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Weekly Outlook: An Estimate of March 1 Corn Stocks

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On March 29, the USDA releases the Quarterly Grain Stocks report. It delivers an estimate of corn stocks in storage as of March 1, 2018. This estimate provides the ability to calculate the extent of feed and residual use of corn during the second quarter of the marketing year. The report provides insight into the pace of feed and residual use during the entire marketing year and information on the potential size of corn ending stocks.

Estimates of corn stocks at the beginning of the second quarter totaled 12.516 billion bushels in the December Grain Stocks report. Currently, the Census Bureau estimates for corn imports are available through January. An estimate for second quarter corn imports of 9 million bushels appears reasonable and is used in this analysis. A combination of imports with beginning stocks indicates a total available supply for the second quarter of 12.525 billion bushels.

Except for feed and residual use, consumption levels for other corn consumption categories are available from a variety of sources. The Grain Crushing and Co-Products Production report released on March 1 estimated corn used for ethanol and co-product production during December and January at 964 million bushels. Weekly estimates of ethanol production provided by the Energy Information Administration indicates ethanol production increased by one percent in February 2018 from the preceding year. By calculating the amount of corn used to produce ethanol from these February numbers, corn used for ethanol production in February was approximately 428 million bushels. At 1.392 billion bushels, total use for ethanol production during the second quarter outpaces last year's use by 21 million bushels.

Corn used to produce other food and industrial products during the current marketing year is projected at 1.47 billion bushels by the USDA. Using historical corn use data, typically around 49 percent of the final marketing year food and industrial products use occurs in the first half of the marketing year. If this historical pattern holds and the USDA projection is correct, corn use for the first half of the marketing year totaled 720 million bushels. Corn use during the first quarter equaled 354 million bushels which set the second quarter use estimate at 366 million bushels.

An estimate of corn exports during the second quarter can be established from the cumulative weekly export inspections estimate available through February for the marketing year. Cumulative marketing year export inspections through February totaled 739 million bushels. During the first four months of the marketing year, total Census Bureau corn exports exceeded cumulative export inspections by 62 million

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bushels. Assuming the margin stayed consistent through February, corn exports during the first half of the year equaled 801 million bushels. Since exports in the first quarter totaled 349 million bushels, the estimate for second quarter corn exports equals 452 million bushels.

The current USDA projection for feed and residual use sits at 5.55 billion bushels. Feed and residual use projections have increased by 100 million bushels since last August. However, in January, the projection was lowered by 25 million bushels due to the disappearance associated with the December 1 stocks report. The historical pattern of feed and residual use in corn may provide some indication of the second quarter use. For the five previous marketing years, use during the first half of the marketing year ranged from 69.5 – 72.9 percent with an average of 71.6 percent. Second quarter feed and residual use ranged from 25 - 29 percent of the total use over this time span. For this analysis, the 71.6 percent average during the first half of the previous five marketing years is used to calculate expected feed and residual use during the second quarter. If the USDA projection is correct, feed and residual use during the first half of the marketing year totaled 3.974 billion bushels. Feed and residual use equaled 2.298 billion bushels in the first quarter. Therefore, the second quarter estimate totals 1.676 billion bushels.

By adding the estimates for exports and domestic uses, the total use of corn during the second quarter is 3.886 billion bushels. The total use estimate for the second quarter places March 1 corn stocks at 8.639 billion bushels. At this level, March 1 stocks come in 17 million bushels above last year's corn stocks estimate.

The planting intentions estimates released on the same day in the Prospective Plantings report should attract more attention than the information provided in the Quarterly Grain Stocks report. Despite being overshadowed, the quarterly stocks report establishes a basis for the magnitude of stocks that are considered neutral for corn prices. A corn stocks estimate that supports the USDA projection of 5.55 billion bushels of feed and residual use is neutral. An estimate of March 1 corn stocks that deviates significantly from 8.64 billion bushels provides insight into whether feed and residual use is on track to meet the current marketing year projection.

YouTube Video: Discussion and graphs associated with this article at https://youtu.be/kL_8tOdi-DU