In April 2019, the U.S. Grains Council released its eighth annual Corn Export Cargo Quality Report. This report reflects the test results of the 436 export cargo samples and indicates that the aggregate averages for the 2018/2019 export cargo samples rated at U.S. grade No. 2 or better on all grade factors. Notable U.S. Aggregate quality attributes found in the survey are discussed by this summary and displayed in the infographic below:

### EXPORT CARGO GRADE FACTORS AND MOISTURE

- **Test Weight**
  - Same average test weight (57.4 pounds per bushel or 73.9 kilograms per hectoliter) as 2017/2018. Approximately 84.4 percent of samples were at or above the limit for U.S. No. 1 grade corn, indicating overall good quality.

- **Broken Corn and Foreign Material (BCFM)**
  - Same average BCFM (2.9%) as 2017/2018 and slightly lower than the 5YA and the maximum limit for U.S. No. 2 grade (3.0 percent). BCFM predictably increased from 0.7 to 2.9%, as the crop moved from harvest through the transport process to export.

- **Total Damage**
  - Higher average total damage (2.6 percent) than 2017/2018 (1.9 percent). The majority (94.7 percent) of the samples were within the limit for U.S. No. 2 grade.

- **Moisture**
  - Slightly lower average moisture (14.5 percent) than 2017/2018 and the 5YA (both 14.4 percent).

- **Negligible observed heat damage**, indicating good management of drying and storage of corn throughout the marketing channel.

### EXPORT CARGO CHEMICAL COMPOSITION

- **Protein concentration**
  - Slightly lower average protein concentration (8.5 percent dry basis) than 2017/2018 (8.6 percent dry basis) but same as the 5YA.

- **Starch concentration**
  - Slightly higher average starch concentration (72.3 percent dry basis) than 2017/2018 (72.1 percent dry basis) but lower than the 5YA (73.2 percent dry basis).

- **Oil concentration**
  - Slightly lower average oil concentration (4.0 percent dry basis) than 2017/2018 but slightly higher than the 5YA (4.1 and 3.9 percent dry basis, respectively).

---

5YA represents the simple average of the previous five years of the quality factor’s average from the 2013/2014, 2014/2015, 2015/2016, 2016/2017 and 2017/2018 Corn Export Cargo Quality Reports.
**EXPORT CARGO PHYSICAL FACTORS**

- Lower average stress cracks (7 percent) than 2017/2018 (9 percent) and the 5YA (10 percent). The majority of export samples (88.5%) had less than 15% stress cracks.

- Lower average stress crack index (16.2) than 2017/2018 (22.4) and the 5YA (25.1). This year's lower stress crack index and stress crack percentages compared to 2017/2018 and the 5YA may be due, in part, to lower average moisture at harvest.

- Higher average 100-kernel weight (36.17 grams) than 2017/2018 (36.07 grams) and the 5YA (35.42 grams), indicating heavier kernels in 2018/2019 than last year and the 5YA.

- Same average kernel volume (0.28 cubic centimeters) as 2017/2018 and the 5YA.

- Slightly higher average kernel true density (1.288 grams per cubic centimeter) than 2017/2018 and the 5YA (1.287 and 1.286 grams per cubic centimeter, respectively).

- Higher average percent of whole kernels (85.2 percent) than 2017/2018 (84.4 percent) but lower than the 5YA (87.8 percent).

- Higher average horneyous endosperm (82 percent) than 2017/2018 and the 5YA (both 81 percent).

**EXPORT CARGO MYCOTOXINS**

- All of the export samples tested below the U.S. Food and Drug Administration (FDA) action level (20 parts per billion) for aflatoxins. The proportion of samples with no detectable levels of aflatoxins was 95.9 percent, slightly higher than in the 2017/2018 samples (93.3 percent).

- All of the export samples tested below the 5 parts per million FDA advisory level for deoxynivalenol (DON or Vomitoxin). The proportion of samples with no detectable levels of DON was 85.6 percent, slightly lower than in last year's samples (88.6 percent).

---

**View the Full Report Online in Early April**

The full report will provide details on these characteristics and the tests used to assess them. Please visit [www.grains.org](http://www.grains.org) in early April 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 14 international offices that oversee programs in more than 50 countries.