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Weekly Outlook: Prospects for Corn Consumption from Ethanol Production in 2017

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The U.S. ethanol industry ended 2016 on a high note. Ethanol production for the week ending December 30 set a new ethanol production record with an average of 1.043 million barrels per day. The March futures price for corn moved higher last week to close at $3.58 in large part due to strength in the ethanol sector. Ethanol production and exports returned strong numbers over the first quarter of the marketing year. Currently, the WASDE forecast for corn consumption for ethanol production is 5.3 billion bushels. When taking into account an increase in projected gasoline consumption in 2017 and robust ethanol export levels, the ability to surpass this projection is a strong possibility.

Domestic ethanol consumption in 2017 will be influenced by domestic gasoline consumption, due to the ethanol blending requirement, and the biofuels volume requirement associated with the Renewable Fuels Standard. The EPA final rulemaking for the Renewable Fuels Standard for 2017 was released on November 23 and is discussed in greater detail in this November 30, 2016 *farmdoc daily* article. In brief, the renewable fuels volume requirement is set at 19.28 billion gallons for 2017 which is up from the 18.11 billion gallons required in 2016. The conventional ethanol requirement is set at 15 billion gallons for 2017, 500 million gallons larger than 2016 and equal to the statutory requirement level. If the gasoline consumption forecast used by the EPA is correct, the E-10 blend wall will be 14.36 billion gallons in 2017. The EPA believes an ethanol supply of 14.56 billion gallons is reasonably attainable in 2017. Within the 14.56 billion gallons, E15 and E85 blends are expected to be 107 and 204 million gallons respectively. The ability to attain the E15 and E85 blend levels remains to be seen but the increase in ethanol requirements provides support for greater corn usage in 2017.

U.S. retail gasoline prices averaged $2.14 per gallon in 2016 which is 12% less than the price experienced in 2015 and is the lowest price since 2004. The December Energy Information Agency (EIA) Short Term Energy Outlook projected an increase in gasoline prices for 2017 to $2.30 per gallon. Despite the projection of higher gasoline prices, gasoline consumption is forecast at 143.60 billion gallons in 2017 which is up from the 142.72 billion gallons consumed in 2016. Ethanol production is forecast to be 1 million barrels per day. If the EIA projection is correct, approximately 15.3 billion gallons of ethanol will be produced in 2017. When considering the robust ethanol export trade currently in process, the U.S. ethanol industry is expected to produce a record level of ethanol in 2017.

Ethanol export numbers are available from U.S. Census trade data for 2016 through November. U.S. exports of ethanol thus far are at 948 million gallons which is up almost 27% from the similar period in 2015. For 2016, the prospect of ethanol exports exceeding 1 billion gallons is not unreasonable. Canada, China, and Brazil imported approximately 67% of the ethanol shipped from the U.S. through November. The increase in ethanol exports is driven largely by increased volumes sent to China and Brazil. China imported 179 million gallons through November which far exceeds the 73.8 million gallons imported during the entirety of 2015. Brazil imported 224 million gallons through November which is almost double imports from 2015. As we progress into 2017, the increases are expected to persist in Brazil since high sugar prices are expected to decrease ethanol production as mills allocate cane for sugar production in 2017. There is concern that China could raise ethanol tariffs and reduce ethanol imports in 2017 due to a possible trade dispute with the new administration.

The implications for corn consumption during the 2016-17 marketing year can be seen in the USDA Grain Crushing and Co-Product Production report released on January 3. Grain crushing for fuel alcohol is available through November. For the first three months of the marketing year, 1.34 billion bushels of corn has been processed for ethanol. This is up 3.2% from 2015 processing numbers. If corn used for ethanol production maintains this pace, 5.37 billion bushels will be processed in the marketing year. Using EIA weekly ethanol production numbers, December ethanol production averaged over 1 million barrels per day. These production levels place corn use for ethanol production in a range of 455 to 460 million bushels for the month if corn use maintains the pace of the three previous months. With a conservative estimate of corn crush in December, total corn consumption for ethanol production through the first third of the marketing year would be above the current WASDE projection.

Lower corn prices, strong ethanol exports, and greater blending requirements combine to make 2017 appear to be a strong year for corn consumption in ethanol production. If the U.S. ethanol industry produced over 1 million barrels per day for the entire year, the ability to blend at requirement levels under an expanded gasoline consumption scenario and meet potential export market demand bodes well for corn use in the sector for 2017.

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