

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 States2023 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.

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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.

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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	6,963	3,275,860	1,911	693,497	1,981	695,824
2023	9,070	3,417,886	(NA)	(NA)	3,572	798,454
2018						
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.