

In March 2022, the U.S. Grains Council released its eleventh annual Corn Export Cargo Quality Report. This summary reflects the test results of the 430 export cargo samples tested in the survey. Favorable growing season conditions experienced by the 2021 U.S. crop likely benefitted the quality of the corn assembled for export early in the 2021/2022 marketing year. Reflecting this impact, the average aggregate quality of the corn samples tested for this year's report was better than or equal to U.S. No. 2 on all grade factors. In addition, only two samples tested above the U.S. Food and Drug Administration (FDA) action level for aflatoxin, and all samples tested below the FDA advisory level for deoxynivalenol (DON) or vomitoxin. Quality factor results are summarized below:

EXPORT CARGO GRADE FACTORS

- Average **test weight** (58.0 pounds per bushel or 74.7 kilograms per hectoliter) was higher than 2020/2021 and the 5YA.¹ Approximately 99.8 percent of samples were at or above the minimum requirement for U.S. No. 1 grade corn (56.0 pounds per bushel or 72.1 kilograms per hectoliter), indicating overall good quality.
- Average broken corn and foreign material (**BCFM**) (2.8 percent) was the same as 2020/2021 and similar to the 5YA (2.9 percent), with 63.8 percent of the samples at or below the limit for U.S. No. 2 grade.
- Average **total damage** (3.1 percent) was higher than 2020/2021 (2.3 percent) and the 5YA (2.5 percent). The proportion of samples below the maximum limit for U.S. No. 1 grade this year (64.0 percent) was between 2020/2021 and 2019/2020, when 75.7 percent and 59.8 percent of samples were at or below this maximum limit, respectively.
- Average **heat damage** of 0.0 percent was the same as 2020/2021 and the 5YA. Only one of this year's samples tested above 0.0%.

EXPORT CARGO CHEMICAL COMPOSITION

- Average **protein** concentration (8.6 percent dry basis) was higher than 2020/2021 and the 5YA (8.4 and 8.5 percent, respectively).
- Average **starch** concentration (72.0 percent dry basis) was lower than 2020/2021 and the 5YA (72.1 and 72.2 percent, respectively).
- Average **oil** concentration (3.9 percent dry basis) was higher than 2020/2021 but lower than the 5YA (3.8 and 4.0 percent, respectively).

EXPORT CARGO PHYSICAL FACTORS

- Average **stress cracks** (8.4 percent) were lower than 2020/2021 (10.6 percent) but similar to the 5YA (8.6 percent).
- Average **100-kernel weight** (36.00 grams) was lower than 2020/2021 (37.01 grams) but the same as the 5YA.
- Average **kernel volume** (0.28 cubic centimeters) was lower than 2020/2021 (0.29 cubic centimeters) but the same as the 5YA.
- Average kernel **true density** (1.277 grams per cubic centimeter) was the same as 2020/2021 but lower than the 5YA (1.283 grams per cubic centimeter).
- Average percent **whole kernels** (86.3 percent) was higher than 2020/2021 and the 5YA (83.2 and 83.7 percent, respectively).
- Average **horneous endosperm** (84 percent) was higher than 2020/2021 and the 5YA (80 and 81 percent, respectively).

¹5YA represents the simple average of the quality factor's averages from the 2016/2017, 2017/2018, 2018/2019, 2019/2020 and 2020/2021 Corn Export Cargo Quality Reports.

EXPORT CARGO MYCOTOXINS

- All but two of the samples (98.9 percent) tested below the U.S. Food and Drug Administration (FDA) action level (20.0 parts per billion) for **aflatoxins**. The proportion of samples lower than the Federal Grain Inspection Service (FGIS) Lower Conformance Limit for aflatoxin (5.0 parts per billion) was also 97.3 percent, similar to 2020/2021 and 2019/2020 (98.3 and 96.3 percent, respectively).
- One hundred percent of the samples tested below 1.5 parts per million for deoxynivalenol (**DON or Vomitoxin**), a higher proportion than 2020/2021 and 2019/2020 (95.6 and 98.3 percent, respectively). All samples have also tested below the FDA advisory level of 5.0 parts per million the last three years.
- Of the samples tested for **fumonisin**, 100.0 percent tested below the FDA's strictest guidance level of 5.0 parts per million, similar to 2020/2021 (99.4 percent) and higher than 2019/2020 (93.3 percent).



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VIEW THE FULL REPORT ONLINE IN DECEMBER

The full report will provide 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. With full-time presence in 28 locations, the U.S. Grains Council operates programs in more than 50 countries and the European Union.