

2016 TILLAGE SYSTEMS

Farmers are the original environmentalists and conservationists. In order 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 usage for the major crops in 2016 was at its highest level in over five years. Overall, no-till practices were used on 2.51 million acres and 75.9 percent of the acreage devoted to the major crops. Soybeans once again led the way with 80.6 percent of acreage dedicated to no-till. Corn and cotton followed respectively with 75.9 and 73.5 percent. Wheat no-till percent decreased 6.1 points to 59.1. Other conservation tillage practices accounted for 18.9 percent of the acreage seeded to the state's major crops. Double-cropped acreage for these crops totaled 11.5 percent for 2016. Conventional till continues to decline accounting for only 5.1 percent of total planted acreage.

The Tennessee Field Office of the Eastern Mountain Region is a cooperative endeavor of the U. S. and Tennessee Departments of Agriculture, who have combined resources to provide a single source of official estimates for Tennessee agriculture. USDA is an equal opportunity provider and employer.



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Soybeans
Corn
Cotton
Winter Wheat



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TILLAGE PRACTICES: BY CROP, TENNESSEE, 2011-2016¹

Crop	Year	Total Acres Planted	No-Till ²		Other Conservation Tillage ³		Conventional Till ⁴		Double-Cropped ⁵	
			Acres	% of Total ⁵	Acres	% of Total ⁵	Acres	% of Total ⁶	Acres	% of Total
Soybeans	2011	1,290,000	990,000	76.7	200,000	15.5	100,000	7.8	270,000	20.9
	2012	1,260,000	990,000	78.6	190,000	15.1	80,000	6.3	290,000	23.0
	2013	1,580,000	1,270,000	80.4	240,000	15.2	70,000	4.4	520,000	32.9
	2014	1,640,000	1,260,000	76.8	270,000	16.5	110,000	6.7	430,000	26.2
	2015	1,750,000	1,380,000	78.9	310,000	17.7	60,000	3.4	350,000	20.0
	2016	1,750,000	1,410,000	80.6	270,000	15.4	70,000	4.0	360,000	20.6
Corn	2011	790,000	610,000	77.2	120,000	15.2	60,000	7.6	20,000	2.5
	2012	1,040,000	840,000	80.8	130,000	12.5	70,000	6.7	25,000	2.4
	2013	890,000	650,000	73.0	190,000	21.3	50,000	5.6	25,000	2.8
	2014	920,000	650,000	70.7	220,000	23.9	50,000	5.4	30,000	3.3
	2015	780,000	590,000	75.6	160,000	20.5	30,000	3.8	25,000	3.2
	2016	870,000	660,000	75.9	180,000	20.7	30,000	3.4	20,000	2.3
Cotton	2011	495,000	370,000	74.7	85,000	17.2	40,000	8.1	0	0.0
	2012	380,000	300,000	78.9	50,000	13.2	30,000	7.9	0	0.0
	2013	250,000	170,000	68.0	60,000	24.0	20,000	8.0	0	0.0
	2014	275,000	200,000	72.7	60,000	21.8	15,000	5.5	0	0.0
	2015	155,000	110,000	71.0	40,000	25.8	5,000	3.2	0	0.0
	2016	245,000	180,000	73.5	55,000	22.4	10,000	4.1	0	0.0
Wheat ⁷	2011	400,000	200,000	50.0	80,000	20.0	120,000	30.0	----	----
	2012	405,000	205,000	50.6	80,000	19.8	120,000	29.6	----	----
	2013	640,000	330,000	51.6	180,000	28.1	130,000	20.3	----	----
	2014	530,000	270,000	50.9	180,000	34.0	80,000	15.1	----	----
	2015	445,000	290,000	65.2	115,000	25.8	50,000	11.2	----	----
	2016	440,000	260,000	59.1	120,000	27.3	60,000	13.6	----	----
Total	2011	2,975,000	2,170,000	72.9	485,000	16.3	320,000	10.8	290,000	9.7
	2012	3,085,000	2,335,000	75.7	450,000	14.6	300,000	9.7	315,000	10.2
	2013	3,360,000	2,420,000	72.0	670,000	19.9	270,000	8.0	545,000	16.2
	2014	3,365,000	2,380,000	70.7	730,000	21.7	255,000	7.6	460,000	13.7
	2015	3,130,000	2,370,000	75.7	625,000	20.0	145,000	4.6	375,000	12.0
	2016	3,305,000	2,510,000	75.9	625,000	18.9	170,000	5.1	380,000	11.5

¹2016 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 2016, followed by soybeans, corn or sorghum harvest in the fall of 2016.

⁶Sum of no-till, other conservation tillage and conventional till percents 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.