

2012 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 2012 was up 5.0 percent from 2011. Overall, no-till practices were used on a record high 2.29 million acres and a record high 74.8 percent of the acreage devoted to the major crops. Corn led the way with 80.6 percent of acreage dedicated to no-till. Cotton and soybeans followed respectively with 78.9 and 77.4 percent. Wheat no-till percent held steady for the third consecutive year at 50.0. Other conservation tillage practices accounted for 15.0 percent of the acreage seeded to the state's major crops. Double-cropped acreage for these crops totaled 11.6 percent for 2012 compared with 11.0 and 7.8 percent in 2011 and 2010, respectively.

The Tennessee Field Office 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.

TILLAGE PRACTICES: BY CROP, TENNESSEE, 2007-2012

Crop	Year	Total Acres Planted	No-Till ¹		Other Conservation Tillage ²		Conventional Till ³		Double-Cropped ⁴	
			Acres	% of Total ⁵	Acres	% of Total ⁵	Acres	% of Total ⁵	Acres	% of Total
Soybeans	2007	1,080,000	860,000	79.6	160,000	14.8	60,000	5.6	310,000	28.7
	2008	1,490,000	1,190,000	79.9	220,000	14.8	80,000	5.4	540,000	36.2
	2009	1,570,000	1,250,000	79.6	230,000	14.6	90,000	5.7	370,000	23.6
	2010	1,450,000	940,000	64.8	330,000	22.8	180,000	12.4	200,000	13.8
	2011	1,290,000	990,000	76.7	200,000	15.5	100,000	7.8	310,000	24.0
	2012	1,330,000	1,030,000	77.4	210,000	15.8	90,000	6.8	330,000	24.8
Corn	2007	860,000	600,000	69.8	170,000	19.8	90,000	10.5	25,000	2.9
	2008	690,000	500,000	72.5	130,000	18.8	60,000	8.7	30,000	4.3
	2009	670,000	470,000	70.1	140,000	20.9	60,000	9.0	25,000	3.7
	2010	710,000	470,000	66.2	180,000	25.4	60,000	8.5	20,000	2.8
	2011	790,000	610,000	77.2	120,000	15.2	60,000	7.6	20,000	2.5
	2012	930,000	750,000	80.6	120,000	12.9	60,000	6.5	25,000	2.7
Cotton	2007	515,000	330,000	64.1	110,000	21.4	75,000	14.6	1,000	0.2
	2008	285,000	190,000	66.7	65,000	22.8	30,000	10.5	500	0.2
	2009	300,000	200,000	66.7	70,000	23.3	30,000	10.0	0	0.0
	2010	390,000	280,000	71.8	80,000	20.5	30,000	7.7	0	0.0
	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
Wheat⁶	2007	420,000	220,000	52.4	110,000	26.2	90,000	21.4	-----	----
	2008	620,000	330,000	53.2	180,000	29.0	110,000	17.7	-----	----
	2009	430,000	210,000	48.8	100,000	23.3	120,000	27.9	-----	----
	2010	260,000	130,000	50.0	60,000	23.1	70,000	26.9	-----	----
	2011	420,000	210,000	50.0	80,000	19.0	130,000	31.0	-----	----
	2012	420,000	210,000	50.0	80,000	19.0	130,000	31.0	-----	----
Total	2007	2,875,000	2,010,000	69.9	550,000	19.1	315,000	11.0	336,000	11.7
	2008	3,085,000	2,210,000	71.6	595,000	19.3	280,000	9.1	570,500	18.5
	2009	2,970,000	2,130,000	71.7	540,000	18.2	300,000	10.1	395,000	13.3
	2010	2,810,000	1,820,000	64.8	650,000	23.1	340,000	12.1	220,000	7.8
	2011	2,995,000	2,180,000	72.8	485,000	16.2	330,000	11.0	330,000	11.0
	2012	3,060,000	2,290,000	74.8	460,000	15.0	310,000	10.1	355,000	11.6

¹No-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.

²Other 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.

³Conventional Till - Systems where 100 percent of the surface layer is mixed or inverted by plowing, power tilling, or multiple disking.

⁴Double-Cropped - Two crops harvested from the same field during one year. Example: small grain harvest spring 2012, followed by soybeans, corn or sorghum harvest in the fall of 2012.

⁵Sum of no-till, other conservation tillage and conventional till percents of total may not add to 100 percent due to rounding.

⁶Wheat seeded the previous fall for all intended purposes including grain, cover, silage, hay, or any other utilization.

TILLAGE PRACTICES: BY CROP, DISTRICT, TENNESSEE, 2012

Crop	District	Total Acres Planted	No-Till		Other Conservation Till		Conventional Till	
			Acres	% of Total	Acres	% of Total	Acres	% of Total
Soybeans	10	470,000	290,000	61.7	140,000	29.8	40,000	8.5
	20	495,000	420,000	84.8	50,000	10.1	25,000	5.1
	30	115,000	100,000	87.0	6,000	5.2	9,000	7.8
	40	125,000	110,000	88.0	6,500	5.2	8,500	6.8
	50	85,000	75,000	88.2	5,000	5.9	5,000	5.9
	60	40,000	35,000	87.5	2,500	6.3	2,500	6.3
	State		1,330,000	1,030,000	77.4	210,000	15.8	90,000
Corn	10	205,000	165,000	80.5	25,000	12.2	15,000	7.3
	20	390,000	325,000	83.3	40,000	10.3	25,000	6.4
	30	110,000	90,000	81.8	15,000	13.6	5,000	4.5
	40	95,000	75,000	78.9	15,000	15.8	5,000	5.3
	50	80,000	60,000	75.0	15,000	18.8	5,000	6.3
	60	50,000	35,000	70.0	10,000	20.0	5,000	10.0
	State		930,000	750,000	80.6	120,000	12.9	60,000
Cotton	10	100,000	59,000	59.0	20,000	20.0	21,000	21.0
	20	264,000	230,000	87.1	26,000	9.8	8,000	3.0
	30 - 50	16,000	11,000	68.8	4,000	25.0	1,000	6.3
	60	0	0		0		0	
	State		380,000	300,000	78.9	50,000	13.2	30,000
Wheat	10	70,000	30,000	42.9	9,000	12.9	31,000	44.3
	20	165,000	75,000	45.5	28,000	17.0	62,000	37.6
	30	58,000	28,000	48.3	18,000	31.0	12,000	20.7
	40	57,000	30,000	52.6	15,000	26.3	12,000	21.1
	50	34,000	20,000	58.8	7,000	20.6	7,000	20.6
	60	36,000	27,000	75.0	3,000	8.3	6,000	16.7
	State		420,000	210,000	50.0	80,000	19.0	130,000
Total	10	845,000	544,000	64.4	194,000	23.0	107,000	12.7
	20	1,314,000	1,050,000	79.9	144,000	11.0	120,000	9.1
	30-50	775,000	599,000	77.3	106,500	13.7	69,500	9.0
	60	126,000	97,000	77.0	15,500	12.3	13,500	10.7
	State	3,060,000	2,290,000	74.8	460,000	15.0	310,000	10.1

2012 Tennessee Tillage Systems

- Soybeans
- Corn
- Cotton
- Winter Wheat



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