



UNOFFICIAL GRAIN INSPECTION CERTIFICATE
 NDGI
 4150 98th Ave South, Fargo, ND 58104
 PHONE: 7012937420 FAX: 7012418818

ORIGINAL
 NR5292439
 NOT NEGOTIABLE

LEVEL OF INSPECTION:
 Original

ISSUED AT:
 Fargo, ND

DATE OF SERVICE:
 April 11, 2024

IDENTIFICATION:
 P2310

LOCATION:
 University of Minnesota-Forever
 St. Paul, MN

QUANTITY: (this is NOT a weight certificate)
 1 SubmittedLot

DATE SAMPLED
 April 11, 2024

METHOD OF SAMPLING:
 Submitted

TEST WEIGHT

Test weight is the density of the grain sample (i.e., the weight of a known volume: bushel).

Generally, the higher the test weight, the higher the quality of the grain.

MOISTURE LEVEL

Grain moisture is the percent water, based on weight, in the sample.

Percent moisture should be less than 13% to store safely without spoilage.

KIND: Kernza

RESULTS:
 Test Weight 14.9 lb/bu
 Foreign Material 11.3%
 Protein 12.7

Moisture 10.2%
 DON does not exceed 0.5 ppm.
 Aflatoxin not detected.

FOREIGN MATERIAL

The percent of the sample, by weight, that consists of materials *besides* grain (e.g., rocks, soil, straw, weed seeds, etc.).

VOMITOXINS (DON)

Vomitoxin, also known as deoxynivalenol (DON), is a mycotoxin that's a common contaminant in moldy grains like corn and wheat. It's produced by the fungus *Fusarium graminearum*, which causes *Gibberella* Ear Rot (GER) that can contaminate grain in the field. Because vomitoxin is heat stable, it can remain even after cooking.

Food-grade levels of DON in Kernza® must be < 2.0 ppm

In cases where the Kernza® grain test results in too high of DON to be food grade, Kernza® can be used for livestock feed as long as vomitoxin levels are less than 5 ppm.

REMARKS:
 Results based on the CHARM ROSA DONQ2 test kit. Commodity not validated by test kit manufacturer. Results based on CharmROSA test kit. Commodity not validated by test kit manufacturer.

PROTEIN LEVEL

Expressed as the percentage of protein by mass. Protein content is important for determining grain quality. In general, higher protein indicates higher quality grain.

AFLATOXINS

Aflatoxins are a group of toxins produced by certain types of mold that can contaminate agricultural crops and cause cancer in humans and animals. The molds that produce aflatoxins, *Aspergillus flavus* and *Aspergillus parasiticus*, are common in warm, humid regions and can grow in soil, hay, decaying vegetation, and grains. They can contaminate crops during the field, harvest, storage, and processing stages.

Levels of aflatoxin must be <20 ppb

APPLICANT NAME: University of Minnesota-Forever Green
 ISSUING OFFICE: NDGI

I CERTIFY THAT THE SERVICES SPECIFIED ABOVE WERE PERFORMED WITH THE RESULTS STATED
 NAME OR SIGNATURE: