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## Reaction to USDA Corn and Soybean Production, Consumption, and Price Projections

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Today, the USDA's National Agricultural Statistics Service (NASS) released the first survey-based forecasts of 2015 corn and soybean production in the [August Crop Production report](#). To understand the methodology for those forecasts see our *farmdoc daily* article from [Monday](#), a more extensive description in this [Marketing and Outlook Brief](#), or the USDA publication "[Understanding USDA Crop Forecasts](#)." The USDA's World Agricultural Outlook Board also released new projections of corn and soybean consumption, ending stocks, and average price for the 2014-15 and 2015-16 marketing years in the monthly [WASDE report](#). Projections for the rest of the world were also updated in the WASDE report. Here we review some of the new projections and the implications for corn and soybean prices. All of the projections will be updated by USDA in upcoming *Crop Production* and WASDE reports so we also address some of the anticipated changes in future projections.

### Corn

The 2015 U.S. corn crop is projected at 13.686 billion bushels, reflecting a national average yield of 168.8 bushels. The production forecast is 530 million bushels smaller than the record crop of 2014 and the yield forecast is 2.2 bushels less than the record yield of 2014. However, the yield forecast is about four bushels above the average trade expectation and very near the high end of reported expectations. As expected, yield forecasts are much above last year's yields in Iowa, Minnesota, Nebraska, Wisconsin, and South Dakota and much below yields of a year ago in Illinois, Indiana, Missouri, and Ohio.

For the current marketing year that ends on August 31, the projection of imports was increased by three million bushels, the projection of non-ethanol processing uses of corn was increased by nine million bushels, and the projection of year-ending stocks was reduced by seven million bushels to 1.772 billion. The 2014-15 marketing year average price is still expected to be in a range of \$3.65 to \$3.75 per bushel.

For the 2015-16 marketing year, corn production is expected to be 156 million bushels larger than projected last month. The projection of both ethanol and feed and residual use of corn was increased by 25 million bushels and the projection of non-ethanol processing uses of corn was increased by 15 million

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bushels. The larger corn crop and slightly lower prices are expected to expand feed and residual use of corn while increased gasoline consumption is expected to boost ethanol production. The projection of exports was reduced by 25 million bushels. Export expectations were reduced due to larger crop and export forecasts for Brazil and the Ukraine. Production expectations were reduced for China and Europe, but the import projection for the European Union was increased only slightly and the Chinese import projection was unchanged. Corn consumption for all purposes is projected at 13.775 billion bushels, 70 million more than the projection for the current year, and year-ending stocks are forecast at 1.713 billion bushels.

The USDA forecast of production will be updated monthly from September through November. While our previous analysis of USDA yield forecasts for corn over 1990-2013 (*farmdoc daily*, [August 29, 2014](#)) did not reveal any evidence of bias in August, history suggests that the forecast will change from the August forecast. At this juncture, we do not have strong expectations for the direction or magnitude of those changes this year. Similarly, there may be changes in the estimates of planted and harvested acreage since no re-surveying was done for the August production report. Finally, the forecasts of consumption may also change, but current forecasts appear to be reasonable.

The current USDA projections point to a 2015-16 marketing year ending-stocks to use ratio of 12.4 percent. In the *farmdoc daily* article of [April 9, 2015](#) we identified a fairly strong relationship between the ending-stocks to use ratio and the average farm price of corn for the period 2007-08 through 2014-15. That relationship suggests that a ratio of 12.4 percent would point to a marketing year average price of \$4.00. In contrast, the USDA projects a marketing year average price in a range of \$3.35 to \$3.95. The corn market immediately traded to a level that is consistent with a \$3.65 average farm price following the release of today's reports. The question, then, is why are corn price expectations so low relative to the projected level of year-ending stocks? The likely answer is a continuation of weak demand. While feed and residual use of corn is expected to increase from that of the current year and exports are expected to remain constant, the high level of consumption is expected to require relatively low prices. Weak demand expectations stem from slow domestic and foreign economic growth, weakness in the financial markets, and weakness in foreign currency values. Certainly the recent devaluation of China's currency has triggered additional concerns about that country's economic growth. Unless demand prospects improve, corn prices will likely remain below the value suggested by stocks and price relationships in recent history.

## **Soybeans**

The 2015 U.S. soybean crop is projected at 3.916 billion bushels, reflecting a national average yield of 46.9 bushels. The production forecast is 53 million bushels smaller than the record crop of 2014 and the yield forecast is 0.9 bushels less than the record yield of 2014. However, the yield forecast is 2.2 bushels above the average trade expectation and above the high end of reported expectations. Yield prospects are much lower than those of last year in parts of the Southeast, the eastern Corn Belt, and Missouri. Higher yields are expected in the upper Midwest.

For the current marketing year that ends on August 31, the projection of the domestic crush was increased by 15 million bushels and the projection of year-ending stocks was reduced by 15 million bushels to 240 million. As we discussed in a *farmdoc daily* article on [July 15, 2015](#), there is still substantial uncertainty about the level of year-ending stocks for 2014-15. The marketing year average farm price is pegged at \$10.05.

For the 2015-16 marketing year, soybean production is expected to be 31 million bushels larger than projected last month. The larger forecast reflects a 0.9 bushel increase in the expected average yield, but a reduction of 690,000 acres in the estimate of planted acres and a 900,000 acre reduction in the estimate of harvested acreage. The reductions were in the re-surveyed states of Arkansas, Kansas, and Missouri, with the largest reduction in Missouri. The projection of the domestic crush was increased by 20 million bushels, while the projection of exports was reduced by 50 million bushels. Expectations for U.S. soybean exports were lowered in spite of an increase of 55 million bushels in projected Chinese imports and a 140 million bushel increase in the projection of world trade. The lower forecast reflects expectations of much larger exports from Argentina and Brazil even though production forecasts for those two countries were unchanged. Year-ending stocks are projected at 470 million bushels and the

marketing year average price was projected in a range from \$8.40 to \$9.90. The soybean market immediately traded to a level that is consistent with an average farm price below the mid-point of USDA's projected price range following the release of today's reports.

Like corn, USDA projections of production and consumption will change over the next three months. While we do not have strong expectations for the likely changes in the corn production forecast, we would not be surprised to see reductions in the soybean production forecasts. A reduction in the estimate of harvested acreage in the areas experiencing flooding conditions this spring seem likely based on field reports. In addition, some lower yield forecasts in areas of late planting might also be expected. Our expectations are for the production forecast to eventually decline by about 70 million bushels. A similar decline in the projection of year-ending stocks is also expected. If these changes materialize, some modest recovery in soybean prices is expected.

## Summary

The USDA's forecasts of the size of the 2015 U.S. corn and soybean crops were larger than expected. Prices for both crops immediately dropped to levels consistent with the average farm price projected in the August WASDE report (\$3.65 for corn and \$9.15 for soybeans). While lower corn production forecasts are possible in future reports, a recovery in corn prices is likely dependent on improving domestic and world economic conditions that now appear unlikely. In contrast, some recovery in soybean prices is anticipated with lower U.S. production forecasts in future reports.

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