974
Wyoming		48	(D)	25	497	97	26,906
Water Resource Regions							
Region 01 New England		23	631	-	-	-	-
Region 02 Mid-Atlantic		7	184	7	184	-	-
Region 03 South Atlantic-Gulf		100	41,734	21	25,080	44	10,618
Region 04 Great Lakes		4	540	-	-	-	-
Region 05 Ohio		-	-	-	-	19	38
Region 06 Tennessee		-	-	-	-	-	-
Region 07 Upper Mississippi		80	6,674	42	1,974	56	2,954
Region 08 Lower Mississippi		1,185	1,547,144	414	305,126	233	247,373
Region 09 Souris-Red-Rainy		4	8,000	-	-	-	-
Region 10 Missouri		453	107,785	34	3,089	309	45,408
Region 11 Arkansas-White-Red		225	226,339	40	9,029	68	18,648
Region 12 Texas-Gulf		126	51,465	46	2,944	51	8,160
Region 13 Rio Grande		974	83,153	279	27,944	54	60,135
Region 14 Upper Colorado		130	1,435	31	93	165	5,554
Region 15 Lower Colorado		635	355,326	258	151,158	99	75,025
Region 16 Great Basin		814	159,416	76	10,389	22	484
Region 17 Pacific Northwest		238	22,770	5	1,600	431	82,668
Region 18 California		1,965	663,264	658	154,887	430	138,759
Region 19 Alaska		-	-	-	-	-	-
Region 20 Hawaii		-	-	-	-	-	-

¹ Multiple systems covering the same acreage are counted each time they cover the acres. This includes multiple systems of the same type.
² More than one technique may have been used on an irrigated acre during the survey year resulting in double counting.
³ 2018 data grouped surge flow, cablegation, mulch, and other row covers as a singular practice.
⁴ Includes zero grade leveling.

Table 43. Irrigated Horticultural Operations: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Operations ¹	Area in the open			Area under protection		
		Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated
United States .....2023	36,902	17,491	669,610	598,980	26,716	1,721,886,383	1,721,886,383
.....2018	33,848	15,623	699,068	581,936	24,876	1,525,130,873	1,525,130,873
2023 DATA							
Alabama	372	215	18,398	17,404	260	12,859,190	12,859,190
Alaska	319	93	213	213	251	1,627,816	1,627,816
Arizona	276	176	10,510	10,510	181	21,992,426	21,992,426
Arkansas	216	94	6,082	5,282	148	5,447,084	5,447,084
California	3,292	1,903	38,907	38,776	2,047	363,330,842	363,330,842
Colorado	899	470	14,171	14,147	556	18,382,301	18,382,301
Connecticut	442	162	2,439	2,202	368	24,099,129	24,099,129
Delaware	47	24	2,116	2,116	36	1,322,428	1,322,428
Florida	3,067	2,209	98,397	96,419	1,667	378,982,374	378,982,374
Georgia	625	303	26,795	26,561	465	16,878,623	16,878,623
Hawaii	853	464	1,773	(D)	519	28,096,748	28,096,748
Idaho	497	286	9,151	8,805	287	2,421,911	2,421,911
Illinois	734	426	11,805	10,028	574	25,293,626	25,293,626
Indiana	626	235	3,696	2,816	544	16,455,770	16,455,770
Iowa	362	72	4,007	3,065	323	11,172,960	11,172,960
Kansas	340	126	6,655	6,559	258	6,600,028	6,600,028
Kentucky	816	195	2,009	1,827	710	9,170,047	9,170,047
Louisiana	341	199	5,087	4,826	253	14,312,290	14,312,290
Maine	387	94	1,113	945	332	5,257,816	5,257,816
Maryland	411	162	15,315	12,163	335	13,938,928	13,938,928
Massachusetts	543	179	2,290	1,820	401	10,798,622	10,798,622
Michigan	2,091	808	28,411	24,987	1,615	141,161,153	141,161,153
Minnesota	626	222	11,406	6,546	483	16,470,436	16,470,436
Mississippi	247	105	3,431	3,404	193	5,535,045	5,535,045
Missouri	665	260	8,224	7,155	573	12,075,602	12,075,602
Montana	387	157	2,411	2,411	312	2,997,212	2,997,212
Nebraska	291	131	5,666	5,570	206	3,396,228	3,396,228
Nevada	113	53	513	(D)	80	674,134	674,134
New Hampshire	270	103	470	467	245	5,548,723	5,548,723
New Jersey	618	334	17,973	16,838	436	41,977,776	41,977,776
New Mexico	330	105	(D)	(D)	287	2,987,464	2,987,464
New York	1,810	716	29,933	18,951	1,446	46,271,926	46,271,926
North Carolina	1,468	731	17,680	14,977	1,202	33,056,546	33,056,546
North Dakota	64	19	(D)	(D)	53	653,150	653,150
Ohio	1,322	507	21,334	9,437	1,046	65,745,243	65,745,243
Oklahoma	227	90	14,317	14,299	164	5,305,060	5,305,060
Oregon	1,952	1,317	55,698	50,845	1,092	69,493,438	69,493,438
Pennsylvania	1,557	385	6,843	3,677	1,367	53,793,143	53,793,143
Rhode Island	159	71	3,309	3,250	132	1,797,847	1,797,847
South Carolina	561	277	23,340	21,346	432	6,301,189	6,301,189
South Dakota	137	50	767	(D)	116	2,182,771	2,182,771
Tennessee	720	258	11,717	8,183	527	10,027,549	10,027,549
Texas	1,205	778	70,246	69,653	653	125,179,812	125,179,812
Utah	274	169	3,714	3,702	179	7,309,038	7,309,038
Vermont	348	78	191	139	335	3,389,171	3,389,171
Virginia	738	326	15,500	9,301	631	22,777,843	22,777,843
Washington	1,536	899	15,250	14,787	878	22,191,094	22,191,094
West Virginia	391	36	356	(D)	374	3,062,923	3,062,923
Wisconsin	1,173	394	8,869	8,180	998	21,662,418	21,662,418
Wyoming	157	25	305	305	146	421,490	421,490
Water Resource Regions							
Region 01 New England	1,902	618	9,628	8,691	1,574	48,060,313	48,060,313
Region 02 Mid-Atlantic	3,973	1,591	83,157	59,922	3,156	154,628,160	154,628,160
Region 03 South Atlantic-Gulf	6,121	3,715	187,187	179,571	4,101	453,114,544	453,114,544
Region 04 Great Lakes	3,948	1,362	37,870	30,440	3,236	219,295,359	219,295,359
Region 05 Ohio	3,113	889	26,909	13,789	2,681	60,263,258	60,263,258
Region 06 Tennessee	734	347	4,702	4,099	531	7,601,730	7,601,730
Region 07 Upper Mississippi	2,593	1,078	36,391	28,108	2,079	54,232,136	54,232,136
Region 08 Lower Mississippi	534	289	10,364	9,326	383	17,662,010	17,662,010
Region 09 Souris-Red-Rainy	79	19	(D)	(D)	63	1,732,290	1,732,290
Region 10 Missouri	1,836	745	25,619	24,691	1,416	40,101,510	40,101,510
Region 11 Arkansas-White-Red	833	317	25,464	24,465	635	17,229,218	17,229,218
Region 12 Texas-Gulf	1,126	768	70,066	69,489	579	115,153,432	115,153,432
Region 13 Rio Grande	323	112	(D)	(D)	286	10,149,020	10,149,020
Region 14 Upper Colorado	422	184	13,938	13,938	274	4,286,644	4,286,644
Region 15 Lower Colorado	360	193	10,718	10,718	259	22,748,554	22,748,554
Region 16 Great Basin	300	195	4,198	4,185	179	7,032,422	7,032,422
Region 17 Pacific Northwest	4,218	2,606	81,284	75,623	2,445	95,321,425	95,321,425
Region 18 California	3,315	1,906	38,900	38,769	2,069	363,549,794	363,549,794
Region 19 Alaska	319	93	213	213	251	1,627,816	1,627,816
Region 20 Hawaii	853	464	1,773	(D)	519	28,096,748	28,096,748

¹ Respondents can report irrigation for both acres in the open and area under protection.

Table 44. Irrigated Horticultural Operations by Selected Crops Irrigated: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Floriculture and bedding crops					
	In the open			Under protection		
	Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated
United States 2023	7,110	35,143	33,884	14,215	891,916,589	891,916,589
..... 2018	5,427	32,703	30,448	12,439	737,445,195	737,445,195
2023 DATA						
Alabama	40	85	85	74	6,658,800	6,658,800
Alaska	84	156	156	114	1,007,196	1,007,196
Arizona	36	145	145	44	9,045,200	9,045,200
Arkansas	41	(D)	(D)	62	2,387,914	2,387,914
California	840	8,297	8,277	860	152,815,228	152,815,228
Colorado	164	1,939	1,939	233	9,050,902	9,050,902
Connecticut	96	345	345	224	15,470,020	15,470,020
Delaware	12	(D)	(D)	29	136,396	136,396
Florida	434	3,684	3,683	926	264,709,439	264,709,439
Georgia	99	198	198	220	5,927,955	5,927,955
Hawaii	165	274	274	371	21,848,960	21,848,960
Idaho	110	(D)	(D)	129	1,453,594	1,453,594
Illinois	229	1,007	992	317	15,184,606	15,184,606
Indiana	140	271	263	270	10,243,138	10,243,138
Iowa	39	(D)	(D)	198	9,621,628	9,621,628
Kansas	66	73	73	145	5,245,948	5,245,948
Kentucky	84	105	105	352	2,584,722	2,584,722
Louisiana	67	458	458	75	2,859,826	2,859,826
Maine	71	(D)	(D)	191	815,909	815,909
Maryland	75	148	148	212	4,873,594	4,873,594
Massachusetts	54	338	338	251	5,082,124	5,082,124
Michigan	423	690	676	1,150	120,365,541	120,365,541
Minnesota	112	107	107	258	9,483,356	9,483,356
Mississippi	38	(D)	(D)	82	1,290,340	1,290,340
Missouri	155	596	412	296	6,963,140	6,963,140
Montana	64	76	76	161	1,588,658	1,588,658
Nebraska	35	25	25	148	1,379,997	1,379,997
Nevada	36	20	20	15	156,212	156,212
New Hampshire	69	94	94	145	2,912,682	2,912,682
New Jersey	91	3,155	3,155	253	6,405,652	6,405,652
New Mexico	62	(D)	(D)	153	1,702,720	1,702,720
New York	454	1,278	1,278	1,062	23,638,765	23,638,765
North Carolina	197	1,019	959	478	15,417,792	15,417,792
North Dakota	12	12	12	35	578,290	578,290
Ohio	280	450	450	629	26,151,743	26,151,743
Oklahoma	18	224	224	65	2,461,560	2,461,560
Oregon	429	2,488	1,888	457	16,967,214	16,967,214
Pennsylvania	233	863	647	813	20,810,873	20,810,873
Rhode Island	25	39	39	82	750,999	750,999
South Carolina	90	485	485	231	2,224,815	2,224,815
South Dakota	22	15	15	61	1,789,091	1,789,091
Tennessee	69	118	118	278	6,351,283	6,351,283
Texas	284	1,413	1,372	354	32,889,736	32,889,736
Utah	76	154	154	113	5,180,950	5,180,950
Vermont	53	(D)	(D)	153	1,936,575	1,936,575
Virginia	170	176	176	344	9,299,112	9,299,112
Washington	377	1,231	1,147	363	11,694,234	11,694,234
West Virginia	10	8	8	233	1,725,987	1,725,987
Wisconsin	268	639	639	475	12,652,181	12,652,181
Wyoming	12	(D)	(D)	31	123,992	123,992
Water Resource Regions						
Region 01 New England	319	902	898	942	25,192,702	25,192,702
Region 02 Mid-Atlantic	792	4,759	4,543	1,960	49,606,023	49,606,023
Region 03 South Atlantic-Gulf	859	5,437	5,375	1,976	295,949,513	295,949,513
Region 04 Great Lakes	770	1,669	1,651	2,133	149,882,919	149,882,919
Region 05 Ohio	486	915	906	1,484	35,404,680	35,404,680
Region 06 Tennessee	121	(D)	(D)	287	5,544,572	5,544,572
Region 07 Upper Mississippi	608	1,700	1,685	1,131	34,115,627	34,115,627
Region 08 Lower Mississippi	108	528	522	140	4,826,021	4,826,021
Region 09 Souris-Red-Rainy	17	25	25	42	1,611,340	1,611,340
Region 10 Missouri	309	(D)	(D)	706	26,034,662	26,034,662
Region 11 Arkansas-White-Red	114	735	556	318	8,984,098	8,984,098
Region 12 Texas-Gulf	277	1,410	1,370	309	31,868,636	31,868,636
Region 13 Rio Grande	60	38	38	135	1,120,500	1,120,500
Region 14 Upper Colorado	83	(D)	(D)	97	1,099,820	1,099,820
Region 15 Lower Colorado	39	146	146	59	9,185,948	9,185,948
Region 16 Great Basin	99	168	168	105	5,088,832	5,088,832
Region 17 Pacific Northwest	954	3,908	3,224	1,044	30,728,640	30,728,640
Region 18 California	846	8,298	8,278	862	152,815,900	152,815,900
Region 19 Alaska	84	156	156	114	1,007,196	1,007,196
Region 20 Hawaii	165	274	274	371	21,848,960	21,848,960

--continued

Table 44. Irrigated Horticultural Operations by Selected Crops Irrigated: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Nursery crops					
	In the open			Under protection		
	Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated
United States 2023	9,068	276,710	250,673	5,835	478,738,824	478,738,824
..... 2018	8,333	245,928	198,995	5,262	503,183,006	503,183,006
2023 DATA						
Alabama	95	1,091	842	104	5,838,740	5,838,740
Alaska	12	(D)	(D)	24	43,500	43,500
Arizona	106	5,810	5,810	64	7,701,426	7,701,426
Arkansas	34	254	254	33	2,547,610	2,547,610
California	936	17,455	17,453	715	112,020,106	112,020,106
Colorado	236	4,485	4,461	91	4,310,420	4,310,420
Connecticut	75	1,225	1,144	58	6,558,213	6,558,213
Delaware	13	329	324	7	425,000	425,000
Florida	1,594	51,359	50,735	695	93,442,345	93,442,345
Georgia	191	10,291	10,284	89	5,484,623	5,484,623
Hawaii	221	1,204	1,190	139	5,047,024	5,047,024
Idaho	152	4,684	4,537	54	374,755	374,755
Illinois	167	7,526	7,382	78	2,595,600	2,595,600
Indiana	92	(D)	578	90	1,317,710	1,317,710
Iowa	28	629	629	41	220,258	220,258
Kansas	45	238	208	39	170,528	170,528
Kentucky	71	661	661	64	995,258	995,258
Louisiana	152	3,299	3,053	117	9,123,206	9,123,206
Maine	17	238	238	57	93,263	93,263
Maryland	73	7,297	5,209	65	7,110,392	7,110,392
Massachusetts	64	1,472	1,202	15	(D)	(D)
Michigan	316	13,690	12,963	199	5,485,660	5,485,660
Minnesota	103	3,293	2,809	68	1,790,708	1,790,708
Mississippi	48	585	565	39	2,677,020	2,677,020
Missouri	82	1,396	986	88	1,754,200	1,754,200
Montana	85	379	379	40	358,068	358,068
Nebraska	60	1,796	1,796	69	320,403	320,403
Nevada	19	23	22	10	128,201	128,201
New Hampshire	45	347	347	52	1,022,840	1,022,840
New Jersey	216	7,343	6,208	124	32,813,174	32,813,174
New Mexico	65	1,617	1,585	43	562,300	562,300
New York	367	22,431	16,307	203	3,018,192	3,018,192
North Carolina	355	4,429	3,509	391	8,703,864	8,703,864
North Dakota	6	21	21	11	14,250	14,250
Ohio	257	9,104	5,193	196	15,010,340	15,010,340
Oklahoma	20	53	53	46	816,295	816,295
Oregon	810	39,038	36,441	416	37,185,178	37,185,178
Pennsylvania	113	1,993	1,136	157	4,780,924	4,780,924
Rhode Island	48	486	486	36	613,860	613,860
South Carolina	211	9,575	8,514	81	727,306	727,306
South Dakota	29	77	59	17	82,096	82,096
Tennessee	143	5,205	2,657	110	891,679	891,679
Texas	368	18,076	17,882	176	73,453,494	73,453,494
Utah	95	729	729	30	1,054,108	1,054,108
Vermont	36	52	50	44	(D)	(D)
Virginia	146	1,529	1,438	171	9,448,700	9,448,700
Washington	467	9,706	9,646	174	6,022,050	6,022,050
West Virginia	20	45	(D)	53	39,008	39,008
Wisconsin	151	3,310	2,639	140	4,083,909	4,083,909
Wyoming	13	38	38	12	29,500	29,500
Water Resource Regions						
Region 01 New England	254	3,772	3,421	244	8,697,776	8,697,776
Region 02 Mid-Atlantic	791	39,981	30,210	535	57,040,025	57,040,025
Region 03 South Atlantic-Gulf	2,479	77,298	74,417	1,401	116,418,763	116,418,763
Region 04 Great Lakes	575	20,862	16,947	417	21,677,162	21,677,162
Region 05 Ohio	387	9,171	5,028	415	6,536,375	6,536,375
Region 06 Tennessee	143	907	907	109	192,521	192,521
Region 07 Upper Mississippi	449	14,443	13,244	311	4,884,105	4,884,105
Region 08 Lower Mississippi	155	3,431	3,185	122	10,104,055	10,104,055
Region 09 Souris-Red-Rainy	3	(D)	(D)	8	11,250	11,250
Region 10 Missouri	312	5,560	5,081	261	4,691,037	4,691,037
Region 11 Arkansas-White-Red	121	536	531	129	3,309,763	3,309,763
Region 12 Texas-Gulf	361	17,924	17,731	154	73,340,724	73,340,724
Region 13 Rio Grande	64	442	410	32	559,360	559,360
Region 14 Upper Colorado	101	3,369	3,369	49	1,553,100	1,553,100
Region 15 Lower Colorado	117	5,822	5,822	78	8,032,987	8,032,987
Region 16 Great Basin	93	736	735	23	815,868	815,868
Region 17 Pacific Northwest	1,491	53,786	50,982	667	43,762,843	43,762,843
Region 18 California	939	17,444	17,443	717	112,020,586	112,020,586
Region 19 Alaska	12	(D)	(D)	24	43,500	43,500
Region 20 Hawaii	221	1,204	1,190	139	5,047,024	5,047,024

--continued

Table 44. Irrigated Horticultural Operations by Selected Crops Irrigated: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Propagative materials					
	In the open			Under protection		
	Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated
United States 2023	1,510	18,225	18,107	5,844	157,693,851	157,693,851
..... 2018	1,614	79,509	78,401	4,566	121,086,223	121,086,223
2023 DATA						
Alabama	17	34	34	118	821,038	821,038
Alaska	7	(D)	(D)	91	56,490	56,490
Arizona	28	285	285	36	3,293,200	3,293,200
Arkansas	6	4	4	21	34,910	34,910
California	285	3,560	3,560	506	61,828,725	61,828,725
Colorado	42	290	290	90	1,762,915	1,762,915
Connecticut	24	(D)	(D)	105	1,041,079	1,041,079
Delaware	-	-	-	6	19,600	19,600
Florida	213	1,114	1,114	345	10,360,760	10,360,760
Georgia	59	41	41	197	5,774,255	5,774,255
Hawaii	75	69	69	45	524,244	524,244
Idaho	11	(D)	(D)	42	123,932	123,932
Illinois	44	31	31	177	522,470	522,470
Indiana	-	-	-	87	1,062,464	1,062,464
Iowa	1	(D)	(D)	24	314,810	314,810
Kansas	-	-	-	36	(D)	(D)
Kentucky	34	16	16	126	451,200	451,200
Louisiana	14	41	41	37	1,686,184	1,686,184
Maine	-	-	-	97	89,714	89,714
Maryland	11	(D)	(D)	57	834,068	834,068
Massachusetts	6	6	6	86	1,120,776	1,120,776
Michigan	48	26	26	445	13,849,414	13,849,414
Minnesota	17	25	25	21	(D)	(D)
Mississippi	5	83	83	17	118,848	118,848
Missouri	11	(D)	(D)	49	57,270	57,270
Montana	21	22	22	54	197,612	197,612
Nebraska	8	14	14	33	81,200	81,200
Nevada	6	1	1	16	33,403	33,403
New Hampshire	8	6	6	77	1,170,318	1,170,318
New Jersey	26	(D)	(D)	66	516,572	516,572
New Mexico	8	(D)	(D)	92	161,164	161,164
New York	-	-	-	366	8,698,089	8,698,089
North Carolina	4	29	29	247	7,521,450	7,521,450
North Dakota	-	-	-	7	11,000	11,000
Ohio	42	129	45	259	3,679,194	3,679,194
Oklahoma	10	46	28	60	348,435	348,435
Oregon	130	2,028	2,028	204	12,683,596	12,683,596
Pennsylvania	-	-	-	249	3,803,302	3,803,302
Rhode Island	5	(D)	(D)	26	120,695	120,695
South Carolina	1	(D)	(D)	167	836,860	836,860
South Dakota	2	(D)	(D)	4	1,200	1,200
Tennessee	18	20	20	150	493,732	493,732
Texas	39	32	32	175	4,760,804	4,760,804
Utah	24	37	37	36	294,080	294,080
Vermont	3	7	7	84	95,086	95,086
Virginia	10	(D)	(D)	136	693,272	693,272
Washington	145	1,582	1,565	131	2,551,642	2,551,642
West Virginia	-	-	-	91	564,608	564,608
Wisconsin	42	116	116	237	1,373,421	1,373,421
Wyoming	-	-	-	16	25,470	25,470
Water Resource Regions						
Region 01 New England	43	(D)	(D)	433	3,575,408	3,575,408
Region 02 Mid-Atlantic	47	843	843	634	13,940,883	13,940,883
Region 03 South Atlantic-Gulf	292	1,285	1,285	1,037	25,354,813	25,354,813
Region 04 Great Lakes	89	264	180	816	18,216,128	18,216,128
Region 05 Ohio	74	35	35	534	3,060,892	3,060,892
Region 06 Tennessee	24	(D)	(D)	180	355,930	355,930
Region 07 Upper Mississippi	72	(D)	(D)	425	2,431,911	2,431,911
Region 08 Lower Mississippi	14	41	41	47	1,660,814	1,660,814
Region 09 Souris-Red-Rainy	-	-	-	3	9,000	9,000
Region 10 Missouri	40	185	185	166	1,913,470	1,913,470
Region 11 Arkansas-White-Red	28	52	34	156	764,740	764,740
Region 12 Texas-Gulf	32	30	30	145	4,735,084	4,735,084
Region 13 Rio Grande	24	234	234	93	167,124	167,124
Region 14 Upper Colorado	1	(D)	(D)	40	56,350	56,350
Region 15 Lower Colorado	33	(D)	(D)	37	3,298,755	3,298,755
Region 16 Great Basin	19	(D)	(D)	47	318,628	318,628
Region 17 Pacific Northwest	305	3,647	3,630	409	15,424,462	15,424,462
Region 18 California	291	3,562	3,562	506	61,828,725	61,828,725
Region 19 Alaska	7	(D)	(D)	91	56,490	56,490
Region 20 Hawaii	75	69	69	45	524,244	524,244

--continued

Table 44. Irrigated Horticultural Operations by Selected Crops Irrigated: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Food crops grown under protection			Mushroom crops under protection		
	Operations	Square feet	Square feet irrigated	Operations	Square feet	Square feet irrigated
United States 2023	11,620	209,775,226	209,775,226	420	24,082,566	24,082,566
..... 2018	10,423	158,209,476	158,209,476	458	29,599,460	29,599,460
2023 DATA						
Alabama	141	874,772	874,772	-	-	-
Alaska	203	572,570	572,570	7	1,600	1,600
Arizona	81	2,072,000	2,072,000	-	-	-
Arkansas	78	655,030	655,030	4	2,750	2,750
California	495	44,353,598	44,353,598	69	4,661,800	4,661,800
Colorado	287	3,453,939	3,453,939	36	221,130	221,130
Connecticut	166	1,513,787	1,513,787	-	-	-
Delaware	10	763,432	763,432	-	-	-
Florida	273	14,998,870	14,998,870	-	-	-
Georgia	192	1,130,012	1,130,012	22	301,920	301,920
Hawaii	111	668,020	668,020	11	1,100	1,100
Idaho	155	496,647	496,647	3	7,200	7,200
Illinois	279	6,976,050	6,976,050	-	-	-
Indiana	310	4,041,112	4,041,112	12	18,000	18,000
Iowa	165	1,016,274	1,016,274	-	-	-
Kansas	163	976,192	976,192	-	-	-
Kentucky	453	5,393,347	5,393,347	-	-	-
Louisiana	65	703,110	703,110	-	-	-
Maine	243	4,212,690	4,212,690	-	-	-
Maryland	112	2,063,038	2,063,038	6	(D)	(D)
Massachusetts	179	4,616,474	4,616,474	-	-	-
Michigan	471	2,352,108	2,352,108	27	13,500	13,500
Minnesota	226	4,217,472	4,217,472	16	51,200	51,200
Mississippi	121	1,676,727	1,676,727	6	8,100	8,100
Missouri	356	3,401,262	3,401,262	-	-	-
Montana	181	877,414	877,414	2	(D)	(D)
Nebraska	106	1,633,168	1,633,168	-	-	-
Nevada	61	369,225	369,225	-	-	-
New Hampshire	106	978,718	978,718	-	-	-
New Jersey	144	2,625,714	2,625,714	-	-	-
New Mexico	194	522,832	522,832	9	75,408	75,408
New York	707	19,745,420	19,745,420	-	-	-
North Carolina	458	1,995,340	1,995,340	-	-	-
North Dakota	22	49,990	49,990	-	-	-
Ohio	491	21,815,466	21,815,466	-	-	-
Oklahoma	113	583,735	583,735	10	927,720	927,720
Oregon	366	3,697,530	3,697,530	10	760	760
Pennsylvania	571	9,298,974	9,298,974	56	15,000,870	15,000,870
Rhode Island	67	387,605	387,605	-	-	-
South Carolina	195	2,660,524	2,660,524	-	-	-
South Dakota	60	347,680	347,680	-	-	-
Tennessee	279	2,113,955	2,113,955	48	(D)	(D)
Texas	270	14,715,806	14,715,806	10	1,176,260	1,176,260
Utah	81	432,650	432,650	2	(D)	(D)
Vermont	160	1,316,458	1,316,458	-	-	-
Virginia	228	3,382,514	3,382,514	26	31,600	31,600
Washington	418	1,692,122	1,692,122	8	176,000	176,000
West Virginia	261	791,824	791,824	-	-	-
Wisconsin	616	4,314,911	4,314,911	20	8,000	8,000
Wyoming	130	227,118	227,118	-	-	-
Water Resource Regions						
Region 01 New England	816	12,158,424	12,158,424	-	-	-
Region 02 Mid-Atlantic	1,249	28,756,874	28,756,874	50	15,700,656	15,700,656
Region 03 South Atlantic-Gulf	1,326	23,492,903	23,492,903	34	338,100	338,100
Region 04 Great Lakes	1,231	31,130,076	31,130,076	27	(D)	(D)
Region 05 Ohio	1,574	16,608,117	16,608,117	32	24,000	24,000
Region 06 Tennessee	215	1,340,607	1,340,607	60	(D)	(D)
Region 07 Upper Mississippi	1,106	13,401,143	13,401,143	20	8,000	8,000
Region 08 Lower Mississippi	136	1,079,586	1,079,586	-	-	-
Region 09 Souris-Red-Rainy	25	100,700	100,700	16	51,200	51,200
Region 10 Missouri	854	7,810,467	7,810,467	31	214,750	214,750
Region 11 Arkansas-White-Red	404	3,362,717	3,362,717	21	930,610	930,610
Region 12 Texas-Gulf	233	5,839,576	5,839,576	3	1,176,120	1,176,120
Region 13 Rio Grande	183	8,263,588	8,263,588	9	75,408	75,408
Region 14 Upper Colorado	170	1,481,924	1,481,924	5	6,380	6,380
Region 15 Lower Colorado	143	2,360,911	2,360,911	-	-	-
Region 16 Great Basin	90	512,554	512,554	2	(D)	(D)
Region 17 Pacific Northwest	1,036	6,263,071	6,263,071	23	191,960	191,960
Region 18 California	515	44,571,398	44,571,398	69	4,661,800	4,661,800
Region 19 Alaska	203	572,570	572,570	7	1,600	1,600
Region 20 Hawaii	111	668,020	668,020	11	1,100	1,100

--continued

Table 44. Irrigated Horticultural Operations by Selected Crops Irrigated: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Sod in the open			Cultivated Christmas trees and short rotation woody crops in the open		
	Operations	Acres	Acres irrigated	Operations	Acres	Acres irrigated
United States 2023	1,053	303,242	274,268	1,324	29,453	20,017
..... 2018	1,087	312,992	260,974	888	15,794	10,783
2023 DATA						
Alabama	63	17,163	16,443	-	-	-
Alaska	1	(D)	-	-	-	-
Arizona	12	4,271	4,271	-	-	-
Arkansas	16	5,685	4,887	12	88	86
California	22	8,031	8,031	188	1,495	1,390
Colorado	44	7,262	7,262	52	195	195
Connecticut	2	(D)	(D)	13	55	15
Delaware	3	(D)	(D)	-	-	-
Florida	87	42,912	41,562	30	75	75
Georgia	31	16,175	16,050	12	57	15
Hawaii	20	160	160	1	(D)	(D)
Idaho	26	3,931	3,931	19	303	145
Illinois	28	2,898	1,400	-	-	-
Indiana	6	2,466	1,856	10	-	9
Iowa	14	(D)	(D)	-	-	-
Kansas	21	6,230	6,191	6	114	87
Kentucky	25	1,043	993	22	187	55
Louisiana	6	1,245	1,245	8	44	29
Maine	3	(D)	(D)	11	(D)	(D)
Maryland	10	7,236	6,186	5	(D)	(D)
Massachusetts	-	-	-	30	140	90
Michigan	40	5,140	4,140	160	8,169	6,965
Minnesota	11	5,836	1,912	43	2,070	1,698
Mississippi	21	2,647	2,647	7	48	48
Missouri	10	5,532	5,327	31	585	329
Montana	16	1,907	1,907	11	27	27
Nebraska	24	3,699	3,639	23	134	98
Nevada	12	463	463	3	3	3
New Hampshire	-	-	-	6	12	(D)
New Jersey	29	6,740	6,740	24	192	192
New Mexico	6	(D)	(D)	16	83	83
New York	21	(D)	(D)	47	5,150	481
North Carolina	88	10,233	9,892	66	1,884	502
North Dakota	3	(D)	(D)	2	(D)	(D)
Ohio	22	11,406	3,510	67	148	142
Oklahoma	27	13,959	13,959	9	18	18
Oregon	42	7,214	7,214	125	2,901	2,317
Pennsylvania	-	-	-	25	2,009	1,816
Rhode Island	14	2,774	2,717	2	(D)	(D)
South Carolina	7	13,279	12,346	-	-	-
South Dakota	4	(D)	(D)	2	(D)	(D)
Tennessee	31	6,138	5,217	25	176	171
Texas	102	49,922	49,705	28	563	535
Utah	12	2,754	2,754	20	44	32
Vermont	-	-	-	1	(D)	(D)
Virginia	44	13,675	7,567	11	(D)	(D)
Washington	8	1,720	1,720	129	810	696
West Virginia	6	(D)	(D)	-	-	-
Wisconsin	11	3,297	3,297	22	1,490	1,490
Wyoming	2	(D)	(D)	-	-	-
Water Resource Regions						
Region 01 New England	19	3,983	3,826	62	224	129
Region 02 Mid-Atlantic	98	28,630	21,472	83	6,328	2,388
Region 03 South Atlantic-Gulf	288	101,930	98,652	46	1,842	534
Region 04 Great Lakes	41	(D)	4,320	205	9,015	7,082
Region 05 Ohio	60	15,847	7,261	85	707	371
Region 06 Tennessee	5	3,238	(D)	93	318	202
Region 07 Upper Mississippi	67	15,512	9,033	67	3,568	3,196
Region 08 Lower Mississippi	51	6,272	5,549	10	(D)	(D)
Region 09 Souris-Red-Rainy	-	-	-	-	-	-
Region 10 Missouri	88	18,754	18,604	87	735	443
Region 11 Arkansas-White-Red	56	23,675	22,936	40	430	388
Region 12 Texas-Gulf	102	49,922	49,705	28	563	535
Region 13 Rio Grande	3	400	400	6	58	58
Region 14 Upper Colorado	14	(D)	(D)	19	49	49
Region 15 Lower Colorado	14	(D)	(D)	2	(D)	(D)
Region 16 Great Basin	24	3,241	3,241	20	44	32
Region 17 Pacific Northwest	80	13,605	13,605	282	4,033	3,177
Region 18 California	22	8,031	8,031	188	1,495	1,390
Region 19 Alaska	1	(D)	(D)	-	-	-
Region 20 Hawaii	20	160	160	1	(D)	(D)

--continued

Table 44. Irrigated Horticultural Operations by Selected Crops Irrigated: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Other horticultural crops					
	In the open			Under protection		
	Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated
United States 2023	1,026	3,334	3,011	751	2,999,921	2,999,921
..... 2018	363	2,341	2,335	297	3,106,647	3,106,647
2023 DATA						
Alabama	-	-	-	17	68,000	68,000
Alaska	-	-	-	-	-	-
Arizona	-	-	-	-	-	-
Arkansas	-	-	-	-	-	-
California	79	97	92	64	90,920	90,920
Colorado	-	-	-	5	30,000	30,000
Connecticut	16	65	(D)	-	-	-
Delaware	-	-	-	2	(D)	(D)
Florida	60	(D)	(D)	69	793,300	793,300
Georgia	-	-	-	-	-	-
Hawaii	71	(D)	(D)	23	7,400	7,400
Idaho	12	35	35	12	16,716	16,716
Illinois	79	(D)	(D)	14	31,500	31,500
Indiana	53	110	110	2	(D)	(D)
Iowa	-	-	-	-	-	-
Kansas	-	-	-	1	(D)	(D)
Kentucky	7	2	2	6	72,000	72,000
Louisiana	-	-	-	26	33,280	33,280
Maine	-	-	-	27	98,820	98,820
Maryland	-	-	-	18	223,210	223,210
Massachusetts	45	185	185	-	-	-
Michigan	41	426	216	93	195,720	195,720
Minnesota	-	-	-	16	3,520	3,520
Mississippi	-	-	-	5	1,170	1,170
Missouri	44	(D)	(D)	7	8,050	8,050
Montana	-	-	-	-	-	-
Nebraska	-	-	-	3	30,000	30,000
Nevada	10	3	3	3	1,500	1,500
New Hampshire	11	(D)	(D)	7	7,000	7,000
New Jersey	24	(D)	(D)	23	3,450	3,450
New Mexico	-	-	-	3	7,200	7,200
New York	93	(D)	(D)	-	-	-
North Carolina	59	86	86	97	96,220	96,220
North Dakota	-	-	-	-	-	-
Ohio	42	100	100	36	78,840	78,840
Oklahoma	17	17	17	17	233,275	233,275
Oregon	59	985	958	38	186,050	186,050
Pennsylvania	40	78	78	12	273,140	273,140
Rhode Island	2	(D)	(D)	-	-	-
South Carolina	-	-	-	36	34,200	34,200
South Dakota	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-
Texas	94	166	(D)	17	31,000	31,000
Utah	-	-	-	2	(D)	(D)
Vermont	14	(D)	(D)	-	-	-
Virginia	16	14	14	-	-	-
Washington	32	42	20	28	65,200	65,200
West Virginia	6	(D)	(D)	-	-	-
Wisconsin	-	-	-	20	200,000	200,000
Wyoming	-	-	-	2	(D)	(D)
Water Resource Regions						
Region 01 New England	74	263	(D)	34	105,820	105,820
Region 02 Mid-Atlantic	156	467	467	55	501,800	501,800
Region 03 South Atlantic-Gulf	119	236	236	221	992,170	992,170
Region 04 Great Lakes	92	470	260	93	195,720	195,720
Region 05 Ohio	88	195	195	38	86,040	86,040
Region 06 Tennessee	-	-	-	-	-	-
Region 07 Upper Mississippi	94	(D)	(D)	50	235,020	235,020
Region 08 Lower Mississippi	-	-	-	35	106,000	106,000
Region 09 Souris-Red-Rainy	-	-	-	-	-	-
Region 10 Missouri	29	17	17	10	38,050	38,050
Region 11 Arkansas-White-Red	24	23	18	18	237,235	237,235
Region 12 Texas-Gulf	84	141	118	17	31,000	31,000
Region 13 Rio Grande	3	18	(D)	3	7,200	7,200
Region 14 Upper Colorado	-	-	-	9	96,080	96,080
Region 15 Lower Colorado	-	-	-	-	-	-
Region 16 Great Basin	6	(D)	(D)	3	1,500	1,500
Region 17 Pacific Northwest	103	1,063	1,013	78	267,966	267,966
Region 18 California	83	98	93	64	90,920	90,920
Region 19 Alaska	-	-	-	-	-	-
Region 20 Hawaii	71	(D)	(D)	23	7,400	7,400

Table 45. Irrigation for Nursery and Other Horticultural Crops Grown in the Open: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All methods								
	Operations ¹	Acres irrigated ¹	Gallons applied (1,000)	Water source					
				Ground water from wells		On-farm surface water		Off-farm water (all suppliers)	
				Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)
United States 2023 2018	17,491 15,623	598,980 581,936	277,257,632 248,964,239	10,889 10,004	175,649,040 124,786,036	3,092 2,570	53,238,820 40,130,335	4,697 4,223	48,369,772 84,047,868
2023 DATA									
Alabama	215	17,404	7,246,072	117	5,985,538	50	(D)	50	(D)
Alaska	93	213	46,422	68	36,735	25	9,687	-	-
Arizona	176	10,510	9,022,165	124	4,034,874	4	874,910	66	4,112,381
Arkansas	94	5,282	1,366,868	29	496,635	21	634,710	49	235,523
California	1,903	38,776	25,890,456	990	15,471,230	133	1,011,901	950	9,407,325
Colorado	470	14,147	9,561,961	158	5,292,405	90	972,704	240	3,296,852
Connecticut	162	2,202	967,652	78	119,038	39	777,406	59	71,207
Delaware	24	2,116	596,679	21	576,792	2	(D)	1	(D)
Florida	2,209	96,419	55,186,097	1,998	40,746,188	291	11,971,038	39	2,468,871
Georgia	303	26,561	14,303,728	249	10,219,971	63	3,678,839	54	404,919
Hawaii	464	(D)	514,373	22	(D)	4	(D)	442	472,572
Idaho	286	8,805	4,840,760	155	2,459,058	36	609,170	111	1,772,532
Illinois	426	10,028	2,316,179	290	1,025,342	84	1,270,641	62	20,196
Indiana	235	2,816	1,265,237	148	631,018	35	621,591	65	12,628
Iowa	72	3,065	565,974	49	356,557	2	(D)	23	(D)
Kansas	126	6,559	1,738,289	48	1,196,460	19	520,097	64	21,732
Kentucky	195	1,827	666,308	26	87,123	48	396,149	121	183,036
Louisiana	199	4,826	978,477	168	804,703	29	157,644	19	16,130
Maine	94	945	83,258	79	32,952	8	(D)	8	(D)
Maryland	162	12,163	3,353,162	123	1,884,245	52	(D)	7	(D)
Massachusetts	179	1,820	504,759	83	119,625	85	340,663	18	44,471
Michigan	808	24,987	7,692,005	545	7,159,803	111	493,433	195	38,769
Minnesota	222	6,546	1,401,513	198	(D)	13	(D)	23	2,247
Mississippi	105	3,404	680,643	81	536,199	13	141,185	19	3,259
Missouri	260	7,155	2,857,603	123	970,865	77	1,847,078	67	39,660
Montana	157	(D)	2,411	113	(D)	10	213,524	47	(D)
Nebraska	131	5,570	2,174,379	116	1,953,645	2	(D)	23	(D)
Nevada	53	(D)	510,889	31	489,235	3	2,346	22	19,308
New Hampshire	103	467	122,263	62	22,568	20	(D)	24	(D)
New Jersey	334	16,838	3,992,134	308	3,287,855	77	704,279	-	-
New Mexico	105	(D)	(D)	50	(D)	10	2,916	54	(D)
New York	716	18,951	2,929,589	366	2,094,258	201	660,965	176	174,365
North Carolina	731	14,977	7,327,595	400	3,063,016	305	3,353,283	89	911,296
North Dakota	19	(D)	92,636	5	88,665	8	2,400	6	1,571
Ohio	507	9,437	4,319,045	329	1,880,448	143	2,358,844	128	79,753
Oklahoma	90	14,299	8,414,150	61	4,874,356	11	(D)	18	(D)
Oregon	1,317	50,845	22,927,230	799	14,176,417	275	5,083,632	387	3,667,181
Pennsylvania	385	3,677	1,141,739	260	(D)	110	852,696	27	(D)
Rhode Island	71	3,250	766,585	39	312,196	14	319,818	23	134,570
South Carolina	277	21,346	5,349,688	198	5,169,058	55	(D)	51	(D)
South Dakota	50	(D)	184,883	32	163,057	6	(D)	14	(D)
Tennessee	258	8,183	2,516,639	145	1,591,110	48	880,468	65	45,060
Texas	778	69,653	35,133,876	497	28,196,258	100	4,720,527	210	2,217,091
Utah	169	3,702	3,079,739	39	2,163,032	15	424,624	125	492,083
Vermont	78	139	60,885	71	51,748	19	8,629	5	509
Virginia	326	9,301	3,332,296	205	(D)	124	2,667,391	34	(D)
Washington	899	14,787	5,264,106	482	1,342,994	98	1,270,870	339	2,650,242
West Virginia	36	(D)	56,619	20	3,786	9	49,757	7	3,076
Wisconsin	394	8,180	1,931,410	285	1,777,609	89	128,975	55	24,826
Wyoming	25	305	206,299	6	(D)	6	(D)	16	(D)
Water Resource Regions									
Region 01 New England	618	8,691	2,446,340	350	608,204	166	1,571,105	132	267,032
Region 02 Mid-Atlantic	1,591	59,922	14,279,202	1,154	8,459,909	426	5,435,147	117	384,146
Region 03 South Atlantic-Gulf	3,715	179,571	90,402,559	3,005	65,456,766	732	21,034,139	277	3,911,653
Region 04 Great Lakes	1,362	30,440	10,417,750	818	7,396,976	293	2,788,143	391	232,630
Region 05 Ohio	889	13,789	4,810,732	439	2,855,031	238	1,714,268	293	241,434
Region 06 Tennessee	347	4,099	1,199,446	144	534,211	106	592,599	97	72,636
Region 07 Upper Mississippi	1,078	28,108	6,483,332	814	4,645,756	167	1,792,381	124	45,195
Region 08 Lower Mississippi	289	9,326	2,177,947	230	1,915,086	39	214,754	40	48,107
Region 09 Souris-Red-Rainy	19	(D)	9,459	10	6,642	8	(D)	1	(D)
Region 10 Missouri	745	24,691	11,616,698	379	6,771,358	117	2,610,709	283	2,234,630
Region 11 Arkansas-White-Red	317	24,465	12,526,913	170	7,927,920	47	771,172	109	3,827,821
Region 12 Texas-Gulf	768	69,489	35,062,049	496	28,190,959	100	4,720,527	201	2,150,563
Region 13 Rio Grande	112	(D)	585,150	66	426,357	8	(D)	47	(D)
Region 14 Upper Colorado	184	13,938	12,288,987	17	19,396	44	591,292	128	11,678,299
Region 15 Lower Colorado	193	10,718	9,146,102	128	(D)	6	(D)	79	4,118,817
Region 16 Great Basin	195	4,185	3,557,746	65	2,619,654	14	351,348	127	586,744
Region 17 Pacific Northwest	2,606	75,623	33,801,976	1,521	18,216,437	419	7,051,731	859	8,533,809
Region 18 California	1,906	38,769	25,884,449	993	15,465,222	133	1,011,901	950	9,407,325
Region 19 Alaska	93	213	46,422	68	36,735	25	9,687	-	-
Region 20 Hawaii	464	(D)	514,373	22	(D)	4	(D)	442	472,572

See footnote(s) at end of table.

--continued

Table 45. Irrigation for Nursery and Other Horticultural Crops Grown in the Open: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Hand watered								
	Operations	Acres irrigated	Gallons applied (1,000)	Water source					
				Ground water from wells		On-farm surface water		Off-farm water (all suppliers)	
				Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)
United States 2023 2018	4,898 3,240	11,477 7,681	3,677,059 2,576,043	2,701 1,929	1,758,767 1,365,528	664 435	765,560 336,417	1,742 1,025	1,152,732 874,098
2023 DATA									
Alabama	17	17	554	17	554	-	-	-	-
Alaska	12	9	(D)	12	(D)	-	-	-	-
Arizona	19	78	77,953	18	(D)	-	-	1	(D)
Arkansas	18	25	(D)	7	(D)	1	(D)	11	(D)
California	614	1,757	922,991	254	340,236	41	12,884	366	569,872
Colorado	99	144	51,129	32	13,282	8	3,972	61	33,874
Connecticut	87	159	27,134	32	4,370	13	14,207	42	8,557
Delaware	9	7	(D)	9	(D)	-	-	-	-
Florida	469	492	133,719	374	(D)	95	(D)	30	1,971
Georgia	50	146	23,424	32	20,699	-	-	18	2,724
Hawaii	233	373	105,593	-	-	2	(D)	233	(D)
Idaho	51	249	149,595	29	26,808	9	116,086	16	6,701
Illinois	181	157	83,806	145	69,912	12	9,773	24	4,121
Indiana	71	142	15,914	20	(D)	20	10,489	31	(D)
Iowa	11	6	496	10	(D)	1	(D)	1	(D)
Kansas	28	42	(D)	12	(D)	-	-	16	11,313
Kentucky	45	59	23,913	11	595	-	-	34	23,318
Louisiana	22	24	5,114	15	2,829	-	-	7	2,285
Maine	27	33	(D)	21	(D)	6	396	-	-
Maryland	79	90	24,883	73	15,149	14	(D)	6	(D)
Massachusetts	30	44	8,884	20	8,477	10	407	-	-
Michigan	354	664	65,612	187	43,894	48	4,595	139	17,123
Minnesota	96	114	13,523	88	(D)	12	1,849	4	(D)
Mississippi	19	26	4,295	12	2,471	-	-	7	1,825
Missouri	38	45	13,798	3	(D)	14	(D)	21	9,273
Montana	49	62	32,235	34	25,609	-	-	18	6,626
Nebraska	27	248	39,163	23	(D)	-	-	4	(D)
Nevada	8	6	2,762	-	-	-	-	8	2,762
New Hampshire	44	39	9,224	34	(D)	6	946	5	(D)
New Jersey	64	88	6,554	64	6,554	-	-	-	-
New Mexico	54	81	35,568	16	8,034	-	-	38	27,534
New York	253	709	148,769	144	121,504	70	8,774	66	18,490
North Carolina	181	216	92,057	126	74,724	32	15,360	23	1,973
North Dakota	14	14	(D)	2	(D)	8	1,200	4	(D)
Ohio	188	709	175,887	118	164,209	20	(D)	50	(D)
Oklahoma	10	63	29,950	8	(D)	2	(D)	-	-
Oregon	245	1,546	617,393	143	(D)	39	(D)	63	(D)
Pennsylvania	57	68	(D)	32	18,966	25	(D)	-	-
Rhode Island	22	43	18,601	13	(D)	-	-	11	(D)
South Carolina	64	31	(D)	39	(D)	-	-	25	(D)
South Dakota	25	21	2,497	12	1,230	6	(D)	7	(D)
Tennessee	58	146	55,692	-	-	18	(D)	40	(D)
Texas	146	317	46,478	78	30,529	-	-	68	15,948
Utah	71	124	47,642	7	(D)	2	(D)	63	38,698
Vermont	25	44	(D)	18	(D)	18	3,552	5	509
Virginia	143	113	37,401	94	(D)	34	(D)	15	(D)
Washington	270	1,189	394,587	173	52,627	14	276,121	92	65,838
West Virginia	10	5	(D)	4	(D)	-	-	6	(D)
Wisconsin	179	679	63,150	84	18,557	62	29,078	55	15,516
Wyoming	12	18	(D)	2	(D)	2	(D)	8	(D)
Water Resource Regions									
Region 01 New England	210	318	66,203	120	(D)	35	15,956	58	(D)
Region 02 Mid-Atlantic	433	889	188,210	344	160,357	76	24,423	31	3,430
Region 03 South Atlantic-Gulf	795	932	269,834	579	144,829	145	114,627	101	10,378
Region 04 Great Lakes	624	1,100	161,854	325	75,956	135	(D)	244	(D)
Region 05 Ohio	241	786	197,057	70	(D)	42	(D)	129	31,049
Region 06 Tennessee	100	166	57,476	43	2,201	17	10,618	40	44,657
Region 07 Upper Mississippi	446	874	140,985	342	104,246	65	22,626	48	14,113
Region 08 Lower Mississippi	31	37	(D)	18	(D)	-	-	13	2,938
Region 09 Souris-Red-Rainy	11	(D)	(D)	2	(D)	8	(D)	1	(D)
Region 10 Missouri	173	442	100,381	84	63,883	24	3,910	68	32,588
Region 11 Arkansas-White-Red	49	130	46,605	19	29,068	3	3,314	28	14,223
Region 12 Texas-Gulf	141	316	46,723	80	31,095	-	-	61	15,628
Region 13 Rio Grande	49	(D)	(D)	14	(D)	-	-	35	(D)
Region 14 Upper Colorado	51	57	25,203	4	(D)	7	(D)	40	17,777
Region 15 Lower Colorado	25	84	81,977	18	(D)	-	-	7	(D)
Region 16 Great Basin	66	116	40,788	7	8,293	-	-	60	32,496
Region 17 Pacific Northwest	594	3,019	1,179,206	366	(D)	64	(D)	179	(D)
Region 18 California	614	1,757	922,991	254	340,236	41	12,884	366	569,872
Region 19 Alaska	12	9	(D)	12	(D)	-	-	-	-
Region 20 Hawaii	233	373	105,593	-	-	2	(D)	233	(D)

See footnote(s) at end of table.

--continued

Table 45. Irrigation for Nursery and Other Horticultural Crops Grown in the Open: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Gravity irrigation								
	Operations	Acres irrigated	Gallons applied (1,000)	Water source					
				Ground water from wells		On-farm surface water		Off-farm water (all suppliers)	
				Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)
United States 2023 2018	733 697	16,714 41,763	9,161,361 33,243,475	324 170	3,406,936 5,593,208	99 111	1,142,818 2,255,028	346 446	4,611,607 25,395,239
2023 DATA									
Alabama	-	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-
Arizona	33	3,350	3,184,433	25	1,351,956	4	874,910	13	957,567
Arkansas	2	(D)	(D)	2	(D)	-	-	-	-
California	85	1,028	320,197	45	129,421	3	407	40	190,369
Colorado	183	2,333	1,728,544	23	412,531	32	29,598	133	1,286,415
Connecticut	-	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-
Florida	42	3,228	1,400,315	42	(D)	3	(D)	3	(D)
Georgia	-	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-
Idaho	34	1,392	668,141	-	-	8	15,804	26	652,336
Illinois	-	-	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-
Kansas	2	(D)	(D)	2	(D)	-	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-	-	-	-
Maine	16	16	(D)	16	(D)	-	-	-	-
Maryland	5	15	4,399	5	4,399	-	-	-	-
Massachusetts	28	28	13,496	-	-	28	13,496	-	-
Michigan	38	20	6,408	18	5,865	-	-	20	543
Minnesota	-	-	-	-	-	-	-	-	-
Mississippi	-	-	-	-	-	-	-	-	-
Missouri	13	4	(D)	13	(D)	-	-	-	-
Montana	3	12	1,303	-	-	3	1,303	-	-
Nebraska	-	-	-	-	-	-	-	-	-
Nevada	3	3	(D)	-	-	3	(D)	-	-
New Hampshire	4	(D)	(D)	1	(D)	3	(D)	-	-
New Jersey	-	-	-	-	-	-	-	-	-
New Mexico	21	284	186,859	12	(D)	3	(D)	13	130,887
New York	43	270	91,364	23	68,844	-	-	20	22,520
North Carolina	-	-	-	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-	-	-
Oklahoma	-	-	-	-	-	-	-	-	-
Oregon	10	408	82,607	2	(D)	2	(D)	8	(D)
Pennsylvania	4	86	(D)	3	(D)	-	-	1	(D)
Rhode Island	4	292	(D)	2	(D)	-	-	2	(D)
South Carolina	33	298	(D)	33	(D)	-	-	-	-
South Dakota	4	2	163	-	-	-	-	4	163
Tennessee	-	-	-	-	-	-	-	-	-
Texas	70	3,060	1,088,233	47	66,776	3	53,765	20	967,691
Utah	19	30	14,458	5	(D)	3	(D)	14	11,144
Vermont	1	(D)	(D)	1	(D)	1	(D)	-	-
Virginia	-	-	-	-	-	-	-	-	-
Washington	29	449	183,962	-	-	-	-	29	183,962
West Virginia	4	2	(D)	4	(D)	-	-	-	-
Wisconsin	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-
Water Resource Regions									
Region 01 New England	52	342	86,333	19	(D)	31	13,601	2	(D)
Region 02 Mid-Atlantic	56	373	154,664	35	78,894	-	-	21	75,771
Region 03 South Atlantic-Gulf	75	3,526	1,419,315	75	1,249,837	3	83,474	3	86,004
Region 04 Great Lakes	39	49	(D)	19	28,965	1	(D)	20	(D)
Region 05 Ohio	-	-	-	-	-	-	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	-	-	-	-	-	-	-	-	-
Region 08 Lower Mississippi	2	(D)	(D)	2	(D)	-	-	-	-
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	93	1,181	708,765	33	398,240	27	26,340	38	284,185
Region 11 Arkansas-White-Red	23	212	100,480	5	17,437	-	-	18	83,043
Region 12 Texas-Gulf	68	2,910	1,024,692	47	66,776	3	53,765	18	904,150
Region 13 Rio Grande	16	267	179,687	10	50,768	3	1,293	10	127,625
Region 14 Upper Colorado	91	1,131	989,411	-	-	5	(D)	86	(D)
Region 15 Lower Colorado	35	3,352	3,188,343	27	1,355,866	4	874,910	13	957,567
Region 16 Great Basin	22	(D)	15,155	5	(D)	6	2,652	14	(D)
Region 17 Pacific Northwest	76	2,261	936,013	2	(D)	13	(D)	63	(D)
Region 18 California	85	1,028	320,197	45	129,421	3	407	40	190,369
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 45. Irrigation for Nursery and Other Horticultural Crops Grown in the Open: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Sprinkler									
	Operations	Acres irrigated	Gallons applied (1,000)	Water source						
				Ground water from wells		On-farm surface water		Off-farm water (all suppliers)		
				Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	
United States 2023 2018	7,158 6,885	421,401 420,087	201,894,505 169,280,443	4,652 4,405	130,252,472 90,596,696	1,522 1,506	40,983,232 34,007,386	1,546 1,648	30,658,801 44,676,360	
2023 DATA										
Alabama	137	17,309	7,222,004	87	(D)	50	(D)	2	(D)	
Alaska	15	80	20,115	7	(D)	8	(D)	-	(D)	
Arizona	48	4,752	4,401,675	29	(D)	-	(D)	26	(D)	
Arkansas	48	5,138	1,330,534	11	(D)	21	631,740	21	(D)	
California	497	13,326	10,912,186	279	7,744,987	52	731,242	234	2,435,957	
Colorado	148	9,560	6,957,592	71	4,806,218	16	212,466	69	1,938,909	
Connecticut	66	1,026	699,424	20	10,242	15	655,477	35	33,706	
Delaware	10	2,079	588,865	8	(D)	2	(D)	-	(D)	
Florida	1,393	67,441	39,744,150	1,245	29,191,848	188	(D)	8	(D)	
Georgia	118	17,774	11,678,364	91	8,011,405	36	3,333,235	21	333,724	
Hawaii	113	702	191,404	1	(D)	3	(D)	113	(D)	
Idaho	119	5,508	3,367,780	64	2,047,577	20	421,411	42	898,792	
Illinois	136	1,999	435,393	70	33,416	52	392,854	14	9,124	
Indiana	93	1,750	915,531	58	393,042	13	515,767	23	6,723	
Iowa	40	1,790	424,041	39	(D)	1	(D)	1	(D)	
Kansas	61	6,357	1,697,460	21	1,176,206	19	518,097	26	3,157	
Kentucky	72	1,645	597,962	15	85,523	25	388,805	32	123,634	
Louisiana	144	3,514	752,664	126	596,280	28	150,836	5	5,548	
Maine	14	779	39,180	10	(D)	2	(D)	2	(D)	
Maryland	60	10,881	2,940,894	46	1,702,084	32	(D)	1	(D)	
Massachusetts	86	1,355	402,965	44	(D)	47	278,683	1	(D)	
Michigan	257	12,973	2,630,286	218	2,236,204	63	390,417	18	3,666	
Minnesota	80	5,667	1,192,752	76	(D)	1	(D)	7	(D)	
Mississippi	60	3,150	627,172	50	499,293	13	(D)	4	(D)	
Missouri	46	3,649	1,333,855	17	699,425	14	624,625	15	9,805	
Montana	76	2,172	(D)	55	(D)	7	212,220	25	(D)	
Nebraska	59	3,802	1,321,143	50	1,247,940	2	(D)	9	(D)	
Nevada	16	466	496,007	13	485,916	-	-	6	10,091	
New Hampshire	18	148	53,917	10	952	8	52,965	-	-	
New Jersey	220	11,777	3,202,731	170	2,515,983	52	686,748	-	-	
New Mexico	20	(D)	(D)	16	(D)	-	-	4	(D)	
New York	264	12,088	1,438,214	105	715,678	45	619,301	114	103,234	
North Carolina	367	12,744	6,400,785	228	2,270,319	113	3,221,143	66	909,323	
North Dakota	15	(D)	88,468	3	(D)	8	1,200	4	(D)	
Ohio	146	6,404	3,308,662	77	950,025	30	2,310,249	65	48,388	
Oklahoma	55	14,191	8,371,841	44	4,838,773	2	(D)	9	(D)	
Oregon	790	40,280	17,255,395	423	10,284,977	209	4,670,258	246	2,300,160	
Pennsylvania	62	564	89,198	36	27,233	32	(D)	1	(D)	
Rhode Island	40	2,672	650,136	20	294,496	9	317,584	14	38,057	
South Carolina	95	12,961	3,847,847	88	3,679,088	8	(D)	25	(D)	
South Dakota	15	670	168,933	14	(D)	-	-	1	(D)	
Tennessee	119	7,385	2,262,882	89	(D)	30	(D)	-	-	
Texas	254	56,524	30,440,438	192	26,351,172	38	3,055,534	53	1,033,733	
Utah	41	2,966	2,623,956	17	2,141,037	4	421,024	24	61,895	
Vermont	16	54	9,706	15	(D)	2	(D)	-	-	
Virginia	126	8,296	2,987,091	46	(D)	79	2,490,306	19	(D)	
Washington	285	7,323	2,315,576	97	510,612	63	948,752	129	856,212	
West Virginia	27	(D)	52,311	12	2,255	9	49,757	6	299	
Wisconsin	160	6,833	1,762,561	127	1,692,167	47	70,394	-	-	
Wyoming	11	286	198,510	2	(D)	4	(D)	6	(D)	
Water Resource Regions										
Region 01 New England	228	5,983	1,846,262	108	416,669	81	1,314,461	52	115,132	
Region 02 Mid-Atlantic	589	43,142	10,330,202	373	5,832,008	194	4,202,434	50	295,760	
Region 03 South Atlantic-Gulf	2,132	131,026	69,878,280	1,756	49,369,515	404	17,560,692	142	2,948,074	
Region 04 Great Lakes	452	16,715	5,082,844	281	2,384,568	133	2,585,360	117	112,915	
Region 05 Ohio	351	10,206	3,345,358	179	1,769,756	79	1,417,854	95	157,749	
Region 06 Tennessee	102	3,613	1,053,007	71	(D)	30	537,671	1	(D)	
Region 07 Upper Mississippi	386	16,391	4,001,309	291	3,215,928	82	773,150	22	12,232	
Region 08 Lower Mississippi	208	7,991	1,939,958	173	1,697,113	38	207,146	15	35,700	
Region 09 Souris-Red-Rainy	13	17	4,089	4	2,607	8	(D)	1	(D)	
Region 10 Missouri	246	17,697	8,348,279	125	5,340,165	39	1,309,224	95	1,698,890	
Region 11 Arkansas-White-Red	143	23,625	12,227,208	85	7,801,776	25	702,196	35	3,723,235	
Region 12 Texas-Gulf	247	56,520	30,437,772	192	26,351,172	38	3,055,534	46	1,031,067	
Region 13 Rio Grande	33	711	341,477	33	341,477	-	-	-	-	
Region 14 Upper Colorado	49	11,189	10,677,365	2	(D)	5	(D)	45	10,662,365	
Region 15 Lower Colorado	54	4,940	4,516,896	31	1,833,194	2	(D)	30	(D)	
Region 16 Great Basin	50	3,434	3,092,780	27	2,589,042	2	(D)	26	(D)	
Region 17 Pacific Northwest	1,249	54,106	23,648,423	633	13,040,866	299	6,126,416	427	4,481,141	
Region 18 California	498	13,316	10,911,477	280	7,744,277	52	731,242	234	2,435,957	
Region 19 Alaska	15	80	20,115	7	(D)	8	(D)	-	(D)	
Region 20 Hawaii	113	702	191,404	1	(D)	3	(D)	113	(D)	

See footnote(s) at end of table.

--continued

Table 45. Irrigation for Nursery and Other Horticultural Crops Grown in the Open: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Drip, trickle, or low-flow micro irrigation								
	Operations	Acres irrigated	Gallons applied (1,000)	Water source					
				Ground water from wells		On-farm surface water		Off-farm water (all suppliers)	
				Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)
United States 2023 2018	8,387 6,905	162,215 114,111	62,505,621 41,804,062	5,461 4,794	40,230,071 26,803,114	1,396 773	10,329,679 3,485,449	2,048 1,649	11,945,872 11,515,498
2023 DATA									
Alabama	78	78	23,513	30	(D)	-	-	48	(D)
Alaska	72	130	24,466	55	(D)	17	(D)	-	-
Arizona	85	2,334	1,358,105	55	828,640	-	-	32	529,464
Arkansas	42	119	25,678	17	19,313	3	(D)	24	(D)
California	1,128	23,537	13,734,321	629	7,256,587	61	267,368	531	6,210,366
Colorado	184	2,391	824,696	83	60,373	45	726,668	56	37,655
Connecticut	79	1,104	241,093	56	104,426	18	107,722	16	28,945
Delaware	15	36	(D)	14	(D)	-	-	1	(D)
Florida	923	31,014	13,907,914	849	10,283,397	111	2,838,519	7	785,998
Georgia	206	8,798	2,601,941	181	2,187,866	42	345,604	24	68,471
Hawaii	233	751	217,376	22	(D)	1	(D)	210	(D)
Idaho	150	1,793	655,244	98	384,673	14	55,868	41	214,703
Illinois	203	7,885	1,796,980	117	922,014	58	868,015	38	6,951
Indiana	103	1,085	333,791	71	(D)	23	95,335	22	(D)
Iowa	42	1,271	141,437	18	32,200	2	(D)	23	(D)
Kansas	67	142	25,668	36	16,406	4	2,000	30	7,262
Kentucky	89	124	44,434	11	1,005	23	7,343	55	36,085
Louisiana	63	1,290	220,699	50	205,594	8	6,808	10	8,297
Maine	42	119	37,590	34	(D)	1	(D)	7	1,130
Maryland	71	1,847	382,986	45	162,613	34	220,373	-	-
Massachusetts	72	403	79,414	45	(D)	17	48,077	17	(D)
Michigan	376	11,826	4,989,698	279	4,873,840	63	98,420	76	17,438
Minnesota	98	803	195,238	82	193,481	8	269	19	1,488
Mississippi	36	228	49,176	24	34,435	1	(D)	12	(D)
Missouri	154	3,448	1,507,311	81	265,442	49	1,221,286	31	20,582
Montana	52	169	52,646	44	35,844	-	-	13	16,803
Nebraska	79	1,597	814,073	73	(D)	-	-	10	(D)
Nevada	35	37	(D)	22	3,319	3	(D)	10	6,455
New Hampshire	57	277	56,832	32	(D)	8	36,054	19	(D)
New Jersey	116	5,198	765,318	116	765,318	-	-	-	-
New Mexico	35	100	23,758	28	21,516	7	(D)	2	(D)
New York	333	5,997	1,251,242	182	1,188,232	109	32,890	42	30,120
North Carolina	284	2,043	834,753	124	717,973	167	116,781	-	-
North Dakota	4	(D)	(D)	2	(D)	-	-	2	(D)
Ohio	312	2,438	834,497	192	766,215	123	(D)	88	(D)
Oklahoma	27	45	12,359	9	(D)	9	(D)	9	(D)
Oregon	534	11,649	4,971,836	385	3,428,820	44	239,679	156	1,303,337
Pennsylvania	339	3,023	974,230	240	177,465	76	792,337	26	4,428
Rhode Island	36	250	31,428	19	13,213	5	(D)	12	(D)
South Carolina	172	8,131	1,477,784	100	1,467,863	47	4,658	26	5,263
South Dakota	12	61	13,290	12	(D)	-	-	2	(D)
Tennessee	108	652	198,064	81	(D)	2	(D)	25	(D)
Texas	368	9,796	3,558,727	218	1,747,781	65	1,611,227	89	199,718
Utah	67	603	393,683	17	(D)	6	(D)	44	380,347
Vermont	61	59	16,212	61	(D)	11	(D)	-	-
Virginia	100	893	307,803	90	(D)	11	(D)	-	-
Washington	429	5,911	2,369,981	272	779,755	45	45,996	119	1,544,230
West Virginia	1	(D)	(D)	-	-	-	-	1	(D)
Wisconsin	211	711	105,699	158	66,885	53	29,503	21	9,311
Wyoming	4	1	(D)	2	(D)	2	(D)	2	(D)
Water Resource Regions									
Region 01 New England	291	2,158	447,542	191	159,276	49	227,086	71	61,180
Region 02 Mid-Atlantic	825	16,554	3,588,595	616	2,388,651	179	1,190,758	42	9,185
Region 03 South Atlantic-Gulf	1,588	50,086	18,835,130	1,297	14,692,585	309	3,275,347	76	867,198
Region 04 Great Lakes	659	13,211	5,141,536	413	4,907,487	185	161,938	160	72,111
Region 05 Ohio	469	3,022	1,268,317	261	(D)	143	(D)	144	52,636
Region 06 Tennessee	207	335	88,963	92	(D)	59	44,310	56	(D)
Region 07 Upper Mississippi	522	10,939	2,341,037	373	1,325,582	108	996,606	62	18,850
Region 08 Lower Mississippi	86	1,299	224,846	64	207,769	10	7,608	19	9,469
Region 09 Souris-Red-Rainy	6	22	(D)	6	(D)	-	-	-	-
Region 10 Missouri	372	5,483	2,458,479	226	968,276	37	1,271,235	121	218,968
Region 11 Arkansas-White-Red	142	519	152,620	75	79,638	29	65,662	45	7,320
Region 12 Texas-Gulf	365	9,787	3,552,862	215	1,741,916	65	1,611,227	89	199,718
Region 13 Rio Grande	36	108	(D)	31	(D)	5	(D)	2	(D)
Region 14 Upper Colorado	52	1,807	597,008	15	(D)	27	576,686	10	(D)
Region 15 Lower Colorado	88	2,346	1,358,887	55	828,640	-	-	35	530,246
Region 16 Great Basin	94	636	409,022	36	(D)	9	(D)	49	385,420
Region 17 Pacific Northwest	1,149	19,496	8,038,334	786	4,619,348	103	341,544	326	3,077,443
Region 18 California	1,131	23,528	13,729,023	632	7,251,289	61	267,368	531	6,210,366
Region 19 Alaska	72	130	24,466	55	(D)	17	(D)	-	-
Region 20 Hawaii	233	751	217,376	22	(D)	1	(D)	210	(D)

See footnote(s) at end of table.

--continued

Table 45. Irrigation for Nursery and Other Horticultural Crops Grown in the Open: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Hydroponics (see text)								
	Operations	Acres irrigated	Gallons applied (1,000)	Water source					
				Ground water from wells		On-farm surface water		Off-farm water (all suppliers)	
				Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)
United States 2023 2018	48 (NA)	273 (NA)	19,085 (NA)	9 (NA)	794 (NA)	25 (NA)	17,531 (NA)	14 (NA)	760 (NA)
2023 DATA									
Alabama	-	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	-	-	-	-
Arkansas	-	-	-	-	-	-	-	-	-
California	14	14	760	-	-	-	-	14	760
Colorado	-	-	-	-	-	-	-	-	-
Connecticut	-	-	-	-	-	-	-	-	-
Delaware	-	-	-	-	-	-	-	-	-
Florida	-	-	-	-	-	-	-	-	-
Georgia	-	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-
Illinois	-	-	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-
Kansas	-	-	-	-	-	-	-	-	-
Kentucky	-	-	-	-	-	-	-	-	-
Louisiana	-	-	-	-	-	-	-	-	-
Maine	-	-	-	-	-	-	-	-	-
Maryland	-	-	-	-	-	-	-	-	-
Massachusetts	-	-	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-	-	-
Minnesota	-	-	-	-	-	-	-	-	-
Mississippi	-	-	-	-	-	-	-	-	-
Missouri	9	9	794	9	794	-	-	-	-
Montana	-	-	-	-	-	-	-	-	-
Nebraska	-	-	-	-	-	-	-	-	-
Nevada	-	-	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	-	-
New Jersey	25	250	17,531	-	-	25	17,531	-	-
New Mexico	-	-	-	-	-	-	-	-	-
New York	-	-	-	-	-	-	-	-	-
North Carolina	-	-	-	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-	-	-	-
Ohio	-	-	-	-	-	-	-	-	-
Oklahoma	-	-	-	-	-	-	-	-	-
Oregon	-	-	-	-	-	-	-	-	-
Pennsylvania	-	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	-	-	-	-	-	-	-	-	-
South Dakota	-	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-	-	-
Texas	-	-	-	-	-	-	-	-	-
Utah	-	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-	-
Virginia	-	-	-	-	-	-	-	-	-
Washington	-	-	-	-	-	-	-	-	-
West Virginia	-	-	-	-	-	-	-	-	-
Wisconsin	-	-	-	-	-	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-
Water Resource Regions									
Region 01 New England	-	-	-	-	-	-	-	-	-
Region 02 Mid-Atlantic	25	250	17,531	-	-	25	17,531	-	-
Region 03 South Atlantic-Gulf	-	-	-	-	-	-	-	-	-
Region 04 Great Lakes	-	-	-	-	-	-	-	-	-
Region 05 Ohio	-	-	-	-	-	-	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	-	-	-	-	-	-	-	-	-
Region 08 Lower Mississippi	-	-	-	-	-	-	-	-	-
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	9	9	794	9	794	-	-	-	-
Region 11 Arkansas-White-Red	-	-	-	-	-	-	-	-	-
Region 12 Texas-Gulf	-	-	-	-	-	-	-	-	-
Region 13 Rio Grande	-	-	-	-	-	-	-	-	-
Region 14 Upper Colorado	-	-	-	-	-	-	-	-	-
Region 15 Lower Colorado	-	-	-	-	-	-	-	-	-
Region 16 Great Basin	-	-	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	-	-	-	-	-	-	-	-
Region 18 California	14	14	760	-	-	-	-	14	760
Region 19 Alaska	-	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-	-

¹ Operations can utilize more than one method of irrigation.

Table 46. Irrigation for Nursery, Greenhouse, and Other Horticultural Crops Grown Under Protection: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	All methods									
	Operations ¹	Square feet irrigated ¹	Gallons applied (1,000)	Water source						
				Ground water from wells		On-farm surface water		Off-farm water (all suppliers)		
				Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	
United States 2023 2018	26,716 24,876	1,721,886,383 1,525,130,873	22,294,226 15,704,320	17,360 16,362	14,994,073 9,912,941	3,537 3,564	2,889,131 1,909,476	6,985 6,310	4,411,022 3,881,903	
2023 DATA										
Alabama	260	12,859,190	200,197	206	139,152	-	-	54	61,046	
Alaska	251	1,627,816	7,939	146	5,305	26	2,089	81	546	
Arizona	181	21,992,426	183,734	106	88,686	-	-	76	95,048	
Arkansas	148	5,447,084	60,762	71	40,714	24	6,438	57	13,610	
California	2,047	363,330,842	4,209,171	1,084	3,134,763	117	297,258	1,057	777,150	
Colorado	556	18,382,301	318,828	166	59,532	80	23,713	333	235,583	
Connecticut	368	24,099,129	286,959	305	108,572	22	(D)	46	(D)	
Delaware	36	1,322,428	6,265	29	5,656	-	-	7	608	
Florida	1,667	378,982,374	6,029,258	1,518	5,037,055	152	382,269	74	609,934	
Georgia	465	16,878,623	137,489	371	113,637	34	(D)	65	(D)	
Hawaii	519	28,096,748	295,374	24	19,110	54	18,820	442	257,445	
Idaho	287	2,421,911	41,237	161	36,474	17	612	117	4,151	
Illinois	574	25,293,626	334,917	428	176,280	60	119,737	89	38,900	
Indiana	544	16,455,770	278,972	369	105,839	49	164,100	155	9,033	
Iowa	323	11,172,960	228,548	164	(D)	40	(D)	128	173,016	
Kansas	258	6,600,028	104,091	91	26,431	37	42,776	147	34,884	
Kentucky	710	9,170,047	79,314	189	24,610	183	17,770	375	36,934	
Louisiana	253	14,312,290	206,357	141	137,433	30	44,721	91	24,204	
Maine	332	5,257,816	31,813	252	9,302	42	20,861	40	1,651	
Maryland	335	13,938,928	182,662	238	64,367	65	105,055	60	13,240	
Massachusetts	401	10,798,622	159,903	287	96,050	23	10,795	106	53,059	
Michigan	1,615	141,161,153	1,615,952	1,182	630,095	218	119,300	325	866,557	
Minnesota	483	16,470,436	297,987	412	234,174	28	26,198	55	37,616	
Mississippi	193	5,535,045	64,009	123	54,707	10	5,268	67	4,034	
Missouri	573	12,075,602	95,233	303	59,463	120	17,840	168	17,930	
Montana	312	2,997,212	54,576	233	39,388	33	511	58	14,677	
Nebraska	206	3,396,228	51,527	159	36,506	29	341	51	14,680	
Nevada	80	674,134	9,199	54	5,424	8	970	20	2,805	
New Hampshire	245	5,548,723	49,933	188	43,467	24	(D)	35	(D)	
New Jersey	436	41,977,776	491,552	325	471,711	40	12,355	88	7,486	
New Mexico	287	2,987,464	47,271	162	26,248	52	852	101	20,171	
New York	1,446	46,271,926	559,335	893	244,316	265	262,506	380	52,512	
North Carolina	1,202	33,056,546	319,482	877	113,132	285	183,609	42	22,741	
North Dakota	53	653,150	10,977	17	7,739	9	626	30	2,613	
Ohio	1,046	65,745,243	568,670	557	79,529	300	302,959	241	186,182	
Oklahoma	164	5,305,060	56,718	96	16,383	13	26,292	65	14,043	
Oregon	1,092	69,493,438	925,065	731	546,198	155	160,884	260	217,983	
Pennsylvania	1,367	53,793,143	340,352	1,006	270,940	275	58,609	116	10,803	
Rhode Island	132	1,797,847	17,253	97	13,619	8	(D)	35	(D)	
South Carolina	432	6,301,189	52,817	310	49,675	16	(D)	114	(D)	
South Dakota	116	2,182,771	24,425	77	16,765	-	-	39	7,660	
Tennessee	527	10,027,549	75,693	290	46,099	79	7,405	176	22,188	
Texas	653	125,179,812	2,116,398	379	1,846,536	66	174,600	244	95,262	
Utah	179	7,309,038	131,794	25	35,312	9	1,647	146	94,835	
Vermont	335	3,389,171	25,750	259	13,155	54	1,300	39	11,296	
Virginia	631	22,777,843	404,177	497	321,199	96	66,131	80	16,846	
Washington	878	22,191,094	249,958	572	99,279	71	4,932	247	145,747	
West Virginia	374	3,062,923	28,095	217	(D)	101	(D)	56	(D)	
Wisconsin	998	21,662,418	221,319	881	195,734	95	8,134	74	17,452	
Wyoming	146	421,490	4,913	92	1,296	23	129	33	3,488	
Water Resource Regions										
Region 01 New England	1,574	48,060,313	550,221	1,206	274,910	138	182,033	262	93,278	
Region 02 Mid-Atlantic	3,156	154,628,160	1,635,336	2,438	1,187,719	407	393,442	439	54,174	
Region 03 South Atlantic-Gulf	4,101	453,114,544	6,859,727	3,324	5,547,579	510	605,060	380	707,087	
Region 04 Great Lakes	3,236	219,295,359	2,430,675	2,139	874,071	482	483,931	804	1,072,672	
Region 05 Ohio	2,681	60,263,258	674,690	1,321	246,117	756	322,815	736	105,758	
Region 06 Tennessee	531	7,601,730	58,520	342	39,931	57	2,213	150	16,375	
Region 07 Upper Mississippi	2,079	54,232,136	714,484	1,625	531,595	217	73,465	301	109,424	
Region 08 Lower Mississippi	383	17,662,010	240,399	188	151,229	60	45,767	150	43,403	
Region 09 Souris-Red-Rainy	63	1,732,290	19,464	40	15,621	16	2,498	8	1,345	
Region 10 Missouri	1,416	40,101,510	606,199	748	176,398	183	27,236	563	402,566	
Region 11 Arkansas-White-Red	635	17,229,218	204,830	346	80,435	55	64,876	259	59,520	
Region 12 Texas-Gulf	579	115,153,432	2,053,191	367	1,803,434	59	174,335	189	75,422	
Region 13 Rio Grande	286	10,149,020	72,089	156	67,764	44	(D)	111	(D)	
Region 14 Upper Colorado	274	4,266,644	97,871	39	6,674	67	23,012	173	68,185	
Region 15 Lower Colorado	259	22,748,554	202,439	158	92,263	7	(D)	100	(D)	
Region 16 Great Basin	179	7,032,422	120,110	47	37,399	14	1,184	121	81,527	
Region 17 Pacific Northwest	2,445	95,321,425	1,238,778	1,600	699,039	268	166,811	659	372,927	
Region 18 California	2,069	363,549,794	4,211,888	1,106	3,137,480	117	297,258	1,057	777,150	
Region 19 Alaska	251	1,627,816	7,939	146	5,305	26	2,089	81	546	
Region 20 Hawaii	519	28,096,748	295,374	24	19,110	54	18,820	442	257,445	

See footnote(s) at end of table.

--continued

Table 46. Irrigation for Nursery, Greenhouse, and Other Horticultural Crops Grown Under Protection: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Hand watered									
	Operations	Square feet irrigated	Gallons applied (1,000)	Water source						
				Ground water from wells		On-farm surface water		Off-farm water (all suppliers)		
				Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	
United States 2023 2018	15,112 13,757	356,988,352 363,119,112	3,225,230 2,573,838	9,914 8,851	1,917,832 1,514,171	1,540 1,694	357,647 227,700	4,140 3,828	949,750 831,966	
2023 DATA										
Alabama	102	3,547,505	16,301	86	(D)	-	-	16	(D)	
Alaska	157	672,840	76	76	(D)	23	(D)	60	224	
Arizona	63	8,910,270	39,695	36	(D)	-	-	28	(D)	
Arkansas	82	1,840,047	20,587	38	8,373	11	5,431	35	6,783	
California	1,142	54,961,147	525,331	556	308,656	34	(D)	659	(D)	
Colorado	294	6,735,508	130,884	67	11,665	26	570	204	118,649	
Connecticut	241	2,799,253	22,695	199	16,909	4	(D)	40	(D)	
Delaware	24	226,100	2,903	20	2,846	-	-	4	57	
Florida	451	23,089,290	104,102	416	95,721	39	8,381	-	-	
Georgia	175	3,063,302	28,258	115	28,197	19	7	41	53	
Hawaii	206	2,894,168	43,327	14	140	20	400	172	42,787	
Idaho	153	1,382,334	21,153	93	18,818	9	(D)	55	(D)	
Illinois	322	5,624,640	72,079	264	50,060	12	16,238	46	5,781	
Indiana	316	7,243,610	28,314	203	11,937	22	10,276	91	6,101	
Iowa	207	3,103,476	35,584	111	(D)	-	-	104	(D)	
Kansas	143	1,637,682	22,890	47	1,797	-	-	100	21,093	
Kentucky	203	739,612	5,364	84	1,826	19	1,548	100	1,990	
Louisiana	69	1,584,270	22,041	28	(D)	2	(D)	41	(D)	
Maine	280	1,214,788	5,726	212	3,307	34	(D)	35	(D)	
Maryland	226	3,597,342	36,384	172	26,277	37	5,277	43	4,830	
Massachusetts	302	4,609,274	98,036	195	54,172	22	6,074	89	37,790	
Michigan	1,209	67,471,268	502,060	850	373,601	170	60,480	257	67,980	
Minnesota	281	6,426,988	103,930	253	92,804	8	(D)	21	(D)	
Mississippi	70	744,543	11,797	47	9,000	4	2,437	19	360	
Missouri	245	2,959,744	15,742	123	9,022	34	1,305	92	5,415	
Montana	219	1,657,236	27,578	181	(D)	2	(D)	39	7,658	
Nebraska	166	1,406,432	28,840	127	17,562	29	341	43	10,937	
Nevada	56	325,216	3,746	44	1,501	3	75	9	2,170	
New Hampshire	166	2,338,379	21,042	121	17,765	12	(D)	35	(D)	
New Jersey	255	2,399,297	11,735	171	9,069	34	981	66	1,685	
New Mexico	174	1,501,657	22,727	91	7,615	13	207	86	14,905	
New York	1,120	11,321,032	155,122	688	95,625	138	26,767	317	32,731	
North Carolina	508	6,397,670	110,712	451	(D)	57	(D)	-	-	
North Dakota	40	458,670	8,190	12	5,377	9	(D)	22	(D)	
Ohio	670	19,995,767	127,088	396	(D)	132	44,568	168	(D)	
Oklahoma	74	3,099,260	37,776	51	9,085	13	16,938	20	11,753	
Oregon	668	10,649,698	(D)	422	(D)	77	3,650	175	61,205	
Pennsylvania	947	36,404,618	199,548	698	159,315	161	30,532	89	9,701	
Rhode Island	88	612,987	3,037	65	2,144	2	(D)	28	(D)	
South Carolina	229	913,100	9,791	157	8,022	-	-	80	1,768	
South Dakota	68	1,785,512	13,585	46	6,808	-	-	22	6,777	
Tennessee	313	2,179,328	12,883	172	(D)	18	(D)	124	7,442	
Texas	265	7,935,320	101,208	178	78,888	12	735	75	21,585	
Utah	102	3,224,480	63,612	15	10,000	4	1,504	84	52,107	
Vermont	216	2,090,908	20,235	163	8,970	38	159	31	11,106	
Virginia	393	5,072,006	43,295	319	40,127	49	549	45	2,620	
Washington	441	6,787,684	59,992	269	15,543	58	3,817	121	40,632	
West Virginia	217	601,249	4,465	141	3,319	46	904	30	241	
Wisconsin	659	10,455,925	97,114	564	84,274	80	1,010	55	11,829	
Wyoming	95	295,920	4,003	67	(D)	4	(D)	24	2,986	
Water Resource Regions										
Region 01 New England	1,141	11,664,357	150,879	838	94,529	92	(D)	227	(D)	
Region 02 Mid-Atlantic	2,125	44,656,058	335,926	1,686	274,465	167	29,668	339	31,793	
Region 03 South Atlantic-Gulf	1,469	38,926,977	292,531	1,206	195,087	136	88,664	139	8,780	
Region 04 Great Lakes	2,394	86,388,491	702,067	1,536	465,858	372	110,481	615	125,728	
Region 05 Ohio	1,327	29,051,744	140,609	732	60,878	272	41,702	325	38,028	
Region 06 Tennessee	410	2,535,273	16,766	274	10,388	18	624	119	5,754	
Region 07 Upper Mississippi	1,253	20,354,581	235,757	1,012	187,617	100	17,329	188	30,812	
Region 08 Lower Mississippi	141	2,350,420	30,404	61	20,892	17	2,531	66	6,981	
Region 09 Souris-Red-Rainy	37	421,650	7,204	23	(D)	7	(D)	8	1,345	
Region 10 Missouri	853	13,733,476	208,219	467	(D)	66	(D)	366	148,250	
Region 11 Arkansas-White-Red	316	6,358,481	65,404	172	18,595	28	22,531	127	24,278	
Region 12 Texas-Gulf	238	7,377,490	99,470	158	77,154	12	735	68	21,581	
Region 13 Rio Grande	137	907,822	9,267	70	7,367	13	207	70	1,694	
Region 14 Upper Colorado	133	1,888,255	41,322	11	56	10	134	112	41,133	
Region 15 Lower Colorado	120	9,293,203	45,141	80	(D)	2	(D)	39	(D)	
Region 16 Great Basin	98	3,014,571	60,148	25	11,225	7	162	67	48,761	
Region 17 Pacific Northwest	1,393	19,318,396	211,171	895	(D)	144	(D)	374	106,754	
Region 18 California	1,164	55,180,099	528,048	578	311,373	34	(D)	659	(D)	
Region 19 Alaska	157	672,840	1,571	76	(D)	23	(D)	60	224	
Region 20 Hawaii	206	2,894,168	43,327	14	140	20	400	172	42,787	

See footnote(s) at end of table.

--continued

Table 46. Irrigation for Nursery, Greenhouse, and Other Horticultural Crops Grown Under Protection: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Gravity irrigation									
	Operations	Square feet irrigated	Gallons applied (1,000)	Water source						
				Ground water from wells		On-farm surface water		Off-farm water (all suppliers)		
				Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	
United States	2023 2018	529 657	3,431,526 7,041,997	30,965 43,954	177 288	12,183 21,421	227 240	2,211 9,423	151 145	16,571 13,110
2023 DATA										
Alabama	-	-	-	-	-	-	-	-	-	-
Alaska	1	(D)	(D)	-	-	1	(D)	-	-	-
Arizona	5	(D)	(D)	-	-	-	-	5	(D)	-
Arkansas	5	3,384	38	2	(D)	3	(D)	-	-	(D)
California	28	168,000	(D)	-	-	-	-	28	(D)	-
Colorado	45	1,104,400	12,430	13	2,223	5	36	32	-	10,171
Connecticut	1	(D)	(D)	1	(D)	-	-	-	-	-
Delaware	1	(D)	(D)	-	-	-	-	1	(D)	-
Florida	-	-	-	-	-	-	-	-	-	-
Georgia	-	-	-	-	-	-	-	-	-	-
Hawaii	22	239,580	578	-	-	-	-	22	-	578
Idaho	1	(D)	(D)	1	(D)	-	-	-	-	-
Illinois	10	170,000	1,826	10	1,826	-	-	-	-	-
Indiana	-	-	-	-	-	-	-	-	-	-
Iowa	-	-	-	-	-	-	-	-	-	-
Kansas	-	-	-	-	-	-	-	-	-	-
Kentucky	19	33,173	141	12	120	7	21	-	-	-
Louisiana	-	-	-	-	-	-	-	-	-	-
Maine	5	(D)	(D)	-	-	-	-	5	(D)	-
Maryland	12	27,120	267	6	8	-	-	6	-	259
Massachusetts	-	-	-	-	-	-	-	-	-	-
Michigan	27	16,200	149	-	-	27	149	-	-	-
Minnesota	-	-	-	-	-	-	-	-	-	-
Mississippi	11	6,000	29	9	(D)	2	(D)	-	-	-
Missouri	2	(D)	(D)	2	(D)	-	-	-	-	-
Montana	21	63,000	340	-	-	21	340	-	-	-
Nebraska	-	-	-	-	-	-	-	-	-	-
Nevada	6	58,200	700	-	-	6	700	-	-	-
New Hampshire	4	10,400	133	-	-	4	133	-	-	-
New Jersey	-	-	-	-	-	-	-	-	-	-
New Mexico	53	127,300	1,730	10	1,055	31	177	12	-	498
New York	23	198,168	(D)	23	(D)	-	-	-	-	-
North Carolina	-	-	-	-	-	-	-	-	-	-
North Dakota	-	-	-	-	-	-	-	-	-	-
Ohio	25	75,000	(D)	25	(D)	-	-	-	-	-
Oklahoma	-	-	-	-	-	-	-	-	-	-
Oregon	-	-	-	-	-	-	-	-	-	-
Pennsylvania	80	105,230	652	23	368	57	77	20	-	207
Rhode Island	-	-	-	-	-	-	-	-	-	-
South Carolina	8	136,800	499	8	499	-	-	-	-	-
South Dakota	-	-	-	-	-	-	-	-	-	-
Tennessee	-	-	-	-	-	-	-	-	-	-
Texas	8	160,000	1,775	-	-	-	-	8	-	1,775
Utah	6	4,800	31	-	-	-	-	6	-	31
Vermont	5	20,000	279	1	(D)	5	(D)	-	-	-
Virginia	23	7,662	8	8	2	15	6	-	-	-
Washington	-	-	-	-	-	-	-	-	-	-
West Virginia	66	59,020	(D)	23	(D)	43	199	-	-	-
Wisconsin	-	-	-	-	-	-	-	-	-	-
Wyoming	6	15,360	(D)	-	-	-	-	6	-	(D)
Water Resource Regions										
Region 01 New England	10	98,520	787	1	(D)	4	(D)	5	-	(D)
Region 02 Mid-Atlantic	62	131,416	1,188	17	(D)	18	(D)	27	-	788
Region 03 South Atlantic-Gulf	34	149,550	534	17	518	17	16	-	-	-
Region 04 Great Lakes	55	234,368	2,783	24	2,392	32	392	-	-	-
Region 05 Ohio	149	212,599	1,338	80	1,080	89	258	-	-	-
Region 06 Tennessee	-	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	10	170,000	1,826	10	1,826	-	-	-	-	-
Region 08 Lower Mississippi	5	3,384	38	2	(D)	3	(D)	-	-	-
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-	-
Region 10 Missouri	9	14,380	183	5	12	-	-	4	-	171
Region 11 Arkansas-White-Red	10	218,000	2,208	5	2,205	-	-	5	-	2
Region 12 Texas-Gulf	8	160,000	1,775	-	-	-	-	8	-	1,775
Region 13 Rio Grande	58	129,800	1,759	15	1,070	31	177	17	-	513
Region 14 Upper Colorado	27	883,000	10,190	-	-	5	36	22	-	10,154
Region 15 Lower Colorado	5	(D)	(D)	-	-	-	-	5	-	(D)
Region 16 Great Basin	12	63,000	731	-	-	6	700	6	-	31
Region 17 Pacific Northwest	24	(D)	(D)	1	(D)	21	340	2	-	(D)
Region 18 California	28	168,000	(D)	-	-	-	-	28	-	(D)
Region 19 Alaska	1	(D)	(D)	-	-	1	(D)	-	-	-
Region 20 Hawaii	22	239,580	578	-	-	-	-	22	-	578

See footnote(s) at end of table.

--continued

Table 46. Irrigation for Nursery, Greenhouse, and Other Horticultural Crops Grown Under Protection: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Sprinkler									
	Operations	Square feet irrigated	Gallons applied (1,000)	Water source						
				Ground water from wells		On-farm surface water		Off-farm water (all suppliers)		
				Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	
United States 2023 2018	6,539 5,767	907,117,081 700,588,139	12,997,969 6,941,578	4,625 4,101	9,723,368 4,663,549	857 705	1,928,956 1,165,342	1,417 1,340	1,345,645 1,112,687	
2023 DATA										
Alabama	141	10,999,445	176,489	139	(D)	-	-	2	(D)	
Alaska	1	(D)	(D)	1	(D)	-	-	-	-	
Arizona	26	3,829,700	25,506	6	5,057	-	-	20	20,450	
Arkansas	29	1,674,040	35,717	13	30,795	7	544	12	4,378	
California	488	117,297,596	1,477,313	315	1,056,004	49	247,407	193	173,903	
Colorado	159	9,500,582	127,245	67	27,851	22	22,114	80	77,281	
Connecticut	80	10,457,968	150,162	48	(D)	4	(D)	30	(D)	
Delaware	1	(D)	(D)	1	(D)	-	-	-	-	
Florida	1,187	331,421,466	5,140,638	1,112	4,646,327	80	278,412	39	215,899	
Georgia	114	8,474,119	72,919	88	53,467	5	(D)	26	(D)	
Hawaii	293	23,764,470	192,804	10	18,970	23	3,113	261	170,722	
Idaho	45	492,348	11,528	33	11,188	3	(D)	11	(D)	
Illinois	96	8,053,436	160,596	81	61,320	13	(D)	2	(D)	
Indiana	98	8,155,248	126,021	65	45,852	12	80,040	21	129	
Iowa	38	5,831,419	152,649	12	(D)	-	-	27	(D)	
Kansas	31	3,293,620	57,730	21	17,937	3	32,002	9	7,790	
Kentucky	114	1,948,880	37,930	37	15,082	9	127	68	22,722	
Louisiana	141	11,918,580	175,849	97	115,220	18	41,236	35	19,393	
Maine	63	209,279	2,389	61	(D)	-	-	2	(D)	
Maryland	83	7,631,044	105,100	60	10,902	34	94,111	5	87	
Massachusetts	66	3,043,680	27,330	63	27,204	-	-	3	126	
Michigan	327	32,998,936	249,929	218	133,907	95	18,899	82	97,123	
Minnesota	80	6,297,409	91,424	80	(D)	1	(D)	-	-	
Mississippi	45	2,025,539	34,832	27	31,947	4	2,806	18	78	
Missouri	60	1,246,664	9,427	29	3,402	7	2,800	24	3,225	
Montana	48	870,742	15,033	41	11,747	2	(D)	8	(D)	
Nebraska	24	339,780	(D)	14	(D)	-	-	10	2,680	
Nevada	8	51,884	2,530	5	2,526	-	-	3	5	
New Hampshire	24	319,355	1,454	20	929	6	525	-	-	
New Jersey	179	33,168,324	408,926	152	396,528	6	(D)	22	(D)	
New Mexico	45	950,800	15,826	11	15,649	31	177	3	1	
New York	289	28,839,667	345,318	219	131,715	49	205,959	21	7,643	
North Carolina	299	17,767,396	147,888	197	(D)	64	95,571	40	(D)	
North Dakota	5	167,500	456	3	(D)	2	(D)	-	-	
Ohio	189	30,226,042	293,926	85	(D)	46	(D)	61	57,614	
Oklahoma	39	1,967,600	15,859	27	6,370	12	9,354	10	135	
Oregon	331	50,280,852	666,017	277	397,640	60	(D)	38	(D)	
Pennsylvania	129	6,174,979	42,298	105	20,765	27	21,533	-	-	
Rhode Island	40	742,840	10,476	19	7,892	6	1,855	16	729	
South Carolina	94	2,111,480	11,851	79	11,139	7	700	8	12	
South Dakota	16	(D)	5,005	11	(D)	-	-	5	(D)	
Tennessee	126	2,231,552	18,513	83	(D)	43	(D)	1	(D)	
Texas	236	88,280,914	1,788,493	116	1,633,899	41	121,390	99	33,204	
Utah	37	2,607,230	51,864	8	(D)	5	(D)	25	28,907	
Vermont	20	98,680	245	12	(D)	5	41	4	(D)	
Virginia	125	10,997,879	311,200	108	269,708	18	28,967	17	12,525	
Washington	132	8,162,831	99,199	86	53,808	-	-	47	45,391	
West Virginia	77	1,124,340	(D)	47	115	23	23	7	(D)	
Wisconsin	194	7,924,008	79,475	191	72,351	15	7,124	-	-	
Wyoming	27	62,198	(D)	25	(D)	-	-	2	(D)	
Water Resource Regions										
Region 01 New England	293	14,833,122	192,531	231	45,139	16	(D)	51	(D)	
Region 02 Mid-Atlantic	644	77,879,638	1,020,929	500	710,916	112	(D)	53	(D)	
Region 03 South Atlantic-Gulf	1,861	374,518,957	5,641,769	1,616	4,954,102	177	409,410	140	278,257	
Region 04 Great Lakes	526	68,011,660	684,725	341	251,062	121	272,488	146	161,176	
Region 05 Ohio	449	21,691,552	309,336	255	95,977	102	174,557	92	38,802	
Region 06 Tennessee	140	1,833,217	15,772	116	14,643	17	1,008	8	120	
Region 07 Upper Mississippi	385	15,193,038	221,873	334	197,707	20	(D)	35	(D)	
Region 08 Lower Mississippi	168	12,911,820	185,138	105	120,883	32	41,809	43	22,446	
Region 09 Souris-Red-Rainy	19	1,256,640	(D)	17	(D)	2	(D)	-	-	
Region 10 Missouri	227	15,161,690	251,034	132	(D)	9	(D)	91	201,995	
Region 11 Arkansas-White-Red	130	7,255,890	117,490	61	49,892	22	41,621	59	25,977	
Region 12 Texas-Gulf	198	87,222,804	1,771,469	116	1,633,899	34	121,126	68	16,445	
Region 13 Rio Grande	86	(D)	17,000	30	16,014	31	177	30	808	
Region 14 Upper Colorado	32	1,336,750	25,077	7	2,955	25	22,122	-	-	
Region 15 Lower Colorado	37	4,069,739	37,719	9	7,577	-	-	28	30,142	
Region 16 Great Basin	31	2,418,445	42,173	10	(D)	2	(D)	20	(D)	
Region 17 Pacific Northwest	531	59,351,353	784,332	419	469,281	63	132,314	99	182,737	
Region 18 California	488	117,297,596	1,477,313	315	1,056,004	49	247,407	193	173,903	
Region 19 Alaska	1	(D)	(D)	1	(D)	-	-	-	-	
Region 20 Hawaii	293	23,764,470	192,804	10	18,970	23	3,113	261	170,722	

See footnote(s) at end of table.

--continued

Table 46. Irrigation for Nursery, Greenhouse, and Other Horticultural Crops Grown Under Protection: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Operations	Square feet irrigated	Gallons applied (1,000)	Drip, trickle, or low-flow micro irrigation					
				Water source					
				Ground water from wells		On-farm surface water		Off-farm water (all suppliers)	
				Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)
United States	12,029	557,354,820	5,638,078	7,532	3,091,043	1,834	499,540	3,096	2,047,495
2018	11,244	607,028,935	5,585,522	7,487	3,504,316	1,702	309,073	2,583	1,772,133
2023 DATA									
Alabama	106	1,079,920	7,407	54	(D)	-	-	52	(D)
Alaska	127	813,776	4,670	85	2,827	21	1,563	21	280
Arizona	99	7,721,416	110,978	60	57,251	-	-	39	53,727
Arkansas	89	2,228,913	4,337	39	(D)	14	432	36	(D)
California	881	203,814,667	2,096,634	450	1,666,469	43	23,052	439	407,112
Colorado	242	4,793,709	47,692	55	17,655	33	993	159	29,044
Connecticut	217	13,751,048	111,768	189	84,687	15	(D)	15	(D)
Delaware	19	804,968	2,819	15	2,611	-	-	4	208
Florida	405	55,290,598	750,928	327	261,417	72	95,476	39	394,035
Georgia	219	5,491,762	33,418	192	29,079	11	(D)	17	(D)
Hawaii	187	5,151,650	58,666	-	-	32	15,307	156	43,359
Idaho	151	737,476	6,451	79	(D)	10	266	64	(D)
Illinois	310	9,185,850	82,748	223	53,717	37	4,745	53	24,286
Indiana	316	7,806,114	124,635	231	48,051	37	73,784	77	2,801
Iowa	169	2,825,385	40,315	73	(D)	40	(D)	56	23,473
Kansas	148	2,038,262	22,230	50	5,721	34	10,774	75	5,735
Kentucky	478	6,475,502	35,819	115	7,582	143	16,014	257	12,223
Louisiana	82	1,157,960	8,467	38	(D)	14	(D)	32	(D)
Maine	138	570,288	4,249	119	3,704	13	163	7	383
Maryland	155	5,057,854	40,513	90	26,783	37	5,667	41	8,063
Massachusetts	151	2,731,992	29,692	136	14,674	1	(D)	25	(D)
Michigan	748	54,738,584	829,768	497	122,587	123	7,428	176	699,752
Minnesota	177	4,208,883	63,169	148	46,990	18	6,512	21	9,667
Mississippi	121	2,778,245	16,013	75	13,719	1	(D)	48	(D)
Missouri	361	8,711,128	69,703	210	46,678	87	13,735	80	9,290
Montana	93	848,546	10,654	72	6,921	8	140	25	3,593
Nebraska	77	797,266	9,886	58	8,823	-	-	23	1,063
Nevada	29	208,969	1,847	13	1,041	5	195	11	611
New Hampshire	162	2,524,494	23,436	118	20,904	18	309	26	2,223
New Jersey	132	7,402,228	68,435	66	63,658	16	(D)	66	(D)
New Mexico	119	554,019	6,947	78	1,930	43	292	14	4,726
New York	771	10,049,315	52,590	456	14,586	182	27,385	156	10,619
North Carolina	584	19,270,902	55,416	359	23,716	223	(D)	2	(D)
North Dakota	12	126,980	2,331	4	(D)	-	-	8	(D)
Ohio	467	18,940,594	121,155	282	15,100	152	37,559	79	68,495
Oklahoma	79	602,200	3,083	34	928	-	-	45	2,155
Oregon	299	15,787,968	134,627	201	89,003	37	25,107	75	20,517
Pennsylvania	661	11,682,653	77,507	506	70,145	109	6,467	48	895
Rhode Island	64	541,410	3,740	56	3,582	-	-	8	157
South Carolina	119	2,936,759	29,478	102	29,192	9	(D)	8	(D)
South Dakota	59	550,039	5,251	42	(D)	-	-	17	(D)
Tennessee	279	5,783,369	44,297	119	25,850	43	3,793	117	14,654
Texas	311	22,092,118	181,356	181	92,461	31	52,475	107	36,420
Utah	82	1,882,112	15,503	11	2,489	3	9	69	13,005
Vermont	159	1,340,483	4,992	126	3,954	30	857	4	180
Virginia	232	6,891,696	40,490	206	11,178	12	(D)	18	(D)
Washington	434	9,624,679	90,763	306	29,928	21	1,111	112	59,724
West Virginia	229	1,239,534	6,134	168	2,544	35	(D)	26	(D)
Wisconsin	406	5,631,221	44,586	370	38,964	-	-	36	5,622
Wyoming	74	79,316	483	48	218	21	59	7	206
Water Resource Regions									
Region 01 New England	801	20,627,232	176,181	672	130,499	62	(D)	81	(D)
Region 02 Mid-Atlantic	1,505	38,574,991	252,818	1,094	177,524	269	56,602	200	18,691
Region 03 South Atlantic-Gulf	1,478	85,175,703	880,655	1,095	355,061	279	106,970	138	418,624
Region 04 Great Lakes	1,464	76,066,963	977,452	961	154,760	235	52,989	341	769,703
Region 05 Ohio	1,533	23,191,423	214,345	760	88,182	414	97,867	447	28,296
Region 06 Tennessee	195	3,360,480	25,982	101	14,900	22	581	72	10,501
Region 07 Upper Mississippi	971	19,192,727	202,852	727	134,436	98	26,892	159	41,524
Region 08 Lower Mississippi	165	2,778,806	24,531	63	9,424	31	(D)	76	(D)
Region 09 Souris-Red-Rainy	11	154,000	(D)	2	(D)	9	(D)	-	-
Region 10 Missouri	679	13,827,600	133,393	335	59,473	118	22,607	254	51,314
Region 11 Arkansas-White-Red	348	4,461,223	19,646	191	9,725	23	723	146	9,197
Region 12 Texas-Gulf	283	21,500,998	177,893	177	92,073	31	52,475	83	33,345
Region 13 Rio Grande	106	391,710	(D)	71	2,332	35	187	8	(D)
Region 14 Upper Colorado	149	1,919,269	20,843	23	3,663	30	721	101	16,459
Region 15 Lower Colorado	117	7,826,621	111,668	71	57,499	5	67	46	54,102
Region 16 Great Basin	91	1,943,446	16,253	23	(D)	5	(D)	64	12,712
Region 17 Pacific Northwest	938	26,581,535	236,648	631	126,835	72	26,516	264	83,297
Region 18 California	881	203,814,667	2,096,634	450	1,666,469	43	23,052	439	407,112
Region 19 Alaska	127	813,776	4,670	85	2,827	21	1,563	21	280
Region 20 Hawaii	187	5,151,650	58,666	-	-	32	15,307	156	43,359

See footnote(s) at end of table.

--continued

Table 46. Irrigation for Nursery, Greenhouse, and Other Horticultural Crops Grown Under Protection: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Hydroponics (see text)								
	Operations	Square feet irrigated	Gallons applied (1,000)	Water source					
				Ground water from wells		On-farm surface water		Off-farm water (all suppliers)	
				Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)	Operations	Gallons applied (1,000)
United States 2023 2018	739 (NA)	54,099,271 (NA)	401,984 (NA)	486 (NA)	249,647 (NA)	77 (NA)	100,777 (NA)	224 (NA)	51,560 (NA)
2023 DATA									
Alabama	-	-	-	-	-	-	-	-	-
Alaska	20	(D)	(D)	1	(D)	-	-	19	42
Arizona	7	(D)	(D)	7	(D)	-	-	-	-
Arkansas	6	13,800	83	2	(D)	-	(D)	2	(D)
California	51	12,093,440	(D)	30	103,634	22	(D)	13	(D)
Colorado	9	23,960	577	5	139	-	-	4	439
Connecticut	6	(D)	(D)	5	(D)	1	(D)	-	-
Delaware	2	(D)	(D)	-	-	-	-	2	(D)
Florida	66	1,118,500	33,589	66	33,589	-	-	-	-
Georgia	39	603,000	2,895	39	2,895	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	-
Idaho	4	(D)	(D)	2	(D)	2	(D)	2	(D)
Illinois	21	3,375,160	17,668	11	9,358	-	-	10	8,311
Indiana	1	(D)	(D)	-	-	-	-	1	(D)
Iowa	-	-	-	-	-	-	-	-	-
Kansas	15	54,760	1,241	5	975	-	-	10	266
Kentucky	12	54,000	60	-	-	12	60	-	-
Louisiana	-	-	-	-	-	-	-	-	-
Maine	2	(D)	(D)	-	-	2	(D)	-	-
Maryland	6	50,688	397	6	397	-	-	-	-
Massachusetts	10	1,151,200	4,844	-	-	1	(D)	9	(D)
Michigan	27	5,880,600	34,047	-	-	27	32,344	27	1,702
Minnesota	35	2,438,196	39,463	18	(D)	2	(D)	17	(D)
Mississippi	9	60,000	1,339	3	23	-	-	6	1,317
Missouri	21	104,160	351	21	351	-	-	-	-
Montana	6	78,400	970	2	(D)	-	-	4	(D)
Nebraska	1	(D)	(D)	1	(D)	-	-	-	-
Nevada	6	29,865	376	3	357	-	-	3	20
New Hampshire	9	781,360	(D)	9	(D)	-	-	-	-
New Jersey	40	191,190	2,456	40	2,456	-	-	-	-
New Mexico	3	7,800	41	-	-	-	-	3	41
New York	23	2,783,942	3,950	3	(D)	1	(D)	19	1,520
North Carolina	93	1,065,300	5,466	93	5,466	-	-	-	-
North Dakota	-	-	-	-	-	-	-	-	-
Ohio	1	(D)	(D)	-	-	1	(D)	1	(D)
Oklahoma	-	-	-	-	-	-	-	-	-
Oregon	11	(D)	(D)	1	(D)	-	-	10	(D)
Pennsylvania	42	1,445,446	20,346	42	20,346	-	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-
South Carolina	54	331,200	1,198	36	823	-	-	18	375
South Dakota	12	55,600	584	8	104	-	-	4	480
Tennessee	-	-	-	-	-	-	-	-	-
Texas	50	8,265,344	43,566	19	41,289	-	-	31	2,277
Utah	7	46,760	784	-	-	-	-	7	784
Vermont	-	-	-	-	-	-	-	-	-
Virginia	8	1,706,000	9,185	6	185	2	(D)	2	(D)
Washington	2	(D)	(D)	-	-	2	(D)	-	-
West Virginia	1	(D)	(D)	1	(D)	-	-	-	-
Wisconsin	1	(D)	(D)	1	(D)	-	-	-	-
Wyoming	-	-	-	-	-	-	-	-	-
Water Resource Regions									
Region 01 New England	27	5,768,280	29,842	14	(D)	4	24,066	9	(D)
Region 02 Mid-Atlantic	96	1,816,324	24,475	94	(D)	-	-	2	(D)
Region 03 South Atlantic-Gulf	259	3,273,000	44,238	238	42,813	-	-	21	1,425
Region 04 Great Lakes	48	12,575,942	63,648	-	-	29	47,582	47	16,065
Region 05 Ohio	15	1,623,000	9,062	-	-	14	8,430	3	632
Region 06 Tennessee	-	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	40	5,611,036	52,176	13	(D)	2	(D)	27	(D)
Region 08 Lower Mississippi	6	15,000	289	3	(D)	-	-	3	(D)
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-	-
Region 10 Missouri	73	1,490,240	13,370	57	12,534	-	-	16	836
Region 11 Arkansas-White-Red	6	13,800	83	2	(D)	2	(D)	2	(D)
Region 12 Texas-Gulf	47	424,544	2,585	16	308	-	-	31	2,277
Region 13 Rio Grande	6	7,848,600	41,022	3	40,981	-	-	3	41
Region 14 Upper Colorado	4	20,000	439	-	-	-	-	4	439
Region 15 Lower Colorado	10	(D)	(D)	10	(D)	-	-	-	-
Region 16 Great Basin	10	47,810	804	-	-	-	-	10	804
Region 17 Pacific Northwest	21	247,260	(D)	5	(D)	4	(D)	14	109
Region 18 California	51	12,093,440	(D)	30	103,634	22	(D)	13	(D)
Region 19 Alaska	20	(D)	(D)	1	(D)	-	-	19	42
Region 20 Hawaii	-	-	-	-	-	-	-	-	-

¹ Operations can utilize more than one method of irrigation.

Table 47. Reasons for Discontinuing Irrigation on Horticultural Operations since Previous Census Year: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Operations	Square feet under protection in previous census year ¹	Operations reporting discontinuance to be permanent	Reason for discontinuance ²			
				Sufficient soil moisture	Shortage of surface water	Shortage of ground water	Irrigation is uneconomical
United States 2023	1,607	8,845,156	181	805	131	54	198
..... 2018	2,565	10,726,594	694	1,804	104	60	140
2023 DATA							
Alabama	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-
Arizona	16	12,420	-	10	3	2	-
Arkansas	6	(D)	-	2	-	-	-
California	48	112,000	7	26	6	-	6
Colorado	27	21,450	-	17	-	7	-
Connecticut	36	1,680	-	31	-	-	-
Delaware	2	(D)	-	2	-	-	-
Florida	127	1,529,250	-	31	-	-	35
Georgia	33	203,700	-	7	9	-	17
Hawaii	-	-	-	-	-	-	-
Idaho	13	8,120	-	9	-	-	-
Illinois	14	-	-	14	-	-	-
Indiana	12	48,448	10	-	-	-	-
Iowa	-	-	-	-	-	-	-
Kansas	15	66,228	15	-	-	-	-
Kentucky	65	45,228	11	54	-	-	7
Louisiana	7	300	-	-	-	-	-
Maine	91	(D)	2	89	-	27	-
Maryland	26	70,800	2	14	6	-	-
Massachusetts	73	414,450	-	73	-	-	-
Michigan	41	145,383	21	20	-	-	-
Minnesota	20	95,812	-	20	-	-	-
Mississippi	13	7,614	2	6	-	2	2
Missouri	12	15,120	-	3	1	2	-
Montana	5	(D)	3	-	-	-	-
Nebraska	16	9,300	6	3	-	-	-
Nevada	6	131,841	-	3	3	3	-
New Hampshire	23	19,404	3	23	-	-	3
New Jersey	95	161,000	-	71	-	-	24
New Mexico	7	1,200	-	-	-	-	-
New York	100	2,060,760	-	20	20	-	-
North Carolina	93	760,600	26	3	-	-	52
North Dakota	1	(D)	1	-	-	-	-
Ohio	25	30,000	-	-	25	-	-
Oklahoma	34	105,716	10	16	-	-	-
Oregon	43	4,400	8	35	-	-	-
Pennsylvania	81	344,160	22	81	-	-	-
Rhode Island	2	(D)	-	-	2	-	-
South Carolina	31	11,200	-	23	-	8	-
South Dakota	1	-	-	1	-	-	-
Tennessee	41	5,100	-	-	-	-	-
Texas	169	1,243,376	2	70	30	3	42
Utah	7	3,244	-	-	3	-	-
Vermont	42	135,824	-	16	23	-	3
Virginia	25	990,000	-	-	-	-	-
Washington	37	5,328	4	12	-	-	7
West Virginia	6	7,200	6	-	-	-	-
Wisconsin	20	-	20	-	-	-	-
Wyoming	-	-	-	-	-	-	-
Water Resource Regions							
Region 01 New England	238	447,518	5	216	12	27	6
Region 02 Mid-Atlantic	234	976,280	24	168	26	-	24
Region 03 South Atlantic-Gulf	297	3,492,584	28	70	9	8	94
Region 04 Great Lakes	175	1,971,823	21	56	38	-	-
Region 05 Ohio	93	99,676	27	47	-	-	-
Region 06 Tennessee	17	13,980	-	7	-	-	17
Region 07 Upper Mississippi	55	95,812	20	35	1	-	-
Region 08 Lower Mississippi	36	2,400	-	-	-	2	2
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-
Region 10 Missouri	59	98,170	19	14	-	9	-
Region 11 Arkansas-White-Red	56	283,484	13	28	-	3	-
Region 12 Texas-Gulf	153	1,067,376	2	57	30	-	42
Region 13 Rio Grande	10	1,200	-	3	-	-	-
Region 14 Upper Colorado	14	18,844	-	9	3	-	-
Region 15 Lower Colorado	18	14,020	-	10	3	2	-
Region 16 Great Basin	6	131,841	-	3	3	3	-
Region 17 Pacific Northwest	98	18,148	15	56	-	-	7
Region 18 California	48	112,000	7	26	6	-	6
Region 19 Alaska	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-

See footnote(s) at end of table.

--continued

Table 47. Reasons for Discontinuing Irrigation on Horticultural Operations since Previous Census Year: 2023 and 2018 (continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Reason for discontinuance ² - con.							
	Loss of water rights	Sold or leased water rights or annual water allocation	Sold or leased irrigated land or irrigated area under protection	Restrictions on water use	Converted to non-agricultural use	Converted to agricultural enterprise not requiring irrigation	Available surface water too salty	Other or unspecified
United States 2023 2018	3 23	4 22	189 45	15 51	73 112	44 209	10 25	268 481
2023 DATA								
Alabama	-	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-	-
Arizona	-	-	-	-	-	3	-	6
Arkansas	-	-	-	-	-	2	-	2
California	-	-	7	-	3	-	-	3
Colorado	-	-	-	5	2	7	-	7
Connecticut	-	-	-	-	-	-	-	5
Delaware	-	-	-	-	-	-	-	-
Florida	-	-	-	-	-	-	-	61
Georgia	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-
Idaho	-	-	2	-	-	-	-	2
Illinois	-	-	-	-	-	-	-	-
Indiana	-	-	-	-	-	-	-	12
Iowa	-	-	-	-	-	-	-	-
Kansas	-	-	15	-	-	-	-	-
Kentucky	-	-	11	-	-	-	-	-
Louisiana	-	4	-	-	3	-	-	4
Maine	-	-	-	-	-	-	-	2
Maryland	-	-	6	-	-	2	-	-
Massachusetts	-	-	-	-	-	-	-	-
Michigan	-	-	-	-	-	-	-	21
Minnesota	-	-	-	-	-	-	-	-
Mississippi	-	-	3	-	-	-	-	5
Missouri	-	-	-	-	-	-	-	7
Montana	-	-	-	-	-	-	-	5
Nebraska	-	-	3	-	-	-	-	10
Nevada	3	-	-	-	-	-	-	-
New Hampshire	-	-	-	-	-	-	-	3
New Jersey	-	-	-	-	-	-	-	-
New Mexico	-	-	-	-	4	-	-	3
New York	-	-	20	-	-	20	-	20
North Carolina	-	-	38	-	26	-	-	26
North Dakota	-	-	-	-	-	-	-	1
Ohio	-	-	-	-	-	-	-	-
Oklahoma	-	-	8	-	10	7	-	-
Oregon	-	-	-	-	-	-	8	-
Pennsylvania	-	-	-	-	-	-	-	-
Rhode Island	-	-	-	2	-	-	2	-
South Carolina	-	-	-	-	-	-	-	-
South Dakota	-	-	-	-	-	-	-	-
Tennessee	-	-	24	-	17	-	-	-
Texas	-	-	26	8	8	3	-	16
Utah	-	-	2	-	-	-	-	2
Vermont	-	-	-	-	-	-	-	-
Virginia	-	-	15	-	-	-	-	10
Washington	-	-	9	-	-	-	-	9
West Virginia	-	-	-	-	-	-	-	6
Wisconsin	-	-	-	-	-	-	-	20
Wyoming	-	-	-	-	-	-	-	-
Water Resource Regions								
Region 01 New England	-	-	-	2	-	-	2	10
Region 02 Mid-Atlantic	-	-	6	-	-	2	-	10
Region 03 South Atlantic-Gulf	-	-	53	-	26	-	-	92
Region 04 Great Lakes	-	-	20	-	-	20	-	41
Region 05 Ohio	-	-	11	-	17	-	-	18
Region 06 Tennessee	-	-	-	-	-	-	-	-
Region 07 Upper Mississippi	-	-	-	-	-	-	-	20
Region 08 Lower Mississippi	-	4	27	-	3	-	-	4
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	-	-
Region 10 Missouri	-	-	15	5	2	2	-	25
Region 11 Arkansas-White-Red	-	-	11	-	10	9	-	2
Region 12 Texas-Gulf	-	-	26	8	8	3	-	16
Region 13 Rio Grande	-	-	-	-	4	-	-	3
Region 14 Upper Colorado	-	-	-	-	-	5	-	2
Region 15 Lower Colorado	-	-	2	-	-	3	-	6
Region 16 Great Basin	3	-	-	-	-	-	-	-
Region 17 Pacific Northwest	-	-	11	-	-	-	8	16
Region 18 California	-	-	7	-	3	-	-	3
Region 19 Alaska	-	-	-	-	-	-	-	-
Region 20 Hawaii	-	-	-	-	-	-	-	-

¹ Square feet irrigated are totals for all irrigation on these operations. Data were acquired from the 2022 and 2017 Censuses of Agriculture results.

² Respondents could choose more than one reason for not irrigating or discontinuing irrigation.

Table 48. Irrigated Horticultural Operations by Market Value of All Agricultural Products Sold: 2023 and 2018

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	Total						
	In the open			Under protection			
	Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated	
United States 2023	17,491	669,610	598,980	26,716	1,721,886,383	1,721,886,383	
..... 2018	15,623	699,068	581,936	24,876	1,525,130,873	1,525,130,873	
2023 DATA							
Alabama	215	18,398	17,404	260	12,859,190	12,859,190	
Alaska	93	213	213	251	1,627,816	1,627,816	
Arizona	176	10,510	10,510	181	21,992,426	21,992,426	
Arkansas	94	6,082	5,282	148	5,447,084	5,447,084	
California	1,903	38,907	38,776	2,047	363,330,842	363,330,842	
Colorado	470	14,171	14,147	556	18,382,301	18,382,301	
Connecticut	162	2,439	2,202	368	24,099,129	24,099,129	
Delaware	24	2,116	2,116	36	1,322,428	1,322,428	
Florida	2,209	98,397	96,419	1,667	378,982,374	378,982,374	
Georgia	303	26,795	26,561	465	16,878,623	16,878,623	
Hawaii	464	1,773	(D)	519	28,096,748	28,096,748	
Idaho	286	9,151	8,805	287	2,421,911	2,421,911	
Illinois	426	11,805	10,028	574	25,293,626	25,293,626	
Indiana	235	3,696	2,816	544	16,455,770	16,455,770	
Iowa	72	4,007	3,065	323	11,172,960	11,172,960	
Kansas	126	6,655	6,559	258	6,600,028	6,600,028	
Kentucky	195	2,009	1,827	710	9,170,047	9,170,047	
Louisiana	199	5,087	4,826	253	14,312,290	14,312,290	
Maine	94	1,113	945	332	5,257,816	5,257,816	
Maryland	162	15,315	12,163	335	13,938,928	13,938,928	
Massachusetts	179	2,290	1,820	401	10,798,622	10,798,622	
Michigan	808	28,411	24,987	1,615	141,161,153	141,161,153	
Minnesota	222	11,406	6,546	483	16,470,436	16,470,436	
Mississippi	105	3,431	3,404	193	5,535,045	5,535,045	
Missouri	260	8,224	7,155	573	12,075,602	12,075,602	
Montana	157	2,411	2,411	312	2,997,212	2,997,212	
Nebraska	131	5,666	5,570	206	3,396,228	3,396,228	
Nevada	53	513	(D)	80	674,134	674,134	
New Hampshire	103	470	467	245	5,548,723	5,548,723	
New Jersey	334	17,973	16,838	436	41,977,776	41,977,776	
New Mexico	105	(D)	(D)	287	2,987,464	2,987,464	
New York	716	29,933	18,951	1,446	46,271,926	46,271,926	
North Carolina	731	17,680	14,977	1,202	33,056,546	33,056,546	
North Dakota	19	(D)	(D)	53	653,150	653,150	
Ohio	507	21,334	9,437	1,046	65,745,243	65,745,243	
Oklahoma	90	14,317	14,299	164	5,305,060	5,305,060	
Oregon	1,317	55,698	50,845	1,092	69,493,438	69,493,438	
Pennsylvania	385	6,843	3,677	1,367	53,793,143	53,793,143	
Rhode Island	71	3,309	3,250	132	1,797,847	1,797,847	
South Carolina	277	23,340	21,346	432	6,301,189	6,301,189	
South Dakota	50	767	(D)	116	2,182,771	2,182,771	
Tennessee	258	11,717	8,183	527	10,027,549	10,027,549	
Texas	778	70,246	69,653	653	125,179,812	125,179,812	
Utah	169	3,714	3,702	179	7,309,038	7,309,038	
Vermont	78	191	139	335	3,389,171	3,389,171	
Virginia	326	15,500	9,301	631	22,777,843	22,777,843	
Washington	899	15,250	14,787	878	22,191,094	22,191,094	
West Virginia	36	356	(D)	374	3,062,923	3,062,923	
Wisconsin	394	8,869	8,180	998	21,662,418	21,662,418	
Wyoming	25	305	305	146	421,490	421,490	
Water Resource Regions							
Region 01 New England	618	9,628	8,691	1,574	48,060,313	48,060,313	
Region 02 Mid-Atlantic	1,591	83,157	59,922	3,156	154,628,160	154,628,160	
Region 03 South Atlantic-Gulf	3,715	187,187	179,571	4,101	453,114,544	453,114,544	
Region 04 Great Lakes	1,362	37,870	30,440	3,236	219,295,359	219,295,359	
Region 05 Ohio	889	26,909	13,789	2,681	60,263,258	60,263,258	
Region 06 Tennessee	347	4,702	4,099	531	7,601,730	7,601,730	
Region 07 Upper Mississippi	1,078	36,391	28,108	2,079	54,232,136	54,232,136	
Region 08 Lower Mississippi	289	10,364	9,326	383	17,662,010	17,662,010	
Region 09 Souris-Red-Rainy	19	(D)	(D)	63	1,732,290	1,732,290	
Region 10 Missouri	745	25,619	24,691	1,416	40,101,510	40,101,510	
Region 11 Arkansas-White-Red	317	25,464	24,465	635	17,229,218	17,229,218	
Region 12 Texas-Gulf	768	70,066	69,489	579	115,153,432	115,153,432	
Region 13 Rio Grande	112	(D)	(D)	286	10,149,020	10,149,020	
Region 14 Upper Colorado	184	13,938	13,938	274	4,286,644	4,286,644	
Region 15 Lower Colorado	193	10,718	10,718	259	22,748,554	22,748,554	
Region 16 Great Basin	195	4,198	4,185	179	7,032,422	7,032,422	
Region 17 Pacific Northwest	2,606	81,284	75,623	2,445	95,321,425	95,321,425	
Region 18 California	1,906	38,900	38,769	2,069	363,549,794	363,549,794	
Region 19 Alaska	93	213	213	251	1,627,816	1,627,816	
Region 20 Hawaii	464	1,773	(D)	519	28,096,748	28,096,748	

--continued

Table 48. Irrigated Horticultural Operations by Market Value of All Agricultural Products Sold: 2023 and 2018
(continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$0 - \$9,999						
	In the open			Under protection			
	Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated	
United States 2023	5,315	15,295	13,405	7,226	50,834,071	50,834,071	
..... 2018	4,432	19,446	12,864	6,715	54,660,696	54,660,696	
2023 DATA							
Alabama	30	47	47	112	781,830	781,830	
Alaska	47	75	75	130	287,340	287,340	
Arizona	64	168	168	44	1,024,876	1,024,876	
Arkansas	34	41	41	82	2,744,086	2,744,086	
California	489	957	939	434	4,277,840	4,277,840	
Colorado	228	630	630	233	3,482,008	3,482,008	
Connecticut	41	82	82	67	1,048,201	1,048,201	
Delaware	9	21	21	9	38,496	38,496	
Florida	770	1,801	1,501	442	8,873,700	8,873,700	
Georgia	68	112	100	170	821,500	821,500	
Hawaii	204	248	234	107	627,880	627,880	
Idaho	104	185	185	79	148,966	148,966	
Illinois	134	138	138	104	231,110	231,110	
Indiana	62	105	105	104	349,972	349,972	
Iowa	17	341	188	94	136,460	136,460	
Kansas	38	43	40	54	113,950	113,950	
Kentucky	88	191	191	271	1,695,843	1,695,843	
Louisiana	34	51	45	103	775,976	775,976	
Maine	33	39	39	149	499,687	499,687	
Maryland	46	62	56	48	115,180	115,180	
Massachusetts	27	64	64	101	246,810	246,810	
Michigan	186	1,522	1,069	240	275,952	275,952	
Minnesota	53	241	93	82	214,144	214,144	
Mississippi	33	43	37	93	695,045	695,045	
Missouri	60	117	117	126	785,700	785,700	
Montana	82	115	115	157	388,790	388,790	
Nebraska	24	27	27	25	101,650	101,650	
Nevada	28	31	29	15	42,928	42,928	
New Hampshire	23	21	18	71	758,960	758,960	
New Jersey	40	40	40	64	123,250	123,250	
New Mexico	64	81	81	106	111,908	111,908	
New York	122	1,782	1,782	265	663,864	663,864	
North Carolina	184	403	373	373	1,863,632	1,863,632	
North Dakota	10	(D)	(D)	15	20,070	20,070	
Ohio	130	620	620	261	1,810,350	1,810,350	
Oklahoma	8	56	56	62	499,960	499,960	
Oregon	500	1,167	1,150	425	1,706,120	1,706,120	
Pennsylvania	19	570	95	143	1,032,344	1,032,344	
Rhode Island	9	14	14	29	111,360	111,360	
South Carolina	83	146	128	237	1,253,370	1,253,370	
South Dakota	9	5	5	27	88,775	88,775	
Tennessee	121	161	161	211	867,880	867,880	
Texas	362	1,416	1,325	242	6,673,148	6,673,148	
Utah	65	102	90	59	402,270	402,270	
Vermont	10	8	8	65	110,782	110,782	
Virginia	54	47	47	216	726,754	726,754	
Washington	360	632	516	182	271,728	271,728	
West Virginia	14	18	12	200	339,584	339,584	
Wisconsin	81	(D)	(D)	209	335,084	335,084	
Wyoming	14	17	17	89	236,958	236,958	
Water Resource Regions							
Region 01 New England	138	225	222	422	2,682,668	2,682,668	
Region 02 Mid-Atlantic	233	2,479	1,998	467	1,717,794	1,717,794	
Region 03 South Atlantic-Gulf	1,136	2,466	2,119	1,372	14,405,257	14,405,257	
Region 04 Great Lakes	285	1,660	1,207	582	1,042,982	1,042,982	
Region 05 Ohio	244	792	786	884	4,081,795	4,081,795	
Region 06 Tennessee	170	319	307	222	978,150	978,150	
Region 07 Upper Mississippi	278	1,175	874	414	915,738	915,738	
Region 08 Lower Mississippi	52	73	60	136	837,478	837,478	
Region 09 Souris-Red-Rainy	8	8	8	21	53,450	53,450	
Region 10 Missouri	280	485	485	360	3,511,681	3,511,681	
Region 11 Arkansas-White-Red	84	314	304	300	4,840,132	4,840,132	
Region 12 Texas-Gulf	354	1,387	1,311	201	5,451,788	5,451,788	
Region 13 Rio Grande	65	95	86	81	71,868	71,868	
Region 14 Upper Colorado	69	172	172	166	1,169,380	1,169,380	
Region 15 Lower Colorado	67	180	180	73	1,297,296	1,297,296	
Region 16 Great Basin	78	104	91	47	124,916	124,916	
Region 17 Pacific Northwest	1,028	2,077	1,943	785	2,239,686	2,239,686	
Region 18 California	495	961	943	456	4,496,792	4,496,792	
Region 19 Alaska	47	75	75	130	287,340	287,340	
Region 20 Hawaii	204	248	234	107	627,880	627,880	

--continued

Table 48. Irrigated Horticultural Operations by Market Value of All Agricultural Products Sold: 2023 and 2018
(continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$10,000 - \$24,999							
	In the open				Under protection			
	Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated		
United States 2023	2,081	7,110	5,808	2,998	24,303,445	24,303,445		
..... 2018	1,817	9,454	8,009	3,285	31,177,977	31,177,977		
2023 DATA								
Alabama	49	97	97	36	178,300	178,300		
Alaska	9	(D)	(D)	27	91,416	91,416		
Arizona	-	-	-	24	101,490	101,490		
Arkansas	9	15	15	9	49,558	49,558		
California	222	482	479	144	1,033,146	1,033,146		
Colorado	39	230	230	65	1,197,350	1,197,350		
Connecticut	21	21	21	40	1,023,480	1,023,480		
Delaware	2	(D)	(D)	-	-	-		
Florida	219	168	168	96	621,600	621,600		
Georgia	15	113	113	72	236,864	236,864		
Hawaii	131	128	127	93	1,178,480	1,178,480		
Idaho	28	52	51	47	110,240	110,240		
Illinois	28	17	17	34	74,900	74,900		
Indiana	10	(D)	(D)	50	126,672	126,672		
Iowa	18	18	18	21	76,200	76,200		
Kansas	11	26	26	37	155,192	155,192		
Kentucky	19	16	16	155	1,101,180	1,101,180		
Louisiana	23	76	76	32	381,680	381,680		
Maine	16	32	16	15	26,290	26,290		
Maryland	17	14	14	40	126,696	126,696		
Massachusetts	74	199	149	15	229,800	229,800		
Michigan	135	643	343	153	1,885,928	1,885,928		
Minnesota	31	44	36	33	178,000	178,000		
Mississippi	19	(D)	(D)	37	455,912	455,912		
Missouri	27	40	40	110	990,540	990,540		
Montana	19	49	49	32	162,276	162,276		
Nebraska	13	16	16	16	54,900	54,900		
Nevada	9	(D)	(D)	37	33,548	33,548		
New Hampshire	18	27	27	47	180,100	180,100		
New Jersey	24	120	120	-	-	-		
New Mexico	8	26	26	60	157,444	157,444		
New York	118	996	267	107	241,644	241,644		
North Carolina	29	247	143	131	1,437,890	1,437,890		
North Dakota	-	-	-	10	27,160	27,160		
Ohio	89	120	106	135	3,343,580	3,343,580		
Oklahoma	8	16	16	27	86,300	86,300		
Oregon	145	492	476	112	518,616	518,616		
Pennsylvania	43	161	161	194	2,017,430	2,017,430		
Rhode Island	8	12	10	22	71,560	71,560		
South Carolina	-	-	-	24	72,000	72,000		
South Dakota	6	4	4	13	22,700	22,700		
Tennessee	41	(D)	(D)	49	879,720	879,720		
Texas	77	1,706	1,700	87	1,636,580	1,636,580		
Utah	28	71	71	17	293,220	293,220		
Vermont	20	22	22	68	138,672	138,672		
Virginia	35	35	35	75	204,185	204,185		
Washington	90	184	132	195	756,094	756,094		
West Virginia	-	-	-	52	198,920	198,920		
Wisconsin	77	239	239	79	114,784	114,784		
Wyoming	4	4	4	24	23,208	23,208		
Water Resource Regions								
Region 01 New England	141	294	226	156	1,553,590	1,553,590		
Region 02 Mid-Atlantic	167	488	488	209	1,441,136	1,441,136		
Region 03 South Atlantic-Gulf	287	492	492	407	2,992,191	2,992,191		
Region 04 Great Lakes	279	1,778	735	323	5,115,564	5,115,564		
Region 05 Ohio	79	67	67	437	2,700,222	2,700,222		
Region 06 Tennessee	92	237	133	65	943,720	943,720		
Region 07 Upper Mississippi	122	106	98	182	946,964	946,964		
Region 08 Lower Mississippi	35	81	81	52	440,198	440,198		
Region 09 Souris-Red-Rainy	4	8	8	9	54,000	54,000		
Region 10 Missouri	65	132	132	185	731,750	731,750		
Region 11 Arkansas-White-Red	23	207	207	78	314,920	314,920		
Region 12 Texas-Gulf	75	1,556	1,550	80	1,624,400	1,624,400		
Region 13 Rio Grande	3	(D)	(D)	55	156,184	156,184		
Region 14 Upper Colorado	34	194	194	53	1,155,040	1,155,040		
Region 15 Lower Colorado	4	22	22	55	116,990	116,990		
Region 16 Great Basin	33	57	57	22	302,508	302,508		
Region 17 Pacific Northwest	276	765	696	366	1,411,026	1,411,026		
Region 18 California	222	482	479	144	1,033,146	1,033,146		
Region 19 Alaska	9	(D)	(D)	27	91,416	91,416		
Region 20 Hawaii	131	128	127	93	1,178,480	1,178,480		

--continued

Table 48. Irrigated Horticultural Operations by Market Value of All Agricultural Products Sold: 2023 and 2018
(continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$25,000 - \$49,999						
	In the open			Under protection			
	Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated	
United States 2023	1,585	6,834	5,807	2,882	39,502,690	39,502,690	
..... 2018	1,298	8,977	6,634	2,659	29,658,532	29,658,532	
2023 DATA							
Alabama	23	23	23	41	261,400	261,400	
Alaska	14	35	35	6	11,616	11,616	
Arizona	5	100	100	10	439,600	439,600	
Arkansas	11	34	32	13	70,790	70,790	
California	188	704	704	89	1,686,180	1,686,180	
Colorado	20	61	61	35	116,600	116,600	
Connecticut	10	65	30	87	487,608	487,608	
Delaware	4	12	12	9	68,300	68,300	
Florida	259	812	812	243	9,373,780	9,373,780	
Georgia	19	55	55	18	44,450	44,450	
Hawaii	36	36	36	67	1,656,484	1,656,484	
Idaho	19	18	18	58	142,560	142,560	
Illinois	15	3	3	37	129,560	129,560	
Indiana	58	91	51	96	864,020	864,020	
Iowa	-	-	-	60	138,000	138,000	
Kansas	13	63	36	47	302,912	302,912	
Kentucky	-	-	-	49	1,704,428	1,704,428	
Louisiana	18	231	216	22	151,368	151,368	
Maine	26	17	17	16	55,296	55,296	
Maryland	5	10	10	41	1,156,828	1,156,828	
Massachusetts	10	300	150	27	205,200	205,200	
Michigan	54	24	24	250	1,458,666	1,458,666	
Minnesota	4	4	4	69	173,880	173,880	
Mississippi	8	65	65	24	937,428	937,428	
Missouri	14	38	24	82	733,034	733,034	
Montana	7	5	5	19	62,668	62,668	
Nebraska	10	10	10	61	214,576	214,576	
Nevada	2	(D)	(D)	5	46,400	46,400	
New Hampshire	9	3	3	20	44,928	44,928	
New Jersey	-	-	-	33	326,550	326,550	
New Mexico	5	(D)	(D)	21	57,470	57,470	
New York	83	217	217	224	8,771,660	8,771,660	
North Carolina	80	1,190	1,190	129	622,600	622,600	
North Dakota	-	-	-	6	26,520	26,520	
Ohio	15	15	15	75	494,800	494,800	
Oklahoma	18	36	36	25	1,216,120	1,216,120	
Oregon	62	1,236	796	75	217,110	217,110	
Pennsylvania	74	344	146	105	481,972	481,972	
Rhode Island	6	7	7	17	91,733	91,733	
South Carolina	79	299	299	31	105,300	105,300	
South Dakota	2	(D)	(D)	4	16,000	16,000	
Tennessee	-	-	-	67	471,849	471,849	
Texas	74	276	254	56	1,789,408	1,789,408	
Utah	10	18	18	9	43,050	43,050	
Vermont	-	-	-	58	131,688	131,688	
Virginia	77	140	89	92	461,560	461,560	
Washington	109	138	132	132	561,024	561,024	
West Virginia	9	42	15	12	76,572	76,572	
Wisconsin	21	42	42	106	792,200	792,200	
Wyoming	-	-	-	4	8,944	8,944	
Water Resource Regions							
Region 01 New England	61	391	206	203	955,913	955,913	
Region 02 Mid-Atlantic	218	619	370	404	10,635,362	10,635,362	
Region 03 South Atlantic-Gulf	473	2,422	2,422	454	11,236,018	11,236,018	
Region 04 Great Lakes	87	149	149	400	2,788,066	2,788,066	
Region 05 Ohio	54	102	35	240	2,806,357	2,806,357	
Region 06 Tennessee	-	-	-	55	263,200	263,200	
Region 07 Upper Mississippi	52	73	73	249	1,038,440	1,038,440	
Region 08 Lower Mississippi	21	49	47	53	373,828	373,828	
Region 09 Souris-Red-Rainy	-	-	-	3	15,000	15,000	
Region 10 Missouri	35	66	66	192	1,255,722	1,255,722	
Region 11 Arkansas-White-Red	54	374	318	68	1,409,422	1,409,422	
Region 12 Texas-Gulf	74	276	254	56	1,789,408	1,789,408	
Region 13 Rio Grande	3	6	6	43	92,670	92,670	
Region 14 Upper Colorado	5	18	18	-	-	-	
Region 15 Lower Colorado	5	100	100	13	466,600	466,600	
Region 16 Great Basin	12	19	19	11	62,450	62,450	
Region 17 Pacific Northwest	193	1,395	949	276	959,954	959,954	
Region 18 California	188	704	704	89	1,686,180	1,686,180	
Region 19 Alaska	14	35	35	6	11,616	11,616	
Region 20 Hawaii	36	36	36	67	1,656,484	1,656,484	

--continued

Table 48. Irrigated Horticultural Operations by Market Value of All Agricultural Products Sold: 2023 and 2018
(continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$50,000 - \$99,999						
	In the open			Under protection			
	Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated	
United States 2023	1,374	13,088	9,292	3,167	44,440,700	44,440,700	
..... 2018	1,341	19,960	14,102	2,822	64,646,232	64,646,232	
2023 DATA							
Alabama	-	-	-	-	-	-	-
Alaska	20	34	34	65	412,084	412,084	
Arizona	3	3	3	15	392,000	392,000	
Arkansas	7	14	14	14	(D)	(D)	
California	248	1,566	1,526	234	5,745,601	5,745,601	
Colorado	13	195	195	67	394,060	394,060	
Connecticut	14	72	32	47	249,800	249,800	
Delaware	-	-	-	2	(D)	(D)	
Florida	123	1,051	1,021	100	4,769,540	4,769,540	
Georgia	6	42	12	73	1,652,200	1,652,200	
Hawaii	16	64	61	55	6,616,360	6,616,360	
Idaho	15	324	166	24	132,500	132,500	
Illinois	39	306	144	63	764,560	764,560	
Indiana	36	(D)	(D)	92	867,480	867,480	
Iowa	-	-	-	40	243,080	243,080	
Kansas	10	98	98	32	232,450	232,450	
Kentucky	7	14	14	55	631,168	631,168	
Louisiana	9	126	126	9	119,216	119,216	
Maine	2	(D)	(D)	37	(D)	(D)	
Maryland	7	19	5	55	402,348	402,348	
Massachusetts	6	(D)	(D)	7	(D)	(D)	
Michigan	108	276	249	212	1,264,160	1,264,160	
Minnesota	17	30	30	69	211,960	211,960	
Mississippi	6	344	344	5	57,000	57,000	
Missouri	32	31	31	107	1,204,138	1,204,138	
Montana	3	9	9	14	106,420	106,420	
Nebraska	19	126	90	19	74,414	74,414	
Nevada	-	-	-	11	229,290	229,290	
New Hampshire	10	6	6	33	467,285	467,285	
New Jersey	47	1,054	94	109	961,240	961,240	
New Mexico	3	3	3	29	322,200	322,200	
New York	65	537	137	150	739,432	739,432	
North Carolina	95	1,146	346	167	1,135,640	1,135,640	
North Dakota	1	(D)	(D)	4	12,000	12,000	
Ohio	25	10	10	132	1,502,848	1,502,848	
Oklahoma	18	54	36	16	139,320	139,320	
Oregon	130	1,262	1,080	122	4,290,200	4,290,200	
Pennsylvania	47	200	200	273	2,128,634	2,128,634	
Rhode Island	6	14	14	23	480,140	480,140	
South Carolina	-	-	-	8	32,000	32,000	
South Dakota	2	(D)	(D)	20	171,200	171,200	
Tennessee	2	(D)	(D)	90	454,200	454,200	
Texas	26	132	132	48	911,000	911,000	
Utah	7	30	30	11	35,992	35,992	
Vermont	11	66	18	62	618,428	618,428	
Virginia	28	1,818	1,018	73	415,192	415,192	
Washington	79	1,229	1,181	117	1,855,292	1,855,292	
West Virginia	6	(D)	(D)	35	414,600	414,600	
Wisconsin	-	-	-	101	303,508	303,508	
Wyoming	-	-	-	21	(D)	(D)	
Water Resource Regions							
Region 01 New England	38	110	70	151	1,395,093	1,395,093	
Region 02 Mid-Atlantic	181	3,260	1,438	544	4,702,486	4,702,486	
Region 03 South Atlantic-Gulf	228	2,263	1,403	366	7,783,580	7,783,580	
Region 04 Great Lakes	147	714	287	394	2,039,480	2,039,480	
Region 05 Ohio	61	759	759	338	3,171,796	3,171,796	
Region 06 Tennessee	-	-	-	65	404,200	404,200	
Region 07 Upper Mississippi	69	353	191	290	1,971,814	1,971,814	
Region 08 Lower Mississippi	11	446	446	14	150,656	150,656	
Region 09 Souris-Red-Rainy	4	8	8	17	51,000	51,000	
Region 10 Missouri	50	233	197	201	1,438,626	1,438,626	
Region 11 Arkansas-White-Red	33	213	195	60	732,910	732,910	
Region 12 Texas-Gulf	26	132	132	33	492,520	492,520	
Region 13 Rio Grande	3	3	3	29	322,200	322,200	
Region 14 Upper Colorado	5	82	82	4	18,240	18,240	
Region 15 Lower Colorado	3	3	3	18	522,680	522,680	
Region 16 Great Basin	10	42	42	19	134,602	134,602	
Region 17 Pacific Northwest	224	2,815	2,427	270	6,334,772	6,334,772	
Region 18 California	245	1,554	1,514	234	5,745,601	5,745,601	
Region 19 Alaska	20	34	34	65	412,084	412,084	
Region 20 Hawaii	16	64	61	55	6,616,360	6,616,360	

--continued

Table 48. Irrigated Horticultural Operations by Market Value of All Agricultural Products Sold: 2023 and 2018
(continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$100,000 - \$249,999						
	In the open			Under protection			
	Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated	
United States 2023	1,702	29,388	24,044	3,535	95,854,423	95,854,423	
..... 2018	1,877	28,574	24,369	3,534	98,619,405	98,619,405	
2023 DATA							
Alabama	25	1,150	430	1	(D)	(D)	
Alaska	1	(D)	(D)	2	(D)	(D)	
Arizona	26	221	221	29	475,000	475,000	
Arkansas	6	76	76	12	237,200	237,200	
California	143	948	903	157	4,288,580	4,288,580	
Colorado	23	70	70	48	1,209,180	1,209,180	
Connecticut	4	12	12	8	25,500	25,500	
Delaware	-	-	-	4	23,392	23,392	
Florida	188	6,127	5,910	203	35,579,240	35,579,240	
Georgia	30	657	657	34	448,605	448,605	
Hawaii	19	(D)	(D)	-	-	-	
Idaho	62	866	866	35	314,289	314,289	
Illinois	20	26	26	98	1,181,100	1,181,100	
Indiana	52	78	78	133	4,620,326	4,620,326	
Iowa	10	10	10	40	147,600	147,600	
Kansas	10	(D)	(D)	34	422,360	422,360	
Kentucky	28	174	42	136	2,169,988	2,169,988	
Louisiana	31	252	252	14	217,540	217,540	
Maine	3	(D)	(D)	100	529,536	529,536	
Maryland	6	6	6	57	780,100	780,100	
Massachusetts	15	90	90	126	4,056,228	4,056,228	
Michigan	79	2,219	1,099	231	5,355,420	5,355,420	
Minnesota	39	1,795	745	77	809,760	809,760	
Mississippi	16	380	380	11	337,120	337,120	
Missouri	59	447	241	66	1,042,960	1,042,960	
Montana	13	97	97	44	792,680	792,680	
Nebraska	20	742	682	29	273,000	273,000	
Nevada	6	63	63	5	137,440	137,440	
New Hampshire	5	2	2	7	531,360	531,360	
New Jersey	25	1,125	1,125	63	1,193,034	1,193,034	
New Mexico	4	(D)	(D)	43	220,200	220,200	
New York	69	322	322	311	4,110,368	4,110,368	
North Carolina	103	711	411	179	1,351,400	1,351,400	
North Dakota	2	(D)	(D)	9	185,000	185,000	
Ohio	81	718	718	156	1,879,958	1,879,958	
Oklahoma	-	-	-	-	-	-	
Oregon	93	914	669	100	2,393,040	2,393,040	
Pennsylvania	38	152	106	308	7,738,179	7,738,179	
Rhode Island	10	8	8	10	35,914	35,914	
South Carolina	30	1,166	123	51	2,324,160	2,324,160	
South Dakota	12	68	50	36	385,896	385,896	
Tennessee	31	217	217	33	842,000	842,000	
Texas	38	3,891	3,859	41	1,811,360	1,811,360	
Utah	13	28	28	21	348,660	348,660	
Vermont	6	(D)	(D)	25	470,250	470,250	
Virginia	15	3	3	41	464,740	464,740	
Washington	88	449	449	73	496,030	496,030	
West Virginia	-	-	-	70	629,260	629,260	
Wisconsin	105	2,357	2,251	224	2,564,110	2,564,110	
Wyoming	-	-	-	-	-	-	
Water Resource Regions							
Region 01 New England	37	213	213	277	5,315,668	5,315,668	
Region 02 Mid-Atlantic	127	1,535	1,489	616	12,000,520	12,000,520	
Region 03 South Atlantic-Gulf	313	9,700	7,420	403	39,695,445	39,695,445	
Region 04 Great Lakes	124	2,347	1,223	541	10,355,740	10,355,740	
Region 05 Ohio	180	1,153	1,021	412	8,587,885	8,587,885	
Region 06 Tennessee	65	(D)	(D)	108	1,207,080	1,207,080	
Region 07 Upper Mississippi	185	4,308	3,152	360	2,829,990	2,829,990	
Region 08 Lower Mississippi	47	634	634	25	471,540	471,540	
Region 09 Souris-Red-Rainy	2	(D)	(D)	6	(D)	(D)	
Region 10 Missouri	101	1,240	956	203	3,165,860	3,165,860	
Region 11 Arkansas-White-Red	14	116	116	26	576,400	576,400	
Region 12 Texas-Gulf	38	3,891	3,859	41	1,811,360	1,811,360	
Region 13 Rio Grande	1	(D)	(D)	43	220,200	220,200	
Region 14 Upper Colorado	13	40	40	26	500,080	500,080	
Region 15 Lower Colorado	32	227	227	35	725,680	725,680	
Region 16 Great Basin	13	85	85	20	235,420	235,420	
Region 17 Pacific Northwest	247	2,233	1,988	234	3,459,615	3,459,615	
Region 18 California	143	948	903	157	4,288,580	4,288,580	
Region 19 Alaska	1	(D)	(D)	2	(D)	(D)	
Region 20 Hawaii	19	(D)	(D)	-	-	-	

--continued

Table 48. Irrigated Horticultural Operations by Market Value of All Agricultural Products Sold: 2023 and 2018
(continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$250,000 - \$499,999						
	In the open			Under protection			
	Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated	
United States 2023	1,513	56,872	48,482	2,135	122,352,220	122,352,220	
..... 2018	1,292	43,072	37,773	1,971	84,981,611	84,981,611	
2023 DATA							
Alabama	-	-	-	-	-	-	-
Alaska	-	-	-	-	-	-	-
Arizona	10	60	60	10	1,415,700	1,415,700	
Arkansas	13	2,232	1,532	9	373,800	373,800	
California	166	1,711	1,711	213	4,995,048	4,995,048	
Colorado	52	3,256	3,256	32	1,357,000	1,357,000	
Connecticut	22	87	71	21	389,400	389,400	
Delaware	1	(D)	(D)	3	(D)	(D)	
Florida	194	6,252	6,252	145	47,227,360	47,227,360	
Georgia	30	551	551	12	605,520	605,520	
Hawaii	12	60	60	120	7,641,680	7,641,680	
Idaho	17	792	651	21	602,500	602,500	
Illinois	68	3,013	1,608	96	6,632,700	6,632,700	
Indiana	-	-	-	31	2,248,340	2,248,340	
Iowa	11	395	240	51	882,880	882,880	
Kansas	2	(D)	(D)	15	577,064	577,064	
Kentucky	12	562	512	12	120,000	120,000	
Louisiana	17	266	236	12	1,330,440	1,330,440	
Maine	6	(D)	(D)	6	116,000	116,000	
Maryland	9	656	656	27	679,000	679,000	
Massachusetts	8	(D)	(D)	49	576,464	576,464	
Michigan	80	5,640	5,640	81	4,765,122	4,765,122	
Minnesota	27	444	140	83	1,983,000	1,983,000	
Mississippi	1	(D)	(D)	4	141,120	141,120	
Missouri	27	461	284	41	855,470	855,470	
Montana	13	535	535	14	253,808	253,808	
Nebraska	23	1,221	1,221	21	284,100	284,100	
Nevada	-	-	-	3	43,200	43,200	
New Hampshire	11	152	152	20	789,840	789,840	
New Jersey	73	4,775	4,600	71	3,257,800	3,257,800	
New Mexico	8	155	155	11	154,900	154,900	
New York	98	630	630	125	3,735,140	3,735,140	
North Carolina	40	573	573	40	371,900	371,900	
North Dakota	2	(D)	(D)	-	-	-	
Ohio	27	25	25	114	10,434,680	10,434,680	
Oklahoma	9	4,500	4,500	10	104,000	104,000	
Oregon	57	914	914	77	3,365,530	3,365,530	
Pennsylvania	107	3,925	2,007	114	1,710,024	1,710,024	
Rhode Island	13	189	189	21	772,320	772,320	
South Carolina	33	115	115	26	109,070	109,070	
South Dakota	-	-	-	-	-	-	
Tennessee	25	2,829	335	31	310,000	310,000	
Texas	47	7,066	6,996	42	3,434,576	3,434,576	
Utah	8	509	509	11	149,200	149,200	
Vermont	1	(D)	(D)	18	332,512	332,512	
Virginia	27	977	317	24	180,240	180,240	
Washington	48	380	380	51	1,016,400	1,016,400	
West Virginia	6	291	(D)	2	(D)	(D)	
Wisconsin	46	(D)	(D)	189	5,809,892	5,809,892	
Wyoming	6	(D)	(D)	6	67,000	67,000	
Water Resource Regions							
Region 01 New England	60	646	630	118	2,656,024	2,656,024	
Region 02 Mid-Atlantic	219	10,224	7,471	274	6,543,044	6,543,044	
Region 03 South Atlantic-Gulf	298	7,492	7,492	224	48,400,970	48,400,970	
Region 04 Great Lakes	184	6,302	6,302	339	21,802,974	21,802,974	
Region 05 Ohio	90	3,506	978	155	2,120,620	2,120,620	
Region 06 Tennessee	1	(D)	(D)	-	-	-	
Region 07 Upper Mississippi	122	3,816	1,887	288	12,461,402	12,461,402	
Region 08 Lower Mississippi	23	398	368	21	1,707,240	1,707,240	
Region 09 Souris-Red-Rainy	-	-	-	-	-	-	
Region 10 Missouri	61	2,415	2,415	97	2,235,100	2,235,100	
Region 11 Arkansas-White-Red	45	7,811	6,934	47	1,003,064	1,003,064	
Region 12 Texas-Gulf	47	7,066	6,996	42	3,434,576	3,434,576	
Region 13 Rio Grande	11	(D)	(D)	6	68,400	68,400	
Region 14 Upper Colorado	24	1,780	1,780	7	496,500	496,500	
Region 15 Lower Colorado	12	62	62	15	1,464,900	1,464,900	
Region 16 Great Basin	6	507	507	9	143,200	143,200	
Region 17 Pacific Northwest	132	2,378	2,237	160	5,177,478	5,177,478	
Region 18 California	166	1,711	1,711	213	4,995,048	4,995,048	
Region 19 Alaska	-	-	-	-	-	-	
Region 20 Hawaii	12	60	60	120	7,641,680	7,641,680	

--continued

Table 48. Irrigated Horticultural Operations by Market Value of All Agricultural Products Sold: 2023 and 2018
(continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$500,000 - \$999,999						
	In the open			Under protection			
	Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated	
United States 2023	1,228	77,774	65,880	1,623	126,596,400	126,596,400	
..... 2018	1,174	93,078	81,449	1,233	98,080,974	98,080,974	
2023 DATA							
Alabama	25	3,750	3,750	18	(D)	(D)	(D)
Alaska	2	(D)	(D)	20	(D)	(D)	(D)
Arizona	13	716	716	5	115,000	115,000	
Arkansas	3	310	310	1	(D)	(D)	(D)
California	134	1,778	1,763	262	31,532,448	31,532,448	
Colorado	10	1,020	1,020	9	140,000	140,000	
Connecticut	18	192	92	42	1,403,160	1,403,160	
Delaware	2	(D)	(D)	2	(D)	(D)	(D)
Florida	172	12,905	12,605	195	45,233,460	45,233,460	
Georgia	22	1,510	1,510	30	1,170,000	1,170,000	
Hawaii	38	(D)	(D)	48	4,064,800	4,064,800	
Idaho	10	537	537	10	179,760	179,760	
Illinois	13	35	35	43	2,166,900	2,166,900	
Indiana	1	(D)	(D)	12	1,160,000	1,160,000	
Iowa	-	-	-	-	-	-	-
Kansas	22	1,397	1,370	25	755,120	755,120	
Kentucky	18	412	412	6	215,112	215,112	
Louisiana	30	1,927	1,927	23	1,261,330	1,261,330	
Maine	3	576	428	2	(D)	(D)	(D)
Maryland	25	51	51	37	1,122,448	1,122,448	
Massachusetts	-	-	-	3	(D)	(D)	(D)
Michigan	22	1,640	1,640	76	2,431,520	2,431,520	
Minnesota	11	389	146	34	1,864,600	1,864,600	
Mississippi	13	1,625	1,625	12	893,940	893,940	
Missouri	16	379	379	25	1,988,400	1,988,400	
Montana	14	1,031	1,031	20	747,890	747,890	
Nebraska	7	58	58	14	133,748	133,748	
Nevada	3	90	90	-	-	-	-
New Hampshire	10	25	25	27	1,116,520	1,116,520	
New Jersey	16	112	112	-	-	-	-
New Mexico	3	265	265	-	-	-	-
New York	79	18,695	9,085	138	2,107,503	2,107,503	
North Carolina	79	4,165	4,165	-	-	-	-
North Dakota	1	(D)	(D)	3	214,400	214,400	
Ohio	33	259	175	81	6,833,718	6,833,718	
Oklahoma	8	160	160	8	138,240	138,240	
Oregon	112	7,134	6,534	32	386,528	386,528	
Pennsylvania	32	80	80	106	6,472,390	6,472,390	
Rhode Island	8	1,400	1,343	7	(D)	(D)	(D)
South Carolina	8	8	8	44	453,200	453,200	
South Dakota	15	376	376	13	447,000	447,000	
Tennessee	26	3,005	2,375	-	-	-	-
Texas	24	4,804	4,724	28	4,701,960	4,701,960	
Utah	15	732	732	23	679,046	679,046	
Vermont	27	34	34	33	1,023,160	1,023,160	
Virginia	9	1,620	1,620	6	121,756	121,756	
Washington	37	1,401	1,401	62	506,576	506,576	
West Virginia	-	-	-	-	-	-	-
Wisconsin	39	430	430	38	592,000	592,000	
Wyoming	-	-	-	-	-	-	-
Water Resource Regions							
Region 01 New England	39	2,193	1,888	86	3,137,767	3,137,767	
Region 02 Mid-Atlantic	154	19,028	9,418	243	9,401,901	9,401,901	
Region 03 South Atlantic-Gulf	316	24,924	24,624	288	48,614,360	48,614,360	
Region 04 Great Lakes	63	1,898	1,814	202	9,504,038	9,504,038	
Region 05 Ohio	39	1,057	1,052	47	2,461,668	2,461,668	
Region 06 Tennessee	10	(D)	(D)	10	150,000	150,000	
Region 07 Upper Mississippi	69	1,208	965	119	5,004,620	5,004,620	
Region 08 Lower Mississippi	55	5,322	4,697	22	1,395,570	1,395,570	
Region 09 Souris-Red-Rainy	1	(D)	(D)	3	(D)	(D)	(D)
Region 10 Missouri	52	2,587	2,560	67	2,841,668	2,841,668	
Region 11 Arkansas-White-Red	27	781	781	29	1,246,400	1,246,400	
Region 12 Texas-Gulf	24	4,804	4,724	21	4,211,960	4,211,960	
Region 13 Rio Grande	3	265	265	-	-	-	-
Region 14 Upper Colorado	3	90	90	9	140,000	140,000	
Region 15 Lower Colorado	15	882	882	5	115,000	115,000	
Region 16 Great Basin	18	846	846	23	679,046	679,046	
Region 17 Pacific Northwest	166	9,680	9,080	119	1,474,754	1,474,754	
Region 18 California	134	1,778	1,763	262	31,532,448	31,532,448	
Region 19 Alaska	2	(D)	(D)	20	(D)	(D)	(D)
Region 20 Hawaii	38	(D)	(D)	48	4,064,800	4,064,800	

--continued

Table 48. Irrigated Horticultural Operations by Market Value of All Agricultural Products Sold: 2023 and 2018
(continued)

[Excludes institutional, research, and experimental farms. For meaning of abbreviations and symbols see introductory text.]

Geographic area	\$1,000,000 or more						
	In the open			Under protection			
	Operations	Acres	Acres irrigated	Operations	Square feet	Square feet irrigated	
United States 2023	2,693	463,250	426,263	3,150	1,218,002,434	1,218,002,434	
..... 2018	2,392	476,508	396,737	2,657	1,063,305,446	1,063,305,446	
2023 DATA							
Alabama	63	13,331	13,057	52	10,299,660	10,299,660	
Alaska	-	-	(D)	1	(D)	(D)	
Arizona	55	9,242	9,242	44	18,028,760	18,028,760	
Arkansas	11	3,361	3,263	8	1,795,530	1,795,530	
California	313	30,762	30,752	514	309,771,999	309,771,999	
Colorado	85	8,709	8,685	67	10,486,103	10,486,103	
Connecticut	32	1,908	1,862	56	19,471,980	19,471,980	
Delaware	6	1,989	1,989	7	1,047,160	1,047,160	
Florida	284	69,282	68,151	243	227,303,694	227,303,694	
Georgia	113	23,757	23,565	56	11,899,484	11,899,484	
Hawaii	8	(D)	(D)	29	6,311,064	6,311,064	
Idaho	31	6,377	6,331	13	791,096	791,096	
Illinois	109	8,267	8,057	99	14,112,796	14,112,796	
Indiana	16	3,144	2,304	26	6,218,960	6,218,960	
Iowa	16	3,243	2,609	17	9,548,740	9,548,740	
Kansas	20	5,014	4,975	14	4,040,980	4,040,980	
Kentucky	23	641	641	26	1,532,328	1,532,328	
Louisiana	37	2,158	1,948	38	10,074,740	10,074,740	
Maine	5	(D)	(D)	7	(D)	(D)	
Maryland	47	14,497	11,365	30	9,556,328	9,556,328	
Massachusetts	39	1,623	1,353	73	5,363,120	5,363,120	
Michigan	144	16,447	14,923	372	123,724,385	123,724,385	
Minnesota	40	8,460	5,353	36	11,035,092	11,035,092	
Mississippi	9	959	(D)	7	2,017,480	2,017,480	
Missouri	25	6,711	6,039	16	4,475,360	4,475,360	
Montana	6	570	570	12	482,680	482,680	
Nebraska	15	3,465	3,465	21	2,259,840	2,259,840	
Nevada	5	320	320	4	141,328	141,328	
New Hampshire	17	235	235	20	1,659,730	1,659,730	
New Jersey	109	10,747	10,747	96	36,115,902	36,115,902	
New Mexico	10	(D)	(D)	17	1,963,342	1,963,342	
New York	82	6,754	6,511	126	25,902,315	25,902,315	
North Carolina	121	9,245	7,776	183	26,273,484	26,273,484	
North Dakota	3	9	9	6	168,000	168,000	
Ohio	107	19,567	7,768	92	39,445,309	39,445,309	
Oklahoma	21	9,495	9,495	16	3,121,120	3,121,120	
Oregon	218	42,578	39,226	149	56,616,294	56,616,294	
Pennsylvania	25	1,411	882	124	32,212,170	32,212,170	
Rhode Island	11	1,666	1,666	3	(D)	(D)	
South Carolina	44	21,607	20,674	11	1,952,089	1,952,089	
South Dakota	4	284	284	3	1,051,200	1,051,200	
Tennessee	12	4,723	4,313	46	6,201,900	6,201,900	
Texas	130	50,955	50,664	109	104,221,780	104,221,780	
Utah	23	2,224	2,224	28	5,357,600	5,357,600	
Vermont	3	(D)	(D)	6	563,679	563,679	
Virginia	81	10,860	6,172	104	20,203,416	20,203,416	
Washington	88	10,837	10,597	66	16,727,950	16,727,950	
West Virginia	1	(D)	(D)	3	(D)	(D)	
Wisconsin	25	5,187	4,669	52	11,150,840	11,150,840	
Wyoming	1	(D)	(D)	2	(D)	(D)	
Water Resource Regions							
Region 01 New England	104	5,557	5,237	161	30,363,590	30,363,590	
Region 02 Mid-Atlantic	292	45,524	37,250	399	108,185,917	108,185,917	
Region 03 South Atlantic-Gulf	664	137,427	133,599	587	279,986,723	279,986,723	
Region 04 Great Lakes	193	23,022	18,723	455	166,646,515	166,646,515	
Region 05 Ohio	142	19,473	9,091	168	34,332,915	34,332,915	
Region 06 Tennessee	9	3,688	3,247	6	3,655,380	3,655,380	
Region 07 Upper Mississippi	181	25,352	20,868	177	29,063,168	29,063,168	
Region 08 Lower Mississippi	45	3,361	2,993	60	12,285,500	12,285,500	
Region 09 Souris-Red-Rainy	-	-	-	4	(D)	(D)	
Region 10 Missouri	101	18,461	17,880	111	24,921,103	24,921,103	
Region 11 Arkansas-White-Red	37	15,649	15,610	27	7,105,970	7,105,970	
Region 12 Texas-Gulf	130	50,955	50,664	105	96,337,420	96,337,420	
Region 13 Rio Grande	23	(D)	(D)	29	9,217,498	9,217,498	
Region 14 Upper Colorado	31	11,561	11,561	9	807,404	807,404	
Region 15 Lower Colorado	55	9,242	9,242	45	18,039,408	18,039,408	
Region 16 Great Basin	25	2,538	2,538	28	5,350,280	5,350,280	
Region 17 Pacific Northwest	340	59,942	56,304	235	74,264,140	74,264,140	
Region 18 California	313	30,762	30,752	514	309,771,999	309,771,999	
Region 19 Alaska	-	-	-	1	(D)	(D)	
Region 20 Hawaii	8	(D)	(D)	29	6,311,064	6,311,064	

Appendix A.

Statistical Methodology

THE SURVEY POPULATION

Sample Design

The 2023 Irrigation and Water Management target population was all U.S. operations that irrigated their agricultural crops in 2023. The 2023 Irrigation and Water Management Survey (IWMS) sampling frame was comprised of operations that reported having irrigation activity, irrigation systems or equipment on their farm or ranch in the 2022 Census of Agriculture (CoA). Institutional, research and experimental farms as well as grazing associations were not included in the 2023 IWMS sampling frame.

The 2023 IWMS sampling frame operations were grouped by state and type of crop and stratified using irrigation acreage as a measure of size. Strata with larger operations were assigned a selection probability of one. For the remaining sampling frame elements, a Neyman allocation technique was used to determine state-crop category-strata combination sample sizes before operations were selected using a Sequential Interval Poisson (SIP) methodology.

The final national sample size was 35,499 operations.

DATA COLLECTION

Method of Enumeration

The 2023 Irrigation and Water Management Survey was conducted using multiple data collection strategies. Data were collected by mail, Computer-Assisted Web Interviewing (CAWI) via the Internet, telephone enumeration, and personal enumeration. Enumeration methods used in the 2023 survey were similar to those used in the 2018 survey.

Report Form

A single 20-page report form was used for the survey, similar to the 2018 report form. The report form was mailed to a selected sample of producers that reported irrigated acres or land equipped with irrigation in the 2022 Census of Agriculture. See Appendix B for copies of the report form and instruction booklet and information regarding changes between the 2018 and 2023 report forms.

Report Form Mailings and Respondent Follow-up

In November 2023, a pre-survey pressure sealed letter was mailed out to 34,266 irrigators containing an online reporting code and information about the Irrigation and Water Management Survey. Mail packets were then mailed in January 2024 to all sampled irrigators that had not already responded online. The mail packet included a labeled report form, an instruction booklet, an instruction letter, and a return envelope. Mailout packet preparation, initial mailout, thank you/reminder letter, and one follow-up mailing to nonrespondents were handled by the U.S. Census Bureau's National Processing Center (NPC) in Jeffersonville, IN. Telephone follow-up from a NASS Data Collection Center began April 2024 to nonrespondents who were mailed a report form from NPC.

Data were collected for a select group of operations by the NASS regional field offices. To minimize the number of agency contacts, operations were included in this group if they were scheduled for contact by NASS for other agricultural surveys. Report forms were labeled at NPC and sent to the regional field offices in November 2023. Regional field office staff collected data by personal enumeration or by phone from January 2024 through May 2024. For a description of the adjustment for nonresponse, see Estimation.

REPORT FORM PROCESSING

Data Capture

All report forms returned to NPC were immediately checked in, using bar codes printed on the mailing label, and removed from follow-up mailings. All report forms were reviewed prior to data keying to identify inconsistencies and to ensure that the data could be keyed. Major inconsistencies, respondent remarks, blank report forms, and large irrigation cases were reviewed by analysts and adjusted prior to data keying as needed. All forms with any data were scanned and an image was created for each page of a report form.

Data Editing and Analysis

Data from each report form were processed through a computer edit which flagged missing or inconsistent entries. Each report with a flagged entry was reviewed by regional field office and/or headquarters statisticians. Action was required for any record with reported data that were clearly incorrect, for example, in some cases, respondents may have failed to provide all of the information requested, only indicating the presence of an item

but not the amount. These items were tagged for computer imputation. After the initial edit, an imputation program supplied missing data and made adjustments based on responses of similarly sized farms within the same geographic area. Data entries by the computer edit process were reviewed and verified by analysts. Instances where imputed data failed edit checks were referred to statisticians for corrective action. The computer edit ensured the data on a report form were internally consistent.

Prior to publication, tabulated totals were reviewed to identify and resolve remaining irregularities. Comparisons were made with 2022 Census of Agriculture data, 2018 Irrigation and Water Management Survey data, and other available check data. The data were processed through a disclosure program to prevent data from being published that could be sourced back to an individual operation.

Imputation

During data collection and editing, several variables were allowed to be flagged as missing required responses. Such variables included quantity of water applied, well and pump characteristics, energy costs of well pumps, irrigated crop yields, horticulture irrigation methods, irrigation expenses and reasons for not irrigating. After all sampled records were captured and edited, these flagged variables underwent a computer imputation process to obtain the required data.

Imputed data for most variables were selected using multiple imputation. For continuous data, records were classified into non-overlapping imputation groups based on non-imputable response data and auxiliary data for each variable. The average value from multiple value draws in the imputation group was used as the imputed value. For binary data and multinomial data, multiple imputed categories were randomly selected for each record from state or county distributions. The category selected in most imputation runs became the imputed category value.

Hot-deck imputation was used when the value of the imputed variable is directly related to the value of another variable. Records were sorted by state and other variables in ascending order and the imputed values were selected from the “nearest” respondent record that had smaller sorting variable values.

Mean imputation was used for variables where the number of respondents is expected to be small or if the variable can be directly related to the geography of the respondent. County, state or national mean values were calculated based on the availability of respondents and the mean values were imputed.

Imputed values were processed through the edit to ensure no inconsistencies were found and analysts reviewed the output for accuracy.

ESTIMATION

Data were summarized for the Nation as a whole, for each of the 50 States, and for the geographic domains known as Water Resource Regions (WRR) (see Appendix B for a detailed description). The estimation methodology consisted of two

weighting components that made up the total survey weight. The first component was the fully adjusted weight pulled in from the 2022 Census of Agriculture. This weight accounted for any list incompleteness and undercoverage from the 2022 Census of Agriculture. The second component was the sampling rate used for the 2023 Irrigation and Water Management Survey. This expansion factor was the inverse of the selection probability for the sample farms in a stratum. This expansion factor was reweighted at the stratum level to account for whole-farm nonresponse. The nonresponse adjustment factor used to reweight the expansion factor was the ratio of the number of sample farms in a stratum to the number of sample farms that responded to the survey in that stratum. The assumption underlying this weighting approach to survey nonresponse was that survey respondents and nonrespondents within a stratum constitute a homogeneous population, thus allowing respondents to represent nonrespondents. An expanded data value for a sample record was obtained by multiplying the data value by the total 2023 Irrigation and Water Management Survey weight. State totals for a characteristic were estimated by summing the expanded data values from all responding sample records across all strata within the State. National estimates were obtained by summing across all States. The WRR estimates were obtained by summing the expanded data values for the portion of the sample falling into the WRR.

RESPONDENT CONFIDENTIALITY

In keeping with the provisions of Title 7 of the United States Code, no data are published that would disclose information about the operations of an individual farm or ranch. All tabulated data are subjected to an extensive disclosure review prior to publication. Any tabulated item that identifies data reported by a respondent or allows a respondent’s data to be accurately estimated or derived, was suppressed and coded with a ‘(D)’. However, the number of farms reporting an item is not considered confidential information and is provided even though other information is withheld.

DATA COMPARABILITY

The 2022 Census of Agriculture introduced a new question collecting the acres equipped for irrigation, which replaces the five-year irrigation history question aimed at helping account for all irrigators in 2022 and 2023. Due to this change, there are many references to equipped acres in the 2023 Irrigation and Water Management survey publication that do not have any direct comparisons to 2018 data or prior.

Direct comparisons for Land in Vegetables and Horticulture in the Open are not directly comparable due to vegetable seeds being reported under land in vegetables in 2023 when it was reported under horticulture in the open in 2018, impacting tables 16, 38, 39, 40, 41, 43, 44, 45, 47, and 48. Table 42’s data covering surge flow, cablegation, and mulch are not comparable since the original question from 2018 was split into three questions for the 2023 survey. The non-comparability also extends to the total acres with any water management practices used on Table 42. The updated hydroponics data item no longer includes subirrigation, which overlapped with other methods,

and thus hydroponic data on Table 45 and 46 are not comparable to the old subirrigation including hydroponic definition. All other data items on all tables, including tables 42, 45, and 46 remain comparable if the item existed in both 2018 and 2023. For example, records which utilized water seepage would have indicated the area as both gravity irrigated and sub-irrigated in 2018, but for 2023 it is just gravity irrigated. All other new items added to the 2023 have no impact on data comparability between 2018 and 2023.

Differences exist between the expanded results of the 2023 Irrigation and Water Management Survey and the published data from the 2022 Census of Agriculture. Some of these are as follows:

1. The survey includes data only for operations that irrigated or had land equipped for irrigation in both 2022 and 2023. Operations in some areas, especially the eastern States, may irrigate only when moisture is needed. Operations with irrigation capabilities may not irrigate depending on the amount of rainfall for a particular year or geographic area. The number of operations that irrigated in 2022 but discontinued irrigation in 2023 is tabulated in Table 30 for all farms and in Table 47 for horticultural operations by reason of discontinuance.
2. Some producers reported that they had been misclassified as irrigators and did not irrigate or have land equipped for irrigation in either 2022 or 2023. In addition to errors in processing census data, some producers misreported or misinterpreted the questions. Most of the producers misreporting irrigation in the 2022 census reported irrigation of small acreages of vegetables, fruits and nuts, tobacco, field crops, or berries.
3. Some respondents indicated they had retired, moved, sold, or rented the land, etc., since 2022. These operations were dropped from processing because they were no longer farming. Special care was taken with large operations to ensure that they were not erroneously dropped due to reorganization or name change rather than discontinuing agricultural operations.
4. New irrigators in 2023 (not included in the 2022 census) did not have a chance for selection in the sample and, therefore, were excluded from the survey.

Table A shows acres irrigated in the 2023 Irrigation and Water Management Survey (expanded) compared with U.S. totals from the 2022 Census of Agriculture. The expanded survey accounts for 96.7 percent of all land reported as irrigated in the 2022 census and all irrigation characteristics associated with that land.

Measures of Survey Quality

The statistics in this report are estimates derived from a sample survey. There are two types of errors possible in an estimate-based sample survey: sampling and nonsampling. Sampling errors are caused by observing only a piece of the population instead of the entire population. These errors are subject to sample-to-sample variation. Nonsampling errors include all other errors and can arise from many different sources. These

sources may include respondent error, enumerator error, or incorrect data keying, editing, or imputing for missing data. Nonsampling error due to mail list incompleteness and duplication, as well as misclassification of records on the mail list, is referred to as coverage error.

Undercoverage existed in the frame population to the extent that there were irrigated farms that either erroneously reported they were not irrigating on the 2022 Census of Agriculture, started irrigating in 2023, or had succeeding irrigators in 2023 (i.e., a producer who, since 2022, took control of an existing irrigating farm through sale, rental, or other arrangement).

Overcoverage also existed in the frame because some operations were misclassified as irrigators and did not irrigate in 2022 or had either stopped farming or irrigating in 2023. Farms in the sample that fell into these groups were identified during the survey and estimates are provided covering their number and acres irrigated in the Data Comparability section, items 2 and 3.

Survey Response Rate

The response rate is an indicator of the quality of data collection. It is generally assumed that if a response rate was close to 100 percent, the potential for nonresponse bias is small. Because this survey contains both farm and nonfarm records, the response rate is an indicator of replying to the survey data collection effort, but does not reflect whether those responding met the farm definition or had the items of interest for the survey. The response rate for the 2023 Irrigation and Water Management Survey is 61.4 percent. This compares to 64.4 percent for the 2018 Farm and Ranch Irrigation Survey.

MEASURES OF PRECISION

Under the guidance of the Statistical Policy Office of the Office of Management and Budget (OMB), the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) provides data users with quality metrics for its published data series. The accuracy of data products may be evaluated through sampling and nonsampling error. The measurement of error due to sampling in the current period is evaluated by the coefficient of variation (CV) for each estimated item. Nonsampling error is evaluated by response rates and the percent of the estimate from respondents.

Coefficient of variation is a measure of the relative amount of error associated with a sample estimate. Specifically, it is the standard error of a point estimate divided by that estimate, generally multiplied times 100 so that it can be reported as a percentage. This relative measure allows the reliability of a range of estimates to be compared. For example, the standard error is often larger for large population estimates than for small population estimates, but the large population estimates may have a smaller CV, indicating a more reliable estimate. Every estimate for the 2023 Irrigation and Water Management Survey has a corresponding CV published with it. NASS has identified the following index to use when evaluating coefficient of variation for the 2023 Irrigation and Water Management Survey. The coefficient of variation is used as an indicator of

the precision in the survey estimates and is reported for major survey items in Table C and Table D.

- **Low Reliability Estimate.** Coefficient of Variation (CV) 30 percent or higher. Caution should be used when using this estimate in any form. Please consult NASS for more information or guidance.

- **Medium Reliability Estimate.** Coefficient of Variation (CV) between 15 percent and 29.9 percent
- **High Reliability Estimate.** Coefficient of Variation (CV) less than 15 percent.

Table A. Farms with Irrigation by Acres Irrigated: 2023 Irrigation and Water Management Survey compared with 2022 Census of Agriculture

Item	2022 Census of Agriculture United States totals	2023 Irrigation and Water Management Survey		Item	2022 Census of Agriculture United States totals	2023 Irrigation and Water Management Survey	
		United States total (expanded)	Percent of 2022 Census of Agriculture totals			United States total (expanded)	Percent of 2022 Census of Agriculture totals
Farms .....number	284,598	212,714	74.7	200 to 499 acres farms	24,279	21,059	86.7
.....acres	54,930,363	53,135,170	96.7	.....acres	7,580,583	6,742,615	88.9
1 to 49 acres .....farms	188,797	127,975	67.8	500 to 999 acres farms	13,434	12,661	94.2
.....acres	1,717,530	1,336,140	77.8	.....acres	9,305,541	8,792,402	94.5
50 to 99 acres .....farms	21,964	17,867	81.3	1,000 to 1,999 acres farms	8,351	7,565	90.6
.....acres	1,525,822	1,250,694	82.0	.....acres	11,409,101	10,347,675	90.7
100 to 199 acres .....farms	22,408	20,156	90.0	2,000 acres or more farms	5,365	5,431	101.2
.....acres	3,082,649	2,761,643	89.6	.....acres	20,309,137	21,904,001	107.9

Table B. Coefficient of Variation (percent) for Selected General Irrigation Data: 2023

[Excludes institutional, research, and experimental farms and farms with horticulture. For meaning of abbreviations and symbols, see introductory text.]

Geographic area	Irrigated farms	Land in farms	Acres irrigated		Acre-feet applied	Energy expense for pumps	Infrastructure expenses	Pumps, all types	Well pumps
			Total	Cropland harvested in the open					
United States	0.8	7.6	1.6	1.5	1.6	2.3	11.2	1.6	2.0
Alabama	13.7	13.4	9.6	8.8	14.9	17.8	41.3	17.9	18.5
Alaska	9.4	88.1	29.8	(D)	45.1	27.3	34.8	20.0	(D)
Arizona	6.6	91.5	7.3	7.8	9.5	31.9	40.9	12.8	13.6
Arkansas	2.5	4.6	5.5	(D)	6.6	7.9	24.2	5.4	4.9
California	0.9	10.7	3.9	4.2	3.8	5.8	10.7	3.4	5.5
Colorado	2.8	12.2	5.2	4.9	6.1	8.9	18.4	5.0	7.8
Connecticut	11.2	14.2	30.2	33.4	35.4	27.9	72.8	12.3	12.1
Delaware	7.2	10.2	13.3	13.3	12.1	34.4	29.1	6.8	(D)
Florida	5.4	11.3	13.9	14.4	14.2	14.8	28.9	10.3	10.4
Georgia	3.6	13.0	11.6	11.4	19.0	8.7	68.0	10.7	14.4
Hawaii	4.2	40.2	25.5	31.4	26.3	29.8	56.9	30.8	37.0
Idaho	2.2	7.7	5.1	4.9	4.7	6.3	14.2	3.6	7.6
Illinois	4.7	7.6	8.8	8.8	9.1	6.4	24.1	15.5	16.3
Indiana	4.2	11.6	9.1	9.0	13.3	15.5	27.9	9.2	9.7
Iowa	9.6	17.0	15.0	15.0	16.2	20.9	29.3	20.4	21.7
Kansas	3.9	9.6	7.9	8.3	9.4	10.9	21.8	8.7	9.1
Kentucky	6.5	22.9	21.1	21.5	26.3	17.2	106.8	9.5	11.2
Louisiana	6.6	6.2	6.5	6.5	8.6	10.0	18.9	8.4	9.5
Maine	14.2	31.9	32.9	46.6	37.3	46.0	48.9	27.4	15.7
Maryland	7.2	7.5	6.6	6.6	10.5	17.2	27.1	13.1	12.0
Massachusetts	7.4	13.7	11.9	12.7	16.0	17.5	23.4	13.8	24.4
Michigan	4.9	10.0	10.4	10.4	14.5	14.3	27.3	9.7	11.5
Minnesota	4.4	9.2	8.0	8.1	8.4	10.5	19.3	6.6	7.1
Mississippi	2.2	7.2	7.9	7.9	9.1	8.1	16.4	6.6	6.8
Missouri	4.5	8.5	5.7	5.7	7.4	9.5	26.3	5.8	6.9
Montana	1.5	9.9	5.6	5.7	7.8	13.6	25.9	7.9	15.6
Nebraska	1.9	9.6	2.4	2.4	2.9	3.7	9.0	2.7	3.0
Nevada	7.6	24.5	12.7	13.4	14.1	23.5	47.1	15.6	14.8
New Hampshire	7.2	22.4	41.5	48.7	46.4	25.9	52.3	11.8	13.0
New Jersey	10.2	20.7	15.4	13.8	22.7	21.9	25.1	9.2	10.2
New Mexico	3.5	26.4	14.1	18.8	15.2	17.4	30.5	9.1	11.8
New York	7.1	17.3	22.6	23.8	15.7	25.5	90.0	7.9	14.0
North Carolina	5.7	10.5	10.3	10.3	16.8	13.6	32.9	11.2	15.8
North Dakota	5.5	10.3	12.2	12.1	13.9	21.4	21.5	22.2	25.6
Ohio	5.4	12.6	10.5	11.2	16.0	21.5	97.7	13.1	11.0
Oklahoma	8.9	13.6	14.2	15.2	20.5	29.5	22.6	15.6	16.7
Oregon	2.1	11.1	5.8	6.2	7.4	6.6	44.2	4.1	4.5
Pennsylvania	7.6	14.9	10.3	11.6	14.6	25.9	22.4	10.8	11.5
Rhode Island	8.3	30.3	25.1	27.9	28.4	24.0	77.3	14.5	17.2
South Carolina	10.0	16.8	11.7	12.3	11.5	12.5	32.3	20.4	15.7
South Dakota	8.7	33.1	10.1	10.8	9.4	16.1	47.4	12.8	14.2
Tennessee	11.3	16.8	13.7	13.8	18.9	15.6	81.6	9.8	10.5
Texas	3.6	19.0	7.9	6.5	7.5	9.6	21.9	6.5	6.4
Utah	2.1	15.7	6.9	5.3	7.1	12.1	51.0	5.2	17.9
Vermont	7.5	13.9	50.8	54.4	89.0	19.0	27.1	16.5	15.2
Virginia	6.0	12.7	12.2	13.1	15.0	15.3	45.0	15.2	11.4
Washington	1.8	47.8	5.8	6.3	7.6	6.9	24.6	7.7	7.5
West Virginia	14.7	55.3	21.5	26.6	25.7	16.4	88.0	19.0	23.7
Wisconsin	4.5	11.0	3.9	3.8	13.2	9.7	30.9	4.4	5.2
Wyoming	4.0	10.3	5.8	6.2	7.9	9.8	21.1	8.1	22.8
Water Resource Regions									
Region 01 New England	4.8	18.8	12.0	18.0	18.8	13.1	22.5	9.0	8.4
Region 02 Mid-Atlantic	4.1	4.8	4.1	4.2	5.7	9.5	37.2	5.0	3.9
Region 03 South Atlantic-Gulf	2.7	5.4	8.0	8.4	9.0	8.6	43.0	4.8	6.4
Region 04 Great Lakes	4.0	7.3	8.9	8.9	12.2	11.6	25.3	7.0	9.0
Region 05 Ohio	2.5	10.0	9.7	9.8	11.6	15.5	72.3	8.0	7.6
Region 06 Tennessee	15.6	21.9	21.0	(D)	38.1	29.1	73.2	13.4	(D)
Region 07 Upper Mississippi	2.5	4.7	4.8	4.8	6.5	4.5	12.8	4.8	4.9
Region 08 Lower Mississippi	2.5	3.0	3.6	3.6	4.8	6.1	13.9	3.4	3.3
Region 09 Souris-Red-Rainy	13.3	13.0	12.6	12.6	14.6	19.0	50.2	23.8	25.9
Region 10 Missouri	2.2	5.9	2.5	2.5	3.3	4.1	7.2	2.9	3.4
Region 11 Arkansas-White-Red	4.8	5.4	3.9	3.9	5.0	9.4	9.3	7.9	8.2
Region 12 Texas-Gulf	2.6	8.9	9.0	6.9	8.9	13.0	14.5	6.5	6.7
Region 13 Rio Grande	5.2	47.9	12.0	9.5	13.4	15.3	37.1	8.6	9.4
Region 14 Upper Colorado	4.4	15.4	8.8	10.7	12.3	15.2	34.8	7.3	27.0
Region 15 Lower Colorado	6.7	87.6	11.4	12.1	14.3	30.4	37.7	11.5	11.4
Region 16 Great Basin	2.4	12.1	8.0	9.5	9.0	13.9	31.7	4.8	13.3
Region 17 Pacific Northwest	1.5	13.8	4.2	4.1	4.4	5.4	20.1	2.9	3.7
Region 18 California	1.0	10.4	3.9	4.3	4.1	5.8	10.9	3.5	5.6
Region 19 Alaska	9.4	88.1	29.8	(D)	45.1	27.3	34.8	20.0	(D)
Region 20 Hawaii	4.2	40.2	25.5	31.4	26.3	29.8	56.9	30.8	37.0

Table C. Coefficient of Variation (percent) for Selected Horticultural Irrigation Data: 2023

Geographic area	Irrigated horticultural operations	Irrigated area	
		Acres in the open	Square feet under protection
United States	1.3	8.6	9.0
Alabama	24.0	39.8	35.9
Alaska	10.6	29.0	26.1
Arizona	21.3	30.0	40.3
Arkansas	9.1	35.4	49.4
California	5.6	17.9	16.6
Colorado	11.5	26.4	16.5
Connecticut	14.3	58.4	49.6
Delaware	23.4	80.9	48.0
Florida	13.2	26.4	18.8
Georgia	8.4	27.5	25.5
Hawaii	9.2	(D)	22.9
Idaho	10.1	35.7	13.0
Illinois	7.9	43.5	23.2
Indiana	7.7	59.9	37.1
Iowa	21.4	46.9	68.0
Kansas	11.8	41.5	28.1
Kentucky	9.0	34.2	24.7
Louisiana	7.0	19.9	16.9
Maine	18.4	48.8	86.5
Maryland	15.0	46.2	38.3
Massachusetts	12.9	34.0	31.0
Michigan	5.4	40.1	21.2
Minnesota	13.5	56.1	23.1
Mississippi	12.1	39.2	57.5
Missouri	7.3	36.4	15.9
Montana	12.9	36.2	23.6
Nebraska	9.7	42.9	34.5
Nevada	28.6	(D)	36.1
New Hampshire	8.9	87.4	20.1
New Jersey	7.3	30.3	29.8
New Mexico	13.5	(D)	40.4
New York	8.4	39.0	32.9
North Carolina	13.1	34.4	35.1
North Dakota	23.5	(D)	55.3
Ohio	9.4	33.0	20.0
Oklahoma	15.8	55.0	27.8
Oregon	4.0	23.4	16.9
Pennsylvania	8.9	58.8	16.2
Rhode Island	14.9	35.2	39.1
South Carolina	20.4	35.2	76.2
South Dakota	9.7	(D)	74.6
Tennessee	15.5	24.2	22.8
Texas	8.9	18.5	54.5
Utah	11.1	35.5	37.0
Vermont	10.6	42.0	23.3
Virginia	8.5	30.7	30.4
Washington	8.5	31.9	24.5
West Virginia	15.7	(D)	35.2
Wisconsin	8.3	25.5	21.9
Wyoming	26.8	67.0	30.3
Water Resource Regions			
Region 01 New England	7.0	16.6	18.9
Region 02 Mid-Atlantic	6.4	18.8	16.6
Region 03 South Atlantic-Gulf	7.6	16.1	16.6
Region 04 Great Lakes	4.9	32.0	16.1
Region 05 Ohio	3.7	25.7	20.9
Region 06 Tennessee	21.7	23.7	32.3
Region 07 Upper Mississippi	7.0	15.6	14.2
Region 08 Lower Mississippi	12.4	30.9	16.0
Region 09 Souris-Red-Rainy	49.2	(D)	60.0
Region 10 Missouri	7.8	15.0	28.6
Region 11 Arkansas-White-Red	8.3	31.0	20.1
Region 12 Texas-Gulf	8.8	18.5	59.9
Region 13 Rio Grande	18.2	(D)	82.6
Region 14 Upper Colorado	17.0	98.2	43.0
Region 15 Lower Colorado	22.4	28.6	38.9
Region 16 Great Basin	10.0	33.1	39.6
Region 17 Pacific Northwest	3.7	21.3	16.8
Region 18 California	5.1	17.9	16.6
Region 19 Alaska	10.6	29.0	26.1
Region 20 Hawaii	9.2	(D)	22.9

Appendix B.

General Explanation and Report Form

DEVELOPMENT OF THE REPORT FORM

Planning for the 2023 Irrigation and Water Management Survey (IWMS) started in 2019 with the closeout of the 2018 IWMS. Evaluations from NASS staff of the 2018 IWMS were reviewed. Extensive correspondence, discussions, and meetings took place with representatives of the Economic Research Service (ERS) and other agencies within the Department of Agriculture.

During the development of the 2023 IWMS form, cognitive testing was conducted under the leadership of the Methodology Division at NASS. As a result, the findings and recommendations led to the following notable changes for the 2023 Irrigation and Water Management Survey.

Major Changes

The most significant change from 2018 was the expansion of Section 2, to include a new column for acres equipped with irrigation equipment. Several sections of the questionnaire were relocated and/or merged to provide a better flow for respondents while completing the questionnaire. In addition, minor content changes were added throughout the questionnaire to collect additional information, clarify reported information, and align the Irrigation and Water Management Survey data with the Census of Agriculture data.

Other Changes

Section 2: An additional column was added to Section 2 that collects acres equipped for irrigation. This change was made in relation to a change in the Census of Agriculture and to provide additional insight into the relationship between acres with irrigation potential and those irrigated. Also removed from Section 2 was a question asking for the State in which an operation had the most irrigated acres.

Section 6: Pump expenses, which were reported separately in 2018, were merged with the pump inventory to create a singular section covering all pump and pump expenses. In addition, well pumps were added to the table in question 2, so operators can report all pumps in one table to help with misreporting of well pumps as relifting or boosting pumps.

Sections 8, 12, & 13: Hydroponics was added as its own category. Prior to 2013, there was a category called Subirrigation (including hydroponics). In 2018, the category was removed from Section 8, but left in the remaining sections. After discussions with external stakeholders, it was determined that subirrigation is too broad of a term and that hydroponic should be a category of its own.

Section 9: This section is new to the questionnaire for 2023. It contains a list of conservation practices from Section 14 of the 2018 questionnaire, along with additional practices that were obtained through discussions with external stakeholders. A question regarding the use of computer software for irrigation system planning was also added.

Sections 10 & 11: A “catch-all” item was added to the end of the tables in Sections 10 and 11 where operators can report land that was irrigated, but failed, idle, or in summer fallow. The purpose of adding this additional item was to allow the sum of all irrigated land in the tables to match the acres irrigated in Section 2. Additionally, it allowed water balancing between sections 3, 4, and 5 with section 10 when other land was irrigated.

Section 12: Vegetable seeds were removed from the nursery in the open section and relocated to “Land in Vegetables”, following the changes made on the 2022 Census of Agriculture. Vegetable seeds grown under protection were unchanged.

Section 14: A question on groundwater recharge was added in 2023 and, as mentioned earlier, the question regarding conservation practices with gravity irrigation systems was expanded upon and moved to Section 9. The listing of USDA water and environmental assistance programs were updated to reflect the most up to date programs available.

Section 16: An additional screener was added to this section and the scope of this section was expanded to include operations that had partially irrigated their operation with equipped acres left idle in 2023.

Data Changes

Some history concerning the data changes from 2003 to present are described here.

Publication Changes

2003: Data were published for irrigating farms and ranches and included data for horticultural operations that reported less than \$10,000 in sales in the 2002 Census of Agriculture. The 2003 FRIS table structure is similar to 2008 FRIS Chapter 1 tables.

2008: Two report forms were used – one for farm and ranch operations and another for horticultural operations with any sales in 2008. Data for farm and ranch operations were published in Chapter 1, Tables 1 through 43 (General Data). Horticultural operations data were published in Chapter 2, Tables 1 through 9 (Horticultural Operations Data). To bridge the 2003 tables with

the 2008 Chapter 1 tables, the 2003 U.S. data were adjusted in the 2008 publication by removing data for horticultural operations with less than \$10,000 in sales.

2013: A single report form was used to collect data from irrigating farm and ranch operations and from horticultural operations with any level of sales. Data published in Tables 2 through 39 (Entire Farm Data) are for all irrigating operations – farms and ranches and horticultural operations combined. Data are not comparable between the 2013 and 2008 surveys because horticultural operations' data were reported separately in 2008 (Chapter 2). The 2013 horticultural operations data in Tables 40 through 45 are comparable with their corresponding 2008 Chapter 2 tables. To provide a measure of comparability in the 2013 tables, the 2008 U.S. data were adjusted, where possible, to include the 2008 horticultural operations data. In many of the first 27 tables, 2008 U.S. data were omitted.

Several tables were affected by changes to the report form sections. Some tables that appeared in the 2008 FRIS were not published in the 2013 FRIS, including Chapter 1 tables 13, 24, 31, and 40 and Chapter 2 tables 5, 6, and 7. Table 3 was updated to reflect changes that were made to the land use categories in Section 2 of the FRIS report form; specifically the types of pasture – permanent, woodland pastured, and other pasture. The change was made to align FRIS with the 2012 census.

The subirrigation method of water distribution for acres in the open was not included on the 2013 FRIS report form. This change affected Tables 28, 31, 32, and 39. The data for this method are now reported in the Other gravity item. In 2008 data were collected for five categories of Uncontrolled flooding and Other gravity methods and were published in Table 7. Only data for the total acres of each of these conveyance systems were collected and published in 2013.

Wells capable of being used, irrigation water transfers, and other uses of irrigation water are no longer published. Crops with small acreages have high variability because of the sample size. Sugarbeets, barley, and tobacco were removed as individual items in the field crops sections. Respondents reported these in the Other small grains or Other crops categories on the report form.

Water management practices for gravity irrigation were combined into four categories in Table 39.

2018: The title of the survey was changed from Farm and Ranch Irrigation Survey (FRIS) to Irrigation Water Management Survey (IWMS). The name of the survey changed because the name did not specify horticulture operations while the report form was designed to include all irrigators. Only a small number of changes were made to the combined report form to separate mixed values.

Horticulture in the open acreage was recorded under Other cropland on the 2013 report form and was recorded separately from Other cropland in 2018. This change affected tables 35, 36, and 38. Farm counts, acreage values, water application rates, and distribution methods for Other cropland are not comparable between 2013 and 2018.

2023: The report form was expanded to collect additional irrigation related data including the details on acres equipped for irrigation even on operations that may not be irrigating during the 2023 year. Data comparability was maintained for almost all items between 2018 and 2023. The tables on the publication were re-organized and several new tables were introduced to cover the new data. A new early table, Table 2, covers details on the total number of acres equipped for irrigation while tables 3 through 30 presented all irrigators, 31 through 42 focused on irrigators in the open while tables 43 through 48 covered horticultural operations, both in the open and under protection.

Tables were updated and standardized to only cover one or two years each.

Crop yields are no longer published. The definition of the yields on IWMS were not comparable to census or to any yields on other production surveys. Certain commodities, depending on the weather and the need for irrigation during the survey year, may not have sufficient sample sizes for reliable estimates. IWMS is not a production survey but a follow on aimed at collecting data on Irrigation practices, methods, water use, and infrastructure.

Definitions were clarified further on the 2023 form and publication, with new references to recently introduced funding programs. Subirrigation, including hydroponics, was changed into just hydroponics. The reason for this change was due to the 2013 update where subirrigation, also known as water seepage, was removed from the form with the intent that acres would be reported under gravity irrigation. However, hydroponics is its own category and was collected within subirrigation. Therefore, hydroponics was added to the form for consistency and is not comparable to the subirrigation including hydroponics definition.

A list of the new items includes details on acres equipped for irrigation, water use details on failed or idle land, hydroponics being added as an option in the open and listed as its own category in horticulture, expanded details on gravity irrigation practices, and groundwater recharge practices.

DEFINITIONS AND EXPLANATIONS

This section provides definitions and explanations of specific terms and phrases used on the report form or in the publication tables. Items in the publication tables that carry the note “see text” also are explained.

Acre-feet of water. An acre-foot of water is the quantity of water required to cover one acre to a depth of one foot. This is equivalent to 43,560 cubic feet or 325,851 gallons.

Acres affected by irrigation interruption. Acres or area irrigated that had a stoppage of irrigation for a period of time which resulted in an effect on crop yields. Reasons for stopping irrigation included water shortages, equipment failure, energy costs and shortages, water salinity levels, water costs, and changes in water access rights.

Acres and quantity harvested. If two or more crops were

harvested from the same land during the year (double cropping), the acres were counted for each crop. Therefore, the total acres of all crops harvested could exceed the acres of cropland harvested. An exception to this procedure was hay crops.

When more than one cutting of hay was taken from the same acres, the acres were counted only once, but the quantity harvested includes all cuttings. For interplanted crops or “skip-row” crops, acres were reported according to the portion of the field occupied, whether by a crop or whether it was idle land.

If a crop was interplanted in an orchard or vineyard and harvested, then the entire orchard or vineyard acreage was reported under land in bearing and non-bearing fruit orchards, citrus or other groves, vineyards, and nut trees and the interplanted estimated crop acreage was reported under the appropriate crop.

Acres of land in bearing and non-bearing fruit orchards, citrus or other groves, vineyards, and nut trees were included in cropland harvested whether the crop was harvested or not.

Acres equipped. Acres with access to irrigation systems or equipment, also known as acres equipped for irrigation, includes all irrigated acres and all acres that could have been irrigated in 2023, regardless of water rights.

Acres irrigated. Acres or area irrigated are the acres of agricultural land to which water was applied by any artificial or controlled means such as sprinklers, flooding, furrows, ditches, gated pipe, hand watered, capillary mats, trough irrigation, ebb-and-flood irrigation, subirrigation, and spreader dikes including preplanted, partial, and supplemental irrigation. Land flooded was to be included as irrigated only if the water was diverted to agricultural land by dams, canals, or other works. Table 1 provides a comparison with the 2023 Irrigation and Water Management Survey data and the 2022 Census of Agriculture data.

Acres irrigated affected by expenditure. This is the number of acres which were affected by the reported cost of the expenditures.

Acres irrigated on farms with any hired or contract labor. This is the total acres irrigated on the operation. On some operations, hired labor or contract labor were paid for work on all the acres in the operation. On other operations, hired labor or contract labor were paid for work on only part of the total acres irrigated in the operation.

All other crops. Data relate to any crops not having a specified code on the 2023 form. All other crops include grass seed, sunflower seed, sugarcane, etc. Does not include any crops classified as vegetables, berries, or nursery crops, nor any crops that come from any fruit or nut orchard, vineyard or grove, since those have their own general specified codes.

All other irrigated land types such as failed cropland, idle land, and land in summer fallow. This category was added to account for any irrigated land with no specified crop or pasture use. This would include irrigated cropland that failed, idle land,

and land in summer fallow.

All other land. This category includes farmsteads, buildings, livestock facilities, ponds, roads, ditches, wasteland, etc. It includes those acres in the farm operation not classified as cropland, woodland, pastureland, or rangeland.

Any water management practice used. See Water management practices used.

Application of commercial fertilizers or pesticides in irrigation water. This inquiry was intended to measure the number of farms and acres on which fertilizer and pesticides were distributed through irrigation systems.

Area in the open - acres irrigated. Acres in the open irrigated is the total area irrigated for horticultural crops grown in the open, whether harvested or not.

Area under protection - square feet irrigated. The total area used to grow horticultural crops under protection, whether harvested or not.

Average operating pressure. The average operating pressure for pumped wells was reported for up to three individual wells and as the average operating pressure for the remaining wells, if any. Artesian wells are not included as wells pumped. The average operating pressure was calculated using these reported data.

Average pumping capacity. The average pumping capacity for pumped wells was reported for up to three individual wells and as the average pumping capacity for the remaining wells, if any. Artesian wells are not included as wells pumped. The average pumping capacity was calculated using these reported data.

Barriers to making improvements to reduce energy use or conserve water. This item shows the barriers to implementing improvements that might reduce energy and/or conserve water. Respondents were asked to report for the period covering 2019 to 2023. The information was tabulated as reported. No imputation was made for a blank response.

Cablegation. An automated furrow irrigation system in which the irrigation set moves at a slow constant rate across the field. See Water Management Practices.

Cropland harvested. This category includes land from which crops were harvested and hay was cut, land used to grow short-rotation woody crops, and land in orchards, citrus groves, cultivated Christmas trees, vineyards, nurseries, and greenhouses. Land from which two or more crops were harvested was counted only once. Land in tapped maple trees was included in woodland.

Cropland harvested in the open. Acres that included harvested field crops and hay along with land used for vegetables, orchards, citrus groves, vineyards, berries, nuts, cultivated Christmas trees, short-rotation woody crops, nursery and other horticultural crops grown in the open. Does not include land used for growing horticultural crops under protection nor cropland

reported as failed or used for cover crops.

Cropland not harvested or grazed. This category includes acreage which could have been used for crops without any additional improvement and which was not reported as cropland harvested or other pasture or grazing land that could have been used for crops without additional improvements. This category includes:

1. Land used for cover crops or soil improvement but not harvested or grazed.
2. Land in Federal or State conservation programs that was not hayed or grazed in 2023.
3. Land occupied with growing crops for harvest in 2024 or later years (except fruit or nuts in an orchard, grove, or vineyard or berries being maintained for production). Example is acreage planted in winter wheat for harvest in 2024 and no crop was harvested from these acres in 2023.
4. Land in summer fallow in 2023.
5. Land with crops that failed and no crop was harvested on the acreage in 2023.

Crops unit of measurement. Crop units were preprinted on the report forms and respondents were instructed to report crops in these units.

Discharge capacity. See Average operating pressure.

Discharge operating pressure. See Average pumping capacity.

Equipped. See Acres Equipped.

Estimated quantity of water applied. The quantity of water data are based on the best estimates provided by irrigators. Generally, in areas with water shortages, such as southern California and Arizona, irrigators are more likely to provide actual quantities of water used than in Mountain States where water shortages may be less of a problem or precise measuring methods are not readily available. In the Mountain States where water from snow-melt is diverted for use in season, the amount of water used may be a rough estimate, seldom a measured figure.

Expenditures for irrigation facilities and equipment. There are six categories of expenditures. The expenditures purposes include; new expansion, water conservation, energy conservation, and scheduled replacement or maintenance. The expenditures are also grouped by primary source of funding.

Farms with idle irrigation equipment. This represents respondents that indicated the presence of irrigation equipment that went unused during the 2023 growing season.

Farms using off-farm water. Respondents were asked to report the amount (none, some, or all) of off-farm water supplied by the U.S. Bureau of Reclamation, other federal agencies, and all other suppliers. However, many respondents did not answer this question. Instead, the computer edit set the entry to unknown.

The number of farms using water from the U.S. Bureau of Reclamation, other federal agencies, and all other suppliers may be understated.

Flowing wells used. Flowing or artesian wells are wells which flow freely and provide water used for irrigation without pumping during the irrigation season. All flowing or artesian wells were excluded from data for pumped wells.

Gross value of agricultural products sold. See Market value of agricultural products sold.

Horticultural crops. The horticultural data are published in the following categories:

Cultivated Christmas trees and short rotation woody crops in the open. Includes all trees to be cut in 2023 or later years. Irrigated live Christmas trees were reported in nursery crops.

Floriculture and bedding crops. Includes annual bedding/garden plants, herbaceous perennials, vegetable plants, cut flowers and cut cultivated greens, foliage plants for indoor or patio use, potted flowering plants, and other floriculture type crops.

Food crops grown under protection. Includes all food crops that were grown in a greenhouse or under some sort of structure that regulated light, shade, temperature, etc. No food crops grown in open fields were reported for this crop type.

Mushroom crops under protection. Includes all mushroom species that were irrigated in 2023. Logs were converted to and reported in square feet.

Nursery crops. Includes deciduous shade and flowering trees, broadleaf and coniferous evergreens, live Christmas trees for sale as potted trees or balled and burlapped, fruit and nut trees and plants, ornamental grasses, palms for landscaping, shrubs, vines, aquatic plants, and other woody ornamentals.

Propagative materials. Includes dry bulbs, corms, tubers, and rhizomes; cuttings, seedlings, liners, and plugs; flower seeds; vegetable seeds; vegetable transplants; and tobacco transplants.

Sod in the open. Includes all irrigated sod, sprigs, or plugs.

Other horticultural crops. This category includes all crops that are primarily considered ornamental or horticultural and are not listed on the report form. Fruit, nut, and vegetable crops grown in the open are not considered horticultural crops.

Hydroponics. Hydroponics refers to the cultivation of plants in nutrient-enriched water, with or without the mechanical support of an inert medium such as sand, gravel, or perlite.

Institutional, research, and experimental farms. Data for these farms are combined into a single category. Research farms include farms operated by private companies as well as those operated by universities, colleges, and government organizations for the purpose of expanding agricultural knowledge.

Irrigated farms. Irrigated farms or ranches are those with any agricultural land irrigated by any artificial or controlled means in the specific calendar year. The acreage irrigated may vary from a very small portion of the total acreage in the farm or ranch to irrigation of all agricultural land in the farm or ranch. This includes reclaimed water and livestock lagoon wastewater distributed by sprinkler or flood systems.

Irrigated land. Irrigated land is defined as “all land watered by artificial or controlled means.” Therefore, the data for irrigated land include land with as little as one-half inch of water applied as well as land with several acre-feet of water applied.

Irrigation pumps. The inventory data for number of irrigation pumps include well pumps and pumps other than well pumps used for irrigation on the operation.

Land in farms. The acreage designated as “land in farms” consists primarily of agricultural land used for crops, pasture, or grazing. It also includes woodland and wasteland not actually under cultivation or used for pasture or grazing, provided it was part of the farm producer’s total operation. Land in farms includes idle cropland, cropland not harvested, and land in government conservation programs.

Land in farms is an operating unit concept and includes land owned and operated as well as land rented from others. Land used rent free was reported as land rented from others. All grazing land, except land used under government permits on a per-head basis (AUM), was included as land in farms provided it was part of a farm or ranch. Land under the exclusive use of a grazing association was reported by the grazing association and included as land in farms. All land in American Indian reservations used for growing crops or grazing livestock, or with the potential of grazing livestock, was included as land in farms. Land in reservations not reported by reservations, individual American Indians, or non-Native Americans was reported in the name of the cooperative group that used the land. In some instances, an entire American Indian reservation was reported as one farm.

Market value of agricultural products sold. This category represents the gross market value before taxes and production expenses of all agricultural products sold or removed from the place during the survey year, regardless of who received the payment. It includes sales by the producers as well as the value of any shares received by partners, landlords, contractors, or others associated with the operation. It represents the sum of all crops, including nursery products, and livestock and poultry and their products. Market value of agricultural products sold does not include payments received for participation in federal farm programs. Also, it does not include income from farm-related sources such as customwork and other agricultural services, or income from nonfarm sources.

Mulch, or other types of row covers. A water management practice used in gravity irrigation systems to help retain soil moisture. See Water Management Practices.

North American Industry Classification System. The North American Industry Classification System (NAICS) classifies

economic activities. It was jointly developed by Mexico, Canada, and the U.S. The NAICS makes it possible to produce comparable industrial statistics for Mexico, Canada, and the U.S. Farms were classified by NAICS code based on their 2022 census report(s). Establishments primarily engaged in crop production are classified in major group 111. Establishments primarily engaged in production of livestock and animal specialties are classified in major group 112. Establishments are further classified into the appropriate six-digit code for the commodity or commodities which account for one-half of the establishment’s agricultural production.

Nursery and other horticultural crops. Nursery and horticultural crops grown in the open, such as floriculture, bedding crops, nursery crops, sod, propagative materials, cultivated Christmas trees, and short rotation woody crops.

Nursery, greenhouse, and other horticulture under protection. Includes crops grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, “tunnel” protection, and hoop houses. Crops that are covered only temporarily, such as for frost protection, are not considered as crops under protection. Includes floriculture, bedding crops, nursery crops, propagative materials, food crops under protection, and mushrooms.

Off-farm water supply. Off-farm water supply is water from off-farm water suppliers, such as the U.S. Bureau of Reclamation; irrigation districts; mutual, private, cooperative, or neighborhood ditches; commercial companies; or community water systems. It includes reclaimed water from off-farm livestock facilities, municipal, industrial, and other reclaimed water sources.

On-farm surface supply. On-farm surface supply is water from a surface source not controlled by a water supply organization. It includes sources such as streams, drainage ditches, lakes, ponds, reservoirs, and on-farm livestock lagoons on or adjacent to the operated land.

Other drip, trickle, or low-flow micro systems. This category is for any drip, trickle, or low-flow micro systems that were not included in the other three specific descriptions.

Other or unspecified discontinuance. This category is for any discontinuance reason that was not specified on the report form.

Other pasture and grazing land that could have been used for crops without additional improvements. This category includes land used only for pasture or grazing that could have been used for crops without additional improvement. Also included are acres of crops bush-hogged or grazed but not harvested prior to grazing. However, cropland that was pastured before or after crops were harvested was included as harvested cropland rather than cropland for pasture or grazing.

Other small grains (barley, oats, rye, etc.). This category is not comparable with 2008 or earlier FRIS publications. In previous report forms, barley had its own specific code. Beginning in 2013 it did not have a specific code and is included with Other small grains.

Other sprinkler systems. Includes any sprinkler system that was not listed on the report form.

Permanent pasture and rangeland. This land use category encompasses grazing land that does not qualify as woodland pasture or cropland pasture. It may be irrigated or dry land. In some areas, it can be a high quality pasture that could not be cropped without improvements. In other areas, it is barely able to be grazed and is only marginally better than wasteland.

Poly pipe (or other single-year use, lay-flat tubing). Includes all short term surface tubing and pipes. Does not include permanent above ground or underground pipes.

Primary source of funding assistance. Respondents were instructed to only report the primary source of funding assistance for expenditures. Nonresponses to this item were summarized as “No funding assistance.”

Precision (Laser) Leveling. For even distribution of gravity irrigation the field needs to be level. Laser leveling is a method of leveling a field by sighting on a laser and using it as a level. Zero grade means the field is perfectly level from one end to the other.

Pumps by average discharge operating pressure. This category is the average pressure of pumps, other than well pumps, used on the operation.

Pumps by average operating pressure. See Average operating pressure.

Reason for discontinuance of irrigation since 2022. These data reflect the expanded number of operations that irrigated in 2022 but not in 2023 and the acres or area irrigated in the previous census year. The data also show the reason for discontinuance. Some respondents reported multiple reasons, while others gave no specific reason.

Recharge. Ground water recharge is the practice of increasing the amount of water that enters an aquifer through human-controlled means. This can be done by injecting water directly into the subsurface through injection wells or by intentionally applying extra water to the ground for the purpose of replenishing the aquifer.

Reclaimed water. Reclaimed water is wastewater that has been treated for non-potable reuse purposes. Sources include municipal, industrial, off-farm livestock operations, and other reclaimed water sources. Water from off-farm livestock facilities, municipal, industrial, and other reclaimed water sources were reported as off-farm supplies. While reclaimed water from on-farm livestock facilities were reported as on-farm surface water.

Recycled water. Recycled water is the reuse of surface or ground water that has already been used to irrigate a crop on the operation. Recycled water use was reported as on-farm surface water.

Scheduled by water supplier. Producer’s decision to irrigate was determined by a third party, subject to delivery and availability conditions. Examples include water delivered by trucks or canals not controlled by the producer.

Solar pumps. The data were not published at the State level because of low data reliability at the State level. There are few operations with solar pumps in the population.

Sources of irrigation information. These data show which sources were used by farmers to help them make irrigation decisions. The information for this item was tabulated as reported. No imputation was made for a blank response.

Sprinkler systems. Center pivot systems are published as either high-pressure delivery with water delivered at 60 psi or more, medium pressure delivery with water delivered at 30 to 59 psi, or low- pressure delivery with water delivered at less than 30 psi. Linear move tower and solid set or permanent systems are published as medium to high pressure at 30 psi or more or low pressure, less than 30 psi. The mechanical-move systems are further classified as either linear move, side roll, wheel move, or big gun where the sprinkler device is moved across the field either by self-propelled methods or by tractor.

Hand move systems include any distribution systems which are moved without mechanical assistance.

Other sprinkler systems include any other system not listed on the report form.

Surge flow. The intentional application of water to furrows or borders creating a series of on and off periods of constant or variable time spans. See Water management practices.

Tailwater pits. Irrigation water is captured after the initial application of irrigation water. The water drains into a collection pit and is returned through an irrigation system to irrigate the same field or other fields.

Total cropland. This category includes cropland harvested, cropland used only for pasture or grazing, cropland idle or used for cover crops or soil improvement but not harvested and not pastured or grazed, cropland on which all crops failed or were abandoned, and cropland in cultivated summer fallow.

USDA programs for water conservation and environmental improvements (CTA, EQIP, RCPP, AMA, WMB, CIG, etc.). These technical and financial resources include Conservation Technical Assistance, Environmental Quality Incentives Program, Regional Conservation Partnership Program, Conservation Innovation Grants, and others.

Utilized computer software for planning gravity irrigation systems. Indicates if operations used computer software for the measuring or planning of their gravity irrigation system’s pipes or tubing. Software features include determining the location for the pipes or tubes, the location for drilling holes into the pipes or tubes, the diameter of the holes, and the distance between holes for optimal irrigation.

Water management practices. These practices refer to gravity irrigation systems only. The respondent reported whether they used any of the techniques listed on the report form and the number of acres on which they applied this technique.

Water Resource Regions (WRR). Data from IWMS were tabulated by WRR. Boundaries of these areas are shown on the map on page 1. Geographic descriptions of the areas used to approximate water resource region are as follows:

01 New England Region. The drainage within the United States that ultimately discharges into the Bay of Fundy and the Atlantic Ocean. These points of discharge are located within and between Maine and Connecticut; Long Island Sound and the St. Francis River, a tributary of the St. Lawrence River.

02 Middle Atlantic Region. The drainage within the United States that ultimately discharges into the Atlantic Ocean, whose point of discharge is located within and between New York and Virginia, and the Richelieu River, a tributary of the St. Lawrence River.

03 South Atlantic-Gulf Region. The drainage that ultimately discharges into the Atlantic Ocean, whose point of discharge is located within and between North Carolina and Florida; and the Gulf of Mexico, whose point of discharge is located within and between Florida and Mississippi, including the Pearl River.

04 Great Lakes Region. The drainage within the United States that discharges into the Great Lakes system, including the Lakes' surfaces; and the St. Lawrence River as far east as, but excluding the Richelieu River.

05 Ohio Region. The drainage of the Ohio River, excluding that of the Tennessee River.

06 Tennessee Region. The drainage of the Tennessee River.

07 Upper Mississippi Region. The drainage of the Mississippi River above the mouth of the Ohio River, excluding drainage of the Missouri River above a point immediately below the mouth of the Gasconade River.

08 Lower Mississippi River. The drainage of the Mississippi River below the mouth of the Ohio River, but excluding the drainage of the Arkansas, White, and Red Rivers and above the points of highest backwater effects of the Mississippi River in those parts; and the coastal streams, other than the Mississippi River, that discharge into the Gulf of Mexico from the boundaries of, but excluding the Pearl and Sabine Rivers.

09 Souris-Red-Rainy Region. The drainage within the United States of the Souris, Red, and Rainy Rivers.

10 Missouri Region. The drainage within the United States of the Missouri River above a point immediately below the mouth of the Gasconade River and the Saskatchewan River.

11 Arkansas-White-Red Region. The drainage of the Arkansas River above the point of highest backwater effect of the

Mississippi River, the Red River above the point of highest backwater effect of the Mississippi River, and the White River above the point of highest backwater effect of the Mississippi River near Peach Orchard Bluff, AR.

12 Texas-Gulf Region. The drainage that discharges into the Gulf of Mexico from and including Sabine Pass to, but excluding, the Rio Grande and the Lower Rio Grande Valley.

13 Rio Grande Region. The drainage within the United States of the Rio Grande; the San Luis Valley, North Plains, San Augustine Plains, Mimbres, Estancia Jonado del Muerto, Tularosa, Salt, and various smaller closed basins; and the Lower Rio Grande Valley.

14 Upper Colorado Region. The drainage of the Colorado River above the Lee Ferry Compact Point, which is about 1 mile below the mouth of the Paria River; and the Great Divide closed basin.

15 Lower Colorado Region. The drainage within the United States of the Colorado River below the Lee Ferry Compact Point, which is about 1 mile below the mouth of the Paria River; the Rios Yaqui, Magdalena, Sonoita, and other lesser streams that ultimately discharge into the Gulf of California; and the Animas Valley, Wilcox Playa, El Dorado Valley, and other smaller closed basins.

16 Great Basin Region. The drainage of the Great Basin that ultimately discharges into Utah and Nevada.

17 Pacific-Northwest Region. The drainage within the United States that ultimately discharges into the Straits of Georgia and Juan de Fuca and the Pacific Ocean. The point of discharge is within Washington and Oregon, including the Columbia River.

18 California Region. The drainage within the United States that ultimately discharges into the Pacific Ocean, whose point of discharge is within California, which includes the Central Valley; and that portion of the Great Basin and other closed basins in California.

19 Alaska. Entire State.

20 Hawaii. Entire State.

Woodland not pastured. These acres were included in All other land. Woodland includes natural or planted woodlots or timber tracts and cutover and deforested land with young growth which has or will have value for wood products and woodland pastured. Land planted for Christmas tree production and short rotation woody crops was reported in Cropland harvested.

Woodland pastured. This category includes all woodland used for pasture or grazing during the survey year. Woodland or forest land pastured under a per-head grazing permit was not counted as land in farms and, therefore, was not included in woodland pastured.

Zero grade. See Precision (Laser) Leveling.

2023 IRRIGATION AND WATER MANAGEMENT SURVEY

Form Number: 23-A621
(09/13/23)



National Agricultural
Statistics Service

Return your
completed report to:

Census of Agriculture
1201 East 10th Street
Jeffersonville, IN 47132

OFFICE USE ONLY	0010
------------------------	------

Make corrections to name, address, and ZIP Code if necessary.

- Complete your report by mail or via the internet at www.agcounts.usda.gov
- **Your mandatory report is due by February 15, 2024** – Everyone, including nursery, greenhouse, and other horticultural crop producers, must return this form by this date.
 - To fill out the paper form, use a black or blue ballpoint pen.
 - **Questions** – Call us toll-free at 1-888-424-7828. Thank you for your cooperation.

SECTION 1 ACREAGE IN 2023

- Report land owned, rented, or used by you, your spouse, or the partnership, corporation, or organization printed above.
- Round to whole acres.
- Include ALL LAND, regardless of location or use – cropland, pastureland, rangeland, woodland, idle land, **greenhouses or other area under protection**, farmsteads, Conservation Reserve Program (CRP) land, etc.

			None		Number of Acres
1. All land owned	0025		<input type="checkbox"/>		<input style="width: 100%;" type="text"/>
2. All land rented or leased from others , including land worked by you on shares, used rent free, in exchange for services, payment of taxes, etc. Include Federal, state and railroad land leased on a per-acre basis. Exclude leased land (e.g., private, Federal, state, railroad) used on a per-head or animal unit month (AUM) basis under a grazing permit	0026		<input type="checkbox"/>	+	<input style="width: 100%;" type="text"/>
3. All land rented or leased to others , including land worked on shares by others and land subleased.	0027		<input type="checkbox"/>	-	<input style="width: 100%;" type="text"/>
4. TOTAL ACRES in this operation (items 1 + 2 - 3 = BOX A).					0028 = <input style="width: 100%;" type="text"/>

The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection and Statistical Efficiency Act of 2018, Title III of Pub. L. No. 115-435, codified in 44 U.S.C. Ch. 35 and other applicable Federal laws. For more information on how we protect your information please visit: www.nass.usda.gov/confidentiality. Response to this survey is required by law under Title 7 USC 2204(g) Public Law 105-113.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB number is 0535-0234. The time required to complete this information collection is estimated to average 60 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

21303011



SECTION 2 LAND IN 2023

- Of the acres reported in **BOX A** on the previous page, indicate how all of the land was used in 2023 in column 1 below. If the same land had more than one use, report that land only once in items 1 through 3.
- Report the acres that had irrigation equipment in 2023 in Column 2. Acres with access to irrigation systems or equipment, also known as acres equipped for irrigation, include all irrigated acres and all acres that could have been irrigated in 2023, regardless of water rights. Examples include acres covered by sprinklers, drip trickle, down rows, and controlled flooding irrigation systems.
- Report the acres that were irrigated in 2023 in Column 3. Irrigation is any application of water, including partial, supplemental, or preplant irrigation, by any artificial or controlled means. Fresh, reclaimed, and recycled water are all suitable for irrigation purposes.
- Area under protection includes crops grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, “tunnel” protection, and hoop houses. Crops covered temporarily, such as for frost protection, only to be further grown in the open should be reported as cropland harvested in the open.

1. Cropland – Exclude cropland used only for pasture.

	None	Column 1 Number of Acres	None	Column 2 Acres Reported in Column 1 with Access to Irrigation Systems or Equipment	None	Column 3 Acres Reported in Column 2 that were Irrigated
a. Cropland harvested in the open – Include harvested field crops and hay; and land in vegetables, orchards, citrus groves, vineyards, berries, nuts, Christmas trees, short rotation woody crops, nursery and other horticultural crops in the open	<input type="checkbox"/>	0029	<input type="checkbox"/>	1128	<input type="checkbox"/>	0030
b. Area under protection – Include nursery, greenhouse, and other horticulture under protection. Round to the nearest whole acre	<input type="checkbox"/>	0077	<input type="checkbox"/>	1129	<input type="checkbox"/>	0078
c. Cropland not harvested or grazed – Include cropland on which all crops failed, cropland idle, cropland used for cover crops or CRP, and cropland in summer fallow.	<input type="checkbox"/>	0033	<input type="checkbox"/>	1130	<input type="checkbox"/>	0034

2. Pasture

a. Permanent pasture and rangeland	<input type="checkbox"/>	0135	<input type="checkbox"/>	1131	<input type="checkbox"/>	0136
b. Woodland pastured.	<input type="checkbox"/>	0137				
c. Other pasture and grazing land (including rotational pasture) that could have been used for crops without additional improvements	<input type="checkbox"/>	0107	<input type="checkbox"/>	1132	<input type="checkbox"/>	0108

3. All other land – Include land not reported above. Include woodland not pastured, farmsteads, home, buildings, livestock facilities, ponds, roads, wasteland, etc.

0039

	Total Acres on this Operation BOX B	Total Acres with Access to Irrigation Systems or Equipment BOX C	Total Acres Irrigated BOX D
4. TOTAL ACRES – Add acres in each column and enter the totals	0041	1133	0042

(**BOX B** above should be the same as **BOX A** on page 1.)

5. Was any area irrigated on this operation in 2023? (Is **BOX D** positive?)
- Include all irrigated land in the open and all area under protection in 2023.
 - Exclude land equipped for irrigation that did not receive irrigation in 2023.

0003 1 **Yes** – Continue 3 **No** – Go to Section 16 on page 19



SECTION 3 GROUND WATER FROM WELLS

1. Did this operation irrigate with ground water from wells on this operation in 2023?

0760 1 **Yes - Continue** 3 **No - Go to Section 4**

If exact amounts are not available, provide your best estimate for quantity of water applied. If total area irrigated in the open is less than one acre, report as one acre in item 2. If the wells are not on the operation, such as a municipal or rural water system, report this as off-farm water in Section 5.

2. Report acres in the open irrigated with ground water and the amount of water applied in 2023. Include irrigated horticultural crops grown in the open, irrigated summer fallow, and irrigated pastureland.

None

Acres in the Open Irrigated by Ground Water		Quantity of Ground Water Applied		Enter Code for Unit of Measure 1 = Total Acre-Feet 2 = Total Gallons 3 = Inches/Acre	
0444		0446		0447	

3. Report the area under protection irrigated with ground water in 2023. Under protection includes nursery, greenhouse, floriculture, mushrooms, vegetable seeds, and propagative materials grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, "tunnel" protection, and hoop houses.

None

Square Feet Under Protection Irrigated with Ground Water	
0455	

4. How many wells on this operation were used for irrigation in 2023?

Number of Wells	
0460	

a. Of the (item 4) wells, how many used backflow prevention devices (check valves) and how many acres and/or square feet under protection were irrigated with these wells in 2023?

None

Number of Wells		Acres in the Open		Square Feet Under Protection	
0770		0771		0679	

b. Of the (item 4) wells, how many had flow meters or other flow measurement devices and how many acres and/or square feet under protection were irrigated with these wells in 2023?

0683		0772		0680	
------	--	------	--	------	--

c. Of the (item 4) wells, how many were free flowing wells that did not require a pump?

0486	
------	--

5. Report for the first three primary wells pumped in 2023.

	Depth of Well (Feet)	Depth to Bowls or Impellers (Feet)	Depth to Water at Start of Irrigation Season (Feet)	Pump Capacity – Discharge From Well (GPM)	Operating Pressure at Well Head (PSI)	Horsepower of Engines or Motors, Including Electric (HP)
Well #1	0461	0463	0462	0464	0676	0761
Well #2	0465	0467	0466	0468	0677	0763
Well #3	0469	0471	0470	0472	0678	0765

a. Report averages for all other wells pumped in 2023

	Average Depth of Well(s) (Feet)	Average Depth to Bowls or Impellers (Feet)	Average Depth to Water at Start of Irrigation Season (Feet)	Average Pump Capacity – Discharge From Well (GPM)	Average Operating Pressure at Well Head (PSI)	Average Horsepower of Engines or Motors, Including Electric (HP)
	0481	0483	0482	0484	0681	0767

6. For the wells used on this operation, what is the best description for the depth to water over the last five years? Mark (X) one.

0487 1 Depth to water did not change 2 Depth to water increased 3 Depth to water decreased

21303037



SECTION 4 ON-FARM SURFACE WATER

1. Did this operation irrigate with on-farm surface water, including recycled water and on-farm reclaimed water, in 2023?

Recycled water is reused surface or groundwater that was previously used to irrigate a crop (e.g. water from a tailwater reuse pit used for irrigation).

On-farm reclaimed water is on-farm livestock wastewater that has been treated for non-potable reuse purposes. (For the purposes of this irrigation survey, to be considered an irrigation application of reclaimed water, at least 0.5 inches of reclaimed water must be applied on the area during the growing season.)

0438 1 **Yes - Continue** 3 **No - Go to Section 5**

If exact amounts are not available, provide your best estimate for quantity of water applied. If total area irrigated in the open is less than one acre, report as one acre in item 2.

2. Report acres in the open irrigated with on-farm surface water and the amount of water applied in 2023. Include irrigated horticultural crops grown in the open, irrigated summer fallow, and irrigated pastureland. None

Acres in the Open Irrigated by On-Farm Surface Water		Quantity of On-Farm Surface Water Applied		Enter Code for Unit of Measure 1 = Total Acre-Feet 2 = Total Gallons 3 = Inches/Acre	
0449		0451		0452	

3. Report the area under protection irrigated with on-farm surface water in 2023. Under protection includes nursery, greenhouse, floriculture, mushrooms, vegetable seeds, and propagative materials grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, "tunnel" protection, and hoop houses. None

Square Feet Under Protection Irrigated with On-Farm Surface Water	
0458	

4. Did this operation use **on-farm recycled water** to irrigate any crops, including horticultural crops, grown during 2023?

0600 1 **Yes - Continue** 3 **No - Go to item 5 below**

a. How many acres in the open and square feet under protection were irrigated with **on-farm recycled water** during 2023?

Acres in the Open		Square Feet Under Protection	
0601		0936	

5. Did this operation use **reclaimed water from on-farm livestock facilities** to irrigate any crops, including horticultural crops, grown during 2023? (For the purposes of this irrigation survey, to be considered an irrigation application of reclaimed water, at least 0.5 inches of reclaimed water must be applied on the area during the growing season. If this minimum amount is not met, mark (X) "No" below.)

0543 1 **Yes - Continue** 3 **No - Go to Section 5**

a. How many acres in the open and/or square feet under protection were irrigated with one or more applications of **reclaimed water from on-farm livestock facilities** during 2023?

Acres in the Open		Square Feet Under Protection	
0587		0588	

b. How much **reclaimed water from on-farm livestock facilities** was used for irrigation during 2023?

Acre-Feet		OR	Gallons	
0599			0561	



SECTION 5 OFF-FARM WATER

1. Did this operation irrigate with off-farm water in 2023?

INCLUDE

- acres in the open and area under protection irrigated with off-farm water from all suppliers
- all off-farm surface water, municipal (such as town or city) water, and rural water suppliers
- area irrigated with reclaimed water from off-farm sources such as treated municipal sewer water (blue water), industrial, off-farm livestock operations, or other off-farm sources

0457 1 **Yes** - Continue 3 **No** - Go to Section 6

If exact amounts are not available, provide your best estimate for quantity of water applied. If total area irrigated in the open is less than one acre, report as one acre in item 2.

2. Report acres in the open irrigated with off-farm water and the amount of water applied in 2023. Include irrigated horticultural crops grown in the open, irrigated summer fallow, and irrigated pastureland

None

Acres in the Open Irrigated by Off-Farm Water		Quantity of Off-Farm Water Applied		Enter Code for Unit of Measure 1 = Total Acre-Feet 2 = Total Gallons 3 = Inches/Acre	
0454		0968		0969	

3. Report the area under protection irrigated with off-farm water in 2023. Under protection includes nursery, greenhouse, floriculture, mushrooms, vegetable seeds, and propagative materials grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, "tunnel" protection, and hoop houses

None

Square Feet Under Protection Irrigated with Off-Farm Water	
0428	

4. Did you pay for the off-farm water received on this operation?

0675 1 **Yes** - Report the total dollars paid for the off-farm water

Dollars	
0456	\$.00

3 **No** - Continue

5. How much of this operation's off-farm water was supplied, delivered, or transferred through a project financed, constructed, or managed by -

- a. U.S. Bureau of Reclamation? Include reclamation water delivered through a local district
- b. Other Federal agencies such as the U.S. Army Corp of Engineers, Bureau of Indian Affairs, and USDA small watershed project?
- c. All other suppliers? Include town and city water. Specify:

0664	1 <input type="checkbox"/> None	2 <input type="checkbox"/> Some	3 <input type="checkbox"/> All
0665	1 <input type="checkbox"/> None	2 <input type="checkbox"/> Some	3 <input type="checkbox"/> All
0666	1 <input type="checkbox"/> None	2 <input type="checkbox"/> Some	3 <input type="checkbox"/> All

6. Did this operation use **reclaimed water from off-farm sources** such as municipal reclaimed water, industrial, off-farm livestock operations, or other off-farm sources to irrigate any crops in 2023? Off-farm reclaimed water is wastewater that has been treated for non-potable reuse purposes. (For the purposes of this irrigation survey, to be considered an irrigation application of reclaimed water, at least 0.5 inches of reclaimed water must be applied on the area during the growing season. If this minimum amount is not met, mark (X) "No" below.)

0602 1 **Yes** - Continue 3 **No** - Go to Section 6

a. How many acres in the open and/or square feet under protection were irrigated with one or more applications of **reclaimed water from off-farm sources** during 2023?

Acres in the Open		Square Feet Under Protection	
0597		0598	

b. How much **reclaimed water from off-farm sources** was used for irrigation during 2023?

Acre-Feet		Gallons	
0644		0645	

OR

c. What sources of reclaimed water were used on this operation in 2023? Mark (X) all that apply.

- 1001 Municipal 1002 Industrial 1005
- 1003 Off-farm livestock operation 1004 Other - Specify:

21303052



SECTION 6 PUMPS USED FOR IRRIGATION AND PUMP EXPENSES

1. Were any pumps used on this operation for irrigation during 2023?

INCLUDE

- all pumps supplying irrigation to or through any distribution system (e.g., gravity, sprinkler, drip)
- all pumps moving water into tanks or reservoirs on the operation for irrigation in 2023

EXCLUDE

- any pumps used exclusively for non-irrigation applications such as home use or aquaculture
- any pumps not owned or rented by this operation, such as pumps operated by a water company

0488

1 **Yes - Continue**

3 **No - Go to Section 7**

2. Report pumps by use. If the same pump has multiple uses, report that pump only once in items a through d.

	None	Number of Pumps Used	Vertical Lift (Average Feet)	Discharge Capacity (Average GPM)	Discharge Operating Pressure (Average PSI)
		1135			
a. Well pumps	<input type="checkbox"/>	0490	0774	0491	0687
b. Tailwater pits (pits that hold water previously used for irrigation)	<input type="checkbox"/>	0492	0775	0493	0688
c. Ponds, lakes, reservoirs, rivers, canals, etc.	<input type="checkbox"/>				
d. Relifting or boosting water within system (pumps providing additional lift, pressure, or lateral movement)	<input type="checkbox"/>	0494	0776	0777	0778

3. Report the energy expense by power source. Report the fuel used and power expense for pumping irrigation water for the pumps reported above. Report energy expense for acres in the open and area under protection. If both exist for a single energy source, report their combined expenses. Include the cost of any additional charges such as the fuel adjustment charge or any other type of charge which was based on the amount of power or fuel purchased. Include landlord's share. If irrigated acres in the open were less than one acre, round to one acre.

POWER SOURCE	None	Number of Wells and Other Pumps Used (Reported Above)	Cost of Energy Used to Power Pumps (Dollars)	Area Irrigated with Water Pumped from Wells		Area Irrigated with Pumped Surface Water (Both on- and off-farm)	
				Acres in the Open (Whole Acres)	Square Feet Under Protection	Acres in the Open (Whole Acres)	Square Feet Under Protection
		0495	0496	0497	0124	0781	0537
a. Electricity	<input type="checkbox"/>		\$.00				
		0498	0499	0500	0125	0782	0538
b. Natural gas	<input type="checkbox"/>		\$.00				
		0501	0502	0503	0126	0783	0539
c. LP gas, propane, or butane	<input type="checkbox"/>		\$.00				
		0504	0505	0506	0127	0784	0540
d. Diesel and biodiesel fuel	<input type="checkbox"/>		\$.00				
		0507	0508	0509	0128	0890	0541
e. Gasoline, ethanol, and blends	<input type="checkbox"/>		\$.00				
		0779		0780	0129	0786	0542
f. Solar and other pumps without direct energy expense	<input type="checkbox"/>						



SECTION 7 EXPENDITURES FOR IRRIGATION INFRASTRUCTURE

EXPENDITURE AND FUNDING ASSISTANCE CODES – USE IN THE TABLE BELOW

CODE	PRIMARY PURPOSE OF EXPENDITURE	CODE	PRIMARY SOURCE OF FUNDING ASSISTANCE
1 = New expansion 2 = Water conservation 3 = Energy conservation 4 = Scheduled replacement or maintenance		1 = No funding assistance or loans 2 = NRCS Environmental Quality Incentives Program (EQIP) 3 = Other USDA financial assistance or loans 4 = Non-USDA and all other financial assistance or loans	

Report the 2023 expenditure cost, acres affected (rounded to the nearest acre), primary purpose of expenditure, and primary source of funding assistance by expenditure category using the Expenditure and Funding Assistance Codes from the table above. Include the portion of the expenditures made by or shared with others (landlords or government agencies), including programs such as Environmental Quality Incentives Program (EQIP).

EXPENDITURE TYPE	None	Total Cost of Expenditure (Include amount financed)	Irrigated Acres Affected by Expenditure (Acres)	Enter Code from Above for Primary Purpose of Expenditure	Enter Code from Above for Primary Source of Funding Assistance
1. Purchase of new or replacement irrigation equipment and machinery – Include sprinklers, pipes, siphons, nozzles, pumps, engines, motors, filtration equipment, etc. Exclude computers, computer control panels, and software	<input type="checkbox"/>	0511 \$.00	0514	0512	0513
2. New well construction or deepening of existing wells – Include drilling costs, cost of casing, and any costs to prepare well for installation of pump. Exclude cost of pumps or motors	<input type="checkbox"/>	0515 \$.00	0518	0516	0517
3. Construction or improvement of permanent storage and distribution systems – Include dams, ponds, reservoirs, permanent ditches, canals, flumes, etc.	<input type="checkbox"/>	0519 \$.00	0522	0520	0521
4. Computers, control panels, computer controlled valves, software, and software-controlled hardware for irrigation water management	<input type="checkbox"/>	0544 \$.00	0547	0545	0546
5. Clearing or leveling non-irrigated land for new irrigation acres (the primary purpose is expansion of irrigation acres).	<input type="checkbox"/>	0548 \$.00	0526		0549
6. Land leveling of previously irrigated land (the primary purpose cannot be new expansion)	<input type="checkbox"/>	0556 \$.00	0559	0557	0558

21303078 

SECTION 8 METHODS OF WATER DISTRIBUTION IN THE OPEN

1. Did this operation irrigate any land in the open in 2023?
- Include acres of horticultural crops grown in the open or under natural shade.
 - Exclude crops grown under protection: glass, rigid plastic, plastic film, including "tunnel" protection. (Methods for crops grown under protection will be reported in Section 13.)

0489 1 **Yes - Continue** 3 **No - Go to Section 13**

Report acres irrigated by each type of FIELD distribution system listed below. If the same land was irrigated by more than one method of distribution, report acres irrigated by each method used. Report information for the field distribution system, NOT for the delivery system used to convey water from the source to the field, if different.

Acres in the Open Irrigated by Gravity System (Field Water Conveyance System)					
Total Acres	Unlined Open Ditch	Lined Open Ditch	Poly Pipe (or other single-year use, lay-flat tubing)	Above Ground Pipe (except poly pipe) ¹	Underground Pipe ²
0855	0859	0857	0056	0057	0858
2. Gravity irrigation None					
a. Down rows or furrows	<input type="checkbox"/>				
b. Controlled flooding (within borders, levees, or basins). . .	<input type="checkbox"/>				
c. Uncontrolled flooding (rangeland, pastureland, etc.)	<input type="checkbox"/>				
d. Other gravity systems, including water seepage	<input type="checkbox"/>				

¹ Include gated pipe and riser or hydrant systems connected to above ground pipe.
² Include riser or hydrant systems connected to underground pipe.

Acres In the Open Irrigated by Sprinkler System				
	Very Low Pressure (Under 15 PSI)	Low Pressure (15 to 29 PSI)	Medium Pressure (30 to 59 PSI)	High Pressure (60 PSI or more)
0569	0576	0575	0570	
3. Sprinkler irrigation – Inlet pressure None				
a. Center pivot systems (circle).	<input type="checkbox"/>			
b. Linear move tower systems (and other linear continuous move drive systems).	<input type="checkbox"/>			
c. Solid set or permanent systems (except low-flow micro systems).	<input type="checkbox"/>			

		Acres Irrigated (all pressures)	
d. Mechanical move systems			
i. Side roll, wheel move, or other mechanical move systems and other discrete move systems	<input type="checkbox"/>	0240	
ii. Big gun or traveler systems	<input type="checkbox"/>	0241	
e. Hand-move systems, including hand watered nursery and other horticultural crops grown in the open	<input type="checkbox"/>	0242	
f. Other sprinkler systems.	<input type="checkbox"/>	0243	
4. Drip, trickle, or low-flow micro irrigation			
a. Surface drip (on or above ground)	<input type="checkbox"/>	0248	
b. Sub-surface drip (root zone)	<input type="checkbox"/>	0246	
c. Low-flow micro sprinklers or sprays (these systems apply water at low pressure and are not self-propelled or easily moved)	<input type="checkbox"/>	0247	
d. Other drip, trickle, or low-flow micro systems.	<input type="checkbox"/>	0249	
5. Hydroponics	<input type="checkbox"/>	1136	

21303086



SECTION 9 ADDITIONAL PRACTICES FOR IRRIGATION METHODS IN THE OPEN

1. Did this operation use gravity irrigation systems or equipment to irrigate any acres in the open in 2023? (Refer to Section 8, item 2.)

1137 1 **Yes - Continue** 3 **No - Go to Section 10**

2. On how many acres in the open did you use the following practices?

	None	Number of Acres	
a. Capture irrigation runoff in tailwater pits, restrict runoff by diking end of the field, limit irrigation set times or number of irrigations, or irrigate only alternative rows	<input type="checkbox"/>	0404	
b. Use any precision-leveling	<input type="checkbox"/>	0406	
i. How many acres of precision-leveling were considered zero grade (fields with a zero percent/degree decline)?	<input type="checkbox"/>	1138	
c. Shorten the furrow length; use water-soluble polyacrylamide (PAM); or use special furrowing practices such as wide-spaced bed furrowing, compacted furrows, or furrow diking	<input type="checkbox"/>	0409	
d. Use surge flow or a surge irrigation system (intermittent application of water to a furrow)	<input type="checkbox"/>	1139	
e. Use a cablegation system (constant slow flow application to a furrow)	<input type="checkbox"/>	1140	
f. Apply mulch or other types of row covers.	<input type="checkbox"/>	1141	

3. Did this operation use any computer software for the measuring or planning of their gravity irrigation system's pipes or tubes in any way? Software features include determining the location for the pipes or tubes, the location for drilling holes into the pipes or tubes, the diameter of the holes, and the distance between holes for optimal irrigation.

1142 1 **Yes** 3 **No**



SECTION 10 ACRES IRRIGATED IN THE OPEN

1. Did this operation irrigate any land in the open in 2023?
 • Include irrigated harvested cropland, pastureland, summer fallow, and failed cropland.

1134 1 **Yes - Continue** 3 **No - Go to Section 13**

For each item listed, report the irrigated harvested acres or acres irrigated for non-harvested items in the first column. For selected crops, report the average yield from the irrigated harvested acres in the second column. Then report the average irrigation water applied per acre for the entire year in either acre-feet or inches/acre for the acres reported in column one. Report the crop as irrigated if water was applied to supplemental rainfall, even if the amount of water applied was not sufficient to obtain maximum yields. **Report nursery and other horticultural crops grown in the open in item 18.**

Irrigated Crops, Pastureland, and Other Land	Irrigated Land Include preplant and supplemental or semi-irrigation					
	Irrigated Acres Harvested	Average Yield per Irrigated Acre Harvested		Average Estimated Quantity of Water Applied per Acre in 2023		
				Acre-Feet	Tenths	OR	Inches/Acre
2. Corn for grain or seed – Exclude popcorn and sweet corn <input type="checkbox"/>	0050	0051		0052		0053
			Bu.			OR
3. Corn for silage or greenchop – Exclude popcorn and sweet corn <input type="checkbox"/>	0060	0061	Tenths	0062		0063
			Tons			OR
4. Sorghum for grain or seed <input type="checkbox"/>	0070	0071		0072		0073
			Bu.			OR
5. Wheat for grain or seed <input type="checkbox"/>	0080	0081		0082		0083
			Bu.			OR
6. Soybeans for beans <input type="checkbox"/>	0106	0101		0102		0103
			Bu.			OR
7. Beans, dry edible <input type="checkbox"/>	0110	0111		0112		0113
			Cwt.			OR
8. Rice – Include post harvest water applied to improve residue decomposition . <input type="checkbox"/>	0120	0121		0122		0123
			Cwt.			OR
9. Other small grains (barley, oats, rye, etc.) . <input type="checkbox"/>	0130			0132		0133
						OR
10. Alfalfa and alfalfa mixtures (dry hay, greenchop, and silage) <input type="checkbox"/>	0140	0141	Tenths	0142		0143
			Tons, dry			OR

21303102 

SECTION 10 CONTINUED –

Irrigated Crops, Pastureland, and Other Land		Irrigated Land Include preplant and supplemental or semi-irrigation					
		Irrigated Acres Harvested	Average Yield per Irrigated Acre Harvested		Average Estimated Quantity of Water Applied per Acre in 2023		
			Acre-Feet	Tenths	OR	Inches/Acre	
11. All other hay and haylage including small grain, other tame, and wild hay (dry hay, greenchop, and silage)	None <input type="checkbox"/>	0150	0151	Tenths	0152		0153
				Tons, dry		OR	
		0550	0551		0552		0553
12. Peanuts	<input type="checkbox"/>			Lbs.		OR	
		0160	0161		0162		0163
13. Cotton	<input type="checkbox"/>			Lbs. lint		OR	
		0186	Tenths		0187		0188
14. All land from which vegetables, potatoes, and melons were harvested	<input type="checkbox"/>					OR	
		0850	Tenths	0851	0852		0853
a. Sweet corn	<input type="checkbox"/>			Cwt.		OR	
		0860	Tenths	0861	0862		0863
b. Tomatoes in the open	<input type="checkbox"/>			Cwt.		OR	
		0870	Tenths	0871	0872		0873
c. Lettuce and romaine	<input type="checkbox"/>			Cwt.		OR	
		0190	Tenths	0191	0192		0193
d. Potatoes – Exclude sweet potatoes	<input type="checkbox"/>			Cwt.		OR	
15. All other crops grown in the open and not listed - Specify:							
0620 <input type="checkbox"/>	<input type="checkbox"/>	0621			0622	OR	0623
		Irrigated Acres					
		0560	Tenths		0562		0563
16. All berries	<input type="checkbox"/>					OR	
		0210	Tenths		0212		0213
17. Land in bearing and non-bearing fruit orchards, citrus or other groves, vineyards, and nut trees	<input type="checkbox"/>					OR	
		0690	Tenths		0691		0692
18. Nursery and other horticultural crops grown in the open (Note: Nursery, greenhouse, and other horticultural crops grown under protection will be reported in a later section.)	<input type="checkbox"/>					OR	
		0230			0232		0233
19. Irrigated pastureland, all types	<input type="checkbox"/>					OR	
		1144			1145		1146
20. All other irrigated land types such as failed cropland, idle land, and land in summer fallow	<input type="checkbox"/>					OR	



SECTION 11 WATER DISTRIBUTION METHODS AND SOURCES USED IN THE OPEN

1. Did this operation irrigate any land in the open in 2023?
 • Include irrigated harvested cropland, pastureland, summer fallow, and failed cropland.

1143 1 **Yes – Continue** 3 **No – Go to Section 13**

WATER DISTRIBUTION CODES – USE IN THE TABLE BELOW

CODE	PRESSURE SYSTEM	CODE	GRAVITY SYSTEM
01 = Hand-move system 02 = Solid set or permanent system 03 = Side roll or wheel line system 04 = Big gun or traveling gun system 05 = Linear move system (under 15 PSI) 06 = Linear move system (15 to 29 PSI) 07 = Linear move system (30 to 59 PSI) 08 = Linear move system (60 PSI or more) 09 = Center pivot system (under 15 PSI) 10 = Center pivot system (15 to 29 PSI) 11 = Center pivot system (30 to 59 PSI) 12 = Center pivot system (60 PSI or more) 13 = Low-flow irrigation (drip, trickle, or micro sprinkler system) 14 = Other pressure system including hydroponics – Specify:		15 = Down rows or furrows from unlined open ditches 16 = Down rows or furrows from lined open ditches 17 = Down rows or furrows from poly pipe, lay-flat tubing, or above ground or underground pipe 18 = Controlled flooding within borders, levees, or basins from unlined open ditches 19 = Controlled flooding within borders, levees, or basins from lined open ditches 20 = Controlled flooding within borders, levees, or basins from poly pipe, lay-flat tubing, or above ground pipe 21 = Controlled flooding within borders, levees, or basins from underground pipe 22 = Uncontrolled flooding (rangeland, pastureland, etc.) including open discharge from a well or pump 23 = Other gravity system – Specify:	
1006	<input type="text"/>	1007	<input type="text"/>

Report for irrigated acres in the open. For each irrigated crop in the open, report the primary field distribution method, acres irrigated by water source, and acres on which chemigation was used in the irrigation system. Refer to the table above for the water distribution codes.

Irrigated Crops, Pastureland, and Other Land	Enter Code from Above for Primary Method of Field Water Distribution	Water Source (Column totals may exceed irrigated crop acres reported in Section 10 when more than one water source was used.)			Acres on which chemigation was applied through the irrigation system	
		Ground Water from Wells (Acres)	On-Farm Surface Water ¹ (Acres)	Off-Farm Water (All Suppliers) ² (Acres)	Commercial Fertilizer (Acres)	Pesticide Application (Acres)
2. Corn for grain or seed – Exclude popcorn and sweet corn <input type="checkbox"/> None	0250	0255	0254	0256	0252	0253
3. Corn for silage or greenchop – Exclude popcorn and sweet corn <input type="checkbox"/>	0260	0265	0264	0266	0262	0263
4. Sorghum for grain or seed <input type="checkbox"/>	0270	0275	0274	0276	0272	0273
5. Wheat for grain or seed <input type="checkbox"/>	0280	0285	0284	0286	0282	0283
6. Soybeans for beans <input type="checkbox"/>	0300	0305	0304	0306	0302	0303
7. Beans, dry edible <input type="checkbox"/>	0310	0315	0314	0316	0312	0313
8. Rice <input type="checkbox"/>	0320	0325	0324	0326	0322	0323
9. Other small grains (barley, oats, rye, etc.) <input type="checkbox"/>	0330	0335	0334	0336	0332	0333
10. Alfalfa and alfalfa mixtures (dry hay, greenchop, and silage). <input type="checkbox"/>	0340	0345	0344	0346	0342	0343

¹ On-farm water source includes recycled water and reclaimed water from on-farm livestock operations.
² Off-farm water supplies may include water purchased from the U.S. Bureau of Reclamation; a state, county, or local district; mutual, private, cooperative, or neighborhood ditches; or commercial or municipal water systems.

21303128



SECTION 11 CONTINUED –

Irrigated Crops, Pastureland, and Other Land	Enter Code from Previous Page for Primary Method of Field Water Distribution	Water Source (Column totals may exceed irrigated crop acres reported in Section 10 when more than one water source was used.)						Acres on which chemigation was applied through the irrigation system			
		Ground Water from Wells (Acres)		On-Farm Surface Water ¹ (Acres)		Off-Farm Water (All Suppliers) ² (Acres)		Commercial Fertilizer (Acres)		Pesticide Application (Acres)	
11. All other hay including small grain, other tame, and wild hay (dry hay, greenchop, and silage) <input type="checkbox"/>	None 0350	0355		0354		0356		0352		0353	
12. Peanuts <input type="checkbox"/>	0580	0585		0584		0586		0582		0583	
13. Cotton <input type="checkbox"/>	0360	0365		0364		0366		0362		0363	
14. All acres in the open from which vegetables, potatoes, and melons were harvested <input type="checkbox"/>	0474	0479	Tenths	0478	Tenths	0480	Tenths	0476	Tenths	0477	Tenths
a. Sweet corn <input type="checkbox"/>	0900	0905	Tenths	0904	Tenths	0906	Tenths	0902	Tenths	0903	Tenths
b. Tomatoes in the open <input type="checkbox"/>	0910	0915	Tenths	0914	Tenths	0916	Tenths	0912	Tenths	0913	Tenths
c. Lettuce and romaine <input type="checkbox"/>	0920	0925	Tenths	0924	Tenths	0926	Tenths	0922	Tenths	0923	Tenths
d. Potatoes – Exclude sweet potatoes <input type="checkbox"/>	0390	0395	Tenths	0394	Tenths	0396	Tenths	0392	Tenths	0393	Tenths
15. All other crops grown in the open and not listed – Specify: 1119 <input type="checkbox"/>	1120	1125		1124		1126		1122		1123	
16. All berries <input type="checkbox"/>	0590	0595	Tenths	0594	Tenths	0596	Tenths	0592	Tenths	0593	Tenths
17. Land in bearing and non-bearing fruit orchards, citrus or other groves, vineyards, and nut trees. <input type="checkbox"/>	0410	0415	Tenths	0414	Tenths	0416	Tenths	0412	Tenths	0413	Tenths
18. Nursery and other horticultural crops grown in the open (Note: Nursery, greenhouse, and other horticultural crops grown under protection will be reported in a later section.) <input type="checkbox"/>	1110	1115	Tenths	1114	Tenths	1116	Tenths	1112	Tenths	1113	Tenths
19. Irrigated pastureland, all types <input type="checkbox"/>	0430	0435		0434		0436		0432		0433	
20. All other irrigated land types such as failed cropland, idle land, and land in summer fallow <input type="checkbox"/>	1148	1149		1150		1151		1152		1153	

¹ On-farm water source includes recycled water and reclaimed water from on-farm livestock operations.
² Off-farm water supplies may include water purchased from the U.S. Bureau of Reclamation; a state, county, or local district; mutual, private, cooperative, or neighborhood ditches; or commercial or municipal water systems.



SECTION 12 IRRIGATION FOR NURSERY AND OTHER HORTICULTURAL CROPS GROWN IN THE OPEN

1. Were any irrigated nursery, floriculture, sod, propagative materials, Christmas trees, or other horticultural crops grown in the open (including natural shade) on this operation in 2023?

0751 1 **Yes - Continue** 3 **No - Go to Section 13**

2. Report total acres and irrigated acres for nursery and other horticultural crops grown in the open (including natural shade) None

Acres in the Open			
Total Acres		Irrigated Acres	
	Tenths		Tenths
0737		0738	

3. For nursery and other horticultural crops in the open, enter the total acres and irrigated acres by crop category on this operation in 2023.

NURSERY AND OTHER HORTICULTURAL CROPS IN THE OPEN

a. Floriculture and bedding crops
Bedding/garden plants - annuals, herbaceous perennials, vegetable plants; cut flowers and cut florist greens; indoor foliage plants; potted flowering plants; hanging baskets None

Total Acres		Irrigated Acres	
	Tenths		Tenths
0739		0740	

b. Nursery crops
Nursery stock - ornamentals, shrubs, flowering trees, evergreens, live Christmas trees, fruit and nut trees and plants, vines, palms, ornamental grasses, bareroot herbaceous perennials; aquatic plants None

0741		0742	
------	--	------	--

c. Sod None

0743		0744	
------	--	------	--

d. Propagative materials
Bulbs, corms, rhizomes, tubers, cuttings, seedlings, liners, plugs, flower seeds, tobacco plants None

0745		0746	
------	--	------	--

e. Christmas trees and short rotation woody crops None

0747		0748	
------	--	------	--

f. Other horticultural crops - Specify:
1010 None

0749		0750	
------	--	------	--



SECTION 12 CONTINUED –

4. For nursery and other horticultural crops in the open, report area irrigated in 2023 by method used. If more than one method was used on the same area, report for all methods that apply. Report the quantity of water and the unit measure for each irrigation method used on this operation for the entire year. If the total quantity of water (column 2) is unknown, then use column 3 to report the quantity of water used instead.

IRRIGATION METHODS	None	1	2		OR	3		
		Total Acres Irrigated or Watered <small>Tenths</small>	a. Quantity of Water Applied in 2023	b. Enter Code for Unit of Measure <small>1 = Acre-Feet 2 = Gallons 3 = Inches/Acre</small>		a. Average Flow Rate <small>(Gallons per Minute) <small>Tenths</small></small>	b. Number of Hours per Week Used in 2023	c. Number of Weeks Used in 2023
		0796	0797	0798		0799	0800	0801
a. Hand watered	<input type="checkbox"/>				OR			
		0802	0803	0804		0805	0806	0807
b. Gravity irrigation	<input type="checkbox"/>				OR			
		0808	0809	0810		0811	0812	0813
c. Sprinkler	<input type="checkbox"/>				OR			
		0814	0815	0816		0817	0818	0819
d. Drip, trickle, or low-flow micro irrigation	<input type="checkbox"/>				OR			
		1157	1158	1159		1160	1161	1162
e. Hydroponics	<input type="checkbox"/>				OR			

5. For each method used to irrigate nursery and other horticultural crops in the open, report the percentage of water applied by source. If more than one source was used, report all that apply. For example, if the only source for hand watered crops was ground water, then report 100 percent in column 1, row a. If this operation used gravity irrigation and half of the water came from ground water and half came from on-farm surface water, then report 50 percent in column 1, row b and 50 percent in column 2, row b.

IRRIGATION METHODS	Water Source			
	1 Ground Water from Wells <small>(Percent)</small>	2 On-Farm Surface Water <small>(Percent)</small>	3 Off-Farm Water (All Suppliers) <small>(Percent)</small>	Total
	0832	0833	0834	
a. Hand watered				100%
	0835	0836	0837	
b. Gravity irrigation				100%
	0838	0839	0840	
c. Sprinkler				100%
	0841	0842	0843	
d. Drip, trickle, or low-flow micro irrigation				100%
	1163	1164	1165	
e. Hydroponics				100%

For each irrigation method used, columns 1 + 2 + 3 must equal 100 percent.



SECTION 13 IRRIGATION FOR NURSERY, GREENHOUSE, AND OTHER HORTICULTURAL CROPS GROWN UNDER PROTECTION

1. Were any irrigated nursery or greenhouse crops, floriculture, mushrooms, vegetable seeds, propagative materials, or other horticultural crops grown under protection on this operation in 2023? Include crops grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, "tunnel" protection, and hoop houses. Exclude crops temporarily covered for early germination, frost protection, etc. Report crops grown under natural shade in Section 12.

0627 1 **Yes - Continue** 3 **No - Go to Section 14**

2. Report total area and irrigated area for nursery, greenhouse, and other horticultural crops grown under protection. None

Square Feet Under Protection			
Total Area		Irrigated Area	
0628		0629	

3. For nursery or greenhouse crops, floriculture, mushrooms, vegetable seeds, propagative materials, or other horticultural crops grown under protection, enter the total area and irrigated area by horticultural crop category on this operation in 2023.

NURSERY, GREENHOUSE, AND OTHER HORTICULTURAL CROPS UNDER PROTECTION

- a. Floriculture and bedding crops None
Bedding/garden plants - annuals, herbaceous perennials, vegetable plants; cut flowers and cut florist greens; indoor foliage plants; potted flowering plants; hanging baskets
- b. Nursery crops
Nursery stock - ornamentals, shrubs, flowering trees, evergreens, live Christmas trees, fruit and nut trees and plants, vines, palms, ornamental grasses, bareroot herbaceous perennials; aquatic plants
- c. Propagative materials
Bulbs, corms, rhizomes, tubers, cuttings, seedlings, liners, plugs, flower seeds, tobacco plants, vegetable seeds, vegetable transplants to farm fields
- d. Food crops grown under protection
Tomatoes, other vegetables and fresh cut herbs, fruits and berries.
- e. Mushrooms

Total Area (Square Feet)		Irrigated Area (Square Feet)	
0630		0631	
0632		0633	
0636		0637	
0638		0639	
0640		0641	

f. Other horticultural crops – Specify:

1011 . . .

0642		0643	
------	--	------	--

21303169



SECTION 13 CONTINUED –

4. For nursery, greenhouse, and other horticultural crops under protection, report area irrigated in 2023 by method used. If more than one method was used on the same area, report for all methods that apply. Report the quantity of water and the unit measure for each irrigation method used on this operation for the entire year. If the total quantity of water (column 2) is unknown, then use column 3 to report the quantity of water used instead.

IRRIGATION METHODS	None	1	2		OR	3		
		Total Area Irrigated or Watered (Square Feet)	a. Quantity of Water Applied in 2023	b. Enter Code for Unit of Measure 1=Acre-Feet 2=Gallons 3=Gallons/Sq Ft 4=Inches/Sq Ft		a. Average Flow Rate (Gallons per Minute) Tenths	b. Number of Hours per Week Used in 2023	c. Number of Weeks Used in 2023
		0701	0702	0703		0704	0705	0706
a. Hand watered	<input type="checkbox"/>				OR			
		0707	0708	0709		0710	0711	0712
b. Gravity irrigation	<input type="checkbox"/>				OR			
		0713	0714	0715		0716	0717	0718
c. Sprinkler	<input type="checkbox"/>				OR			
		0719	0720	0721		0722	0723	0724
d. Drip, trickle, or low-flow micro irrigation	<input type="checkbox"/>				OR			
		1166	1167	1168		1169	1170	1171
e. Hydroponics	<input type="checkbox"/>				OR			

5. For each method used to irrigate nursery, greenhouse, or other horticultural crops under protection, report the percentage of water by source applied. If more than one source was used, report all that apply. For example, if the only source for hand watered crops was ground water, then report 100 percent in column 1, row a. If this operation used gravity irrigation and half of the water came from ground water and half came from on-farm surface water, then report 50 percent in column 1, row b and 50 percent in column 2, row b.

IRRIGATION METHODS	Water Source			
	1 Ground Water from Wells (Percent)	2 On-Farm Surface Water (Percent)	3 Off-Farm Water (All Suppliers) (Percent)	Total
	0646	0647	0648	
a. Hand watered				100%
	0649	0650	0651	
b. Gravity irrigation				100%
	0652	0653	0654	
c. Sprinkler				100%
	0655	0656	0657	
d. Drip, trickle, or low-flow micro irrigation				100%
	1172	1173	1174	
e. Hydroponics				100%

For each irrigation method used, columns 1 + 2 + 3 must equal 100 percent.



SECTION 16 CONTINUED –

3. Was any of the land with access to irrigation systems in the previous question irrigated in 2022?

1156 1 **Yes** 3 **No**

4. What were the reasons for not irrigating in 2023? Mark (X) all that apply –

1050 <input type="checkbox"/> Sufficient soil moisture – no irrigation needed	1057 <input type="checkbox"/> Sold or leased irrigated land or irrigated area under protection to others
1052 <input type="checkbox"/> Shortage of surface water (water from reservoirs, lakes, streams, water supply organizations, etc.)	1058 <input type="checkbox"/> Restrictions on water use
1053 <input type="checkbox"/> Shortage of ground water (lowering water level of wells or depletion of ground water)	1059 <input type="checkbox"/> Converted to non-agricultural use
1054 <input type="checkbox"/> Irrigation uneconomical due to high fuel and power costs and/or low commodity prices	1060 <input type="checkbox"/> Converted to an agricultural enterprise not requiring irrigation
1055 <input type="checkbox"/> Loss of water rights not due to voluntary transfers	1061 <input type="checkbox"/> Available surface water too salty
1056 <input type="checkbox"/> Sold or leased water rights or annual water allocation	1062 <input type="checkbox"/> Other Specify: 1063 <input style="width: 200px; height: 20px;" type="text"/>

5. Has this operation ceased irrigation permanently? 0530 1 **Yes** 3 **No**

SECTION 17 VALUE OF SALES IN 2023

1. Which range includes the gross value of all agricultural products sold from this operation in 2023 including landlord's share? Mark (X) only one –

0980 1 \$0 - \$9,999 2 \$10,000 - \$24,999 3 \$25,000 - \$49,999 4 \$50,000 - \$99,999
5 \$100,000 - \$249,999 6 \$250,000 - \$499,999 7 \$500,000 - \$999,999 8 \$1,000,000 and over

2. What percent of total sales were from **irrigated** crop sales, including irrigated nursery or greenhouse crops, floriculture, sod, mushrooms, vegetable seeds, and propagative materials?
3. What percent of total sales were from **non-irrigated** crop sales and livestock sales?

Percent	
0981	<input style="width: 50px; height: 20px;" type="text"/>
0982	<input style="width: 50px; height: 20px;" type="text"/>
100%	

SECTION 18 PERSON COMPLETING THIS FORM – Please print

Name 9912

Area Code and Phone Number - - 9911

check if cell phone Date (MM DD YY) / / 9910

E-mail 1095

Thank you for your cooperation.
The complete report will be available on the Internet at <http://www.nass.usda.gov> in fall of 2024.

OFFICE USE

Response	Respondent	Mode	Enum.	Eval.	R. Unit	Change	Optional Use			
1-Comp 2-R 3-Inac	9901 1-Op/Mgr 2-Sp 3-Acct/Bkpr 4-Partner 9-Oth	9902 1-PASI (Mail) 2-PATI (Tel) 3-PAPI (Face-to-Face)	9903 9998	9900	9921	9985	9907	9908	9906	9916
S/E Name										

21303201





INSTRUCTION BOOKLET 2023 IRRIGATION AND WATER MANAGEMENT SURVEY



Completing the 2023 Questionnaire

Everyone who receives a questionnaire must fill out this form and return it, including nursery, greenhouse, and other horticultural crop producers.

Use a **black or blue** ball point pen.

Round to whole acres, unless otherwise noted.

If You Received More than One Questionnaire for the Same Operation

Duplicate form(s) — If you received extra questionnaires for the SAME farming operation, return all questionnaires in the same envelope as the completed report. Make all entries clear and easy to read.

General

Refer to the instructions below for completing your questionnaire. The enclosed census follow-on questionnaire was mailed to producers and growers throughout the United States. Since the form is meant for use in all parts of the country, it may contain items and inquiries which do not apply to your operation. In this case, mark the "No" or "None" box and go on to the next item or section.

Partial Year Operation

If you stopped farming during 2023, complete the questionnaire for the portion of 2023 that you did farm. Write "Stopped farming in 2023" and the date you stopped farming below the address area. Mail the completed questionnaire in the return envelope.

Partnership Operations

Complete only ONE questionnaire for a partnership operation and include all partners' shares on the same questionnaire. If two or more questionnaires were received for the partnership, see instruction on "If You Received More Than One Questionnaire for the Same Operation" above.

How to Enter Your Responses on the Questionnaire

Please enter your answers in the spaces provided and, in the units, requested, i.e., number of acres, dollars, percent, etc. Mark all applicable Yes/No boxes with an "X".

Instructions by Section

Complete Sections 1 and 2 of the questionnaire. If you did not irrigate or water any cropland (including nursery and greenhouse area in the open and under protection), pastureland, or rangeland in 2023, complete Sections 1 and 2 and then go to Section 16 on page 19 and complete the remainder of the questionnaire.

Section 1 - Acreage in 2023

Report land owned, rented, or used by the respondent, spouse, partnership, corporation, or organization identified on the questionnaire. If you did not operate any land in 2023, go to Section 18 on the back page and complete the remainder of the questionnaire.

Include all land, regardless of location or use. This should include all cropland, pastureland, rangeland, woodland, idle land, **greenhouses or other area under protection**, farmsteads, Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), and Conservation Reserve Enhancement Program (CREP), etc. All responses in this section should be rounded to whole acres. Area under protection less than one acre should be reported as one acre. **Exclude** land used under a grazing permit.

Item 1 - Report all land owned in 2023 by you and/or your spouse, or by the partnership, corporation, or organization identified on the questionnaire.

Item 2 - Report all land rented or leased from others on shares, cash rent, used rent-free, in exchange for services, for taxes, etc., regardless of location, even if used only for part of the year. **Exclude** land used on a per-head basis under a grazing permit or animal unit month (AUM) basis.

Item 3 - Report all land rented or leased to others regardless of the purpose. Include land that was rented and subleased to others.

Item 4 - The acres in item 4, **Box A**, should equal item 1 plus item 2 minus item 3. All responses to this questionnaire should refer to these **total acres in this operation**. It is important that this number is correct as it is used to establish consistency throughout the questionnaire. The acreage of this operation must equal the acreage reported in Section 2, item 4, column 1, **Box B**. After completing Section 1, if the acres in Item 4, Box A equal zero and you did not raise or own any livestock, aquaculture, or poultry in 2023, write a description of the land use in the space by item 4; then complete Section 18 and mail the questionnaire in the return envelope.

Section 2 - Land in 2023

Account for total acres in **this operation** in column 1, acres with access to irrigation equipment in column 2, and acres irrigated in column 3. If all acres that had access to irrigation were irrigated in 2023, then columns 2 and 3 will match. If the same land had more than one use in 2023, report that land only once in the first use that applies. Irrigation is the application of water by any artificial or controlled means, such as with sprinklers,

furrows and ditches, spreader dikes, flooding, hand watering, or subirrigation pipes. Include the area where lagoon waste water from livestock operations was distributed by a sprinkler or flood system.

Include both the acres in the open as well as the area under protection when reporting cropland. Under protection includes nursery, greenhouse, floriculture, mushrooms, vegetable seeds, and propagative materials grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, "tunnel" protection, and hoop houses. Crops covered just temporarily only to be further grown in the open should not be recorded as area under protection but instead as acres in the open.

In addition to fully irrigated land, report as irrigated any land to which partial, supplemental, or semi-irrigation was applied in column 3. Also include any acreage which received only preplant irrigation (watered before planting). Hayland, pastureland or rangeland should be reported as irrigated if spring flood water was spread by man-made canals, ditches, spreader dikes, pipes, or other water works. Include acres where lagoon wastewater from livestock operations was used for irrigation. Include area under protection that was hand watered.

For conservation program land, if the operator was allowed to cut conservation program land for hay, then this land should be considered cropland harvested; if it was grazed, it should be considered other pasture and grazing land. Except for disaster designation uses, almost all conservation program land will be reported in item 1c, cropland not harvested or grazed.

Item 1a - Include as cropland harvested in the open: field crops, hay and forage, land in vegetables, citrus groves, vineyards, berries, nuts, orchards (bearing and non-bearing), Christmas trees (whether harvested in 2023 or not), and short rotation woody crops. Also include nursery and other horticultural crops if they were grown in the open, such as bedding and garden plants, nursery stock, and propagative materials.

For winter wheat, report the 2023 acres harvested.

For double cropped acres if more than one crop was harvested from the same land in 2023, report those acres only once as cropland harvested.

Item 1b - Include nursery, greenhouse, and other horticulture crops grown under protection. Under protection means grown under glass, rigid plastic, plastic film, shade cloth, fiberglass, "tunnel" protection, and hoop houses. Crops covered only temporarily, such as for frost protection, to be further grown in the open should not be included as area under protection.

Item 1c - Include cropland used for cover crops, cropland on which all crops failed, idle cropland, cropland in

summer fallow, and cropland in government programs, including conservation program land unless used for grazing, hay, or forage.

Item 2a – Exclude land used under a grazing permit.

Item 2b – Report woodland pastured.

Item 2c - Include any pastured land other than cropland and woodland pastured. Include rotation pasture and grazing land that could have been used for crops without additional improvements.

Item 3 - Any land that does not fit into one of the above categories. Include land in roads, buildings, farmsteads, woodland not pastured, and wasteland.

Item 4 – Box B should equal the sum of all land uses reported in items 1 through 3. The acres in **Box B** must equal the acres reported in **Box A**. **Box C** must be greater than or equal to **Box D**.

Item 5 – This question helps determine if this operation irrigated any area in the open or under protection in 2023. If the answer to this question is 'Yes', then continue completing the form. If you did not irrigate any area in the open or under protection, check the 'No' box and go to Section 16 on page 19.

Section 3 – Ground Water From Wells

Data for water usage will be published in acre-feet. An acre-foot is the quantity of water needed to cover one acre to the depth of one foot, or approximately 326,000 gallons. Ground water is water from a well or wells located on this operation.

Item 1 - Report whether this operation irrigated any land with ground water from wells on this operation at any time during 2023.

Item 2 - Report acres in the open irrigated with ground water from wells and the estimated quantity of ground water used in one of the following units:

- total acre-feet; or
- total gallons; or
- average inches applied per acre

Item 3 - Report the area under protection irrigated with ground water in square feet. Report the area only once, regardless of how many crops were grown for sale from the same area.

Item 4 - Report the total number of wells used on this operation in 2023.

Item 4a - Report the number of wells reported in item 4 above that used backflow prevention devices (check valves) in 2023. Report the number of acres and area under protection irrigated in 2023 with water pumped from wells with backflow prevention devices.

Item 4b - Report how many wells reported in item 4 above used flow meters or flow measuring devices. Report the number of acres and area under protection irrigated in 2023 with water from wells with flow measurement devices.

Item 4c - Report the number of free flowing wells used in 2023. Free flowing wells do not require the use of a pump to lift the water to the surface. Water flows to the surface under natural pressure. These are most commonly found in Florida and some western states.

Item 5 - Report the well characteristics for up to 3 primary wells pumped on this operation in 2023. **Note:** The 3 primary wells should include those wells with the greatest quantity of water pumped in 2023. Report the characteristics for each individual well even if these values are similar across wells. If less than 3 wells were pumped in 2023, then only report for those wells used. Do not include the characteristics of free flowing wells that did not use a well pump, reported in Item 4c.

Item 5a - If you used more than 3 wells in 2023, reported the average value for well characteristics for all other wells (excluding the 3 primary wells).

Item 6 – Check the best response for the change in depth to water. Change in depth to water is defined as a change in the depth of water from the well-head to the water table level that has occurred over the last five years prior to 2023.

Section 4 – On-Farm Surface Water

On-farm surface water is a water supply not controlled by a water supply organization and includes water from a stream, drainage ditch, lake, pond, spring, or reservoir on or adjacent to your farm.

Item 1 – Report whether this operation used any on-farm surface water including recycled and reclaimed water. For this survey, recycled water is the reuse of irrigation water that was previously used to irrigate a crop on the operation. Reclaimed water is treated wastewater used for irrigation.

Item 2 – Report acres in the open on this operation irrigated with on-farm surface water and the estimated quantity used in one of the following units:

- total acre-feet; or
- total gallons; or
- average inches applied per acre

Item 3 - Report the total area under protection irrigated with on-farm surface water in square feet. Report the area only once, regardless of how many crops were grown for sale from the same area.

Item 4 - Report whether this operation used recycled water to irrigate any crops in 2023.

Item 4a - Report the area on which one or more applications of recycled water for irrigation were made in 2023. Report the acres only once even if multiple applications were made to the same acreage.

Item 5 - Report whether this operation used reclaimed water from on-farm livestock to irrigate any crops in 2023. For the purposes of this survey, the total 2023 application of reclaimed water needs to be at least half an inch (0.5 inches) to be considered irrigation.

Item 5a - Report the area on which one or more applications of reclaimed water for irrigation were made in 2023. Report the acres only once even if multiple applications were made to the same acreage.

Item 5b - Report how much reclaimed irrigation water was used on this operation in 2023. Report the quantity of reclaimed water in acre-feet or total gallons.

Section 5 – Off-Farm Water

Off-farm surface water is surface or ground water from the U.S. Bureau of Reclamation, other Federal agencies, irrigation districts, or other suppliers.

Item 1 – Report whether this operation used water from off-farm sources for irrigation.

Item 2 – Report acres in the open on this operation irrigated with off-farm water and the estimated quantity used in one of the following units:

- total acre-feet; or
- total gallons; or
- average inches applied per acre

Item 3 – Report the total area under protection irrigated with off-farm water in square feet. Report the area only once, regardless of how many crops were grown for sale from the same area.

Item 4 - Report whether this operation paid for any off-farm water and total cost, if any was purchased. Report in whole dollars.

Item 5 - Report the supplier of off-farm water.

Item 6 - Report whether this operation used reclaimed water from an off-farm source to irrigate any crops in 2023. For the purposes of this survey, the total 2023 application of reclaimed water needs to be at least half an inch (0.5 inches) to be considered irrigation.

Item 6a - Report the area on which one or more applications of reclaimed water for irrigation were made in 2023. Report the acres only once even if multiple applications were made to the same acreage.

Item 6b - Report how much reclaimed irrigation water was used on this operation in 2023. Report the quantity of reclaimed water in acre-feet or total gallons.

Item 6c - Identify the source(s) of reclaimed water used on this operation by marking an 'X' in all the sources that apply.

Section 6 – Pumps Used for Irrigation and Pump Expenses

This section collects data on pumps used for pumping water from wells, surface water from rivers and streams, irrigation channels, ponds, and other water holding systems. Please include all pumps supplying irrigation to or through any distribution system, as well as any pumps moving water into tanks or reservoirs on the operation for irrigation purposes in 2023. Do not include any pumps used exclusively for non-irrigation applications such as home use or aquaculture or any pumps not owned or rented by this operation, such as pumps operated by a water company.

Item 1 – Report whether this operation used any pumps for irrigation during 2023.

Item 2 – Report the number of pumps for each use type alongside their average vertical lift, discharge capacity, and discharge operating pressure. Pumps used multiple times, whether on one source or on multiple sources, should only be counted once.

Vertical lift is the average surface-level feet-of-lift the pumps must raise the water to distribute the water through the field irrigation system.

Discharge capacity refers to average pumping capacity in gallons per minute (GPM).

Discharge operating pressure refers to the average operating pressure in pounds per square inch at the point of discharge.

Item 2a – Well Pumps – Report the number of pumps used to directly pump ground water from wells. The number of pumps reported should be equal to or less than the number of wells reported in Section 3 under item 4 (number of wells). Wells which used multiple pumps (generally in series) should report all extra pumps as relifting or boosting pumps.

Item 2b – Tailwater Pits – are pits that collect and hold water previously used for irrigation. Report the number of pumps used to directly pump water from tailwater pits. Only count the number of pumps directly pumping the water from the source. All additional pumps providing additional lift or boosting (in series) should be reported under relifting or boosting instead.

Item 2c – Ponds, lakes, reservoirs, rivers, canals, etc. – Report the number of pumps used to directly pump water from any surface source or storage reserve. Only count the number of pumps directly pumping the water from the source. All additional pumps providing additional lift or boosting (in series) should be reported under relifting or boosting instead.

Item 2d – Relifting and boosting water within system - Report the number of pumps which provided additional lift or boost for irrigation. No pumps which directly pull from a source should be reported as a relift or booster pump – they should instead be reported as one of the three prior types. Apart from artesian wells, most sources of water require a pump to utilize the source before it can use a relift or booster pump.

Item 3 - For each power source, report the number of pumps, the cost of the energy used to power the pumps (include the landlord's share of pumping costs), and the number of acres irrigated by water source. The sum of the pumps reported in Item 3 should be equal to the sum of the pumps in Item 2. The sum of acres irrigated across all energy types may be less than the total acres irrigated for the operation reported in Section 2, item 4, column 3, Box D. The difference should equal those acres irrigated using no pumps to supply water to the field.

Section 7 - Expenditures for Irrigation Infrastructure
For each expenditure type, report the cost of the expenditure in column 1, the irrigated acres affected in column 2, the primary purpose code of the expenditure in column 3, and the primary source code of the funding assistance in column 4. Primary purpose codes (column 3) and source of funding codes (column 4) can be found at the top of the page.

Section 8 - Method of Water Distribution in Fields in the Open

This section refers to the method used to distribute irrigation water.

Item 1 – Report whether this operation irrigated any fields in the open. If so, complete this section. Report the acres of land irrigated by each of the distribution systems listed. If the same land was irrigated by more than one method, then report acres irrigated by each method used. **Note:** Do not report information for the delivery system used to convey water from the source to the field. Report the method only for the field distribution system.

Item 2 - Gravity irrigation refers to the free flowing application of water across a field. The water is distributed across a field using either pipes or open ditches near the head of the field from which water is released to flow down furrows or to flood the field.

Item 2a - Row crops are generally irrigated by water flowing down furrows.

Item 2b – Report the controlled flooding acreage for crops such as rice or cranberries which are flooded across the entire field with the water contained within borders or basins.

Item 2c - Uncontrolled flooding is often used to water pasture or rangeland. Water is directed to the area by

artificial or controlled means but there are no furrows or borders within the field when uncontrolled flooding is used.

Item 2d - Report acreage here if not reported in any of the above gravity system categories.

Item 3 - Sprinkler irrigation is separated into six categories: center pivot, linear move tower, solid set and permanent systems, mechanical move systems, hand-move systems, and other sprinkler systems. Use nozzle pressure for the pressure categories.

Item 3a - A center pivot system uses a boom half the width of the field. It is anchored at the center of the field and sweeps in a circle.

Item 3b - Linear move tower systems and other linear continuous move drive systems are self-propelled systems that travel in straight lines across the field.

Item 3c - Report for solid set and permanent systems. Exclude low-flow micro systems.

Item 3di - Mechanical move systems include side roll, wheel move, other mechanical move systems, and other discrete move systems.

Item 3dii - Big gun or traveler systems use large pulsating sprinklers and travel across the area being watered.

Item 3e - Hand-move systems are any non-self-propelled system which must be moved manually.

Item 3f - Report acreage here if not reported in any of the above sprinkler system categories.

Item 4 - Drip, trickle, or low-flow micro irrigation water is generally distributed by tubes or tapes which meter out small amounts of water at low pressure.

Item 4a - Report acres on which on or above ground surface drip irrigation was used.

Item 4b - Report acres on which sub-surface or root zone drip was used.

Item 4c - Report acres on which low-flow micro sprinklers were used. This refers to micro sprinklers that apply water at low pressure and are not self-propelled or easily moved.

Item 4d - Report acreage here if not reported in any of the above drip, trickle, or low-flow system categories.

Item 5 - Hydroponics is the cultivation of plants in nutrient-enriched water, with or without the mechanical support of an inert medium such as sand, gravel, or perlite.

FORM 23-A621(I) (10-13-2023)

The total acres, by method of water distribution, should be equal to or greater than Section 2, column 3, item 4, total acres irrigated, Box D. Every acre reported as irrigated in Section 2 needs to be reported by method of irrigation in Section 8. If you use multiple methods of water distribution for the same acres, this sum may be larger than Section 2, column 3, item 4, total acres irrigated, Box D.

Section 9 – Additional Practices for Irrigation Methods in Fields in the Open

This section refers to specific practices related to gravity irrigation.

Item 2 - If you reported gravity irrigation in Section 8, item 2, then report the number of gravity irrigated acres using the specific practices listed.

Surge Flow Irrigation – The intentional application of water to furrows or borders creating a series of on and off periods of constant or variable time spans.

Precision-Leveling – The practice of leveling land towards a completely flat state where the field will have a zero or near zero-degree incline across its surface. Leveling land is used to help distribute water and improve yields. Include all acres that were precision leveled, whether they were partially or completely leveled (also known as zero grade). Terraced acres can be precision-leveled and can reach a zero grade status since the individual fields on each terrace can be leveled.

Zero Grade – Acres which received precision-leveling (see above) to the point of achieving a zero-degree incline on the field. Not all acres that received precision-leveling reach a zero-grade state but all zero grade acres are precision-leveled.

Cablegation – an automated furrow irrigation system in which the irrigation set moves at a slow constant rate across the field.

Item 3 – Indicate whether this operation used any computer software to aid in the measuring or planning of the gravity irrigation system(s).

Section 10 - Acres Irrigated in the Open

Report the irrigated acres for each crop harvested as well as for non-harvested items such as orchards, nursery crops, pastureland, and all other land. Report acres of each crop harvested, even when multiple crops have been harvested off the same acres. If an irrigated commodity has failed acres, split the acres and report the failed acres under item 20. In addition, for each item, report the estimated average quantity of water applied per acre for the 2023 irrigation season. Report water applied in acre-feet or in inches per acre (but not both). Acre-feet should be reported to the nearest tenth (for example, 1.6 or 2.3 acre-feet), while inches per acre should be reported to the nearest whole inch (for example, 19 or 28 inches per acre).

The sum of irrigated acres harvested in Section 10 should be equal to or greater than Section 2, item 4, column 3, Box D, total acres irrigated.

Any irrigated crop grown in the open not pre-listed should be entered under item 15 'all other crops grown in the open.' Report the crop name(s) in the 'specify' area.

Section 11 - Field Water Distribution and Water Source Used in the Open

For each item with irrigated acres reported in Section 10, report the primary type of irrigation system in the first column by selecting the appropriate water distribution code from the water distribution code list above the table. Report the number of acres irrigated from each water source (ground, on-farm surface, and off-farm suppliers).

Then, for each irrigated item, report the number of acres in which chemigation was applied through the irrigation system. Chemigation is the application of fertilizers or pesticides through the irrigation water. Report the acres of commercial fertilizer application and acres for pesticide application separately.

Note: For each item, an irrigated acre may be reported in both the fertilizer and pesticide columns. Therefore, for each crop, the sum of chemigation acres may total more than the corresponding irrigated harvested acres reported for that crop in column 1 of section 10.

Section 12 - Irrigation for Nursery and Other Horticultural Crops Grown in the Open

Item 1 - Report whether this operation grew any nursery, floriculture, sod, propagative materials, Christmas trees, or other horticultural crops grown in the open in 2023. If any horticultural crops on your operation were grown in the open, then complete this section.

Item 2 - Report the total acres and irrigated acres for horticulture crops grown in the open to the nearest tenth acre. Report the acres only once even when multiple crops were harvested off the same acres. Irrigation refers to the application of water to land or crops by any artificial or controlled means.

Item 3 - Report total acres and irrigated acres for each horticulture crop listed to the nearest tenth acre. Report acres of each crop harvested, even when multiple crops were harvested off the same acres. For example, if annual bedding plants and a nursery crop were harvested from the same 2 acres, enter 2.0 acres in the Floriculture and bedding crops category and 2.0 acres in the Nursery crop category. For each category, enter the total acres grown in the open and irrigated acres.

Report for each crop category grown on this operation, the total acres in the open and irrigated acres in the appropriate category:

- a. *Floriculture and bedding crops* - Bedding/garden plants - annuals, herbaceous perennials, vegetable plants; cut flowers and cut florist greens; indoor foliage plants; potted flowering plants; hanging baskets
- b. *Nursery crops* - Nursery stock - ornamentals, shrubs, flowering trees, evergreens, live Christmas trees, fruit and nut trees and plants, vines, palms, ornamental grasses, bareroot herbaceous perennials; aquatic plants
- c. *Sod*
- d. *Propagative materials* - Bulbs, corms, rhizomes, tubers, cuttings, seedlings, liners, plugs, flower seeds, tobacco plants, vegetable transplants to farm fields
- e. *Christmas trees and short rotation woody crops* - A short rotation woody crop is a tree that grows from seed to a mature tree in 10 years or less.
- f. *Other horticultural crops* - If more than one crop was grown for this category, report the primary type of crop in the specify area.

Item 4 - Report the acres irrigated or watered for horticultural crops grown in the open in 2023 by irrigation method used on this operation. If more than one method was used, report acres in all methods that apply. Report quantity of water in the unit of measure most used for each method. If the total quantity of water, column 2a, and the unit of measure, column 2b, is known, then skip column 3.

Report for the following irrigation methods:

- a. *Hand Watered*
- b. *Gravity Irrigation* - refers to the free-flowing application of water.
- c. *Sprinkler* - Exclude hand-held sprinklers.
- d. *Drip, trickle, or low-flow micro irrigation* - the water is distributed down the rows by tapes which meter out small amounts of water at low pressure near the plant's roots.
- e. *Hydroponics* - the cultivation of plants in nutrient-enriched water, with or without the mechanical support of an inert medium such as sand, gravel, or perlite.

The total acres reported, by method used, should be equal to or greater than item 2, irrigated acres, code 0738 in section 12.

Item 5 - Report the water source percentage for each irrigation method listed. The percentage for ground water, on-farm water, and off-farm water should add to 100% for each method (row).

Definitions of Water Sources

Ground water is water from a well or wells located on this farm.

On-farm surface water is a water supply not controlled by a water supply organization and includes water from a stream, drainage ditch, lake, pond, spring, or reservoir on or adjacent to your farm.

Off-farm water is surface or ground water from U.S. Bureau of Reclamation, other Federal agencies, or other suppliers.

Section 13 - Irrigation for Nursery, Greenhouse, and Other Horticultural Crops Grown Under Protection

Item 1 - Report whether this operation grew any nursery, greenhouse, floriculture, mushrooms, propagative materials, or other horticultural crops grown under protection. Under protection includes horticultural crops grown under glass, rigid plastic, plastic film, including "tunnel" protection and hoop houses. If any horticultural crops on your operation were grown under protection, then complete this section. Crops covered only temporarily to be further grown in the open should not be included for area under protection.

Item 2 - Report the total area and irrigated area under protection in square feet. Report the area only once, regardless of how many crops were grown for sale from the same area. Irrigation refers to one or more applications of water to land or crops by any artificial or controlled means.

Item 3 - Report the total area and irrigated area, in square feet, for each category listed. Report the area of each crop, even when multiple crops were harvested off the same area. For example, if two crops of annual bedding plants were grown from 1,000 square feet, enter 1,000 in the Floriculture and Bedding Crops category. If 500 square feet of food crops were also grown in the same area, then also report 500 in the Food crops grown under protection category.

Report crops grown on this operation in the appropriate category:

- a. Floriculture and bedding crops - Bedding/garden plants - annuals, herbaceous perennials, vegetable plants; cut flowers and cut florist greens; indoor foliage plants; potted flowering plants; hanging baskets
- b. Nursery crops - Nursery stock - ornamentals, shrubs, flowering trees, evergreens, live Christmas trees, fruit and nut trees and plants, vines, palms, ornamental grasses, bareroot herbaceous perennials; aquatic plants
- c. Propagative materials - Bulbs, corms, rhizomes, tubers, cuttings, seedlings, liners, plugs, flower seeds, tobacco plants, vegetable seeds, vegetable transplants to farm fields
- d. Food crops grown under protection - Tomatoes, other vegetables and fresh cut herbs, fruits and berries.
- e. Mushrooms

- f. Other horticultural crops - If more than one crop was grown for this category, report the primary type of crop in the specify area.

Item 4 - Report the area irrigated or watered for horticultural crops grown under protection in 2023 by irrigation method used on this operation. If more than one method was used, report area in all methods that apply. Report quantity of water in the unit of measure most used for each method. If the total quantity of water, column 2a, and the unit of measure, column 2b, is known, then skip column 3.

Report for the following irrigation methods:

- a. Hand Watered
- b. Gravity Irrigation - refers to the free-flowing application of water.
- c. Sprinkler - Exclude hand-held sprinklers.
- d. Drip, trickle, or low-flow micro irrigation - the water is distributed down the rows by tapes which meter out small amounts of water at low pressure near the plant's roots.
- e. Hydroponics - the cultivation of plants in nutrient-enriched water, with or without the mechanical support of an inert medium such as sand, gravel, or perlite.

The total area reported, by method used, should be equal to or greater than item 2, irrigated area, code 0629 in section 13.

Item 5 - Report the water source percentage for each irrigation method listed. The percentage for ground water, on-farm water, and off-farm water should add to 100% for each method (row).

Definitions of Water Sources

Ground water is water from a well or wells located on this farm.

On-farm surface water is a water supply not controlled by a water supply organization and includes water from a stream, drainage ditch, lake, pond, spring, or reservoir on or adjacent to your farm.

Off-farm surface water is surface or ground water from U.S. Bureau of Reclamation, other Federal agencies, or other suppliers.

Section 14 – Irrigation and Water Management Practices

Item 1 - Report on the method(s) or approach(es) used to decide when to schedule water applications in 2023. Mark all that apply.

Item 2 - Report whether this operation had to discontinue irrigation in 2023 long enough to affect crop yield.

Item 2a - Report the number of acres in which irrigation was discontinued long enough to reduce crop yields. Only consider the acres which received irrigation during 2023. Do not include acres that received no irrigation.

Item 2b - Report the reason(s) if irrigation was discontinued. Mark all that apply. If "other" is marked, report the reason for discontinuing irrigation in the "specify" response area.

Item 3 - Report the sources that this operation relied on for guidance in reducing irrigation costs or to conserve water. Mark all that apply.

Item 4 - Indicate whether this operation participated in any groundwater recharge efforts.

Recharge - the practice of increasing the amount of water that enters an aquifer through human-controlled means. This can be done by injecting water directly into the subsurface through injection wells or by intentionally applying extra water to the ground for the purpose of replenishing the aquifer.

Item 5 - Report any issues which prevented you from implementing improvements to existing irrigation systems during the past five years. Mark all that apply.

Item 6 - If you made irrigation and/or drainage improvements above regular maintenance in the past five years, then mark item 6 'Yes'.

Items 7 and 7a - If you received any technical or financial assistance for irrigation and/or drainage improvements, mark yes to item 7 and indicate the sources you received technical or financial assistance from in item 7a. Mark all that apply. If no assistance was received, do not mark any check box.

Section 15 – Labor Used for Irrigation

Report the total hours and average hourly wage for irrigation labor in item 1. Report contract labor expenses for irrigation activities in item 2. Contract labor expenses pertain only to the operation and maintenance of the irrigation systems and facilities. Include the landlord's share of irrigation labor costs. Exclude cost for custom work and contract labor for harvesting.

Section 16 – No Irrigated Land or Land with Unused Irrigation Systems

Complete this section if you did not irrigate any land in 2023 or if you only irrigated part of your equipped acres. If you irrigated all of your equipped acres then proceed to Section 17.

Item 2 - Report whether any land on this operation had access to irrigation systems or equipment in 2022, regardless of usage rights and/or availability of source water.

Item 3 - Report whether any land on this operation was irrigated in 2022.

Item 4 - Report the reasons for not irrigating in 2023. Mark all that apply and if 'other' is marked, report the reason(s) in the "specify" response area.

Item 5 - Report whether the discontinuance of irrigation is permanent.

Section 17 - Value of Sales in 2023

Item 1 - Select the appropriate range of the gross value of sales of all agricultural products sold from this operation in 2023. Agricultural products include all crops and livestock sold from this operation.

Item 2 - Report the percent of the total gross value of sales that were from **irrigated** crops.

Item 3 - Report the percent of the total gross value of sales that were from **non-irrigated crop** or **livestock** sales. The sum of items 2 and 3 should equal 100 percent.

Section 18 - Person Completing this Form

Please print the name of the person completing this form, the date completed, telephone number, and e-mail address.