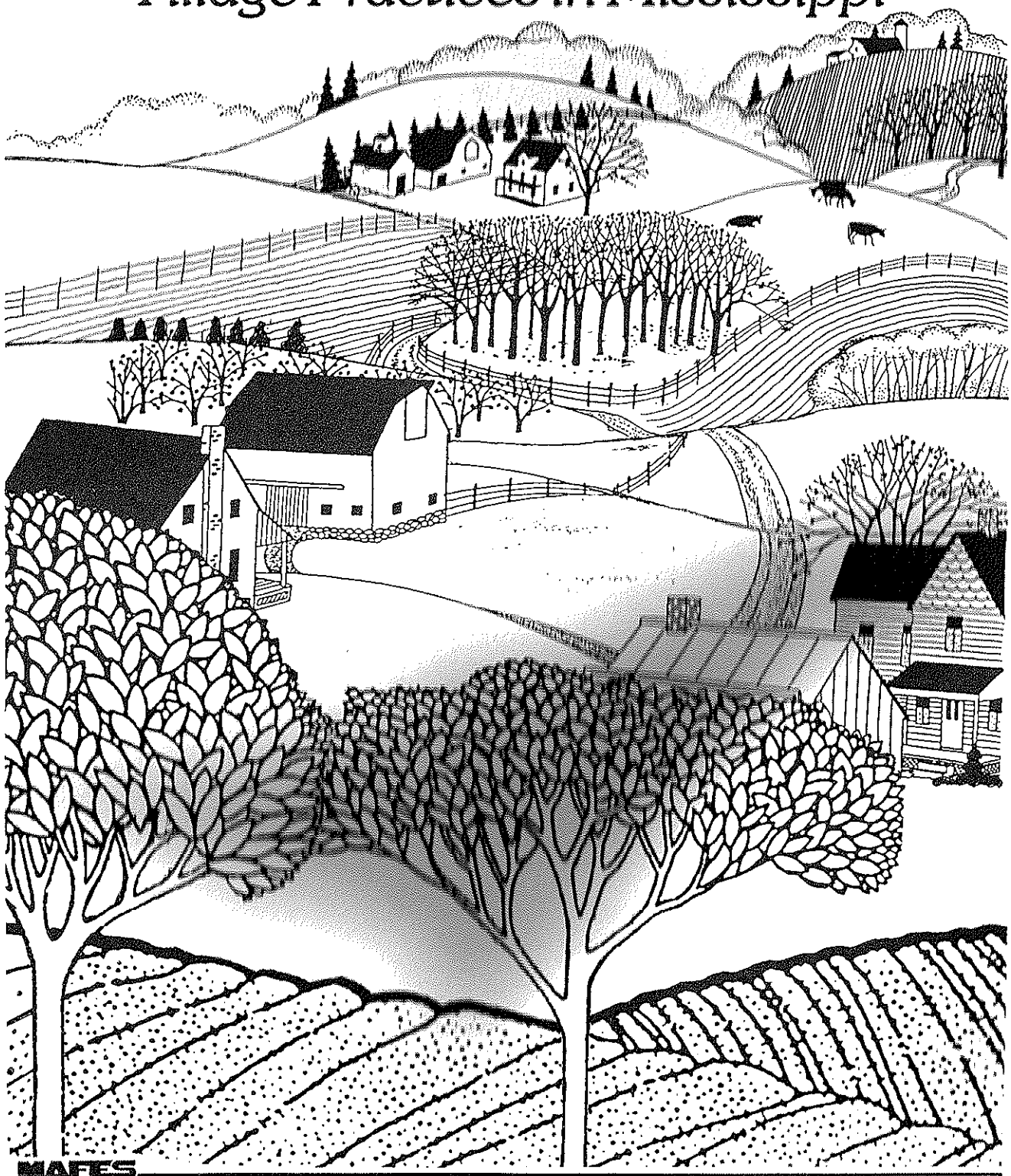
Bulletin 957 • March 1989

1985-1988

Acreage Allocated to Conservation Tillage Practices in Mississippi



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Reducing soil erosion rates to acceptable levels has been, and continues to be, a major concern in the United States. Conservation tillage practices have the potential to reduce soil loss on much of the row crop acreage throughout the nation. Figure 1 presents estimates of percentage reductions in soil loss that can be expected by switching from conventional tillage to three types of conservation tillage for three row crops in Mississippi.

The percentage reductions in soil loss were calculated by using "C-values" for selected cropping management systems in Mississippi, which were developed by the Soil Conservation Service (SCS). A cropping management system includes a definition of pre-plant tillage operations, cultivation practices, and crop residue requirements. A long-run average annual C-value is calculated by the SCS for each cropping management system to reflect the soil erosion potential of the system (USDA-SCS). The more erosive the system, the greater the C-value. The Universal Soil Loss Equation can be used to estimate the long-run average annual erosion rate on a particular field once the C-value and other determinants are specified.

As shown in Figure 1, switching from conventional tillage to reduced tillage can potentially decrease soil erosion by about 60 percent. Mulch-till and no-till systems can reduce soil loss relative to conventional tillage by approximately 60 and 80 percent, respectively. Thus, depending on the crop, soil type, location, and other factors that influence the erosion rate, conservation tillage practices could possibly be used to attain acceptable erosion rates. However, the adoption of conservation tillage depends on many factors; the profitability of conservation tillage relative to conventional tillage is of primary importance.

The Conservation Technology Information Center (CTIC) conducts a national survey annually to provide county-level data on the use of conservation tillage practices. Based on the percentage of total planted acres produced with conservation tillage practices in 1988, Mississippi ranked 36th among all states in the nation. Conservation tillage was used on only 19.64 percent of Mississippi's planted acreage. Even though conservation tillage practices can reduce soil erosion rates substantially, conventional tillage is still used on the majority of Mississippi cropland.

Other surrounding states, their 1988 national rankings, and their percentages of conservation tillage are: Tennessee, 22nd, 35.50 percent; Alabama, 37th, 19.34 percent; Arkansas, 40th, 13.48 percent; and Louisiana, 41st, 10.37 percent.

Farmers, landowners, policy makers, and research and extension personnel often require up-to-date information on conservation tillage practices. The pur-

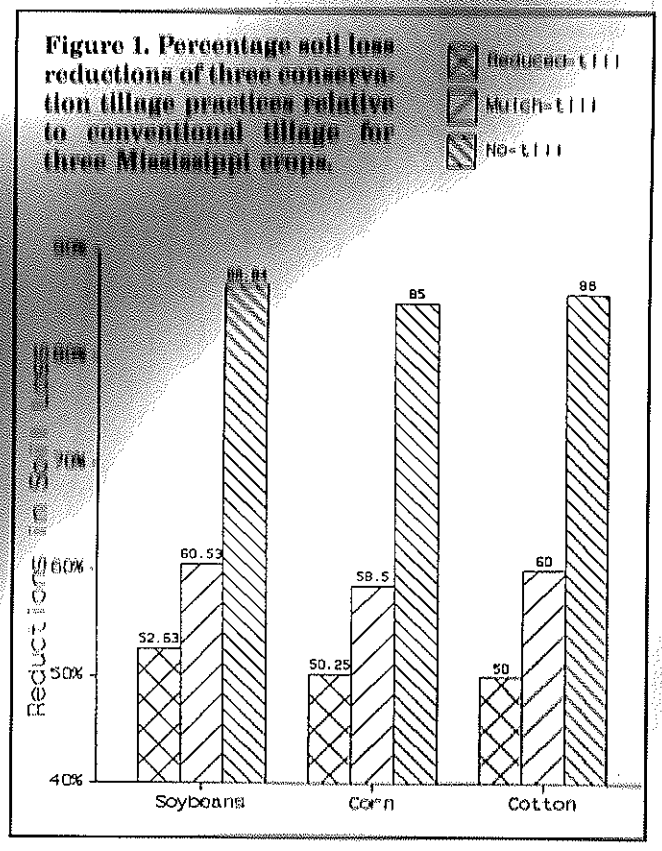

Figure 1. Percentage soil loss reductions of three conservation tillage practices relative to conventional tillage for three Mississippi crops.

pose of this study was to compile and present data on acreage allocated to different types of conservation tillage practices on major row crops in Mississippi during the period 1985-1988. The source was the CTIC, which collects data with help from local representatives of the Soil Conservation Service, the Cooperative Extension Service, Conservation Districts, the Agricultural Stabilization and Conservation Service, and others in agriculture-related fields.

Conservation tillage is defined by the CTIC as: *Any tillage and planting system that maintains at least 30 percent of the soil surface covered by residue after planting to reduce soil erosion by water; or where soil erosion by wind is the primary concern, maintains at least 1,000 pounds of flat small grain residue equivalent on the surface during the critical erosion period.*

The CTIC also defines five specific conservation tillage practices, which are listed below.

No-till: The soil is left undisturbed prior to planting. Planting is completed in a narrow seedbed or slot created by a planter or drill. Weed control is accomplished primarily with herbicides.

Ridge-till: The soil is left undisturbed prior to planting. Planting is completed in a seedbed prepared in ridges with sweeps, discs, or other row cleaners. Residue is left on the surface between ridges. Weed control is accomplished with a combination of herbicides and/or cultivation. Ridges are rebuilt during cultivation.

Strip-till: The soil is left undisturbed prior to planting. Tillage in the row may consist of a rototiller, in-row chisel, row cleaners, etc. Weed control is accomplished with a combination of herbicides and/or cultivation.

Mulch-till: The total surface is disturbed by tillage prior to planting. Tillage tools such as chisels, field cultivators, discs, sweeps, or blades are used. Weed control is accomplished with a combination of herbicides and/or cultivation.

Reduced-till: Any other tillage and planting system not covered above that meets the residue requirement.

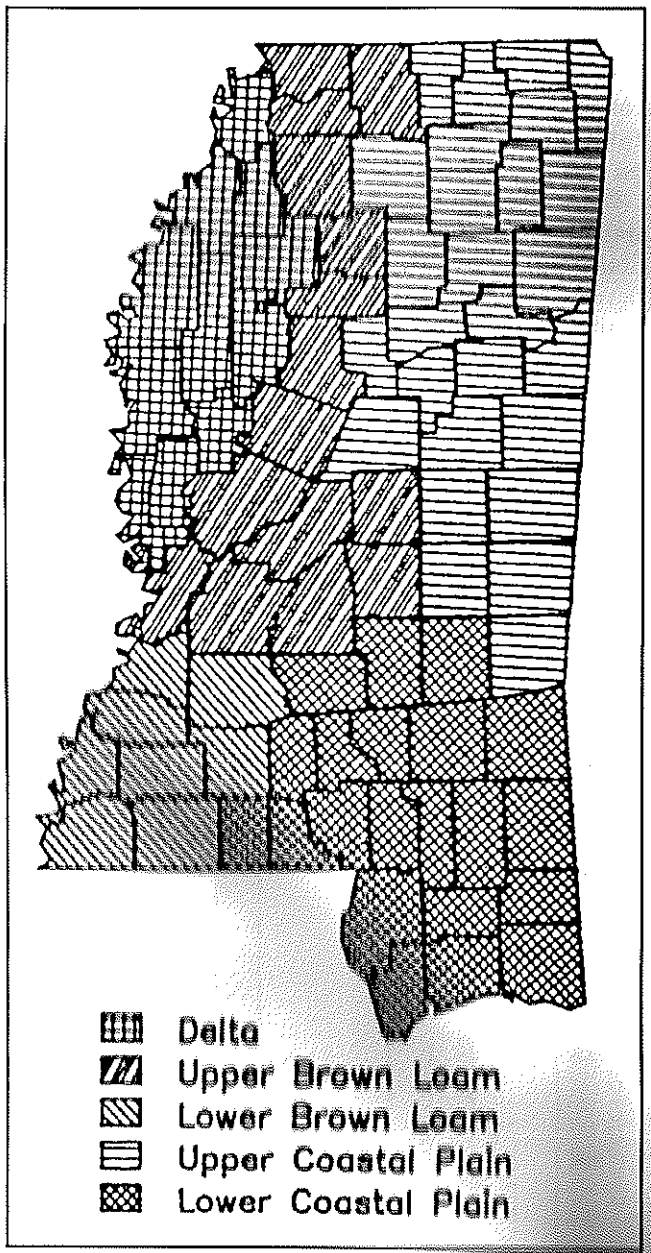

Figure 2. Counties comprising the five soil resource areas that were defined for Mississippi.

Methods and Procedures

Ten major soil resource areas in Mississippi have been identified (Pettry). These areas reflect groups of soils, as well as topographic and geological conditions, and thus are not based on county boundaries. To utilize the county-level data provided by the CTIC, county boundaries were used to group the 10 major soil resource areas into five soil resource areas. Only five soil resource areas were defined to ensure an adequate number of counties in each area (Figure 2). The names of the newly defined areas, with their usual soil resource area names in parentheses, are: Delta (Delta), Upper Brown Loam (Upper Thick Loess and Upper Thin Loess), Lower Brown Loam (Lower Thick Loess and Lower Thin Loess), Upper Coastal Plain (Upper Coastal Plain, Interior Flatwoods, and Blackland Prairie), and Lower Coastal Plain (Lower Coastal Plain and Coastal Flatwoods).

Primary row crops in the study are: monocrop and doublecrop soybeans, corn, grain sorghum, and cotton. Total planted acres and acres allocated to the five types of conservation tillage practices for each crop in each county were summed to obtain acreage values for each soil resource area. It was found that ridge-till and strip-till were not used at all, or were used in very small amounts. Thus, only acreage data for no-till, mulch-till, and reduced-till are presented in this paper.

Tables were developed for each soil resource area to show annual (1985-1988) and 4-year averages of total

planted acreage, acreage allocated to the remaining three types of conservation tillage practices, and the percentage of the total planted acreage of each type of conservation tillage practice. Also, no-till, mulch-till, and reduced-till acres were summed to obtain total acres of conservation tillage. Finally, the 4-year averages for each crop in each soil resource area were summarized in two tables to facilitate comparison of conservation tillage practices across the state.

Delta Area

Data for the Delta area are presented in Table 1. Monocrop soybeans and cotton utilize a major portion of the row crop acreage in this area of the state. Corn is a minor crop in this area and was not listed. Cotton production does not exhibit much use of conservation tillage. Monocrop soybeans and grain sorghum utilize, in order of importance, reduced-till, mulch-till, and no-till. The production of doublecrop soybeans exhibits reduced-till, no-till, and mulch-till in order of importance and also has much higher percentages of conservation tillage than the monocrops.

Upper Brown Loam

Table 2 presents data for the Upper Brown Loam area. A major portion of the row crop acreage in this area consists of monocrop soybeans and cotton. Corn has the lowest acreage among the monocrops. Cotton exhibits minor use of conservation tillage. Monocrop soybeans and grain sorghum exhibit reduced-till, mulch-till, and no-till, in order of importance, while corn uses almost equal amounts of mulch-till and reduced-till. Almost equal amounts of no-till and mulch-till are used to produce doublecrop soybeans. Also, more conservation tillage is utilized on doublecrop soybeans than on the monocrops.

Lower Brown Loam

Data for the Lower Brown Loam area appear in Table 3. The major row crop in this area is monocrop soybeans. Grain sorghum and doublecrop soybeans show a declining trend in acreage. Cotton exhibits virtually no use of conservation tillage. Slightly more reduced-till than either mulch-till or no-till is used on

Table 1. Acres and percentages of conservation tillage practices for selected crops, Delta area of Mississippi, 1985-88.

	Planted	No-till		Mulch-till		Reduced-till		Total Cons.-till*	
	(acres)	(acres)	(%)	(acres)	(%)	(acres)	(%)	(acres)	(%)
Monocrop Soybeans									
1985	1,260,712	7,640	0.6	20,090	1.6	89,300	7.1	117,030	9.3
1986	1,261,529	26,720	2.1	33,920	2.7	164,900	13.1	225,540	17.9
1987	1,001,684	6,900	0.7	18,664	1.9	30,478	3.0	56,042	5.6
1988	988,909	21,945	2.2	38,000	3.8	72,000	7.3	131,945	13.3
Avg.	1,128,209	15,801	1.4	27,669	2.5	89,170	7.9	132,639	11.8
Doublecrop Soybeans									
1985	56,724	8,130	14.3	5,900	9.2	13,850	24.4	27,180	47.9
1986	56,091	5,800	10.3	2,000	3.6	12,500	22.3	20,300	36.2
1987	117,950	12,000	10.2	8,860	7.5	19,800	16.8	40,650	34.5
1988	129,917	18,600	14.3	14,800	11.4	42,500	32.7	75,900	58.4
Avg.	90,171	11,133	12.3	7,710	8.6	22,163	24.6	41,008	45.6
Grain Sorghum									
1985	196,944	2,542	1.3	4,250	2.2	20,860	10.6	27,652	14.0
1986	166,864	1,340	0.8	4,980	3.0	16,600	9.9	22,920	13.7
1987	72,792	2,500	3.4	5,500	7.6	7,000	9.6	15,000	20.6
1988	57,466	3,700	6.4	14,500	25.5	6,600	11.5	23,800	41.4
Avg.	123,517	2,521	2.0	7,058	5.7	12,765	10.3	22,343	18.1
Cotton									
1985	556,348	680	0.1	5,000	0.9	0	0.0	5,680	1.0
1986	577,857	65	0.0	3,000	0.5	26,750	4.6	29,815	5.2
1987	556,861	120	0.0	3,695	0.7	6,100	1.1	9,915	1.8
1988	654,700	0	0.0	4,800	0.7	15,500	2.4	20,300	3.1
Avg.	586,442	216	0.0	4,124	0.7	12,088	2.1	16,427	2.8

*The sum of no-till, mulch-till, and reduced-till.
Source: County-level data provided by the Conservation Technology Information Center.

monocrop soybeans. No-till is employed more often than the other types of conservation tillage in corn production. Grain sorghum exhibits almost equal amounts of mulch-till and reduced-till, and very little no-till. Almost equal amounts of no-till and reduced-till are used in the production of doublecrop soybeans.

Upper Coastal Plain

Data in Table 4 describe tillage practices in the Upper Coastal Plain area, where more land is devoted to monocrop soybeans than any other row crop. Both types of soybeans and grain sorghum exhibit a declining trend in acreage. Cotton uses little conservation tillage, but monocrop soybeans and grain sorghum use reduced-till, mulch-till, and no-till in order of importance. Corn and doublecrop soybeans use, in order of importance, reduced-till, no-till, and mulch-till.

Lower Coastal Plain

Data for the Lower Coastal Plain area are presented in Table 5, where the largest portion of the row crop acreage is devoted to monocrop soybeans. Cotton is a minor crop and was not listed. Grain sorghum and corn exhibit a declining trend in acreage. Mulch-till is the predominant conservation tillage practice among all monocrops, followed by reduced-till and no-till. Almost equal amounts of the three types of conservation tillage practices are used to produce doublecrop soybeans.

Summary of Practices

Table 6 displays the 4-year averages for each crop grouped by soil resource areas. The Delta area, which has the lowest erosion rates in the state, uses relatively less conservation tillage (11.0 percent) than the

Table 2. Acres and percentages of conservation tillage practices for selected crops, Upper Brown Loam area of Mississippi, 1985-88.

	Planted	No-till		Mulch-till		Reduced-till		Total Cons.-till*	
	(acres)	(acres)	(%)	(acres)	(%)	(acres)	(%)	(acres)	(%)
Monocrop Soybeans									
1985	480,265	3,496	0.7	27,185	5.7	39,186	8.2	69,869	14.5
1986	435,864	6,386	1.5	53,979	12.4	51,200	11.7	111,564	25.6
1987	330,372	3,992	1.2	18,200	5.5	14,000	4.2	36,192	11.0
1988	339,385	2,925	0.9	19,300	5.7	52,850	15.6	75,075	22.1
Avg.	396,472	4,200	1.1	29,666	7.5	39,309	9.9	73,175	18.5
Doublecrop Soybeans									
1985	36,891	6,815	18.6	5,700	15.5	3,280	8.9	14,795	40.1
1986	34,270	1,635	4.8	11,440	33.4	3,800	11.1	16,875	49.2
1987	48,480	11,221	23.2	8,715	18.0	3,850	7.9	23,786	49.1
1988	39,901	10,476	27.4	6,750	16.9	6,452	16.2	24,078	60.3
Avg.	39,874	7,287	18.5	8,151	20.4	4,346	10.9	19,884	49.9
Corn									
1985	42,694	861	2.0	2,706	6.3	2,741	6.4	6,308	14.8
1986	59,304	1,633	2.9	8,193	15.7	8,925	17.1	18,650	35.7
1987	40,416	2,074	5.1	7,150	17.7	2,650	6.6	11,874	29.4
1988	41,724	3,060	4.0	2,940	7.0	4,280	10.3	9,273	22.2
Avg.	44,267	1,690	3.7	5,247	11.9	4,649	10.5	11,526	26.0
Grain Sorghum									
1985	136,219	1,086	0.8	4,700	3.4	17,397	12.6	23,182	16.8
1986	108,670	893	0.8	7,475	6.9	13,161	12.1	21,528	19.6
1987	33,894	1,918	5.7	3,383	10.0	1,395	4.1	6,696	19.8
1988	46,513	0	0.0	1,150	2.5	2,990	6.6	4,140	9.1
Avg.	81,574	974	1.9	4,177	5.1	8,736	10.7	13,887	17.0
Cotton									
1985	335,361	17	0.0	2,476	0.7	25,513	7.6	28,006	8.4
1986	306,134	40	0.0	750	0.2	4,600	1.5	5,390	1.8
1987	313,863	115	0.0	768	0.2	0	0.0	883	0.3
1988	363,353	238	0.1	0	0.0	4,602	1.3	4,840	1.3
Avg.	329,678	103	0.0	999	0.3	8,679	2.6	9,780	3.0

*The sum of no-till, mulch-till, and reduced-till.

Source: County-level data provided by the Conservation Technology Information Center.

other areas. The Coastal Plain areas use more conservation tillage than the Brown Loam areas, which have the highest erosion rates among all areas in Mississippi. More use of conservation tillage practices in the Brown Loam areas would lead to significant reductions in soil erosion.

The 4-year averages for each soil resource area grouped by crops are presented in Table 7. Very little conservation tillage (2.6 percent) is used on cotton, while a high proportion of conservation tillage (41.2 percent) is used on doublecrop soybeans. The percentage of no-till is very low for all monocrops in all areas, with the exception of corn in the Lower Brown Loam and Upper Coastal Plain areas. However, no-till is used quite often (from 9.1 to 18.5 percent of planted acreage) on doublecrop soybeans. Based on total acreage data for each crop, reduced-till is more prevalent than mulch-till. However, crops in some areas use more mulch-till than reduced-till.

The percentage of conservation tillage that is used for a given crop in a given area is partly a function of the profitability of conservation tillage versus conventional tillage. Thus, based on information provided in Tables 6 and 7, it appears that conservation tillage for cotton is not very profitable in Mississippi.

Conservation tillage is used on about 16 and 41 percent, respectively, of the monocrop soybean and doublecrop soybean acreage. If the apparent profitability of conservation tillage on doublecrop soybeans could be transferred to monocrop soybeans, then significant reductions in erosion could be obtained throughout the state. About one-fourth and one-fifth of the state's corn and grain sorghum acreage, respectively, use conservation tillage. Increases in the use

Table 3. Acres and percentages of conservation tillage practices for selected crops, Lower Brown Loam area of Mississippi, 1985-88.

	Planted	No-till		Mulch-till		Reduced-till		Total Cons.-till*	
	(acres)	(acres)	(%)	(acres)	(%)	(acres)	(%)	(acres)	(%)
Monocrop Soybeans									
1985	76,732	6,406	8.3	9,334	12.2	6,844	8.9	22,573	29.4
1986	66,700	2,375	3.6	2,000	3.0	9,800	14.7	14,175	21.3
1987	53,525	1,200	2.2	0	0.0	2,000	3.7	3,200	6.0
1988	57,950	170	0.3	800	1.4	100	0.2	1,070	1.8
Avg.	63,727	2,538	4.0	3,031	4.8	4,686	7.4	10,255	16.1
Doublecrop Soybeans									
1985	15,184	700	4.6	1,250	8.2	1,000	6.6	2,950	19.4
1986	10,655	2,118	19.9	450	4.2	2,532	23.8	5,100	47.9
1987	7,522	600	8.0	0	0.0	0	0.0	600	8.0
1988	4,350	800	18.4	400	9.2	500	11.5	1,700	39.1
Avg.	9,428	1,055	11.2	525	5.6	1,008	10.7	2,588	27.4
Corn									
1985	24,265	3,590	14.8	754	3.1	0	0.0	4,344	17.9
1986	20,060	3,190	7.1	3,100	7.0	1,000	3.3	5,220	17.4
1987	20,305	1,605	7.9	0	0.0	0	0.0	1,605	7.9
1988	17,650	2,425	13.7	950	1.4	500	2.8	3,175	18.0
Avg.	23,065	2,455	10.6	770	3.4	375	1.6	3,586	15.5
Grain Sorghum									
1985	15,800	400	2.5	2,225	14.1	714	4.5	3,339	21.1
1986	11,850	0	0.0	0	0.0	1,500	12.7	1,500	12.7
1987	3,225	0	0.0	0	0.0	0	0.0	0	0.0
1988	1,080	0	0.0	140	13.0	200	18.5	340	31.5
Avg.	7,989	100	1.3	591	7.4	604	7.6	1,295	16.2
Cotton									
1985	7,009	0	0.0	235	3.4	90	1.3	325	4.6
1986	5,078	0	0.0	0	0.0	0	0.0	0	0.0
1987	7,224	0	0.0	0	0.0	0	0.0	0	0.0
1988	9,169	0	0.0	0	0.0	0	0.0	0	0.0
Avg.	7,120	0	0.0	60	0.8	20	0.3	81	1.1

*The sum of no-till, mulch-till, and reduced-till.

Source: County-level data provided by the Conservation Technology Information Center.

of conservation tillage on these crops could also result in reductions in soil loss.

More research is needed to develop more profitable conservation tillage practices for the row crops produced in Mississippi. The agronomic and economic impacts of alternative cropping management systems need to be evaluated for the various soil types found across the state. It is possible that more educational efforts are needed to promote those types of conservation tillage practices that will not only benefit farmers financially, but also will reduce erosion rates to acceptable levels.

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Table 4. Acres and percentages of conservation tillage practices for selected crops, Upper Coastal Plain area of Mississippi, 1985-88.

	Planted	No-till		Mulch-till		Reduced-till		Total Cons.-till*	
	(acres)	(acres)	(%)	(acres)	(%)	(acres)	(%)	(acres)	(%)
Monocrop Soybeans									
1985	708,977	6,925	0.9	13,675	2.0	94,738	13.4	114,938	16.2
1986	692,764	16,805	2.9	70,070	10.2	47,276	6.8	133,950	19.3
1987	550,058	5,116	0.9	7,900	1.4	77,050	14.2	90,266	16.4
1988	586,987	4,950	0.8	17,600	3.0	139,105	24.6	163,655	28.7
Avg.	622,047	7,874	1.3	27,311	4.4	88,017	14.1	123,277	19.8
Doublecrop Soybeans									
1985	63,956	7,335	11.6	1,300	2.0	13,170	20.6	21,805	34.1
1986	85,772	3,573	4.2	1,643	1.9	31,000	36.1	35,616	41.5
1987	40,474	5,624	13.9	1,100	2.7	6,200	15.3	12,924	31.9
1988	45,790	10,540	23.0	1,000	2.5	9,680	21.1	21,820	47.7
Avg.	58,998	6,768	11.5	1,261	2.1	15,013	25.4	23,041	39.1
Corn									
1985	75,753	6,890	9.1	4,045	5.3	5,095	6.7	16,030	21.2
1986	92,852	6,095	6.6	4,825	5.2	11,085	11.9	22,005	23.7
1987	88,592	6,095	6.9	2,170	2.4	20,720	23.4	28,985	32.7
1988	86,643	6,945	8.0	3,870	4.5	29,050	33.5	39,865	46.0
Avg.	85,960	6,506	7.6	3,728	4.3	16,488	19.2	26,721	31.1
Grain Sorghum									
1985	185,724	2,566	1.4	5,053	2.7	31,722	17.1	39,341	21.2
1986	166,600	2,420	1.5	20,850	12.6	17,570	10.6	40,840	24.7
1987	60,869	1,180	1.9	600	1.0	13,606	22.4	15,386	25.3
1988	40,497	602	1.5	2,425	6.0	8,450	20.9	11,477	28.3
Avg.	113,171	1,692	1.5	7,232	6.4	17,837	15.8	26,761	23.6
Cotton									
1985	109,191	80	0.0	157	0.1	150	0.1	357	0.3
1986	128,132	66	0.1	0	0.0	2,200	1.7	2,265	1.8
1987	135,801	300	0.2	75	0.1	500	0.4	793	0.6
1988	156,896	317	0.2	200	0.1	2,675	1.7	3,192	2.0
Avg.	132,502	160	0.1	108	0.1	1,381	1.0	1,649	1.2

*The sum of no-till, mulch-till, and reduced-till.

Source: County-level data provided by the Conservation Technology Information Center.

Table 5. Acres and percentages of conservation tillage practices for selected crops, Lower Coastal Plain area of Mississippi, 1985-88.

	Planted	No-till		Mulch-till		Reduced-till		Total Cons.-till*	
	(acres)	(acres)	(%)	(acres)	(%)	(acres)	(%)	(acres)	(%)
Monocrop Soybeans									
1985	99,406	5,221	5.3	8,400	8.5	12,990	13.1	26,611	26.8
1986	92,025	3,720	4.0	16,800	18.3	10,007	10.9	30,527	33.2
1987	47,428	800	1.7	7,361	15.5	553	1.2	8,714	18.4
1988	66,713	793	1.2	15,475	23.2	11,925	17.9	28,193	42.3
Avg.	76,393	2,634	3.4	12,009	15.7	8,869	11.6	23,511	30.8
Doublecrop Soybeans									
1985	59,527	10,305	17.3	5,340	9.0	5,628	9.5	21,273	35.7
1986	37,260	1,316	3.5	1,100	3.0	7,000	18.8	9,416	25.3
1987	36,783	2,355	6.4	5,778	15.7	600	1.6	8,733	23.7
1988	37,590	1,680	4.5	7,850	20.9	2,178	5.8	11,708	31.1
Avg.	42,790	3,914	9.1	5,017	11.7	3,852	9.0	12,783	29.9
Corn									
1985	61,275	2,280	3.7	4,530	7.4	6,362	10.4	13,172	21.5
1986	56,146	1,340	2.4	11,737	20.9	4,655	8.3	17,732	31.6
1987	39,630	1,550	3.9	2,268	5.7	1,492	3.8	5,310	13.4
1988	38,961	1,295	3.3	5,706	14.6	7,919	20.3	14,920	38.3
Avg.	49,003	1,616	3.3	6,060	12.4	5,107	10.4	12,784	26.1
Grain Sorghum									
1985	20,178	125	0.6	2,595	12.9	1,790	8.9	4,510	22.4
1986	17,788	450	2.5	2,880	16.2	1,896	10.7	5,226	29.4
1987	8,981	100	1.1	450	5.0	14	0.2	564	6.3
1988	7,260	0	0.0	1,100	15.2	300	4.1	1,400	19.3
Avg.	13,552	169	1.2	1,756	13.0	1,000	7.4	2,925	21.6

*The sum of no-till, mulch-till, and reduced-till.

Source: County-level data provided by the Conservation Technology Information Center.

Table 6. Acres and percentages of conservation tillage practices for crops grouped by five soil resource areas of Mississippi, 4-year (1985-1988) averages.

	Planted	No-till		Mulch-till		Reduced-till		Total Cons.-till*	
	(acres)	(acres)	(%)	(acres)	(%)	(acres)	(%)	(acres)	(%)
Delta									
MCS	1,128,209	15,801	1.4	27,669	2.5	89,170	7.9	132,639	11.8
DCS	90,171	11,133	12.3	7,713	8.6	22,163	24.6	41,008	45.5
GS	123,517	2,521	2.0	7,058	5.7	12,765	10.3	22,343	18.1
Ct	586,442	216	0.0	4,123	0.7	12,088	2.1	16,427	2.8
Total	1,928,337	29,671	1.5	46,562	2.4	136,185	7.1	212,417	11.0
Upper Brown Loam									
MCS	396,472	4,200	1.1	29,666	7.5	39,309	9.9	73,175	18.5
DCS	39,874	7,387	18.5	8,151	20.4	4,346	10.9	19,884	49.9
Cn	44,267	1,630	3.7	5,247	11.9	4,649	10.5	11,526	26.0
GS	81,574	974	1.2	4,177	5.1	8,736	10.7	13,887	17.0
Ct	329,678	103	0.0	999	0.3	8,679	2.6	9,780	3.0
Total	891,864	14,293	1.6	48,240	5.4	65,718	7.4	128,251	14.4
Lower Brown Loam									
MCS	63,727	2,538	4.0	3,031	4.8	4,686	7.4	10,255	16.1
DCS	9,428	1,055	11.2	525	5.6	1,008	10.7	2,588	27.4
Cn	23,066	2,435	10.6	776	3.4	375	1.6	3,586	15.5
GS	7,990	100	1.3	591	7.4	604	7.6	1,295	16.2
Ct	7,130	0	0.0	59	0.8	23	0.3	81	1.1
Total	111,936	6,127	5.5	4,982	4.5	6,695	6.0	17,804	16.0
Upper Coastal Plain									
MCS	622,047	7,074	1.1	27,980	4.4	88,017	14.1	123,277	19.8
DCS	58,998	6,766	11.5	1,261	2.1	15,013	25.4	23,041	39.1
Cn	85,960	6,506	7.6	3,728	4.3	16,488	19.2	26,721	31.1
GS	113,171	1,693	1.5	7,232	6.4	17,837	15.8	26,761	23.6
Ct	132,502	160	0.1	108	0.1	1,381	1.0	1,649	1.2
Total	1,012,677	29,000	2.9	39,715	3.9	138,735	13.7	201,450	19.9
Lower Coastal Plain									
MCS	76,393	2,684	3.4	12,009	15.7	8,869	11.6	23,511	30.8
DCS	42,790	3,914	9.1	5,017	11.7	3,852	9.0	12,783	29.9
Cn	49,003	1,016	2.0	6,060	12.4	5,107	10.4	12,784	26.1
GS	13,552	169	1.2	1,756	13.0	1,000	7.4	2,925	21.6
Total	181,738	8,003	4.0	24,843	13.7	18,827	10.4	52,002	28.6
State Total	4,126,044	81,493	2.0	164,341	4.0	366,160	8.9	611,924	14.8

*The sum of no-till, mulch-till, and reduced-till.

Note: MCS = Monocrop Soybeans; DCS = Doublecrop Soybeans; Cn = Corn; GS = Grain Sorghum; Ct = Cotton; Total = Sum of all crops for each area; State Total = Sum of all totals.

Source: County-level data provided by the Conservation Technology Information Center.

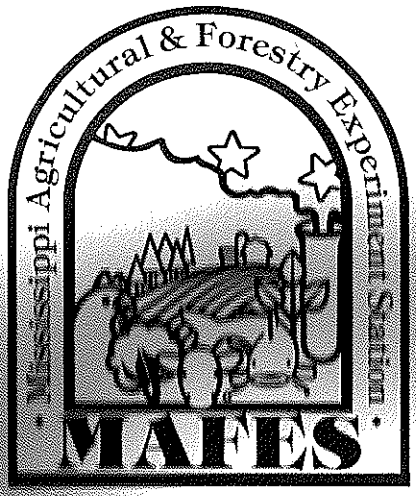
Table 7. Acres and percentages of conservation tillage practices for five soil resource areas of Mississippi grouped by crops, 4-year (1985-1988) averages.

	Planted	No-till		Mulch-till		Reduced-till		Total Cons.-till*	
	(acres)	(acres)	(%)	(acres)	(%)	(acres)	(%)	(acres)	(%)
Monocrop Soybeans									
D	1,128,209	15,801	1.4	27,669	2.5	89,170	7.9	132,639	11.8
UBL	396,472	4,200	1.1	29,060	7.5	39,300	9.9	73,175	18.5
LBL	63,727	2,538	4.0	3,031	4.8	4,686	7.4	10,255	16.1
UCP	622,047	7,874	1.3	27,386	4.4	88,017	14.1	123,277	19.8
LCP	76,393	2,634	3.4	12,009	15.7	8,869	11.6	23,511	30.8
Total	2,286,846	33,046	1.4	99,761	4.4	230,050	10.1	362,857	15.9
Doublecrop Soybeans									
D	90,171	11,133	12.3	7,713	8.6	22,169	24.6	41,008	45.5
UBL	39,874	7,387	18.5	8,151	20.4	4,346	10.9	19,884	49.9
LBL	9,428	1,055	11.2	525	5.6	1,008	10.7	2,588	27.4
UCP	58,998	6,768	11.5	1,261	2.1	15,013	25.4	23,041	39.1
LCP	42,790	3,914	9.1	5,017	11.7	3,852	9.0	12,783	29.9
Total	241,260	30,256	12.5	22,667	9.4	46,380	19.2	99,302	41.2
Corn									
UBL	44,267	1,630	3.7	5,247	11.9	4,649	10.5	11,526	26.0
LBL	23,065	2,435	10.6	776	3.4	375	1.6	3,586	15.5
UCP	85,960	6,506	7.6	3,728	4.3	16,488	19.2	26,721	31.1
LCP	49,003	1,616	3.3	6,060	12.4	5,107	10.4	12,784	26.1
Total	202,295	12,188	6.0	15,811	7.8	26,619	13.2	54,617	27.0
Grain Sorghum									
D	123,517	2,521	2.0	7,058	5.7	12,765	10.3	22,343	18.1
UBL	81,574	974	1.2	4,177	5.1	8,736	10.7	13,887	17.0
LBL	7,989	100	1.3	591	7.4	604	7.6	1,295	16.2
UCP	113,171	1,692	1.5	7,232	6.4	17,837	15.8	26,761	23.6
LCP	13,552	169	1.2	1,756	13.0	1,000	7.4	2,925	21.6
Total	339,801	5,455	1.6	20,814	6.1	40,941	12.0	67,210	19.8
Cotton									
D	586,442	216	0.0	4,123	0.7	12,080	2.1	16,427	2.8
UBL	329,678	103	0.0	999	0.3	6,679	2.0	9,780	3.0
LBL	7,120	0	0.0	59	0.8	99	0.8	81	1.1
UCP	132,502	160	0.1	108	0.1	1,981	1.0	1,640	1.2
Total	1,055,741	479	0.0	5,289	0.5	99,179	9.1	27,937	2.6
State Total	4,125,944	81,423	2.0	164,941	4.0	366,166	8.9	611,924	14.8

*The sum of no-till, mulch-till, and reduced-till.

Note: D = Delta; UBL = Upper Brown Loam; LBL = Lower Brown Loam; UCP = Upper Coastal Plain; LCP = Lower Coastal Plain; Total = Sum of all areas for each crop; State Total = Sum of all totals.

Source: County-level data provided by the Conservation Technology Information Center.



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