USDA's Federal Grain Inspection Service



Supporting Export Markets for U.S. Agricultural Products



Primary FGIS Roles

- Facilitate the marketing of grain
- Establish official U.S. standards for grains, oilseeds and rice
- Develop sampling and testing methods
- Manage the National Inspection System



FGIS Does Not:

- Market grain
- Mandate quality
- Set grain prices
- Test for GMOs
- Arbitrate disputes



U.S. Grain Standards Act and Agriculture Marketing Act

| USGSA | AMA |
|--|---|
| Barley Canola Corn Flaxseed Oats Rye Sorghum Soybeans Sunflower Seed Triticale Wheat Mixed Grain | Rice Beans (dry edible) Peas Lentils Hops Processed grain products (flour, cornmeal, vegetable oil, etc.) |



USGSA Requirements

- all export grain must be officially inspected and weighed
- all export corn must be tested for aflatoxin
 - buyer and seller may agree to waive requirement for aflatoxin testing



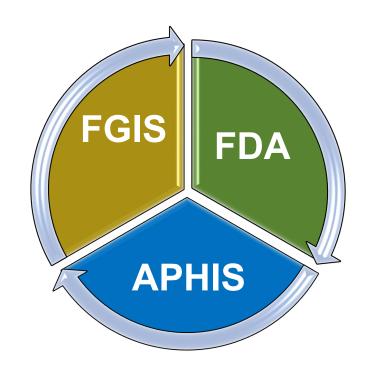
FGIS Partnerships

Food and Drug Administration

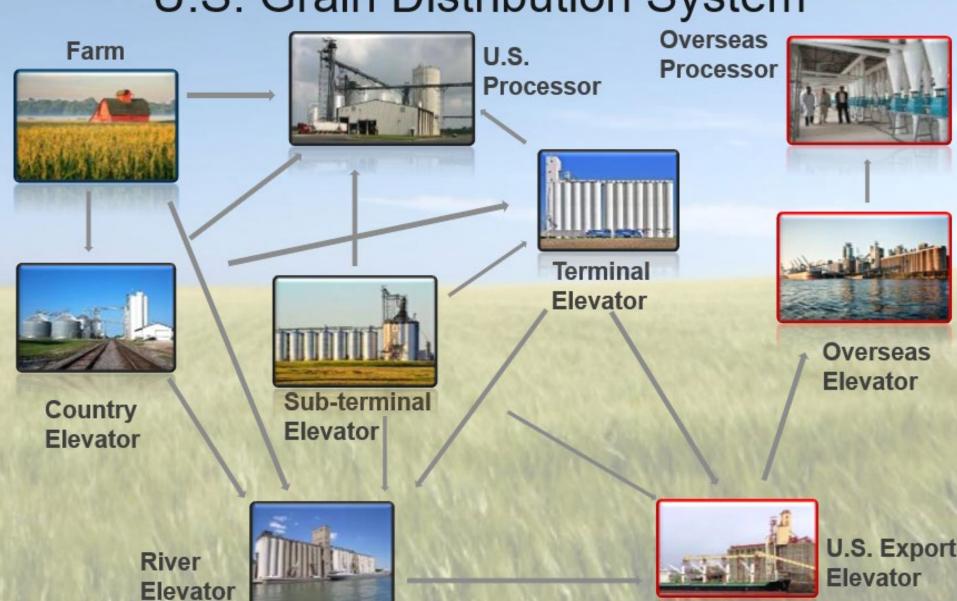
- Prompt reporting of potential violations to FDA
 - Aflatoxin in corn
 - Treated seeds
 - Other harmful substances

USDA's Animal and Plant Health Inspection Service

- FGIS reports insects and other quarantined pests to APHIS
- APHIS issues phytosanitary certificate



U.S. Grain Distribution System



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National Inspection System











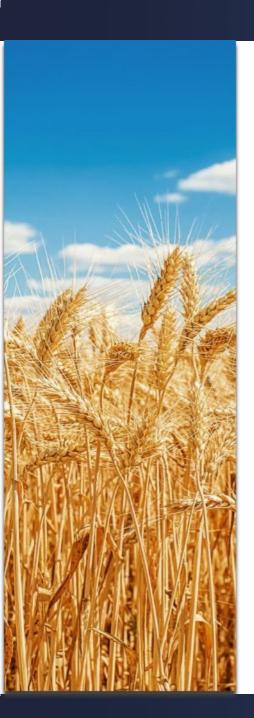
Ensuring Quality

- Quality Assurance Control Program
- Quality Assurance Specialists
- Board of Appeals and Review
- Program Specialists
- Equipment Quality Control
 - Calibrating field instruments
 - Equipment check testing

National Grain Center



- Technology and Science Division (TSD)
 - Central reference point approves and ensures all FGIS methods, equipment and instruments are functioning correctly
- Alignment to central reference is key
 - Board of Appeals and Review (BAR) ensures all service points align to BAR
 - BAR ensures all equipment aligns to master equipment
 - Scientific branches ensure all instrument-based programs align to master instruments



Program Specialists

- Subjective Grading (QAS)
- Equipment check testing
- NIRT (oil/protein/starch)
- Mycotoxin
- Falling Number
- NMR (oilseeds)



Equipment Quality Control

- FGIS tested/approved
- Standardized/calibrated
- Tested against national standard
- Properly maintained
- Tested at prescribed intervals

Calibrating Field Instruments

TSD Reference Methods





CNA Protein Reference Method



Air Oven Reference Method



NIRT Protein – Field Foss Infratec 1241



Dickey-john GAC 2500 UGMA



Perten AM 5200-A

Moisture Meters

Equipment Check Testing













Mycotoxins

Official testing available for:

- Aflatoxin
- Deoxynivalenol (DON or "Vomitoxin")
- Fumonisin
- Ochratoxin A
- Zearalenone



Mycotoxins

Tests offered upon request:

- Non-grade determining
- Approved test kits
- Certification statement depends on test kit and toxin



Aflatoxin

- FGIS requires export corn to be tested for Aflatoxin on a sublot basis* (*unless buyer/seller agree not to test)
- FDA established a 20 ppb action limit for aflatoxin contamination in grains
- FGIS MOU with FDA: report lots that exceeds 20 ppb
- FGIS secures contaminated grain for further FDA testing and disposition



Grain Exports

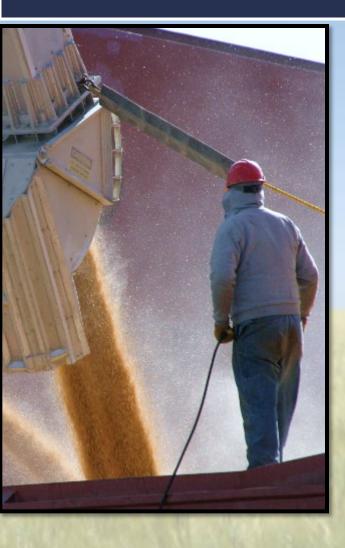
- USGSA requires inspection and weighing of grain exports
- FGIS Services:
 - Stowage exam
 - Weighing
 - Sampling
 - Inspection
 - Certification

Grain Purchase Contracts

- Based on U.S. standards
- More stringent criteria
 May command a
 premium
- Specify FGIS optional services



Load Order



- Quantity
- Quality
- Sublot size

- Options required
- Other pertinent information



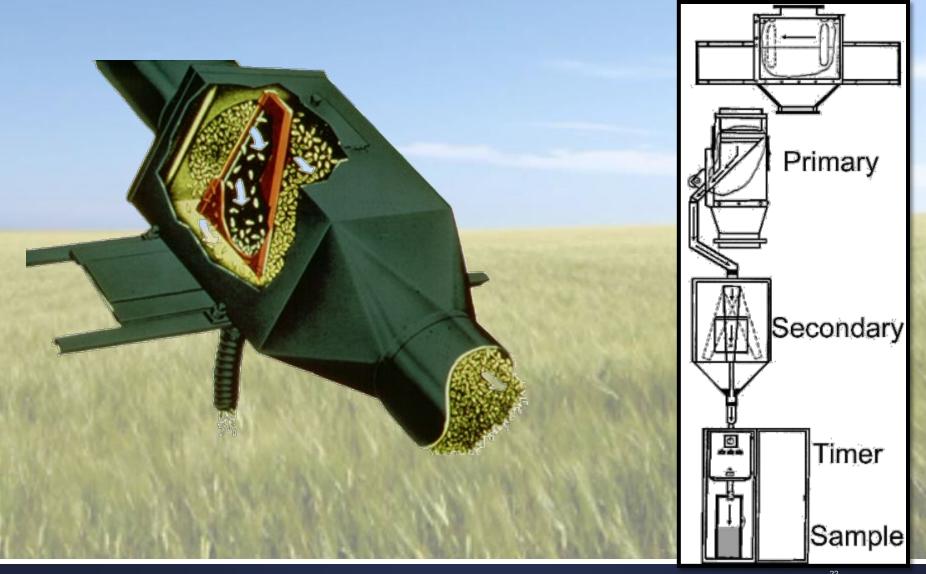
Stowage Examination







Mechanical Sampler (Primary)





Grain Inspection

- Sublot samples examined for:
 - Grade quality factors
 - Insects
 - Odors
 - Other factors

Sublot Breakdown

Sublot Size Up To~2,500 MT

Sublot

Work Portion ~1350 grams

File Sample ~ 1350 grams

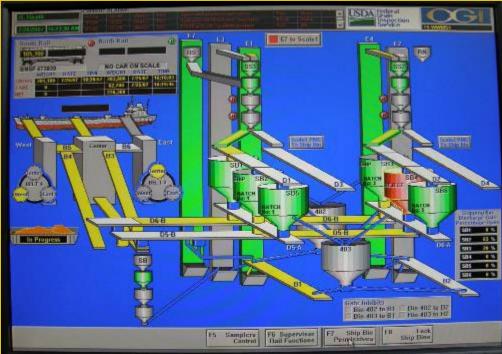
Grade 1000 grams Moisture 350 grams

File samples kept for 90 days for vessels



Monitoring Grain Movement







Monitoring Grain Movement





In-Transit Fumigation



AIR FLOW DIAGRAM Sealed BLOWER Vent 6" PERFORATED/SLOTTED TUBING 4" MINIMUM SOLID PIPE 4" MINIMUM PERFORATED OR SLOTTED TUBING



Official U.S. Inspection Certificates

- Only issued by FGIS-authorized inspection agencies and labs
- Issued under authority of U.S. Grain Standards Act
- Admissible by all courts of the United States as *prima facie* evidence

Stowage Exam Certificate for Vessels

UNITED STATES DEPARTMENT OF AGRICULTURE

American CTASS No. 0590-0013



OFFICIAL STOWAGE EXAMINATION CERTIFICATE

ORIGINAL

US-TOFO-1-****

LEVEL OF INSPECTION: Original

IDENTIFICATION:

ISSUED AT: Maumee, OH

> Export Elevator Somewhere, USA

DATE OF SERVICE: April 23, 2017

12:45

Results: Stowage area examined on the above date and found to be substantially clean, dry, free of insect infestation, and suitable to store or carry grain or commodity.

This certificate is for display purposes only

ISSUING OFFICE: FGIS - Toledo Field Office

NAME OR SIGNATURE: Michael G. Glatzel

Weight Certificate



UNITED STATES DEPARTMENT OF AGRICULTURE U.S. GRAIN STANDARDS ACT

ORIGINAL

US-TOFO-1-*****

OFFICIAL GRAIN WEIGHT CERTIFICATE US CLASS X WEIGHTS

ISSUED AT:

Maumee, OH

DATE OF SERVICE: April 28, 2017

LOCATION:

Export Elevator Somewhere, USA

NET WEIGHT:

43,219,620 Pounds

TYPE OF MOVEMENT: Export

IDENTIFICATION:

START DATE:

April 24, 2017

START TIME: 08:00

FINISH TIME: 20:56

Stowage: Hold Nos. 1, 2, 4, 5, 6.



APPLICANT NAME: *********

ISSUING OFFICE: FGIS - Toledo Field Office

NAME OR SIGNATURE: Ronald E. Bundy

Export Inspection Certificate



UNITED STATES DEPARTMENT OF AGRICULTURE FEDERAL GRAIN NEWCOON SERVICE U.S. GRAIN STANDARDS ACT

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OFFICIAL EXPORT INSPECTION CERTIFICATE

ORIGINAL
US-TOFO-1-*****
NOT NEGOTIABLE

LEVEL OF INSPECTION: Original

IDENTIFICATION: M/V VESSEL NAME ISSUED AT: Maumee, OH

Export Elevator Somewhere, USA DATE OF SERVICE: April 28, 2017

QUANTITY: (this is NOT a weight certificate) 43.219.620 Pounds

GRADE AND KIND:

U.S. No. 5 or better Yellow Corn

RESULTS

Test Weight Per Bushel 56.9 lb/bu Heat-Damaged Kemels 0.0 % Broken Corn 3.7 % Broken Corn And Foreign Material 5.5 % Moisture 14.0 % Damaged Kemels Total 1.6 % Foreign Material 1.8 % Other Colors 0.0 %

REMARKS

Stowage: Hold Nos. 1, 2, 4, 5, 6.

I CORTEM THAT THE SERVICES SHOOFIED ABOVE WERE PERFORMED WITH THE PESULTS STATED

NAME OR SIGNATURE: Ronald E. Bundy

APPLICANT NAME:

ISSUING OFFICE: FGIS - Toledo Field Office



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Foreign Complaint Process

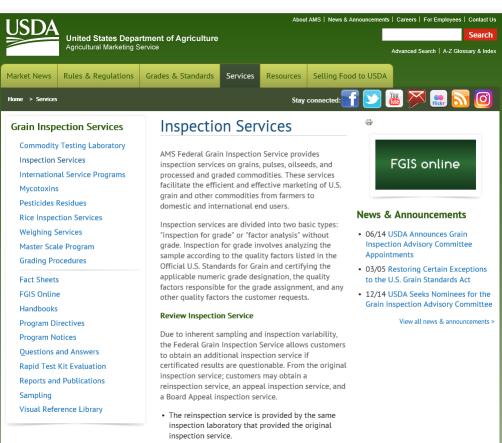
- A party notifies U.S. agricultural officer at U.S. Embassy or IAD
- File samples sent to BAR for review (within 90 days of original inspection)
- May submit destination samples
- IAD issues a report of findings
 Certificates not reissued
- FGIS does not arbitrate disputes



Common Reasons for Discrepancies

- Non-representative sampling at destination
- Poor sample handling
- Different testing methods and interpretation for subjective factors

https://www.ams.usda.gov/services/fgis/inspection-services



 The appeal inspection service is handled at one of the Federal Grain Inspection Service field offices.
 The Board Appeal inspection service, the highest

- Laws and Regulations
- Directives and Notices
- Official U.S. Standards
- Inspection and Weighing
- Grading Procedures
- Mycotoxins
- Test Kit Evaluation
- Handbooks
- Visual Reference Library
- eLearning, eBook and Video Libraries

