2016/17 U.S. Corn Production and Usage (05252016)

Production

The first USDA U.S. corn production projection for the 2016/17 marketing year indicates a 6% increase to 14.430 billion bushels compared to the 2015/16 estimate (13.601 billion bushels) (USDA, WASDE May 2016). If realized, corn production in the new marketing year will surpass the record 2014/15 corn production (14.216 billion bushels) (see Figure 1). This projection is supported by expanded 2016/17 planting intentions. As indicated in the Prospective Plantings report published by USDA on March 31, 2016, U.S. corn producers intend to plant 93.6 million acres in 2016/17, or 5.6 million acres above last year (88 million acres). The report also indicates that Iowa producers intend to plant 13.9 million acres of corn, representing 14.9% of the U.S. prospective planting in the 2016/17 marketing year.

The projected 2016/17 harvested area is up 5.2 million acres to 85.9 million acres compared with the 2015/16 marketing year (80.7 million acres). This projection is based on the historical relationship between harvested and planted area. For the last 10 years, corn harvested area have represented about 91.5% of corn planted area.



Figure 1. U.S. Corn Production, Ending Stocks, and Price

The 2016/17 U.S. corn yield, which USDA projects based on a weather-adjusted trend model, is 168.0 bushels per acre, down 0.4 bushel per acre relative to the 2015/16 marketing year. This projection assumes normal mid-May planting progress and summer weather, with summer weather having the largest impact on yields.

As of May 22, 2016, 86% of the 2016/17 U.S. corn crop had been planted in the 18 major cornproducing States (USDA Crop Progress report, May 23, 2016). This share is down from the 90% planting progress year over year, but 1% up from the previous five-year average (85%). Iowa's planting progress (96%) was 4% ahead of its preceding five-year average (92%) at this point last season (May 22, 2015). In addition, corn emergence in the 18 States in the week ending on May 22, 2016 was at 60%, 9% behind last year at this point but 5% ahead of the fiveyear average (55%). Corn emergence in Iowa was 75%, up 12% from its five-year average (63%).

With projected record corn production and expected beginning stocks at 1.803 billion bushels, which are projected 0.072 billion above last year (1.731 billion), the 2016/17 U.S. corn supply is projected at 16.273 billion bushels. If realized, U.S. corn supply will exceed last marketing year corn supply by 0.886 billion bushels.

Utilization

2016/17 U.S. corn utilization (14.120 billion bushels) is also projected to set a new record (see Figure 2), with both domestic use and exports rising in the new projected marketing year. The two main U.S. corn usages, feed and residual (F&R) and corn used to produce ethanol, are projected at 5.550 billion bushels and 5.300 billion bushels, respectively (see Figure 2). F&R usage is projected to increase by 0.300 billion bushels from the 2015/16 estimate. As indicated by USDA, the factors boosting the increase in F&R usage in 2016/17 are a projected larger corn production, lower expected corn price, and increased number of livestock and poultry.



Figure 2. U.S. Corn Utilization (Million Bushels)

Corn use for U.S. ethanol production is projected to increase 0.050 billion bushels compared to 2015/16. According to the USDA, expected lower sorghum use for ethanol and growth in ethanol consumption support this projection. The U.S. Energy Information Administration (EIA) in its Short-Term Energy Outlook report published on May 10, 2016, forecasts ethanol consumption to average 930,000 barrels per day in 2016 and 2017, increasing by 20,000 barrels per day relative to 2015 (910,000 barrels per day). EIA's current forecasts are based on the November 30, 2015 Environmental Protection Agency (EPA)'s finalized volumes set for the Renewable Fuel Standard (RFS) for 2014 through 2016. The 2017 forecast is made under the assumption that the 2016 targets will also apply to 2017.

On May 18, 2016 the EPA released proposed volumes for renewable fuels for 2017 under the RFS and proposed volumes for biodiesel for 2018. According to the proposed rule, 2017 conventional biofuels, such as ethanol, will grow by 300 million gallons to 14.8 billion gallons from the volume in 2016 (14.5 billion gallons). This proposed volume would be lower than the15 billion gallons set by the statute for the RFS, meeting 98.6% of the statutory target. Overall, the EPA's total proposed volume for all fuel categories is 18.8 billion gallons in 2017, increasing about 700 million gallons from the volume in 2016 (18.11 billion gallons); however, the 2017 proposed volume for all fuel categories presents only 78.3% of the statutory total renewable fuel requirement for 2017 (24.00 billion gallons). Comments on the proposed rule must be received on or before July 11, 2016.

Exports

Based on large U.S. corn supplies and less competition from Brazil due to tighter supplies, U.S. corn exports in 2016/17 are projected to increase 10% to 1.900 billion bushels from the latest projection for 2015/16 (1.725 billion bushels). As indicated by USDA-Foreign Agricultural Service (FAS) in the World Agricultural Production report (May 2016), *2015/16* Brazil second-crop corn production estimate was reduced by 0.118 billion bushels to 3.189 billion bushels from the April 2016 estimate (3.307 billion bushels) due to dryness across six eastern Brazilian states.

USDA projected 2016/17 U.S. corn ending stocks at 2.153 billion bushels, up 19% from the projected 2015/16 ending stocks. The projected 2016/17 price is in the range of \$3.05 to \$3.65 (mid-range equal to \$3.35) below \$0.25 at the mid-range from the projected 2015/16 price (\$3.60).

Conclusion

Initial USDA 206/17 projections for U.S. corn indicate record production volumes. The larger corn production is supporting increased domestic usage, as well as larger U.S. corn exports in the 2016/17 marketing year. Several factors will determine the final outcome of this first outlook of the coming corn marketing year. For example, on the supply side, the summer weather pattern will have a large impact on production. On the demand side, the finalized volumes set for the Renewable Fuel Standard (RFS) for 2017 by the EPA will modify the corn usage estimate for corn ethanol production. The strength of the U.S. dollar and foreign market conditions will also play a role on the level of corn exports.