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Comparing NASS and FSA Planted Acreage Data

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The USDA's National Agricultural Statistics Service (NASS) released final estimates of planted and harvested crop acreage for 2013 in the [Crop Production 2013 Summary](#) report on January 10. The USDA's Farm Service Agency (FSA) released its final report of planted acreage for 2013 on January 15. There may be some misunderstanding or confusion about how the two estimates of planted acreage are generated and how the estimates should compare.

The NASS estimates of planted acreage incorporate both survey and administrative data. The primary survey data are collected in the December Agricultural Survey of producers. The survey is conducted by mail, phone, internet, and personal interview in all states except Hawaii. The survey is a probability survey in the sense that operations surveyed represent a sample drawn from a list of all producers in such a way that all operations have a chance to be included. The December 2013 survey was conducted between November 29 and December 17 with a sample size of 82,403 (NASS executive summary, released on January 10, 2014). Respondents are asked to report the acreage of each crop planted for all purposes for all land operated by the respondent. Based on the survey data, each state Field Office submits an estimate and written analysis to the NASS Agricultural Statistics Board. The survey data and written analysis are used along with administrative data to prepare the final estimates of planted acreage, harvested acreage, yield, and production. The administrative data are primarily the planted acreage data reported to and summarized by the FSA.

The FSA requires producers participating in the direct and counter-cyclical payment program and the Average Crop Revenue Election (ACRE) program along with those who receive marketing assistance loans or loan deficiency payments to file an annual report regarding all cropland use on their farms. Producers self-report to the FSA, but the failure to file an accurate and timely report can result in the loss of program benefits. Producers report planted acreage, prevented acreage, and failed acreage by crop. The planted acreage data collected by the FSA should be very accurate, but are incomplete because not all producers are required to report. In contrast, the NASS estimates are for all planted acreage, but the estimates are subject to sampling error since not every producer is surveyed. The NASS estimates of planted acreage of each crop should be larger than the FSA estimates since not all producers participate in FSA programs. The relationship between the two estimates should be generally consistent from year to year since NASS uses the FSA estimates as input for final estimates. Variation in the magnitude of the

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differences from year to year could reflect such things as differing rates of participation in FSA programs and NASS sampling errors.

For 2013, the final NASS estimate of planted acreage of corn was 95.365 million acres while the final acreage reported to FSA was 92.399 million acres. The difference was 2.966 million acres, with the FSA acreage estimate representing 96.89 percent of the NASS estimate. These relationships are within the range of the differences in the previous six years when the difference between the two estimates ranged from 2.381 million acres to 3.295 million acres and the FSA estimate ranged from 96.42 to 97.45 percent of the NASS estimate.

For soybeans, the final NASS estimate of planted acreage in 2013 was 76.533 million acres, while the final acreage reported to FSA was 75.299 million acres. The difference was 1.234 million acres, with the FSA acreage estimate representing 98.39 percent of the NASS estimate. These relationships are within the range of the differences in the previous six years when the difference between the two estimates ranged from 0.917 million acres to 1.884 million acres and the FSA estimate ranged from 97.09 to 98.79 percent of the NASS estimate.

For wheat, the final NASS estimate of planted acreage in 2013 was 56.156 million acres while the final acreage reported to FSA was 53.775 million acres. The difference was 2.381 million acres, with the FSA acreage estimate representing 95.76 percent of the NASS estimate. These relationships are within the range of the differences in the previous six years when the difference between the two estimates ranged from 1.171 million acres to 2.779 million acres and the FSA estimate ranged from 94.81 to 98.06 percent of the NASS estimate.

The relationship between FSA and NASS planted acreage estimates can be useful in forming early expectations of the NASS final acreage estimates. FSA releases reports of planted acreage monthly from August through January, reflecting the producer reports received and processed to date. Beginning in October, NASS formally uses the FSA estimates as input into their estimates. In most years, however, the September FSA estimates are close to the final FSA estimates, or can be used to anticipate final FSA estimates, and therefore final NASS estimates. The FSA estimates in September 2013, for example, provided an early indication that NASS September corn and soybean acreage estimates were too high, having not yet fully reflected the magnitude of prevented plantings.

References

USDA, National Agricultural Statistics Service. *Crop Production 2013 Summary (January 2014)*. Released January 10, 2014, accessed January 21, 2014. <http://usda.mannlib.cornell.edu/usda/nass/CropProdSu//2010s/2014/CropProdSu-01-10-2014.pdf>

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