U.S. GRAINS COUNCIL

Summary of the U.S. Grains Council *2016/2017 Corn Harvest Quality Report*

In December 2016, the U.S. Grains Council released its sixth annual Corn Harvest Quality Report. This report showed that 87.8 percent of U.S. corn samples were rated at U.S. grade No. 2 or better. The good quality was largely the result of a warm, dry vegetative period, followed by a warm and wet grain-filling period and harvest. The report showed that the 2016 U.S. corn crop entered the market channels with the following key characteristics:

HARVEST GRADE FACTORS AND MOISTURE

- Average test weight of 58.3 pounds per bushel (75.0 kilograms per hectoliter), with 94.9 percent above the limit for U.S. No. 1 grade corn. Slightly higher than 2015 and 5YA[1], this test weight indicates good kernel filling and maturation.
- Low levels of broken corn and foreign material (average of 0.7 percent), with 96.6 percent below the limit for U.S. No. 1 grade, indicating little cleaning will be required.
- Average total damage of 2.6 percent, with 89.3 percent below the limit for U.S. No. 2 grade.
- No observed heat damage.
- Average elevator moisture of 16.1 percent, which indicates slightly more samples required drying than 2015, but still less than 2014.

HARVEST CHEMICAL COMPOSITION

- Average protein concentration of 8.6 percent (dry basis), higher than 2015.
- Average starch concentration of 72.5 percent (dry basis).
- Average oil concentration of 4.0 percent (dry basis), higher than 2015, 2014, and 5YA.

HARVEST PHYSICAL FACTORS

- Low percentage of stress cracks (4 percent) and low stress crack index (8.8), slightly higher than 2015, but below 2014 and 5YA. The low levels are likely due to excellent field dry down conditions at harvest with little artificial drying.
- 100-kernel weight average of 35.20 grams, higher than 2015, 2014, and 5YA, signifying larger kernels than in previous years.
- Average kernel volume of 0.28 cubic centimeters, which was slightly higher than kernel volumes in 2015, 2014, and 5YA (all 0.27 cubic centimeters).

[1]5YA represents the simple average of the quality factor's average from the *2011/2012, 2012/2013, 2013/2014, 2014/2015,* and *2015/2016 Corn Harvest Quality Reports*.

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- Average kernel true density of 1.258 grams per cubic centimeter, slightly higher than 2015, similar to 2014, and lower than 5YA.
- Average percentage of horneous (hard) endosperm of 79 percent, the same as 2015.
- Whole kernel percentage, on average, was 95.2 percent, which was higher than 2015, 2014, and 5YA. The high percentage of whole kernels indicates the corn should have fewer broken kernels during handling than in previous years.

HARVEST MYCOTOXINS

- All but one sample, or 99.4%, of the 2016 corn samples tested below the U.S. Food and Drug Administration (FDA) action level (20 parts per billion) for aflatoxins.
- 100% of the 2016 corn samples tested below the U.S. FDA advisory level (5.0 parts per million for hogs and other animals; 10 parts per million for chicken and cattle) for DON (deoxynivalenol or vomitoxin).

2016/2017 CORN CROP PRODUCTION

The U.S. Department of Agriculture (USDA) World Agricultural Supply and Demand Estimate (WASDE) report released in November 2016 estimates U.S. corn production at 386.8 million metric tons (15.2 billion bushels) in 2016, a 7.11 percent increase in production over the record 2014 crop year. The United States is the top exporter of corn, with an estimated 39.2% of global corn exports during the 2016/2017 marketing year.

VIEW THE FULL REPORT ONLINE

The full report provides more details on these characteristics and the tests used to assess them. Please visit www.grains.org to view the report in its entirety.

ABOUT THE U.S. GRAINS COUNCIL

The U.S. Grains Council is a private, non-profit partnership of farmers and agribusinesses committed to building and expanding international markets for U.S. sorghum, barley, corn, and their co-products, including ethanol. The Council is headquartered in Washington, D.C., and has 10 international offices that oversee programs in more than 50 countries.