Summary of the U.S. Grains Council’s 2015/2016 Sorghum Harvest & Export Cargo Quality Report

In February 2016, the U.S. Grains Council released its first annual Sorghum Harvest & Export Cargo Quality Report. This report showed that the 2015 early and late harvest samples were, on average, very good, with 94 percent grading U.S. No. 2 or better. This high quality was largely the result of favorable sorghum growing and harvest conditions, which also enabled high yields. The report showed the following key characteristics:

Harvest Grade Factors and Moisture
- Average test weight of 58.9 pounds per bushel (75.9 kilograms per hectoliter), with 97 percent of the samples within the range for U.S. No. 2 grade sorghum.
- Low levels of broken kernels and foreign material (BNFM) (average of 1.7 percent), with 91 percent of the samples within the range for U.S. No. 1 grade.
- The samples had an average foreign material of 0.6 percent, which is within the range for U.S. No. 1 grade, indicating little cleaning will be required.
- The samples showed low levels of total damage (average of 0.1 percent), with 99 percent within the range for U.S. No. 1 grade.
- There was no observed heat damage, which was expected for farm-originated samples.
- The average moisture at the elevator was 14.1 percent for the samples, which is near optimum for harvest moisture.

Harvest Chemical Composition
- The samples had an average protein concentration of 10.9 percent (dry basis), which is within the range of typical protein concentration values for U.S. sorghum hybrids.
- There was an average starch concentration of 73.2 percent (dry basis) found in the samples, which is a typical level for sorghum.
- The samples had an average oil concentration of 4.5 percent (dry basis), which is within the range of typical oil concentration values for U.S. sorghum hybrids.
- There was no detected levels of tannins found within the samples.

Harvest Physical Factors
- The samples had an average kernel diameter of 2.53 millimeters and average 1,000-kernal weight (TKW) of 26.30 grams, which are typical values for sorghum.
- There was an average kernel true density of 1.359 grams per cubic centimeter for the samples, which is within the range for feed sorghum.
- The samples had an average kernel hardness index of 71.0, which is a typical value for commercial sorghum samples.

Harvest Mycotoxins
- 100 percent of the 2015 sorghum harvest samples tested below the U.S. Food and Drug Administration (FDA) mycotoxin action level of 20 parts per billion.
- 100 percent of the sorghum harvest samples tested below the U.S. FDA advisory levels for DON (5 parts per million for hogs and other animals; 10 parts per million for chicken and cattle).
The 2015/2016 export samples were, on average, very good, with 98 percent grading U.S. No. 2 or better. Notable quality attributes found in the Council’s 2015/2016 Sorghum Harvest & Export Cargo Quality Report include:

**Export Cargo Grade Factors and Moisture**

- The samples had an average test weight of 59.0 pounds per bushel (76.0 kilograms per hectoliter), with 100 percent of the samples within the range for U.S. No. 2 grade sorghum.
- Low levels of broken kernels and foreign material (BNFM) (average of 1.9 percent) were found in the samples, with 96.2 percent within the range for U.S. No. 1 grade.
- Average foreign material of 0.9 percent was found in the samples, with 98.3 percent within the range for U.S. No. 1 grade.
- Low levels of total damage (average of 0.5 percent) were found in the samples, with 99.5 percent within the range for U.S. No. 1 grade.
- There was no observed heat damage in the samples.
- The samples had an average moisture of 13.8 percent, which is an acceptable level for safe storage.

**Export Cargo Chemical Composition**

- The samples had an average protein concentration of 10.8 percent (dry basis), which is in the normal range of typical protein concentration for U.S. sorghum hybrids.
- There was an average starch concentration of 73.0 percent (dry basis) for the samples, which is a typical level for sorghum.
- The samples had an average oil concentration of 4.5 percent (dry basis), which is within the normal range of typical oil concentration values for U.S. sorghum hybrids.
- There were no detected levels of tannins in the samples.

**Export Cargo Physical Factors**

- Average kernel diameter of 2.60 millimeters and average 1,000-kernal weight (TKW) of 27.57 grams, typical values for U.S. sorghum hybrids.
- Average kernel volume of 20.28 cubic millimeters, a value on the lower end of typical values.
- Average kernel true density of 1.360 grams per cubic centimeter, which is within the range of feed sorghum.
- Average kernel hardness index of 71.3, which is a typical value for sorghum samples.

**Export Cargo Mycotoxins**

- 100 percent of the 2015/2016 sorghum export samples tested below the U.S. Food and Drug Administration (FDA) mycotoxin action level of 20 parts per billion.
- 100 percent of the 2015/2016 sorghum export samples tested below the FDA advisory levels for DON (5 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](http://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.