



Summary of the U.S. Grains Council's 2015/2016 Corn Export Cargo Quality Report

In April 2016, the U.S. Grains Council released its fifth annual *Corn Export Cargo Quality Report*. This report showed that the aggregate averages for the 2015/2016 export cargo samples were better than or equal to U.S. No. 2 or better on all grade attributes. Notable quality attributes found in the survey include:

Export Cargo Grade Factors and Moisture

- Average test weight of 57.3 pounds per bushel (73.7 kilograms per hectoliter), which is lower than last year and 4YA¹. However, 95 percent of this year's samples were found to be within the range for U.S. No. 1 grade corn, indicating overall good quality.
- Broken kernels and foreign material (BCFM) averaged 3.0 percent, which is similar to 2014/2015 and is equal to the maximum limit for U.S. No. 2 grade corn. Predictably, BCFM increased as the crop moved from harvest through the market channel to export, from 0.8% to 3.0%.
- The samples showed lower levels of total damage (average of 1.9 percent) than 2014/2015, with 99 percent within the range for U.S. No. 2 grade.
- There was negligible observed heat damage, indicating good management of drying and storage of corn throughout the market channel.
- Average moisture content was 14.4 percent for the export cargo samples, which was lower than 2014/2015, but same as 4YA.

Export Cargo Chemical Composition

- The samples had an average protein concentration of 7.8 percent (dry basis), which is lower than 2014/2015, 4YA, and the 2015 harvest average.
- The average starch concentration of 73.9 percent (dry basis) was higher than 2014/2015, 4YA, and the 2015 harvest average.
- The samples had an average oil concentration of 3.9 percent (dry basis), which is similar to 2014/2015, but higher than 4YA and the 2015 harvest samples.
- Average protein concentrations were higher for the Pacific Northwest ECA (8.4%) than for the Gulf (7.7%) and Southern Rail (7.7%) ECAs. Average protein concentrations have been consistently higher for the Pacific Northwest ECA than the other two ECAs for each of the last two years and 4YA.

Export Cargo Physical Factors

- Average stress cracks (6%) was lower than 2014/2015 and 4YA (12%). The majority of the export samples (96.8%) had less than 15% stress cracks, which should indicate low rates of breakage during handling.
- Lower kernel volume and 100-kernel weight were found in 2015/2016 than in 2014/2015, which indicates smaller kernel sizes in 2015/2016 corn exports than in the previous year.
- The Gulf ECA has the highest true density of the three ECAs for 2015/2016 and 4YA.
- Lower true density (1.275 g/cm³) and horneous endosperm (80%), indicating softer corn in 2015/2016 than in previous years.

¹ 4YA represents the simple average of the quality factor's average from the 2011/2012, 2012/2013, 2013/2014, and 2014/2015 *Export Cargo Reports*.

- Whole kernels (89.5%) were higher in 2015/2016 than in 2014/2015 and 4YA. The relatively high percentage of whole kernels, accompanied by low stress cracks, should be favorable for storability.

Export Cargo Mycotoxins

- All of the 2015/2016 export cargo samples tested below the U.S. Food and Drug Administration (FDA) mycotoxin action level of 20 parts per billion.
- 100 percent of the export cargo samples tested below the U.S. FDA advisory levels for DON (5.0 parts per million for hogs and other animals; 10 parts per million for chicken and cattle).

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.

More About the 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.