



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE



Federal Grain Inspection Service



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U.S. DEPARTMENT OF AGRICULTURE



Federal Grain Inspection Service's Technology and Science Division Updates

American Association of Grain Inspection & Weighing Agencies Annual Meeting



FGIS Technology and Science Division

- **Current initiatives**
- **Monitoring programs and data**
- **Staffing updates**

FGIS Technology and Science Division

- **Imaging technology**
- **Rice industry**
- **2022 FR Notice**
- **2023 CRADA for R&D**

grain **VALUE**TM



FGIS Technology and Science Division

- **Technology Evaluation Process**
- **For official inspection**



FGIS Technology and Science Division

- **Partner with equipment manufacturers**
- **Innovative and advanced instrumentation to support official inspections**



FGIS Technology and Science Division

- **5 year interagency agreement**
- **Analytical methods for pesticides, mycotoxins, vitamins**
- **Cereals, oils, grain-based products**

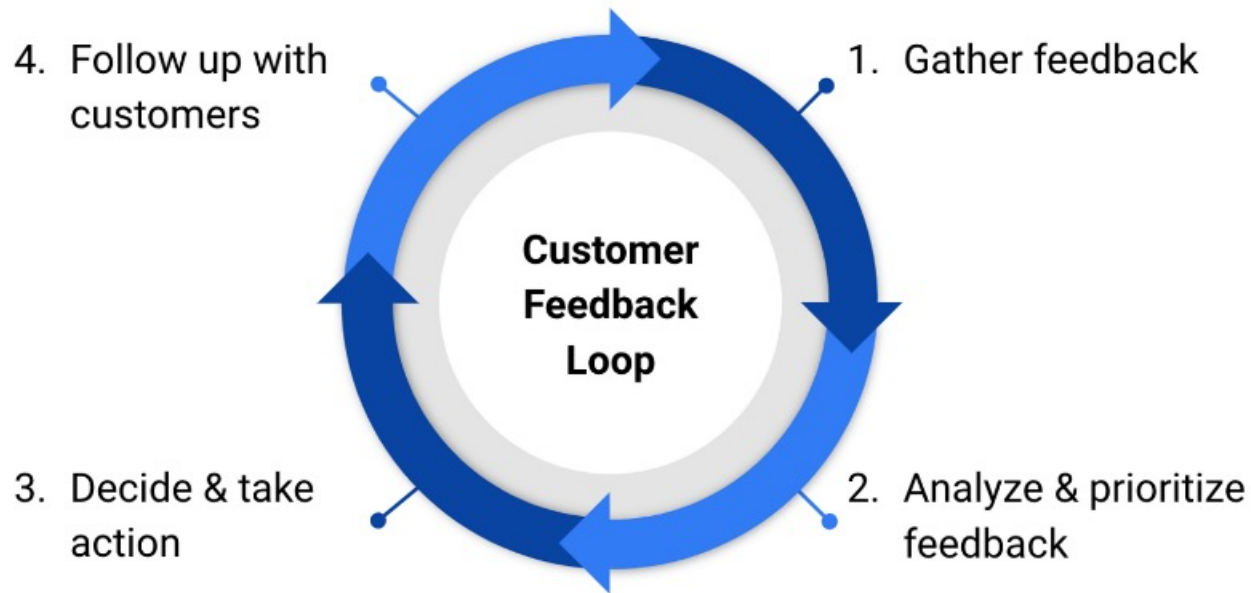


FGIS Technology and Science Division

- **Process improvements**
- **Evaluation of core analytical services**
- **Consistency and efficiency**



FGIS Technology and Science Division



FGIS Technology and Science Division

- **Industry Support--BAR**
 - QAS Seminars
 - Referee Samples
 - Feedback on STEP
 - New Lentil VRI



FGIS Technology and Science Division

- **Referee samples**
 - Training
 - Prepared by the BAR
 - Known values established
 - Feedback to QAS on identifying various damages



FGIS Technology and Science Division

- **Lentil VRI**
 - Updated at request of US Dry Pea and Lentil Council
 - Grades committee review
 - New print live on July 1, 2023

LEN-1.0 INSECT-STUNG DAMAGE



Portion for Analysis: Approximately 125 grams (large seeded) or
Approximately 60 grams (small seeded)

Lentils that have been stung by insects where the damage is distinct and extends into the cotyledon.

A. Weevil Damage. Lentils containing small "pinhole" entrance holes or larger circular exit holes (shown) are considered weevil damage.

B. Insect Damage. Stings from other insect pests (e.g. Lygus Bug) are less pronounced, but significant enough to function as damage.

C/D. Chalky Spot. Pitted, discolored, crater-like depressions in the seed coat (C) must be scraped to confirm the damage extends into the cotyledon, leaving a chalky appearance equal to the minimum size shown (D).

00/00

FGIS Technology and Science Division

LEN-1.0 INSECT-STUNG DAMAGE



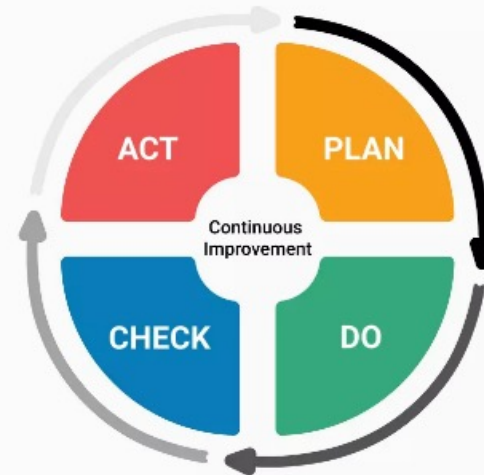
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FGIS Technology and Science Division

- **Monitoring Programs**
 - Moisture Check Test
 - NIRT Protein Monitoring



FGIS Technology and Science Division

- **Moisture Meter Check Test**
 - 2x / year
 - 2023: January 1--April 13
 - 504 samples sent to service points
 - 478 pass; 26 still open (testing or repairs)
 - Meters exceeding tolerance out of service until pass



FGIS Technology and Science Division

- **NIRT**
 - Standard Reference Samples (SRS).
 - Submission of weekly samples by service provider.
 - TSD reports back to service provider



FGIS Technology and Science Division

- **Falling Number Monitoring**
- **Directive 9180.84**
 - Inspection monitoring
 - Check samples
 - Instrument validation



FGIS Technology and Science Division

- **Falling Number**
 - 53 instruments in the official system
 - 1 sample/week
 - 24 of 53!
 - 0.05% difference!



FGIS Technology and Science Division

- **Mycotoxin Inspection
Monitoring**
 - Aflatoxin and
Deoxynivalenol
 - Samples sent to TSD to
test against reference
method



FGIS Technology and Science Division

- **Aflatoxin**
 - Aug 2021-Aug 2022
 - 1352 samples from 45 specific service points
 - 87% of results within action limits
- **DON**
 - April 2021-April 2022
 - 1380 samples from 34 specific service points.
 - 83% of results within action limits

FGIS Technology and Science Division

- **Staffing Updates!**
 - *Inspection Instrumentation Branch*
 - Delaynee Ross; Alyssa Wheeler—lab coordinators
 - *Biotechnology and Analytical Services Branch*
 - Robin Krest and Evan Morris—reference lab and commodity testing lab (CTL)
 - *Analytical Chemistry Branch*
 - Andrew Wessel



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Thank you!

Edward Jhee, Ph.D.

Director, FGIS TSD

816-702-3801

edward.m.jhee@usda.gov

Federal Grain Inspection Service



Quality Assurance and Compliance Division

Karla Whalen, Director FGIS-QACD





QACD Staff



Shawnie Lee, CO



Josh Diaz-Lopez, CO



Ronald White, CO



Andrew Boamah-Agyekum, CO



Yun Tao, Statistician



Ricardo Espitia, CO



Josh Raymond, CO



Tanner Fye, CO



Jake Thein, CO & Acting
Dep Dir



Sophie Parker, Deputy
Director



QACD Website Updates

- Updated [Official Agency Directory](#)
- New interactive [data visualization](#) map
- “Applying for Designation” presentation added to the [Becoming an Official Service Provider’ webpage](#)
- Removed Quality Management Program pages
- Coming soon: Fee schedules, Exceptions Webpage, and updated Directives



New Official Agency Public Directory

USDA FGIS Official Service Provider Directory
05 April, 2023

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<https://www.ams.usda.gov/sites/default/files/media/FGISOfficialServiceProviderDirectory.pdf>
https://fgisonline.ams.usda.gov/F_DDR/default_home_F_DDR.aspx

Missouri Department of Agriculture

Short Name: MO

Territory Name: Jefferson City, Missouri Area

Address: 1616 Missouri Boulevard, Jefferson City, MO 65102

Website: <http://agriculture.mo.gov/>

Grain Manager: Erin Casey-Campbell

Grain Manager Phone: 573-751-5515

Grain Manager Email: MOGIS@mda.mo.gov

Point Of Contact Email(s): MOGIS@mda.mo.gov

Private or State: State

Weighing: Y **Inspection:** Y

Authorization Type:

AMA Cooperative Service Agreement: 10/1/2017 - 9/30/2027

USGSA Delegated: NO

USGSA Designated: 10/1/2022 - 9/30/2027

Example



Fee Schedules

- Oct 2021: Updated Fee Policy: Segregation of Administrative Tonnage (export) and Domestic Supervision Fees
- Fee schedules will be published on the AMS Website
- Intention to Update AMA CSA Fee Schedules to Also Follow Oct 2021 Fee Part Segregation



USGSA Hybrid Audits

- Beginning Fall 2023
- Keokuk (des ends March 2025)
- Michigan (des ends March 2024)
- North Dakota Grain Inspection (des ends Dec. 2025)



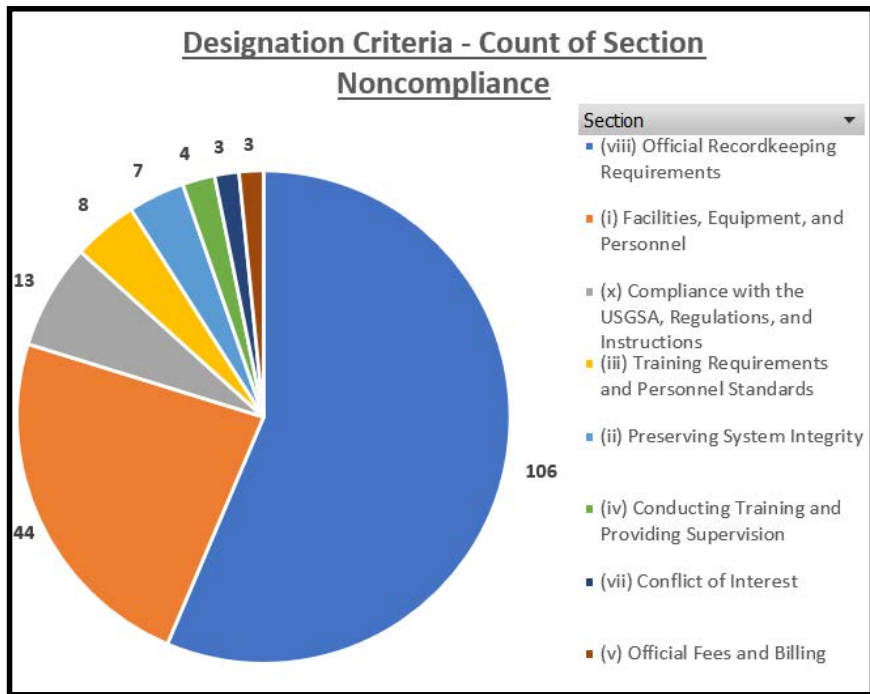


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Audit Finding Trends

Audit Trending*

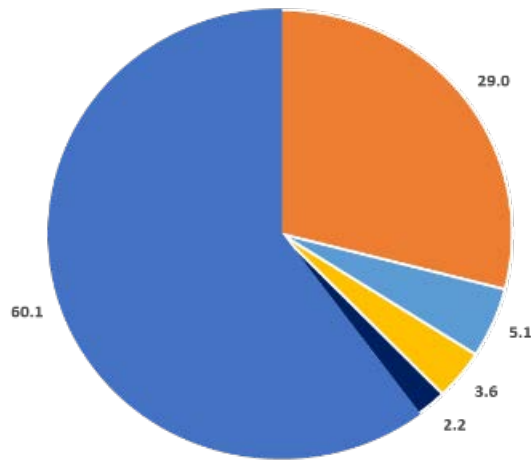


Row Labels	% of Total
(viii) Official Recordkeeping Requirements	56.4
(i) Facilities, Equipment, and Personnel	23.4
(x) Compliance with the USGSA, Regulations, and Instructions	6.9
(iii) Training Requirements and Personnel Standards	4.3
(ii) Preserving System Integrity	3.7
(iv) Conducting Training and Providing Supervision	2.1
(vii) Conflict of Interest	1.6
(v) Official Fees and Billing	1.6
Total	100.0

*Data includes CY 2019-2022 with 3 or more non-compliances

Audit Trending*

Designation Criteria - % Issue Noncompliance



*Data includes CY 2019-2022 with 3 or more non-compliances

Row Labels	% Issue of Total Count
(i) Facilities, Equipment, and Personnel	29.0
E/D Value	27.5
Equipment not tested within required timeframe	25.0
Lab scales not attached	22.5
Lab scales not secured	17.5
Full capacity not half capacity	7.5
(ii) Preserving System Integrity	5.1
Reporting Bribery	100.0
(iii) Training Requirements and Personnel Standards	3.6
SIMS participation rate	100.0
(vii) Conflict of Interest	2.2
Not maintaining FGIS 100s	100.0
(viii) Official Recordkeeping Requirements	60.1
Stowage examination records not maintained	25.3
Not maintaining FGIS 944s	15.7
Fumigation records not maintained	10.8
Volume reports not prepared and submitted	8.4
Mycotoxin not reported correctly	8.4
IDW errors	7.2
Mechanical sampling system records were not maintained	6.0
Improper corrections	4.8
Authorization to affix	4.8
Prompt issuance of certificates	4.8
Scale tickets not retained	3.6
Total	100.0

Audit Trending

Audit Requirement	Reference
Stowage examination records not maintained	2.8 (c) of FGIS Grain Inspection Handbook IV.
Not maintaining FGIS 944s	§800.172 and FGIS Directive 9070.3(4)
E/D Value	§800.196 (g.)(7)(ii), FGIS Equipment Handbook, Sections 2.2 (h.)(2) and 1.5 (b.)(2)(a). §800.196 (g.)(7)(ii) and FGIS Equipment Handbook, Section 2.2 (h.)(2).
Equipment not tested within required timeframe	§800.196 (g.)(7)(ii) and FGIS Equipment Handbook, Section 2.2 (h.)(2).
Fumigation records not maintained	FGIS Fumigation Handbook, Section 3.3 (c)
Lab scales not attached	§800.196 (g.)(7)(ii) and FGIS Equipment Handbook, Section 2.2 (h.)(2). Official equipment was not tested in the prescribed manner in accordance with §800.196 (g.)(7)(ii), §800.217(b), ECT online instructions
Full capacity not half capacity	FGIS Equipment Handbook Section 2.4(c)(1)

Audit Trending

Audit Requirement	Reference
Reporting Bribery	FGIS Directive 9070.6 (b.)(2)
Lab scales not secured	Equipment Handbook §2.2(e) Sealing
IDW errors	FGIS IDW Directive FGIS Grain Inspection Handbook II, Grain Grading Procedure, Section 13.26(a)(b)
SIMS participation rate	Title 7, Chapter 3, §84 (g) §800.159 (a) of the regulations and FGIS Grain Inspection Handbook, Book IV Section 4.2 (c.) (1) & (3). §800.160(f)(1)
Prompt issuance of certificates	§800.160 (c) Prompt issuance
Mechanical sampling system records were not maintained	FGIS Equipment Handbook, Section 1.3 (d.)(7.).
Not maintaining FGIS 100s	FGIS Directive 9070.3 Conflict of Interest



Export Registration

- Who must register?
- How to register?
- High Quality Specialty Grain Waivers



<https://www.ams.usda.gov/services/fgis/ddr-export-registration-instructions>

E-mail questions to FGISQACD@usda.gov and CC Joshua.W.Raymond@usda.gov, Joshua.Diaz-lopez@usda.gov

Published Federal Registers

- [2023 Opportunity Notice](#)
- [Texas Central Opportunity](#)
- [Intent to Certify Alabama and Washington \(delegations\)](#)
- [Designation Award Notice](#)
- [2022 Opportunity Notice](#)



Upcoming Federal Registers

- USGSA Geographic Boundaries
- 2024 Opportunity Notice
- Award Notices
- Exceptions Rule





QACD Directives

- Directive 9100.7 Fees for Official Service Providers Services
- Directive 9290.18 Exceptions and Service Agreements
- Directive 9070.5 Grain Handling Practices
- Directive 9070.6 Reporting Violations of the U.S. Grain Standards Act and the Agricultural Marketing Act of 1946





Other Upcoming Issuances

- Program Notice – Uniform Reporting of Sample Not Available for SIMS and STEP
- Designation Policy Documents





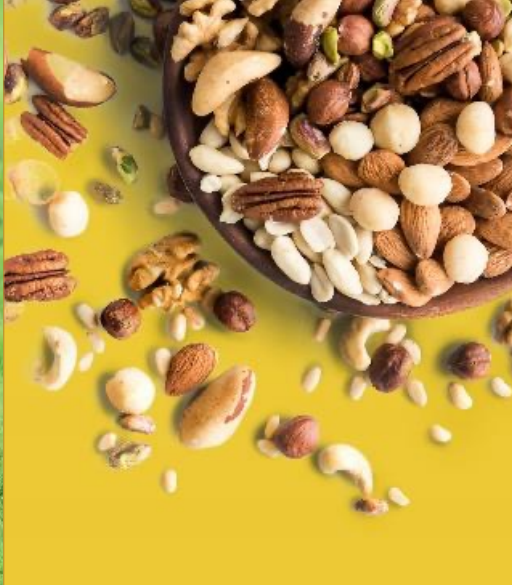
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Thank You



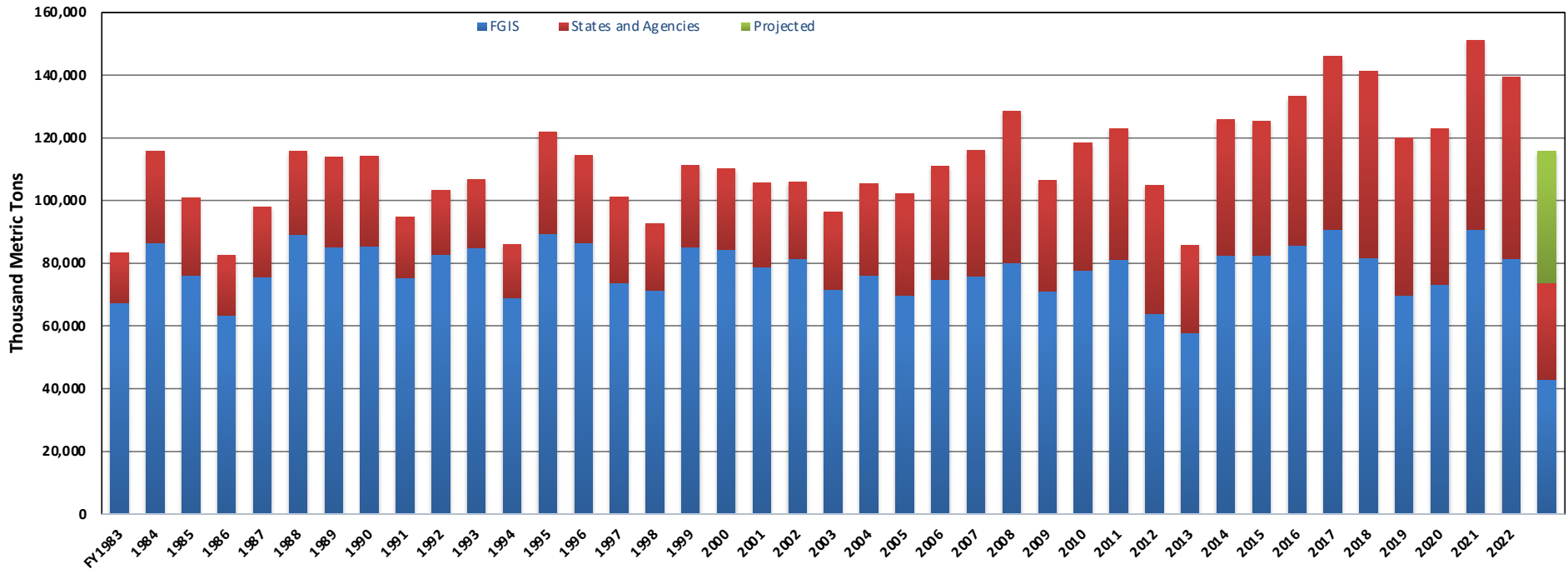
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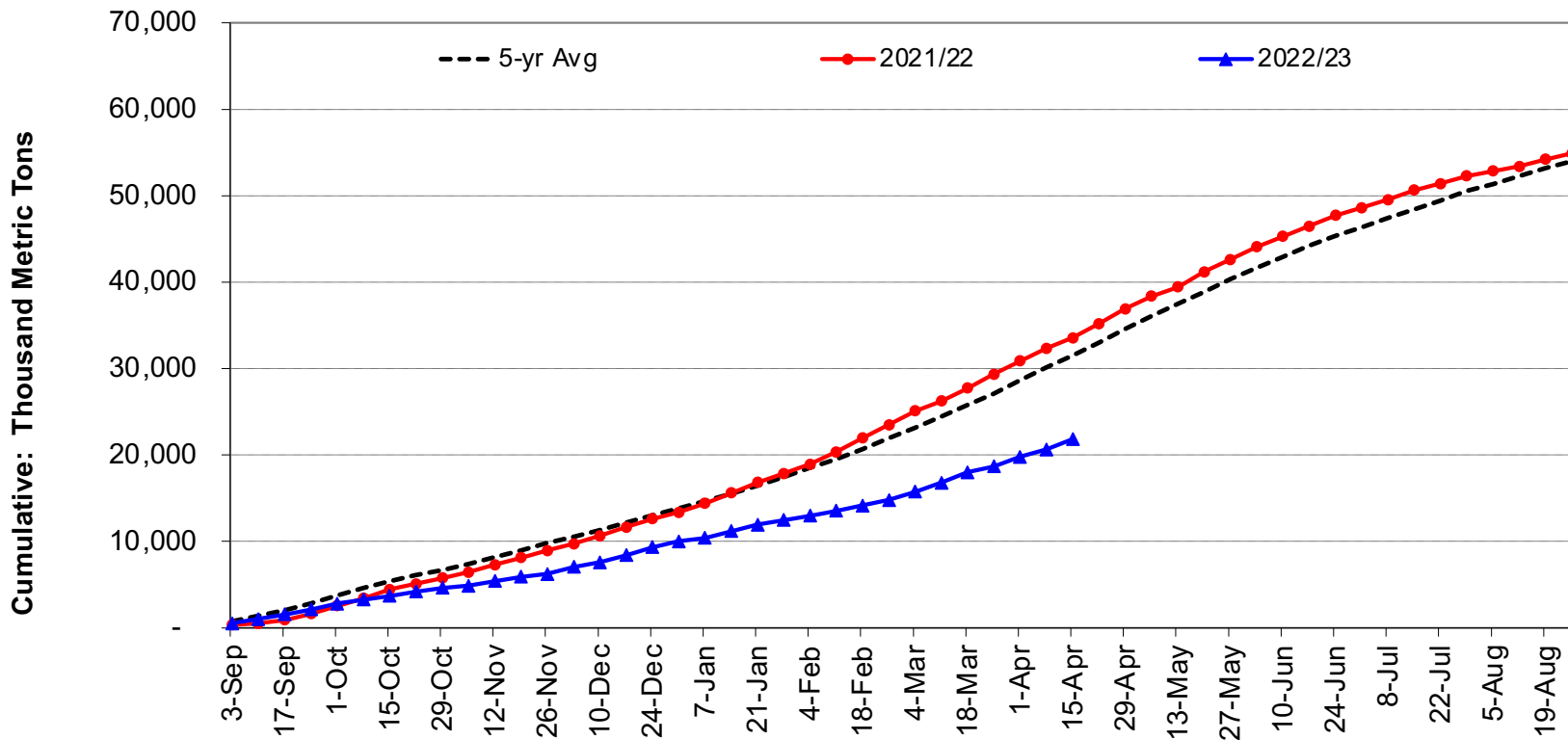
AAGIWA Meeting

Field Management Division – 25th April 2023

Fiscal Year Total Export Grain Inspections

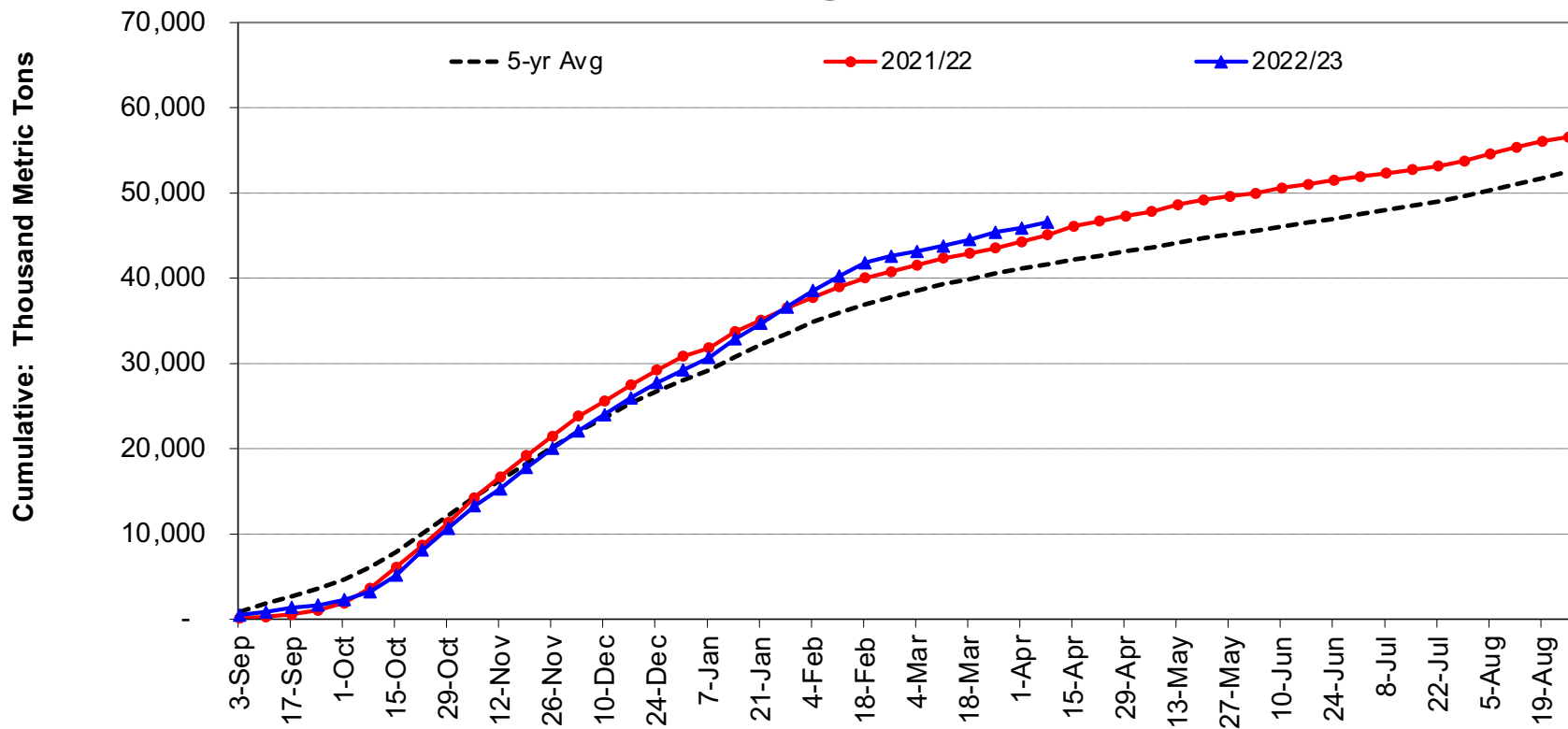


Export Corn: FGIS, States & Agencies



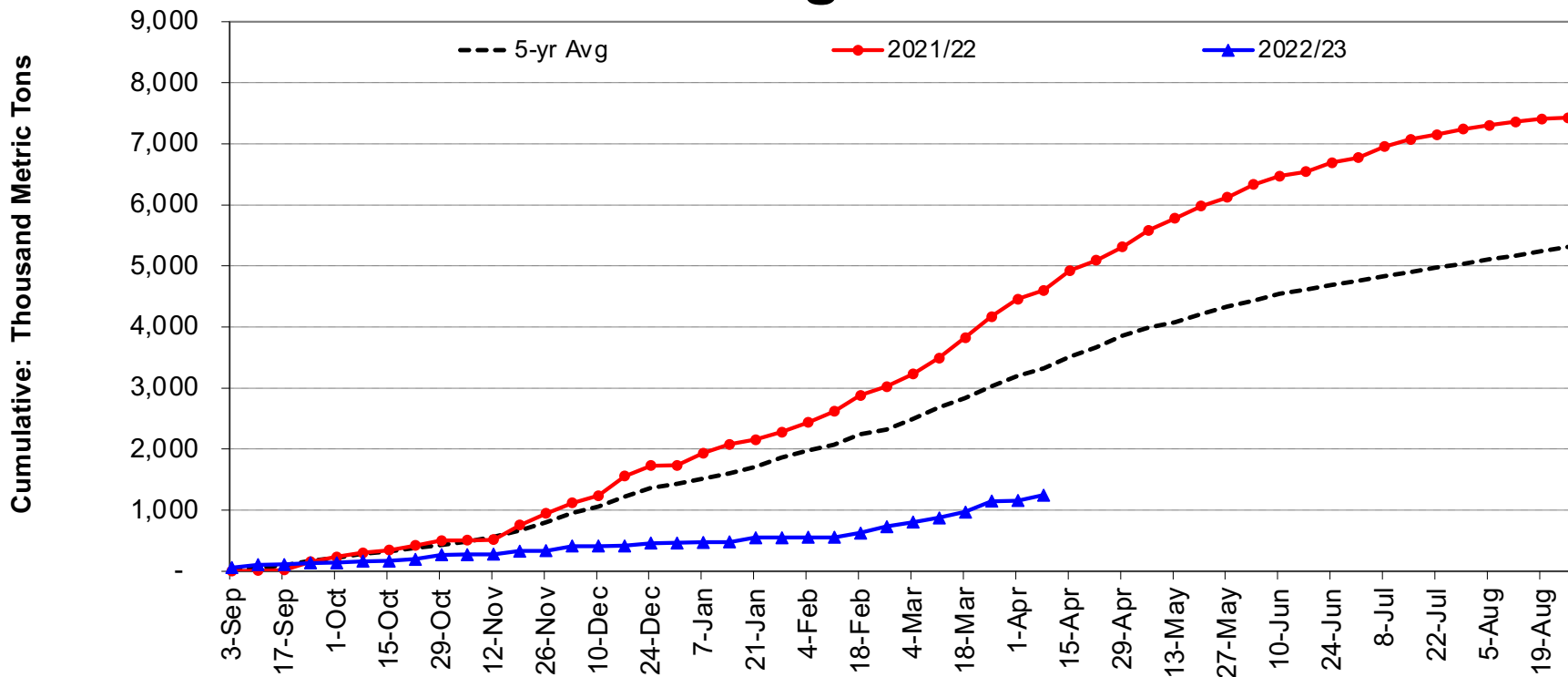


Export Soybean: FGIS, States & Agencies



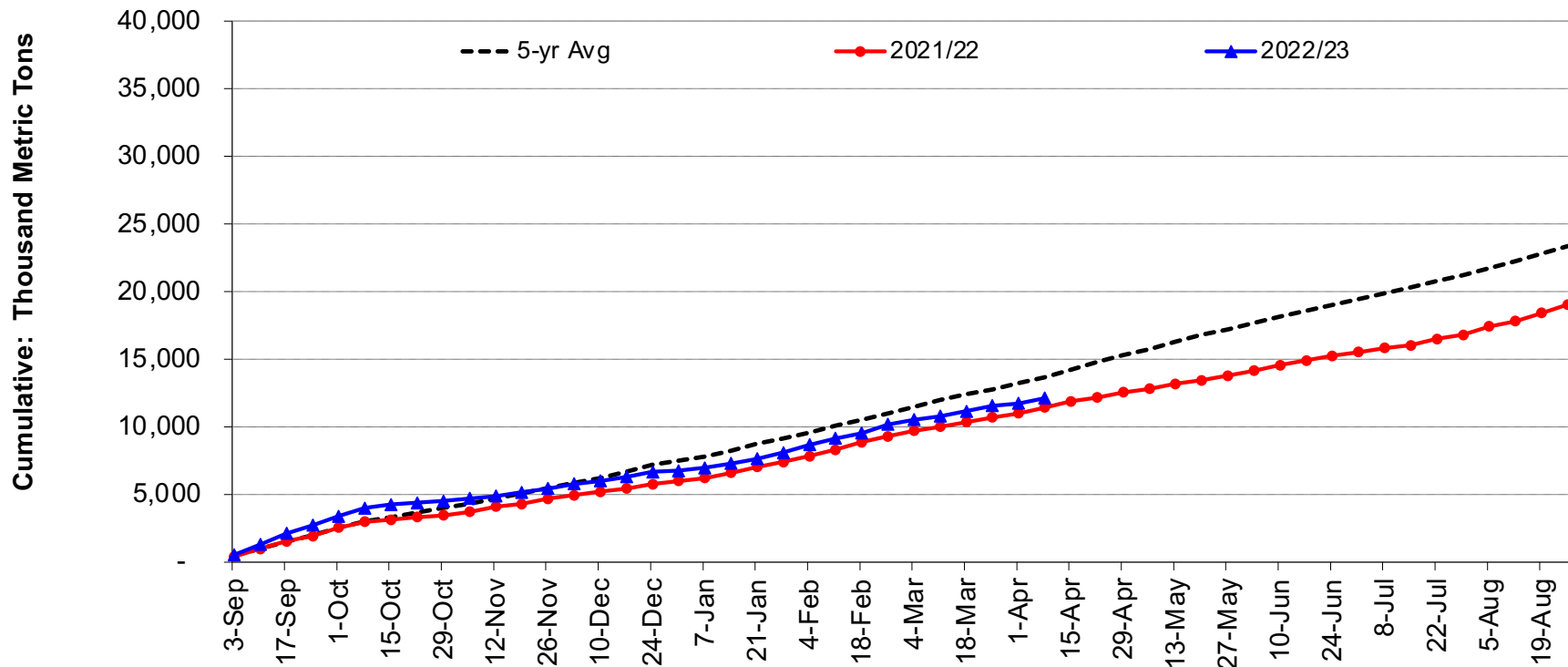


Export Sorghum: FGIS, States & Agencies





Export Wheat: FGIS, States & Agencies



PPMAB: Rulemaking

Five publications in the Federal Register after the last meeting:

- **10/12/22 U.S Standards for Wheat Final Notice**
- **10/12/22 U. S. Standards for Beans (Chickpeas) Notice for Comment**
- **12/29/22 U.S. Standards for Canola Final Notice**
- **03/31/23 U.S. Standards for Soybeans Notice for Comment**
- **04/12/23 U.S. Standards for Soybeans (correction to above)**

Final notice in clearance:

- **U. S. Standards for Beans (Chickpeas)**

PPMAB: Handbooks

Complete Revision:

- **Hops Inspection Handbook (07-01-22)**
- **NMR Handbook (09-30-22)**
- **Processed Commodities (10-01-22)**
- **Mycotoxin Handbook (01-06-23)**

Chapter Revisions Completed:

- **Equipment Handbook: Chapter 3 to include LED lamps**

Existing Handbooks Revisions in Process:

- **Weighing-scale information**
- **Equipment-scale information**
- **NIRT: revision for certifying protein and oil on different moisture bases**
- **HB4 Ch3: removal of Pesticide Residue Letterhead Statement**

New Handbooks in Process:

- **Grain and Commodity Inspection Directives**
- **Licensing**
- **Certification**

PPMAB: Program Directives

Directives Issued Since Last Meeting:

- **9180.88 Detection of Fecal Matter (12/13/22)**
- **9180.40 Pesticide Residue Testing for Grain (11/01/22)**

Directives Being Updated

- **9060.2 Memorandum of Understanding Between FDA and MOU**
- **9180.88 Determination of Fecal Matter**

Other

- **Adding two documents under 9180.35 Phytosanitary Inspections**
 - **Commodities Approved for 921-2**
 - **Commodities NOT Approved for 921-2**

PPMAB: Program Notices

FGIS-PN-22-03: Transfer Of Officially Sampled and Graded Bulk Milled/Brown Rice

FGIS-PN-22-05: Approval of New Light Emitting DIODE (LED) Lamps

FGIS-PN-22-06: Sample Collection Responsibilities for Verifying the Accuracy of Moisture Meter Calibrations Crop Year 2022

FGIS-PN-23-01: Completing Data Collection Documents

FGIS-PN-23-02: National Export Soybean Sample Collection Plan

FGIS-PN-23-03: Entering a Unique Identifier for Weighing or Inspection in the Certificate Program

PPMAB: Policy Bulletin Board

- **OSP website now available viaFGISonline**
 - <https://fgisonline.ams.usda.gov/osp/default.aspx>
- **Policy Bulletin Board Notices are available on the OSP website under the Policy tab**
- **921-2 is now available on the OSP website under the OSP Forms tab***
 - *** Instructions coming to ensure you know how to access the form.**

PPMAB: Forms

Form FGIS 921-2 (01/18) Previous editions are obsolete. Expires January 2021

**Why are we still using forms showing an Expiration date of January 2021?
For reasons unknown, the Office of Management and Budget (OMB) has not yet approved the new expiration data of January 2024.**

Did you send OMB a request to update the expiration date in a timely manner?

Yes. We sent a request in mid-2020.

And so?

Continue to use the form showing January 2021 until we get approval from OMB to update the expiration date.



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DOMESTIC INSPECTION OPERATIONS OFFICE

Licensing

2018 thru 2022 – Failure rate averaged around 30%

- **2022 AAGIWA Meeting I spoke on ways to improve the rate of success**
 - **Training records, resources, time allotment, mindset, time involved in testing (creating, prepping, proctoring, grading)**
- **2022 QAS Seminars – DIOO requested 2-3 hours after BAR training**
 - **Majority of AQAS staff were new since the previous BAR training**
 - **In-depth talk on same topics with the AQAS staff in attendance**
 - **Reviewed pertinent applications within QAC and FOL**
 - **Discussed testing processes and the use of training materials**
 - **Kernel sets / interpretive boxes**
 - **How to find materials on the AMS website**
- **DIOO has been working with OA AQAS and OAM staff on testing processes rather than just damage and class picks**

Licensing

DIOO has been working together with OA staff to move away from the mindset of ‘Let’s see if they can pass’ to ‘let’s work together to understand how to pass the test.’

2022 (Calendar year)

- **173 Total tests proctored (138 Original)**
- **35 Retests**

80% Success Rate!

Flagged SIMS

Soybeans & SBOC – 4 samples daily

- **September thru February – set a flag to target YSB with .5% SBOC or greater**
- **In order to monitor potential SBOC through out the country**
- **Collected 600 samples for AMS Science and Technology’s Pesticide Data Program (PDP)**

Barley and Durum – 2 samples daily

- **November thru February – MAFF Wheat and Barley survey**

Currently:

- **Pulses – 4 random daily**
- **Corn – 4 daily (damage)**
- **Soybeans – 4 daily (damage)**
- **Wheat – 4 daily (damage)**
- **Sorghum – 2 daily (damage)**
- **Rare Grains – 1 random daily**
 - **Barley, Flaxseed, Canola, Oats, Sunflower Seed, Rye, Triticale**

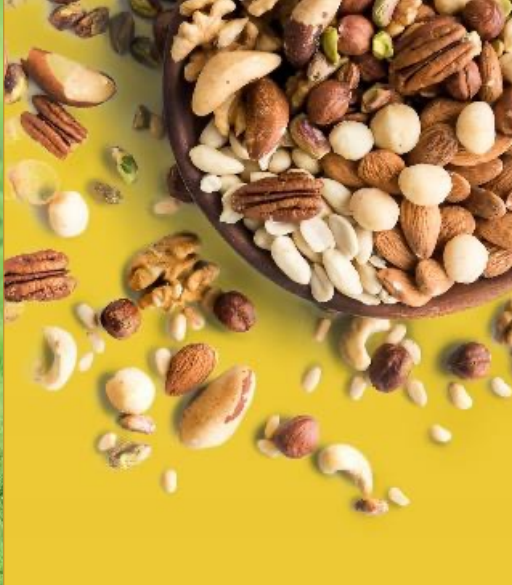
Container Seminar

FGIS held Container Inspection training February 15 & 16 for OSP's

- **Training covered the inspection process from the initial request to final certification and reporting**
 - **Day 1 was instructional**
 - **Day 2 was an applied knowledge 'contest'**
 - **Winning Team – aka Container Guru's – Ashley Miller (FGIS), Mindy Probst (Omaha), Eric Patton (NDGI), Darryl Bellin (DIOO), Josh Wiechert (DIOO)**
- **The program was offered in person at the National Grain Center in Kansas City, Missouri, as well as a virtual option**
 - **40 attendees in person**
 - **82 unique log-ins for the virtual offering**
 - **Actual number of attendees was higher as multiple individuals were sharing computers in the field**
- **Bottom line – Call Tim!**

Container Seminar

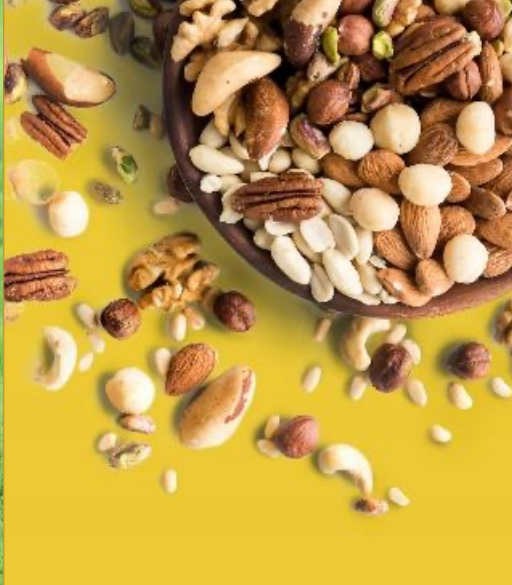




**Thank
you!!**



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Innovation Update

AAGIWA, April 2023



FGISonline Distributed

- **FGIS is preparing to rollout patches to DITW / DCRT**
 - Timeout errors in DITW
 - Tabbing across fields on the subplot screen
 - Errors with Complete/New in DCRT



DEC Submissions

- [FGIS-PN-23-01 - Completing Data Collection Documents\(pdf\)](#)
- Most OSPs are fully setup to submit required reports
- FY23 2nd Quarter reports will be published April 25.
- DEC Performance issues are being reviewed
- DIOO and QACD are reviewing submissions



Increasing Data Utility

- Applicants are using FGISonline data feeds to improve operations.
- Clarifying support for unique service identifiers was provided in updates to FGIS Directive 9290.16 and FGIS-PN-23-03.
- Applicants are allowed to request the inclusion of specific information in the IDW data feed to support their business operations.
- Example Data: Railcar track sequence number, Bill of Lading Date
- Example Fields: Load Order Number, Lot Number



Security

- FGIS recently completed our annual risk assessment of the FGISonline system
- FGISonline also underwent a Department of Homeland Security assessment.
- FGISonline & FGISonline Distributed recently completed major security and infrastructure upgrades to increase the protection of data and records.



Security of Records

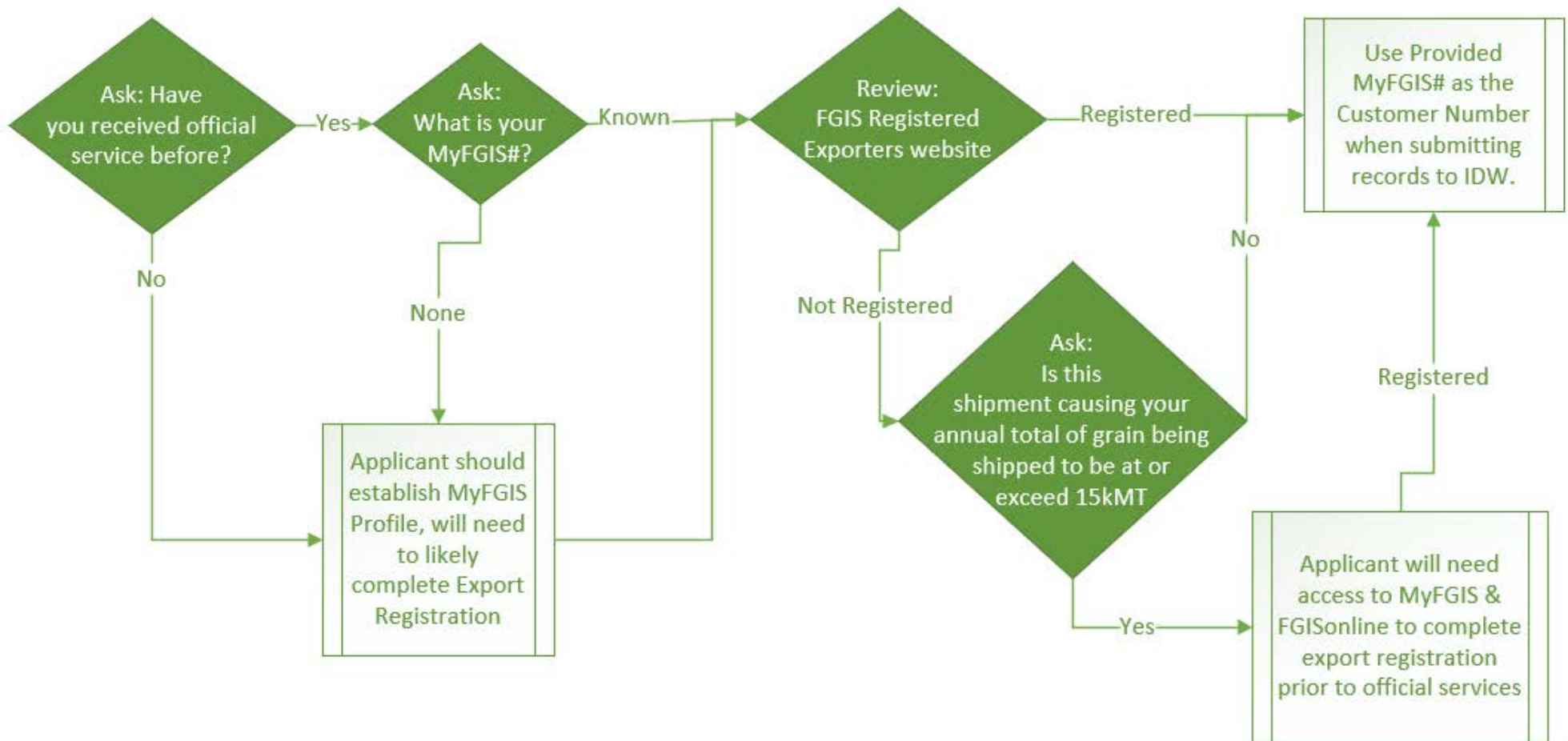
- **Working with the IT security office regarding systems and records practices across the official system.**
- **Management of some record types falls under laws other than USGSA**
- **Data call upcoming to document records management practices.**
 - How are they created / managed / stored / controlled / disposed (by type / agency)
 - What are all the locations where records are stored.



Standardizing Applicant Details

- **The MyFGIS profile will be used to establish unique profiles that reflect all customers of the official system.**
- **MyFGIS profiles are already required to complete Export Registrations**
 - Published here: [Registered Grain Exporters \(usda.gov\)](https://www.usda.gov/registerelexporters)
 - OSPs should confirm exporters are registered.

Official Export Services





Validating Applicants & Access

- **Customers manage access through their MyFGIS permissions and are increasingly using the IDW data feeds to support operations.**
- **CRT will be updated to require selection of the MyFGIS profile. (ITW already collects it.)**
- **Effective January 1, 2024, Daily IDW submissions must include:**
 - The applicant's MyFGIS# in the 'Customer Number' field.
 - The name recorded in the 'Ordered By' field must match the Name for the supplied MyFGIS#.
- **IDW will begin issuing warning notices on invalid submissions in August.**
- **Contact MyFGIS@usda.gov for assistance.**



Standardizing Location Details

- All facilities listed in the designation application (DDR) should be tied to their MyFGIS profile.
 - Future update to designation application will enable selection of MyFGIS# and location.
- The MyFGIS profile will be used to establish the owners of all equipment in the ECT system and confirm cross-utilization.
- All 'Installed' equipment is expected to be assigned to the specific service point of its physical location
 - Mechanical Samplers and Bulk/Vehicle/Hopper Scales must reflect an SSP located at the elevator facility.
 - The applicant specific MyFGIS# should be attached to that service point.



Standardizing Services

- FGIS is working on a service catalog to facilitate improved reporting about the activities performed in the official system.
- FGIS also will clarify what licenses are offered and required to perform these various services.
- The approved equipment list will also dovetail with these efforts.



Standardizing Personnel

- **Working to ensure legal identity is known for all persons reflected on conflicts of interest disclosures and licenses.**
- **Recently have had several issues with incorrect names and/or name changes.**
 - Duplicate person check now includes full middle name and suffix.
- **When personnel separate, their license must be suspended and system access terminated.**
- **How do we know which ‘John Doe’ leaves one agency and joins another?**
 - Exploring the full merger of the MyFGIS and FOL person lists.
 - Please link your users to their FOL licensed profile by adding their MyFGIS User Number.



System Performance

- System monitoring tooling is now in place to support end-to-end research of specific operations
- Currently researching issues in CRT, DEC, and ECT.
- Working to system-wide decrease latency.
- Setting an initial goal of 10 seconds
 - working towards < 2 seconds.
- Please provide specific feedback.



Future Topics:

- National Sample Identifier.
- Using Service Requests to submit appeals/board appeals.
- Using Equipment Inventory audits of ECT to sunset legacy approved equipment (ECT).
- Automated handling systems & records.
- Centralizing of monitoring in QAC.



Questions?

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