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Weekly Farm Economics: Geographical Acreage Changes between 2006 and 2012 in Corn, Soybeans, Wheat, and Cotton

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USDA's release of the 2013 *Planting Intentions* report again focuses attention on acreage shifts between crops. Herein, historical acre changes across counties are documented for corn, soybeans, wheat, and cotton; four crops with large acreages. Examining these changes documents geographical changes having occurred in the past, perhaps providing indications of any acreage changes that may occur in the near future.

Data and Methods

Planted acres per county for corn, soybeans, wheat, and cotton were obtained from the QuickStats tool available through the National Agricultural Statistical Service (NASS) website. With the exception of cotton, changes in county acres between 2006 and 2012 are reported in the following graphs (county change = acre in a crop in 2012 – acre in a crop in 2006). For cotton, acre changes are to 2011 rather than 2012, as planted acres are not available for 2012. The year 2006 was chosen as the base period, as this was the first year of a sustained increase in prices most crops have experience.

Each county with an acre listed for 2006 and 2012 (2011 for cotton) are documented in the following graphs. In certain cases, some counties with zero or low acres in either year may not be indicated on the graph, as NASS does not report acres for a crop when acres are low.

On a national basis, acres in the four crops exhibited the following changes:

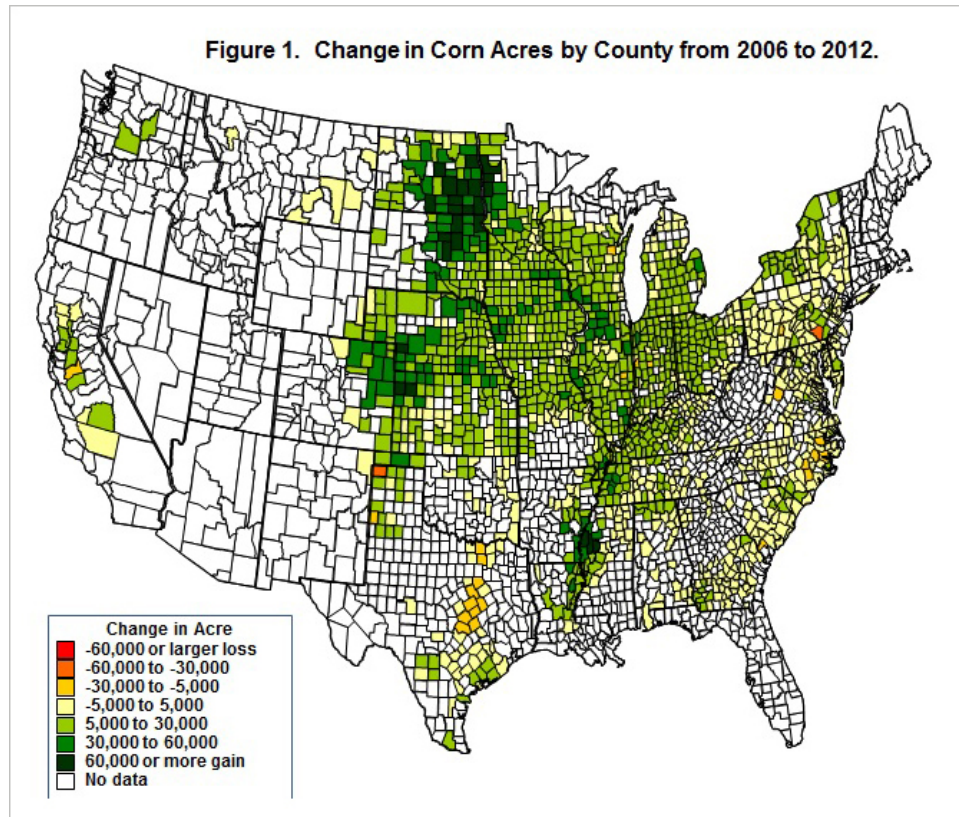
- Corn acres increased from 78 million acres in 2006 to 97 million acres in 2012, a 24 percent increase.
- Soybean acres increased from 76 million acres in 2006 to 77 million acres in 2012, a 1 percent increase.
- Wheat acres decreased from 57 million acres in 2006 to 55 million acres in 2012, a 4 percent decrease.
- Upland cotton acres decreased from 15 million acres in 2006 to 12 million acres in 2012, a 20 percent decrease.

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percent decrease. Between 2011 and 2012, acres declined from 12.9 million acres to 12.1 million acres. Therefore, the upland cotton graph presented below which uses 2011 acres understates some of the changes across counties.

Corn Acre Changes

Given the large increase in corn acres, it is no surprise that corn acres increased in most counties across the greater Corn Belt from western Ohio through Nebraska (see Figure 1). Several counties in Illinois, Iowa, Minnesota and Nebraska had increased acres between 30,000 and 60,000 acres.



A large contiguous set of counties in eastern North Dakota, northeast South Dakota, and western Minnesota had acreage increases of over 60,000 acres. This area in the Upper Midwest had a most pronounced change of corn acres of any area in the country.

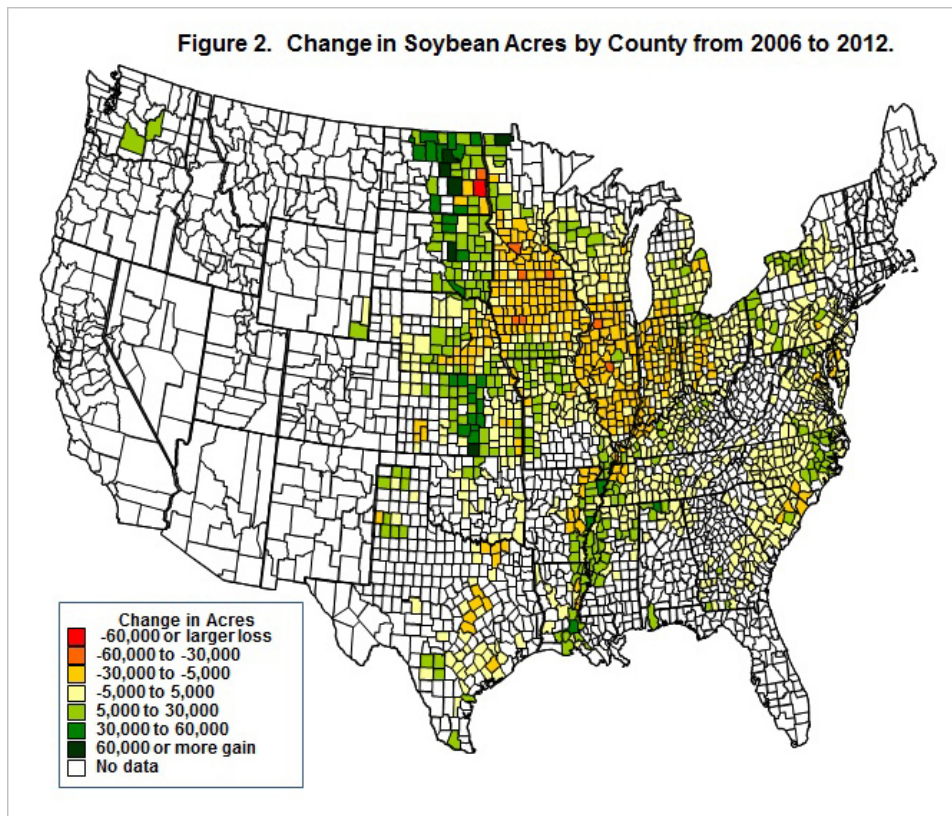
Other areas of increase include the Mississippi Delta, with several counties in west central Mississippi having corn acres increase of over 60,000 acres. Large acreage increases also occurred in an area centered on the junction of Kansas, Nebraska, and Colorado.

There were a few areas that lost corn acres. Several contiguous counties in mid-central Texas and in eastern North Carolina lost between 5,000 and 30,000 acres.

Soybean Acre Changes

The two percent increase in U.S. soybean acres between 2006 and 2012 mask the large shift in soybean acres that occurred between 2006 and 2012 (see Figure 2). Most counties in the Corn Belt decreased soybean acres. For example, many counties in southern Minnesota, Iowa, Illinois, and Indiana, lost over 5,000 acres of soybeans between 2006 and 2012.

Figure 2. Change in Soybean Acres by County from 2006 to 2012.



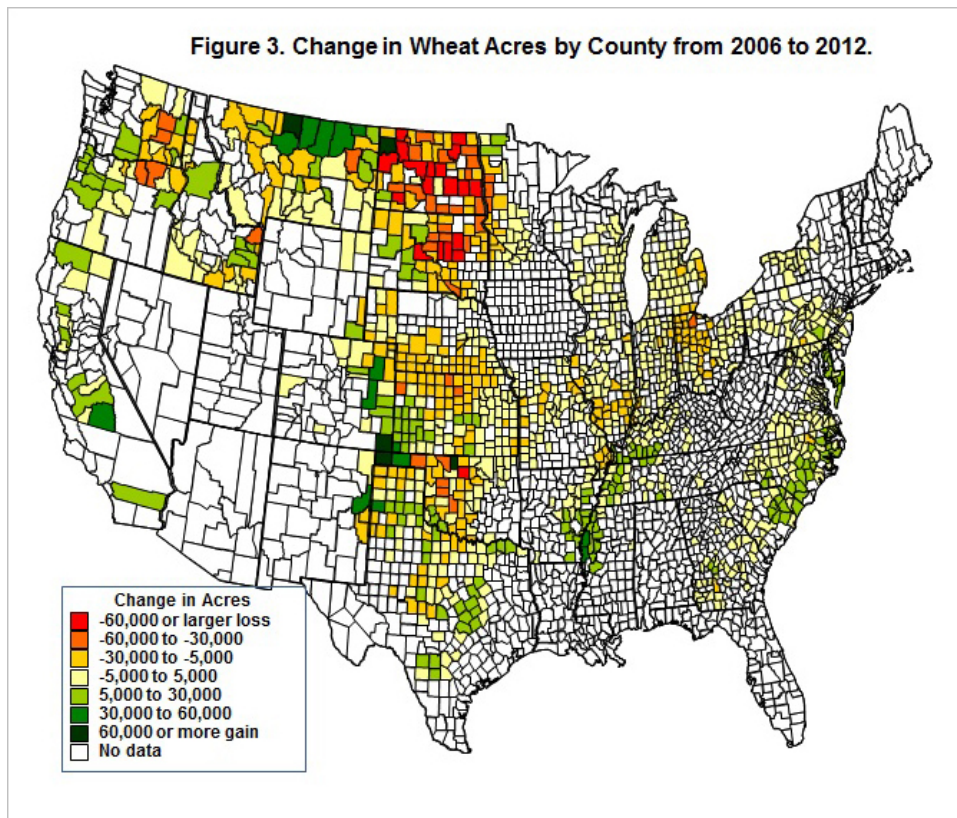
These acreage declines in the Corn Belt are more than offset by increases in the other areas, with the following regions standing out:

- Many counties in northwest Minnesota, eastern North Dakota, and eastern South Dakota increased soybean acres. Some of these counties increased acres by more than 60,000 acres
- A swath of counties in middle Kansas increased acres.
- Counties within the Mississippi Delta increased acres.
- Counties in eastern North Carolina increased acres.
- Counties in southern Iowa and Missouri increased acres.
- Sporadically distributed counties in Wisconsin, Michigan, Ohio, and New York increased acres.

Wheat Acre Changes

Like wheat, the relatively small U.S. acre change masks regional wheat acre shifts. Areas gaining wheat acres included several counties in Montana along the Canadian border. Some counties in western Kansas, eastern Colorado, and the panhandle of Oklahoma also increased acres. Acres increased in eastern North and South Carolina, as well as in counties in the Mississippi Delta.

Figure 3. Change in Wheat Acres by County from 2006 to 2012.



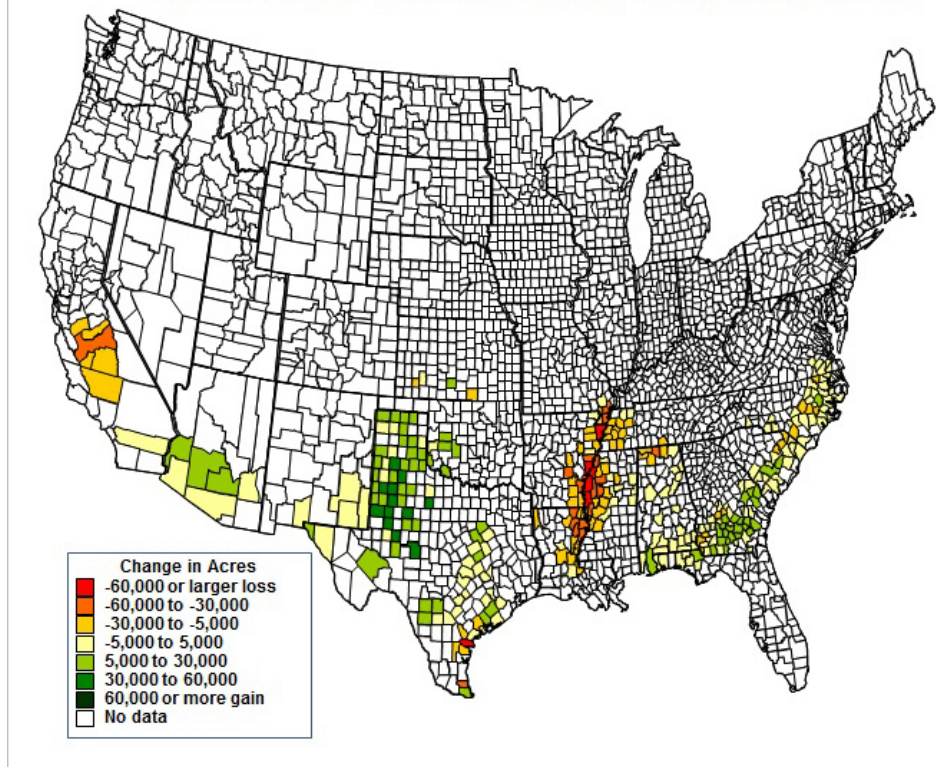
Most areas lost acres. A notable area of loss was in North and South Dakota, where a number of counties had 60,000 or more acres of decrease. Acres also decreased in counties along the Nebraska and Kansas border.

Two areas significant to soft red winter wheat also lost acres. Counties in Northwest Ohio lost acres. And counties in southern Illinois lost acres.

Upland Cotton Acre Changes

Overall, upland cotton acres decreased by 20 percent between 2006 and 2011, with large geographic acre shifts occurred. Acres increased in southern Texas and southern Georgia. The Mississippi Delta and central California lost acres.

Figure 4. Change in Upland Cotton Acres by County from 2006 to 2011.



Summary of Regional Changes

Some of the more pronounced regional changes in crop production are:

1. The Corn Belt increased corn acres and gave up soybean acres, becoming more concentrated in corn production.
2. North and South Dakota became much larger producers of corn and soybeans, reducing wheat acres. North and South Dakota look more like the Corn Belt in terms of acres allocated to acres
3. The Mississippi Delta increased corn and soybean production, giving up cotton acres.

Summary

Much of the acre shifts between 2006 and 2012 occurred in the Corn Belt, the Dakotas and the Mississippi Delta. It is likely that these areas will be the focus during the 2013 planting season.