

In November 2020, the U.S. Grains Council released its tenth annual *Corn Harvest Quality Report*, reflecting the test results of 601 samples collected from inbound farm-originating trucks at harvest. The favorable growing season conditions in 2020 impacted the overall quality of the crop throughout the growing season. The average aggregate quality of the representative samples tested for the *Corn Harvest Quality Report* was better than the grade factor requirements for U.S. No. 1 grade. The report also showed that 84.7% of the samples met the grade factor requirements for U.S. No. 1 grade and 94.5% met the grade factor requirements for U.S. No. 2. Relative to each quality factor's average of the previous five crops (5YA¹), the 2020 U.S. corn crop is entering the market channel with a higher average test weight and lower moisture and total damage. The report's full test results are summarized below by quality factor:

HARVEST GRADE FACTORS AND MOISTURE

- Higher **test weight** (58.7 pounds per bushel or 75.5 kilograms per hectoliter) than 2019 and the 5YA. Approximately 94.8 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.
- Lower average broken corn and foreign material (**BCFM**) (0.8 percent) than 2019 (1.0 percent) but same as the 5YA. While the average is the same as the 5YA, 98.5 percent of the samples were at or below the limit for U.S. No. 2 grade.
- Lower average **total damage** (1.1 percent) than 2019 (2.7 percent) and the 5YA (1.9 percent). The proportion of samples below the maximum limit for U.S. No. 1 grade this year (91.5 percent) was higher than in 2019 and 2018, when 73.5 percent and 88.5 percent of samples were at or below this maximum limit, respectively.
- Average **heat damage** of 0.0 percent was the same as 2019 and the 5YA. Only one sample in the survey tested above 0.0 percent. That sample had 0.1 percent heat damage.
- Lower average **moisture** content (15.8 percent) than 2019 and the 5YA (17.5 and 16.4 percent, respectively).

HARVEST CHEMICAL COMPOSITION

- Higher average **protein** concentration (8.5 percent dry basis) than 2019 and the 5YA (8.3 and 8.4 percent dry basis, respectively).
- Lower average **starch** concentration (72.2 percent dry basis) than 2019 and the 5YA (72.3 and 72.6 percent dry basis, respectively).
- Lower average **oil** concentration (3.9 percent dry basis) than 2019 and the 5YA (4.1 and 4.0 dry basis, respectively).

HARVEST PHYSICAL FACTORS

- Lower average **stress cracks** (6 percent) than 2019 (9 percent) but higher than the 5YA (5 percent).
- Lower average **100-kernel weight** (34.53 grams) than 2019 and the 5YA (34.60 and 35.06 grams, respectively).
- Lower average **kernel volume** (0.27 cubic centimeters) than 2019 and the 5YA (both 0.28 cubic centimeters).
- Similar average kernel **true density** (1.255 grams per cubic centimeter) to the 5YA (1.257 grams per cubic centimeter).
- Higher average percent **whole kernels** (92.5 percent) than 2019 (90.8 percent) but slightly lower than the 5YA (92.8 percent).
- Same average **horneous endosperm** (81 percent) as 2019 and higher than the 5YA (80 percent).

¹5YA represents the simple average of the quality factor's averages from the 2015/2016, 2016/2017, 2017/2018, 2018/2019 and 2019/2020 *Corn Harvest Quality Reports*.



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HARVEST MYCOTOXINS

- All but one of the samples tested (99.4 percent) 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 99.4 percent, higher than 2019 and 2018 (98.9 and 97.8 percent respectively).
- One hundred percent of the samples tested below the 5.0 parts per million FDA advisory level for deoxynivalenol (**DON or Vomitoxin**). The proportion of samples lower than the FGIS Lower Conformance Limit for DON (0.5 parts per million) was 82.2 percent, higher than 2019 and 2018 (59.9 and 74.6 percent, respectively).

- Of the samples tested for **fumonisin**, or 98.9 percent tested below the FDA's strictest guidance level of 5.0 parts per million, higher than in 2019 (85.7 percent).

CORN CROP PRODUCTION

- The U.S. Department of Agriculture (USDA) World Agricultural Supply and Demand Estimate (WASDE) report released in November 2020 estimates U.S. corn production at 368.49 million metric tons (14.507 billion bushels) in 2020, a 6.5 percent increase in production from the 2019 crop.
- The United States is the top exporter of corn, with an estimated 36.4 percent of global corn exports during the 2020/2021 marketing year.



U.S. GRAINS COUNCIL

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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 in December 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.