



Conservation Tillage and Cropping Systems Workgroup  
 United States Department of Agriculture  
 Sustainable Conservation

University of California  
 Natural Resources Conservation Service  
 California Association of Resource Conservation Districts

RESOURCE  
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## 2008 Tillage Survey

California's Conservation Tillage and Cropping Systems Workgroup has prepared its survey of tillage management acreage for 2008. This tillage survey was conducted as an ongoing comparison of annual row crop acreage that is farmed under different tillage systems throughout the Central Valley region of California. Over 35 local NRCS, University of California and private sector experts were surveyed and results were compared with 2008 County Agricultural Commissioner cropland acreage. Previous surveys have been conducted in 2004 and 2006.

Data in this survey were compiled for two general types of conservation tillage. Tillage practices such as no-till, strip-till, ridge-till and mulch-till, that leave at least 30% of the soil surface covered with residue from the previous crop are the typical forms of conservation tillage that are recognized throughout the world. In addition to these practices, "minimum tillage" practices that reduce the overall number of tillage passes by at least 40% relative to what was done in the year 2000, are also included in the Workgroup's tally of conservation tillage acreage.

In 2008, conservation tillage systems accounted for about 10% of the acreage for the crops that were surveyed including silage and grain corn, small grains for hay, silage and grain, tomatoes, cotton, dry beans, and melons throughout the nine-county Central Valley region (Figure 1). This was an increase from about 3% in 2006. Minimum tillage practices were used on about 21% of crop acreage in 2008, also up from about 15% in 2006 (Table 1).

In 2008, crops that had the highest percentage of conservation tillage acreage were those associated with dairy forage production: corn and small grains that are ensiled and used as animal feed (Table 2). The crop that had the highest percent of acreage under minimum tillage in 2008 was tomatoes at 61%, most likely due to the shallow, bed

reworking tillage that is increasingly done in subsurface drip-irrigated tomato production fields.

Figure 1. Percent of crop acreage under conventional, minimum and conservation tillage in 2004, 2006, and 2008 in nine-county Central Valley region

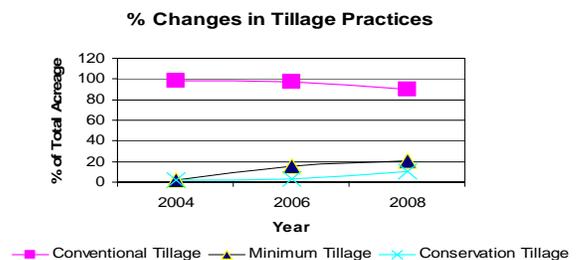


Table 1. Total crop acreage (silage and grain corn, small grains for hay, silage and grain, tomatoes, cotton, dry beans, and melons) in nine-county Central Valley region under conventional, minimum and conservation tillage in 2004, 2006, and 2008.

Year	Total Acreage	Conventional Tillage	Minimum Tillage	Conservation Tillage
		Acres		
2004	2,567,022	2,509,917	64,613	57,105
2006	2,129,316	2,060,151	318,006	69,165
2008	2,210,372	1,982,575	416,035	227,797
%				
2004		98	3	2
2006		97	15	3
2008		90	21	10

Table 2. Tomato, cotton, bean, corn and small grain acreage under conventional, minimum, and conservation tillage in 2008 in nine-county Central Valley region.

Crop	Total	Conventional Tillage	Minimum Tillage	Conservation Tillage	% of Total Acreage Under Conservation Tillage
					Acreage
Tomatoes	257,698	249,295	157,482	8,403	3.3
Cotton	262,525	256,295	28,930	6,230	2.4
Edible dry beans	19,734	19,734	1,450	0	0
Silage corn	562,530	468,876	79,444	97,654	17.4
Grain corn	135,698	130,332	33,200	5,466	4.0
Small grains for grain	401,521	349,954	38,403	51,567	12.8
Small grains for hay or ensiled	533,274	475,564	76,926	57,710	10.8
Melons	37,292	36,525	200	767	2.1

Additional information from California's Conservation Tillage and Cropping Systems Workgroup is available at their website: <http://groups.ucanr.org/ucct/>