



Conservation

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Producers Protect or Improve Millions of Acres of Agricultural Land

278,290 farms...

... used no till on 96.5 million acres in 2012.

Top States in No till (millions of acres)

| | |
|--------------|------|
| Kansas | 10.4 |
| Nebraska | 9.4 |
| North Dakota | 7.8 |
| South Dakota | 7.2 |
| Iowa | 7.0 |
| Montana | 6.9 |

In 2012, the Census of Agriculture for the first time asked whether producers applied specific practices to conserve the farmland or improve the productivity of their cropland. Such practices protect land from water and wind erosion, improve water quality, provide wildlife habitat, and reduce producers' operating costs by reducing the number of trips over fields. Census questions focused on tillage and drainage practices, as well as farmers' use of cover crops, conservation easements, and other practices.

Tillage Practices

Farmers applied tillage practices on 278.8 million acres in 2012, including no till on 96.5 million acres, conservation tillage on 76.6 million acres, and conventional tillage on 105.7 million acres.

Across the country, 278,290 farms used no till. In no-till farming, the farmer plants the crop directly into the vegetative cover or crop residue of the previous crop. Farms of all sizes reported having acreage they did not till, but more than half the no-till acres (54.4 million) were on farms that

applied the practice on a thousand or more acres (Table 1).

In addition, 195,738 farms used other conservation tillage practices (excluding no till) on 76.6 million acres. Conservation tillage includes some tillage, but leaves a minimum of 30 percent of the soil surface covered by the previous crop's residue following the planting operation. Over half the acreage (41.6 million acres) was on farms that practiced conservation tillage on a thousand or more acres.

Table 1
Conservation Tillage Practices, 2012
(millions of acres and number of farms)

| Practice applied to: | No Till | | Conservation Tillage ^a | |
|----------------------|------------------|----------------|-----------------------------------|----------------|
| | Acres (millions) | No. of Farms | Acres (millions) | No. of Farms |
| Less than 500 acres | 24.1 | 227,612 | 19.0 | 152,652 |
| 500 to 999 acres | 18.0 | 25,968 | 15.9 | 22,741 |
| 1,000 to 1,999 acres | 21.0 | 15,386 | 18.5 | 13,529 |
| 2,000 or more acres | 33.3 | 9,324 | 23.2 | 6,816 |
| Total | 96.5 | 278,290 | 76.6 | 195,738 |

^aExcluding "no till."

Source: USDA NASS, 2012 Census of Agriculture.



Oilseed and grain farming accounted for 84 percent of the no-till acres and 81 percent of conservation tillage acres.

Principal operators whose primary occupation is farming accounted for 90 percent of the no-till acreage and 92 percent of acres with conservation tillage.

| Top States in Conservation Tillage (millions of acres) | |
|--|-----|
| Iowa | 8.8 |
| Illinois | 7.7 |
| North Dakota | 6.2 |
| Minnesota | 6.1 |
| Kansas | 6.1 |

Source: USDA NASS, 2012 Census of Agriculture.

In contrast, 405,692 farms used conventional tillage on 105.7 million acres of cropland. Of these, close to half (192,482 farms) used conventional tillage on less than fifty acres and 26,381 farms used conventional tillage on a thousand or more acres.

Land Improvement Practices

In addition to tillage, the 2012 Census of Agriculture asked respondents about other practices that improve land productivity or conserve farmland. (Table 2)

Table 2

Land Improvement Practices, 2012
(millions of acres and number of farms)

| | Acres (millions) | No. of Farms |
|------------------|------------------|--------------|
| Tile drainage | 48.6 | 217,931 |
| Surface drainage | 42.2 | 216,314 |
| Cover crops | 10.3 | 133,124 |

Source: USDA NASS, 2012 Census of Agriculture.

Tile and Surface Drainage. Producers install subsurface tiles and open ditches to drain excess water from fields and make the cropland more productive. At the end of 2012, the number of farms with tile drainage systems was 217,931; these systems benefited 48.6 million acres by improving the productivity of water-saturated soils, sometimes in conjunction with other conservation practices such as terracing. The 216,314 farms with field ditches provided surface drainage for 42.2 million acres.

| Top States in Tile Drainage (millions of acres) | |
|---|------|
| Iowa | 12.6 |
| Illinois | 8.9 |
| Minnesota | 6.5 |
| Indiana | 5.7 |
| Ohio | 5.0 |

Source: USDA NASS, 2012 Census of Agriculture.

Cover Crops. Planting a cover crop increases the soil's fertility, improves soil quality, reduces erosion, controls pests, and protects wildlife habitat. In 2012, operators of 133,124 farms planted cover crops on 10.3 million acres; this does not include land in USDA's Conservation Reserve Program. The states with the most acres planted to cover crops were Texas (911,061 acres), Indiana (596,062), Wisconsin (553,005), Pennsylvania (446,295), and Michigan (437,200).

In addition, farmers reported protecting nearly 30 million acres by enrolling land in USDA's Conservation Reserve, Wetlands Reserve, Farmable Wetlands, or Conservation Reserve Enhancement programs.

Other Conservation Measures

Conservation Easements. Farmland owners put their land into conservation easements to protect it from development and keep it permanently in agriculture. In 2012, such easements protected 13.2 million acres on 76,441 farms. States with the most acres under a conservation easement were Colorado (1.4 million acres), Montana (1.3 million), North Dakota (0.9 million), California (0.9 million), and Georgia (0.7 million).

Agroforestry Practices. The 2012 Census also asked farmers for the first time whether they engage in alley cropping or silvopasture. Alley cropping involves producing trees and other crops on the same acreage at the same time; the benefits include wind protection, plant diversity, and improved wildlife habitat. Silvopasture combines livestock, forage, and tree production on the same acreage; environmental benefits include protecting the soil from wind and water erosion, improving water quality, and increasing wildlife diversity. In 2012, the number of farms engaged in one or both of these practices was 2,725.

Rotational Grazing. Rotational or management-intensive grazing divides larger pastures into smaller units to rest the pasture and improve forage. The practice improves plant health and soil quality. In 2012, across the country, 288,719 farms practiced rotational grazing. The top states in number of farms were Texas, Missouri, Kentucky, Tennessee, and Oklahoma.

To learn more about farmers' conservation practices, the 2012 Census of Agriculture, and how to access national, state, and county data, go to:

www.agcensus.usda.gov