



Weekly Outlook: Assessing Corn Demand for Domestic Ethanol Blending

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June 8, 2015

farmdoc daily (5):105

Recommended citation format: Good, D. "[Weekly Outlook: Assessing Corn Demand for Domestic Ethanol Blending](#)" *farmdoc daily* (5):105, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, June 8, 2015.

Permalink <http://farmdocdaily.illinois.edu/2015/06/assessing-corn-demand-domestic-ethanol-blending.html>

The consumption of U.S. corn for ethanol and co-product production increased from an estimated 2.119 billion bushels during the 2006-07 corn marketing year to 5.019 billion bushels during the 2010-11 marketing year. Consumption declined to 4.641 billion bushels with the short corn crop and high corn prices of 2012-13, but is projected at a record 5.2 billion bushels during the current marketing year.

Corn consumption for ethanol and co-product production is driven almost entirely by ethanol demand, not by co-product demand. There are a number of factors at play in determining the demand for domestically produced corn based ethanol so that a number of future scenarios are possible. Those factors include the EPA's annual Renewable Fuels Standards (RFS) and the methods for implementing those standards, the magnitude of domestic motor fuel consumption, the economics of ethanol blending, the quantity of domestic ethanol produced from feed stocks other than corn, and the magnitude of ethanol imports and exports. The EPA's May 19, 2015 announcement of proposed Renewable Fuels Standards for 2014, 2015, and 2016 provides an opportunity to reassess the demand for U.S. corn for domestic ethanol blending.

The RFS for 2014 is obviously being proposed after the fact and reflects production, consumption, and trade conditions that actually unfolded in 2014. The EPA estimates that 13.43 billion gallons of ethanol were used domestically in 2014. The total consisted of an estimated 33 million gallons of cellulosic ethanol, 143 million gallons of advanced ethanol (including imports), and 13.254 billion gallons of conventional ethanol. The proposed RFS for conventional ethanol was set at 13.25 billion gallons

For 2015 the EPA has proposed a conventional ethanol mandate of 13.4 billion gallons, only 146 million gallons higher than actual consumption in 2014. The modest increase reflects expectations that total gasoline consumption will increase by about 1.4 percent, but the ethanol inclusion rate will decline from 9.84 percent in 2014 to 9.66 percent in 2015 so that the effective blend wall declines from 13.43 billion gallons in 2014 to 13.36 billion gallons in 2015. If cellulosic and other advanced ethanol consumption reaches 282 million gallons, the effective blend wall would limit consumption of conventional ethanol to only 13.078 billion gallons. The difference between the proposed standard of 13.4 billion gallons and the effective blend wall for conventional ethanol of 322 million gallons would represent a gap that would have to

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be met by a combination of consumption of gasoline with higher ethanol blends (E15 or E85), consumption of additional advanced biofuels (biodiesel), and use of some RINs stocks.

For 2016 the EPA projects the effective ethanol blend wall at 13.46 billion gallons. If consumption of cellulosic and other advanced ethanol reaches 406 million gallons, the effective blend wall would limit consumption of conventional ethanol to only 13.054 billion gallons. The difference between the proposed standard of 14 billion gallons and the effective blend wall for conventional ethanol would leave a gap of 946 million gallons to be met with higher ethanol blends, advanced biofuels, or RINs stocks. The EPA projections for 2015 and 2016 suggest that increases in domestic consumption of conventional ethanol above that of 2014 will depend on the ability of higher ethanol blends to compete with alternatives for meeting the gap between the mandated levels of consumption and the lower effective 10 percent blend wall for conventional ethanol.

Another factor, however, may influence the amount of conventional ethanol used in domestic blending in 2015 and 2016. While the EPA establishes the standards for conventional ethanol in volumetric terms (13.4 billion gallons in 2015 and 14 billion gallons in 2016) those standards are enforced on the basis of expected gasoline consumption. That is, obligated parties are required to blend ethanol at a rate that will reach the volumetric standard if the projection of gasoline consumption is correct. If gasoline consumption differs from the projected level, ethanol consumption would also be expected to differ from the volumetric standard. As pointed out in the farmdoc daily article of [June 3, 2015](#) domestic gasoline consumption so far in 2015 is at a higher rate than projected in the May 19 EPA proposal. If that higher rate continues, and the provisions of the proposed standards are not altered, conventional ethanol consumption would be expected to exceed the minimum of 13.078 billion gallons for 2015. Alternatively, if the EPA increases the projection of gasoline consumption in the final rule making, but leaves the magnitude of the projected conventional gap unchanged, the magnitude of the volumetric standard would be expected to be increased.

At this juncture, it appears that domestic consumption of conventional ethanol in 2015 and 2016 will likely not decline from the 13.254 gallons consumed in 2014 if domestic gasoline consumption remains robust. Additionally, export demand for ethanol is expected to remain at or above the 850 million gallons of 2014. Exports during the first four months of 2015 pointed to annual exports over 900 million gallons.

The demand for corn for ethanol production appears to be on solid footing for the next 18 months. While growth may be limited, a set-back is not expected.