2015/16 U.S. Corn Production Estimate and Projected Use (01292016)

The January 2016 *WASDE* report published by USDA indicates that U.S. corn production for the 2015/16 marketing year has been estimated at 13.601 billion bushels, 4% down from the record high last marketing year. Historically, 2015/16 corn production is the third largest U.S. corn production (see Figure 1). The 2015/16 area harvested for corn declined 3% to 80.7 million acres compared to the previous year, and the average yield was estimated at 168.4 bushels/acre, down 2.6 bushels/acre from the 2014/15 marketing year.

USDA/NASS data indicate that 2015/16 Iowa corn production was pegged at 2.506 billion bushels, up 6.0% from the previous year and represented 18% of the U.S. corn production, making Iowa the largest corn producer in the country this marketing year. 2015/16 Iowa's corn harvested area decline 2% to 13.050 million acres compared to 2014/15; Iowa corn harvested area this marketing year comprised 16% of the U.S. total corn harvested area. 2015/16 Iowa corn yield at 192 bushels/acre was up 8% (14 bushels/acre) compared to 2014/15 and represented a record high yield for the state.



Figure 1. U.S. Corn Production and Price

The latest WASDE report also indicates that the projected 2015/16 total corn use will fall 0.4% to 13.570 billion bushels compared to the December 2015 projection, as food, seed, and industrial use is reduced 10 million bushels and projected U.S. corn exports are cut by 50 million bushels to 1.700 billion bushels. The new U.S. corn export projection was lowered due to the slow pace of shipments to date and the strong competition from other large exporters such as Brazil and Argentina.

U.S. corn export share of U.S. corn production fell from 20.2% in 2006/07 to 13.1% in 2014/15. Based on current WASDE projections, this share will continue to decline as the 2015/16 U.S. corn exports are expected to represent 12.5% of the estimated current marketing year corn production. U.S. corn exports are projected to decline 8.8% year-over-year.

As reported by USDA/FAS in the January 2016 *Grain: World Markets and Trade* report, Argentina's price quotes are now the lowest as a result of the Argentine peso devaluation and removal of export taxes and quotas. Brazil's favorable exchange rate is supporting large corn shipments, and as indicated in the USDA/FAS report, January 2016 corn export projection for Brazil for the 2015/16 international trade year (Oct 2015-Sep 2016) shows a 39.4 million bushels increase to 1.378 billion bushels compared to the December 2015 projection.

2015/16 projections for the two main U.S. corn usages, feed and residual (F&R) use and corn used to produce ethanol (see Figure 2) were left unchanged in the January 2016 projections compared to the previous month. The projections indicate that 39% (5.300 billion bushels) and 38% (5.200 billion bushels) of the 2015/16 corn production will be used for F&R use and ethanol production, respectively. If the projections for F&R use and ethanol production use are realized, they will decline slightly from their corresponding 2014/15 estimated quantity used (see Figure 2). As Figure 2 shows, corn used for ethanol production has consistently increased since the beginning of last decade, with the largest expansion occurring after 2006/07. In 2007/08 corn for ethanol production became the second largest outlet for U.S. corn production, leaving U.S. corn for exports in third place. The approval of the Renewable Fuel Standard (RFS) has been instrumental to the growth of U.S. ethanol production. The RFS program was authorized under the Energy Policy Act of 2005 and expanded under the Energy Independence and Security Act of 2007.

Strong demand for ethanol production has contributed to higher corn prices. Since 2007/08 corn prices have widely fluctuated but have increased compared to the pre-RFS program period (see Figure 1). Average corn price/bushel from 2000/01 to 2006/07 was \$2.20 (± \$0.40) compared to \$4.8 (± \$1.00), the average price for the 2007/08 to 2014/15 period. However, it is important to mention that corn price increased to a record high level (\$6.89/bushel) in 2012/2013 due to the reduced corn supply brought by the severe drought in 2012. After 2012/2013 record highs, corn production has put downward pressure on corn prices.

In order to meet the increasing demand for corn for ethanol production, corn producers have adjusted corn planted acreage and continue to adopt technologies that contribute to higher yields. The average corn planted acreage from 2000/01 to 2006/07 was 79.1 (\pm 2.0) million acres, whereas the average planted acreage from 2007/08 to 2015/16 was 90.8 (\pm 4.0) million acres. Likewise, from 2000/01 to 2006/07, on average, corn yield was 143.4 (\pm 10.1) bushels/acre harvested, in contrast to 154.3 (\pm 14.0) bushels/acre harvested, the average corn yield from 2007/08 to 2015/16.



Figure 2. U.S. Corn Use

Based on the latest WASDE projections, the corn balance sheet shows that corn use will decline more than corn supply in 2015/16; therefore, corn ending stocks are projected at 1.802 billion bushels, up 17 million bushels from the December 2015 projection. January 2016 projections for the 2015/16 season-average farm price range is cut 5

cents on each end to \$3.30 to \$3.90 per bushel (mid-value \$3.60/bushel) relative to last month's projection. As indicated by USDA, the new price range signals both weakness in U.S. corn export demand and recent reductions in cash and futures prices. If the 2015/16 price projection is realized, this would be the lowest price since the 2009/10 marketing year (\$3.55/bushel) and would bring narrower operating margins for corn producers.