

2024 TILLAGE SYSTEMS

Farmers are the original environmentalists and conservationists. To maintain a paying farm, they have long recognized soil and water as the foundation of a successful crop. To address the problem of highly erodible soil, many farmers have adopted no-till and other conservation practices as a major part of their farming operation. In response to a need for information regarding these conservation practices in the state, the Tennessee Field Office of USDA's National Agricultural Statistics Service began making estimates of these tillage systems in 1983 for soybeans, corn, and sorghum. Estimates of major tillage systems used on cotton were added in 1992 and on wheat in 1995. Sorghum estimates were discontinued in 2009.

Potential advantages for no-till or other conservation tillage practices are reduced labor costs, reduced soil compaction and erosion, and increased water infiltration.

No-till acreage for soybeans, and cotton moved upward from 2023 into 2024, while no-till acreage for the 2024 corn and winter wheat crops dropped from 2023. Soybeans once again led the way with 81.8 percent of acreage dedicated to no-till. Corn and cotton followed with 75.9 and 75.0 percent, respectively. No-till wheat acres decreased by 60,000 with 73.7 percent of the total crop being reported as no-till. Double-cropped no-till acreage decreased by 35,000 and accounted for 8.4 percent of the total acreage. Conventional till decreased to 3.9 percent of the total planted acreage.

These estimates are provided by the Eastern Mountain Region, Tennessee Field Office as part of a cooperative endeavor of the USDA/NASS and the Tennessee Department of Agriculture, who have combined resources to provide a single source of official estimates of Tennessee agriculture. USDA is an equal opportunity provider and employer.



2024 Tennessee Tillage Systems

Soybeans
Corn
Cotton
Winter Wheat



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TILLAGE PRACTICES: BY CROP, TENNESSEE, 2019-2024¹

Crop	Year	Total Acres Planted	No-Till ²		Other Conservation Tillage ³		Conventional Till ⁴		Double-Cropped ⁵	
			Acres	% of Total ⁶	Acres	% of Total ⁶	Acres	% of Total ⁶	Acres	% of Total
Soybeans	2019	1,400,000	1,150,000	82.1	210,000	15.0	40,000	2.9	190,000	13.6
	2020	1,650,000	1,370,000	83.0	230,000	13.9	50,000	3.0	200,000	12.1
	2021	1,550,000	1,280,000	82.6	240,000	15.5	30,000	1.9	270,000	17.4
	2022	1,650,000	1,400,000	84.8	200,000	12.1	50,000	3.0	280,000	17.0
	2023	1,600,000	1,340,000	83.8	190,000	11.9	70,000	4.4	290,000	18.1
	2024	1,700,000	1,390,000	81.8	260,000	15.3	50,000	2.9	260,000	15.3
Corn	2019	970,000	750,000	77.3	190,000	19.6	30,000	3.1	20,000	2.1
	2020	860,000	680,000	79.1	150,000	17.4	30,000	3.5	15,000	1.7
	2021	990,000	700,000	70.7	250,000	25.3	40,000	4.0	15,000	1.5
	2022	830,000	610,000	73.5	180,000	21.7	40,000	4.8	10,000	1.2
	2023	940,000	710,000	75.5	190,000	20.2	40,000	4.3	15,000	1.6
	2024	850,000	645,000	75.9	165,000	19.4	40,000	4.7	10,000	1.2
Cotton	2019	410,000	320,000	78.0	70,000	17.1	20,000	4.9	0	0.0
	2020	280,000	220,000	78.6	55,000	19.6	5,000	1.8	0	0.0
	2021	275,000	220,000	80.0	50,000	18.2	5,000	1.8	0	0.0
	2022	335,000	250,000	74.6	75,000	22.4	10,000	3.0	0	0.0
	2023	265,000	200,000	75.5	55,000	20.8	10,000	3.8	0	0.0
	2024	300,000	225,000	75.0	65,000	21.7	10,000	3.3	0	0.0
Wheat ⁷	2019	280,000	190,000	67.9	60,000	21.4	30,000	10.7	----	----
	2020	300,000	200,000	66.7	75,000	25.0	25,000	8.3	----	----
	2021	400,000	240,000	60.0	130,000	32.5	30,000	7.5	----	----
	2022	410,000	280,000	68.3	100,000	24.4	30,000	7.3	----	----
	2023	470,000	340,000	72.3	90,000	19.1	40,000	8.5	----	----
	2024	380,000	280,000	73.7	75,000	19.7	25,000	6.6	----	----
Total	2019	3,060,000	2,410,000	78.8	530,000	17.3	120,000	3.9	210,000	6.9
	2020	3,090,000	2,470,000	79.9	510,000	16.5	110,000	3.6	215,000	7.0
	2021	3,215,000	2,440,000	75.9	670,000	20.8	105,000	3.3	285,000	8.9
	2022	3,225,000	2,540,000	78.8	555,000	17.2	130,000	4.0	290,000	9.0
	2023	3,275,000	2,590,000	79.1	525,000	16.0	160,000	4.9	305,000	9.3
	2024	3,230,000	2,540,000	78.6	565,000	17.5	125,000	3.9	270,000	8.4

¹2024 is a preliminary estimate.

²No-Till - A procedure whereby a crop is planted directly into a seedbed not tilled since harvest of a previous crop, or the planting of a crop into sod, previous crop stubble, or a cover where only the intermediate seed zone is disturbed.

³Other Conservation Tillage - Tillage practices prior to planting which result in a minimum of 30 percent ground cover or residue being retained on the surface following planting. Grass and weed control is accomplished primarily with herbicides; Includes ridge till, strip till, and mulch till.

⁴Conventional Till - Systems where 100 percent of the surface layer is mixed or inverted by plowing, power tilling, or multiple disking.

⁵Double-Cropped - Two crops harvested from the same field during one year. Example: small grain harvest spring 2024, followed by soybeans, corn or cotton harvest in the fall of 2024. Acreage of double cropped cotton is negligible

⁶Sum of no-till, other conservation tillage and conventional till precents of total may not add to 100 percent due to rounding.

⁷Wheat seeded the previous fall for all intended purposes including grain, cover, silage, hay, or any other utilization.