



Agricultural Marketing Service

U.S. DEPARTMENT OF AGRICULTURE



AMS

Federal Grain Inspection Service Updates



Reflections

- Challenges
 - Uncertain export volume (projected 88MMT)
 - FGIS fee crisis (delayed implementation of adjusted hourly rates...February to July)
 - Intimidating Interim Rulemaking
 - Staffing challenges
 - Constrained spending
 - Reduced senior-level, physical interaction with field staff
- Collaboration
 - Fees and staffing
 - Equipment evaluation
 - Emergency situations (e.g., Hurricanes Francine/Helene and Port Strike)
 - Future



FGIS Fee Updates



Fee Notices and Rulemaking

- Adjusted Tonnage and Supervision Fees on April 1 (Published March 7, 89 FR 16521)
- Adjusted Hourly and Unit Fees on July 8 (Published June 6, 89 FR 48257)
- Proposed change to fee formula calculation
 - Published on October 8, 2024 (89 FR 81396)
 - 45-day comment period (ends on November 22)
 - Focuses on calculating hourly rate and removes the 5% restriction

Supervision of Official Agencies (OA) Historical Operating Reserve

(Millions of Dollars)

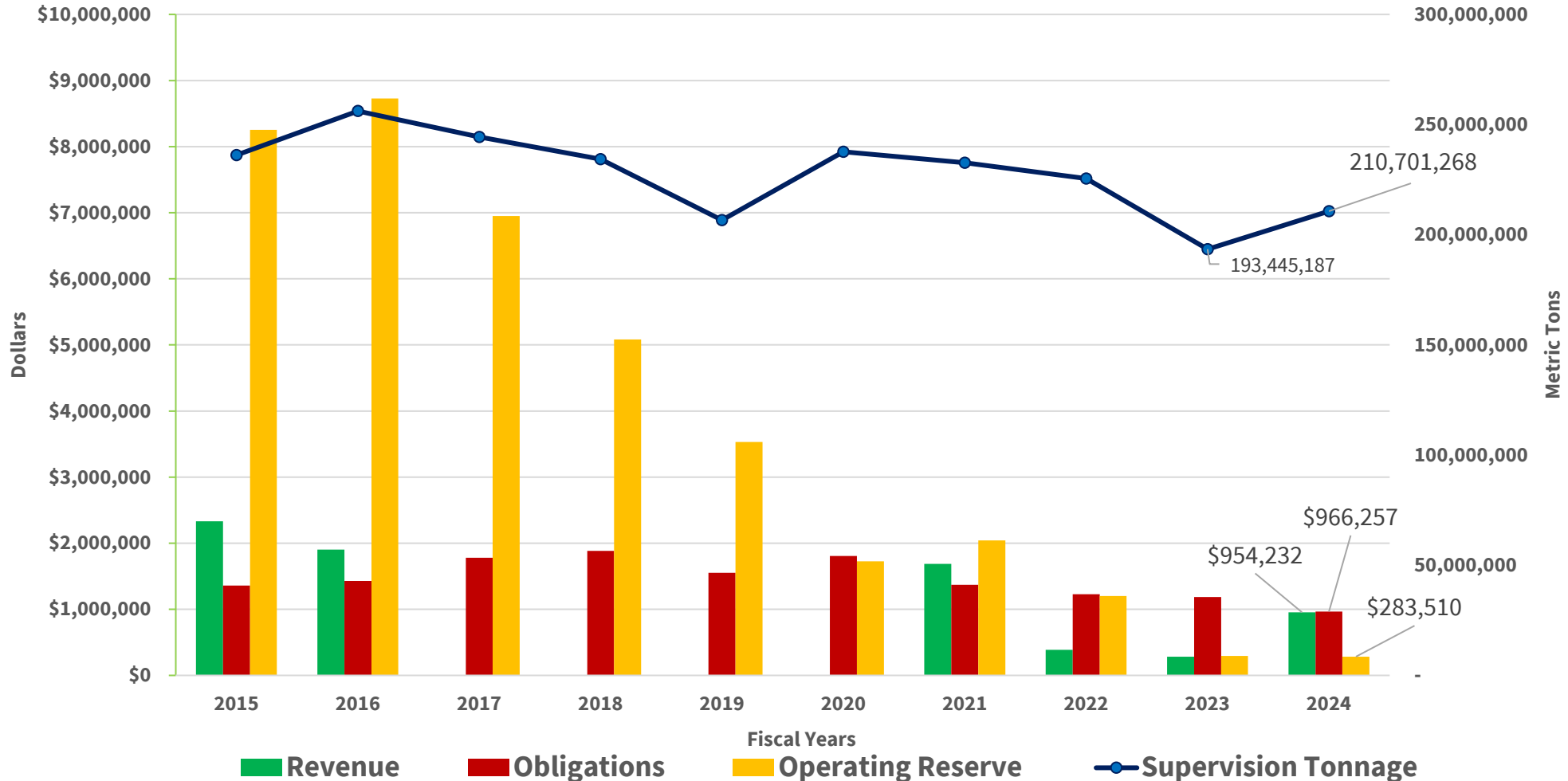
Category	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24
Revenue	\$0.00	\$0.00	\$1.69	\$0.39	\$0.28	\$0.95
Obligations	\$1.55	\$1.81	\$1.37	\$1.23	\$1.20	\$0.96
Annual Surplus or (Deficit)	(\$1.55)	(\$1.81)	\$0.32	(\$0.84)	(\$0.91)	(\$0.01)
Operating Reserve (OR)	\$3.53	\$1.73	\$2.04	\$1.20	\$0.30	\$0.28
Months OR	27	11	18	12	1	3.5

Figures may not sum due to rounding and adjustments of prior year obligations.

Program goal is to maintain not less than 3 and not more than 6 months in accordance with 7 CFR 800.71(b)(2)(i).



Historical Graph - Supervision of OAs Program



¹ FY24 revenue and obligations are not final until after 10/31/2024.



**Tonnage
and
Supervision
Fees Began
April 1**

Fee Description	Calculated FY2024 Tonnage Fees (National+Local, with 5% increase) and Supervision Fee	FY2023 Tonnage Fees and Supervision Fee
National Tonnage Fee	\$0.057	\$0.033
New Orleans	\$0.069	\$0.055
League City	\$0.137	\$0.108
Pacific Northwest	\$0.192	\$0.158
Toledo	\$0.211	\$0.310
Supervision	\$0.007	\$0.003

*Regular contract rate = \$41.20/hr

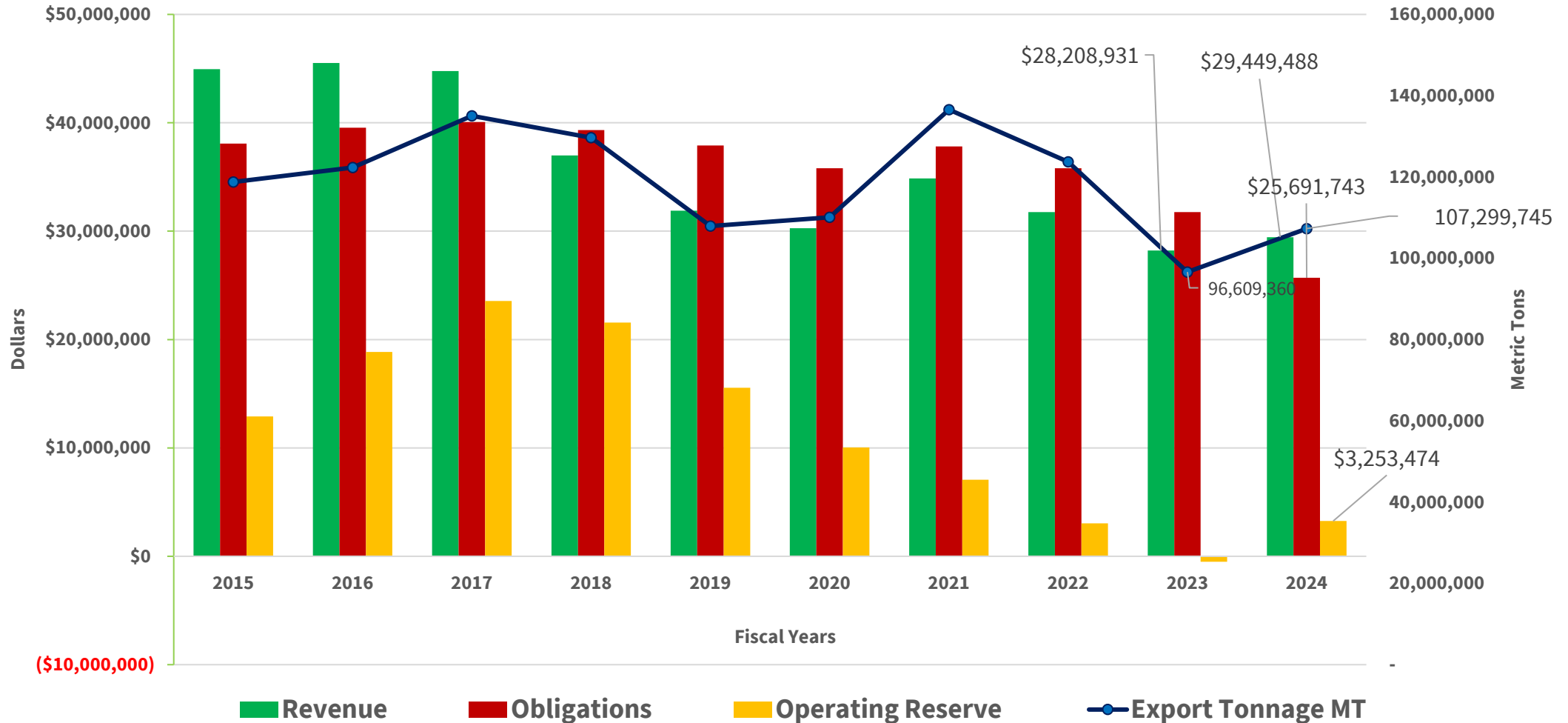
Source: March 7, 2024 FR Notice, 89 FR 16521

Interim Rule Hourly Rate Projections (from March 24)

	FY24 (with FY23 rates for full fiscal year)	FY24 FR Notice Rates (5%) for rest of FY24	Potential FY24 IFR Rates (effective 7/8)
Projected Revenue	\$25.47M	\$26.72M	\$30.21M ^a
Projected Obligations	\$36.06M	\$36.06M	\$35.69M
Proj. Operating Reserve (end of FY24)	\$(11.10M)	\$(9.85M)	\$(5.99M)
1 Year Contract Mon-Fri (6am-6pm)	\$ 39.20	\$ 41.20	\$ 65.00
1 Year Contract Mon-Fri (6pm-6am)	\$ 41.10	\$ 43.20	\$ 71.50
1 Year Contract Sat, Sun, Overtime	\$ 46.80	\$ 49.10	\$ 81.30
1 Year Contract Holiday	\$ 69.50	\$ 73.00	\$ 97.50
Noncontract Mon-Fri (6am-6pm)	\$ 69.50	\$ 73.00	\$ 93.30
Noncontract Mon-Fri (6pm-6am)	\$ 69.50	\$ 73.00	removed in final rule
Noncontract Sat, Sun, Overtime	\$ 69.50	\$ 73.00	\$ 116.60
Noncontract Holiday	\$ 69.50	\$ 73.00	\$ 140.00

^a/FY24 revenue was not recalculated with change from June to July effective date.

Historical Graph - Inspection and Weighing Program



¹ FY24 revenue and obligations are not final until after 10/31/2024.



Grain Inspection and Weighing Program Historical Operating Reserve

(Millions of Dollars - Figures may not sum due to rounding and prior year adjustments.)

Category	FY17	FY 18	FY 19	FY 20	FY 21	FY 22	FY23	FY24
Revenue	\$44.76	\$37.00	\$31.89	\$30.26	\$34.86	\$31.77	\$28.01	\$29.45
Obligations	\$40.08	\$39.32	\$37.91	\$35.80	\$37.81 ^a	\$35.80 ^b	\$31.75 ^c	\$25.69 ^d
Annual Surplus or (Deficit)	\$4.68	(\$2.33)	(\$6.02)	(\$5.54)	(\$2.96)	(\$4.04)	(\$3.54)	\$3.76
Operating Reserve (OR)	\$23.55	\$21.56	\$15.54	\$10.01	\$7.07	\$3.04	(\$0.50)	\$3.25
Months OR	7.0	6.6	5.0	3.4	2.2	1.0	(0.2)	1.1
Fee Adjustment Calculation for next FY	5% reduction	5% reduction	2% reduction	5% increase	5% increase	5% increase	5% increase	New Proposed Rule

^aFY21 \$2.471 million of obligations reimbursed with CARES Act funding.

^bFY22 FGIS overhead obligations rebalanced with appropriated.

^cFY23 FGIS overhead obligations rebalanced with appropriated.

^dFY24 FGIS overhead obligations rebalanced with appropriated.



Proposed Rule - Hourly Rate Formulas

- Purpose is to address gaps in the current fee formulas.
- Current formulas account only for fees assessed on grain tonnage and supervision of official agencies; it excludes direct service costs and unit fees.
- The rule uses the standardized hourly rate formula that all other AMS grading programs use.
- This method will be better for avoiding unexpected financial shortfalls or unintended reserve surpluses.



Proposed Rule – Regular Rate

- *Regular rate* —The total direct pay of FGIS personnel performing grading, weighing, laboratory services, and equipment testing divided by the total direct hours for the previous year, which is then multiplied by the next year's percentage of cost-of-living increase, plus the benefits rate, plus the operating rate, plus the allowance for bad debt rate.
- An example of the calculation would look like this: [Total direct pay divided by total direct hours ($\$2,663,407/82,985$) = \$32.10, multiplied by 1.7% (cost-of-living increase) = \$32.64, + \$10.04 (benefits rate) + \$28.90 (operating rate) + \$0.01 (bad debt allowance rate) = \$71.59 (rounded to \$71.60); rounding is done to the nearest \$0.10.]



Proposed Rule – Overtime Rate

- *Overtime rate* —The total direct pay of FGIS personnel performing grading, weighing, laboratory services, and equipment testing divided by the total direct hours for the previous year, which is then multiplied by the next year's percentage of cost-of-living increase and then multiplied by 1.5, plus the benefits rate, plus the operating rate, plus the allowance for bad debt rate.
- An example of the calculation would look like this: [Total direct pay divided by total direct hours ($\$2,663,407/82,985$) = \$32.10, multiplied by 1.7% (cost-of-living increase) = \$32.64, multiplied by 1.5 (overtime rate) = \$48.96 + \$10.04 (benefits rate) + 28.90 (operating rate) + \$0.01 (bad debt allowance rate) = \$87.91 (rounded to \$87.90); rounding is done to the nearest \$0.10.]



Proposed Rule – Holiday Rate

- *Holiday rate* —The total direct pay of FGIS personnel performing grading, weighing, laboratory services, and equipment testing divided by the total direct hours for the previous year, which is then multiplied by the next year's percentage of cost-of-living increase and then multiplied by 2, plus the benefits rate, plus the operating rate, plus the allowance for bad debt rate
- An example of the calculation would look like this: [Total direct pay divided by total direct hours ($\$2,663,407/82,985$) = \$32.10, multiplied by 1.7% (cost-of-living increase) = \$32.64, multiplied by 2 (double time or Holiday rate) = \$65.28, + \$10.04 (benefits rate) + \$28.90 (operating rate) + \$0.01 (bad debt allowance rate) = \$104.23 (rounded to \$104.20); rounding is done to the nearest \$0.10.]



Proposed Rule – Benefits Rate

- *Benefits rate* —The total direct benefits costs of FGIS personnel performing grading, weighing, laboratory services, and equipment testing divided by the total hours worked (regular, overtime, and holiday), which is then multiplied by the next calendar year's percentage cost-of-living increase.
- An example of the calculation would look like this [Total direct benefits costs/(total regular hours + total overtime hours + total holiday hours) (\$819,207/82,985)] = \$9.87, multiplied by 1.7% (cost-of-living increase) = \$10.04]



Proposed Rule – Operating Rate

- *Operating rate* —The total operating costs (including user fee adjustment) of FGIS personnel performing grading, weighing, laboratory services, and equipment testing divided by total hours worked (regular, overtime, and holiday), which is then multiplied by the percentage of inflation. The operating rate would include an adjustment for the operating reserve as an operating cost.
- Example: [Total operating costs/(total regular hours + total overtime hours + total holiday hours) (\$42,000,000 + 1,000,000)/630,000 = \$69.61, multiplied by 2% (inflation) = \$69.62 .]
- This example assumes \$1,000,000 is needed for the reserve and assume all other operating costs are \$42,000,000, divided by 630,000 total hours.



Proposed Rule – Bad Debt Rate

- *Allowance for bad debt rate* — Total bad debt for grading, weighing, laboratory services, and equipment testing divided by total hours worked (regular, overtime, and holiday).
- Example: [Total bad debt cost/(total regular hours + total overtime hours + total holiday hours) (\$1,000/82,985) = \$ 0.01.]

45-day comment period (ends on November 22)



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Quality Assurance and Compliance Updates



Audit Schedule

Fall FY25

- Omaha
- Eastern Iowa
- Champaign Danville
- Enid
- Maryland

Spring /Summer FY25

- Fremont
- Louisiana
- North Carolina Dept. of Ag
- Amarillo
- North Dakota Grain Inspection
- Cairo
- Utah
- State Grain
- D.R. Schaal



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Other Updates



General Updates

- GIAC Nominations – 18 nominations received; package submitted to Department
- GIAC Charter- In clearance. Requesting the quorum be changed to a simple majority (8).
- FGIS-FDA Directive on Actionable Lots/Reconditioning
 - Directive in FDA Clearance
- AMS is working through the Department to bring FGIS under the AMS treasury symbol
- NIRT Moisture Basis updated in NIRT Handbook October 1, 2024.



Field Management Division Updates

Grain Inspection Advisory Committee Meeting—October 2024

2024 Market Summary

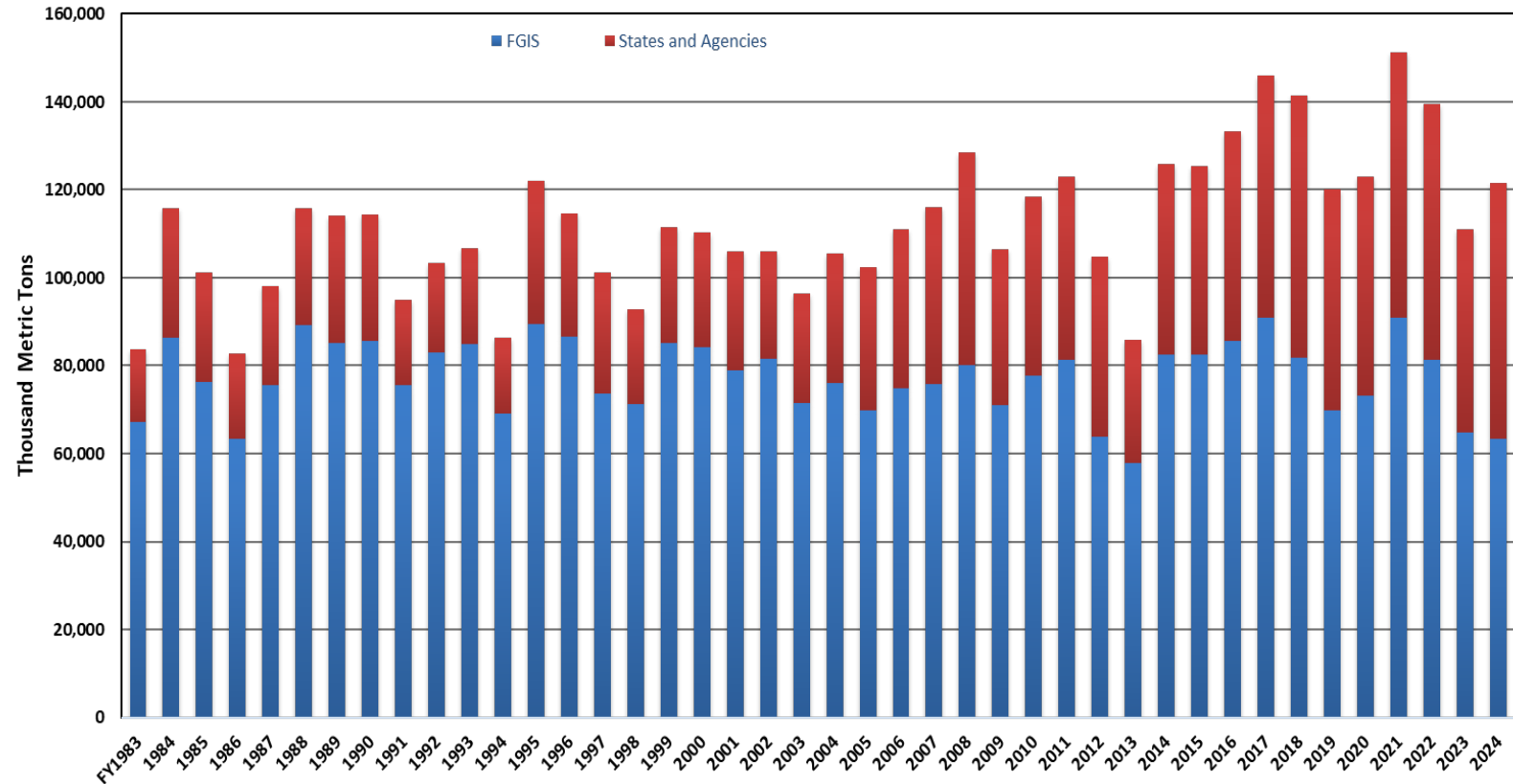
- Total U.S. grain exports rebound year-over-year
- Corn and Sorghum are bright spots
- China's purchases of U.S. soybeans are off from last year
- Russia has kept pressure on global wheat price, but frost and drought took a toll on their 2024 crop.



Fiscal Year Total Export Grain Inspections

-Total export grain inspection tonnage for FY 2024 finished about 12% above last year due to a strong finish to the fiscal year

-Currently USDA is projecting total grain exports to increase approximately 5% this upcoming year.

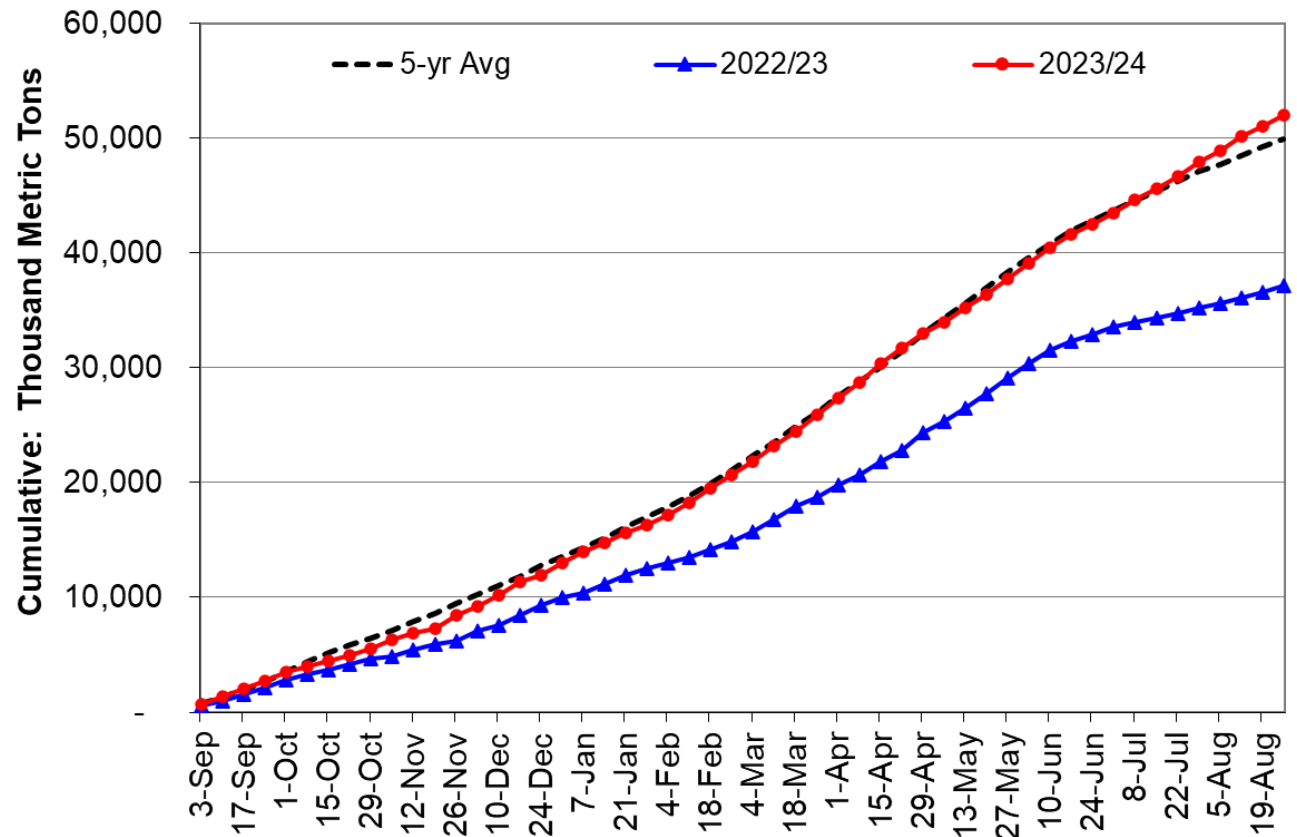


Export Corn: FGIS, States & Agencies

-Corn exports finished MY up 40% compared to last market year, and up 4% compared to the 5-year average.

-Mexico was the number one destination totaling 40% of all corn exports with Japan at 21% and Colombia at 12%.

-U.S. corn exports to Mexico and Colombia set all-time records. Mexico surpassed the previous record year 2021/22 by 33%, and Colombia surpassed the previous record year 2019/20 by 19%.

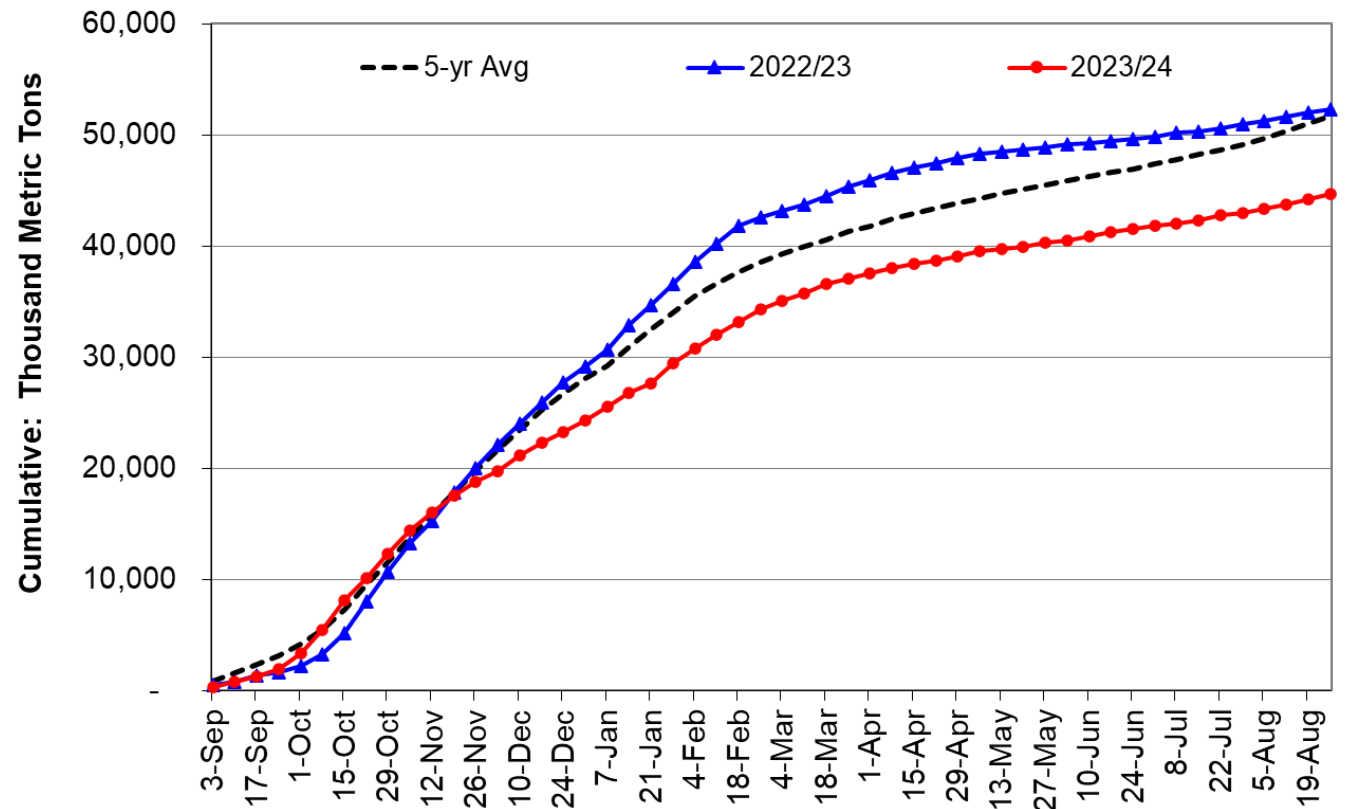


Export Soybean: FGIS, States & Agencies

-Soybean finished the marketing year down 15% and down 14% compared to the 5-year average.

-China is the number one destination totaling 54% of all soybean exports with Mexico at 10% and Germany at 6%.

-U.S. soybeans exports to China are down 26% year-over-year.

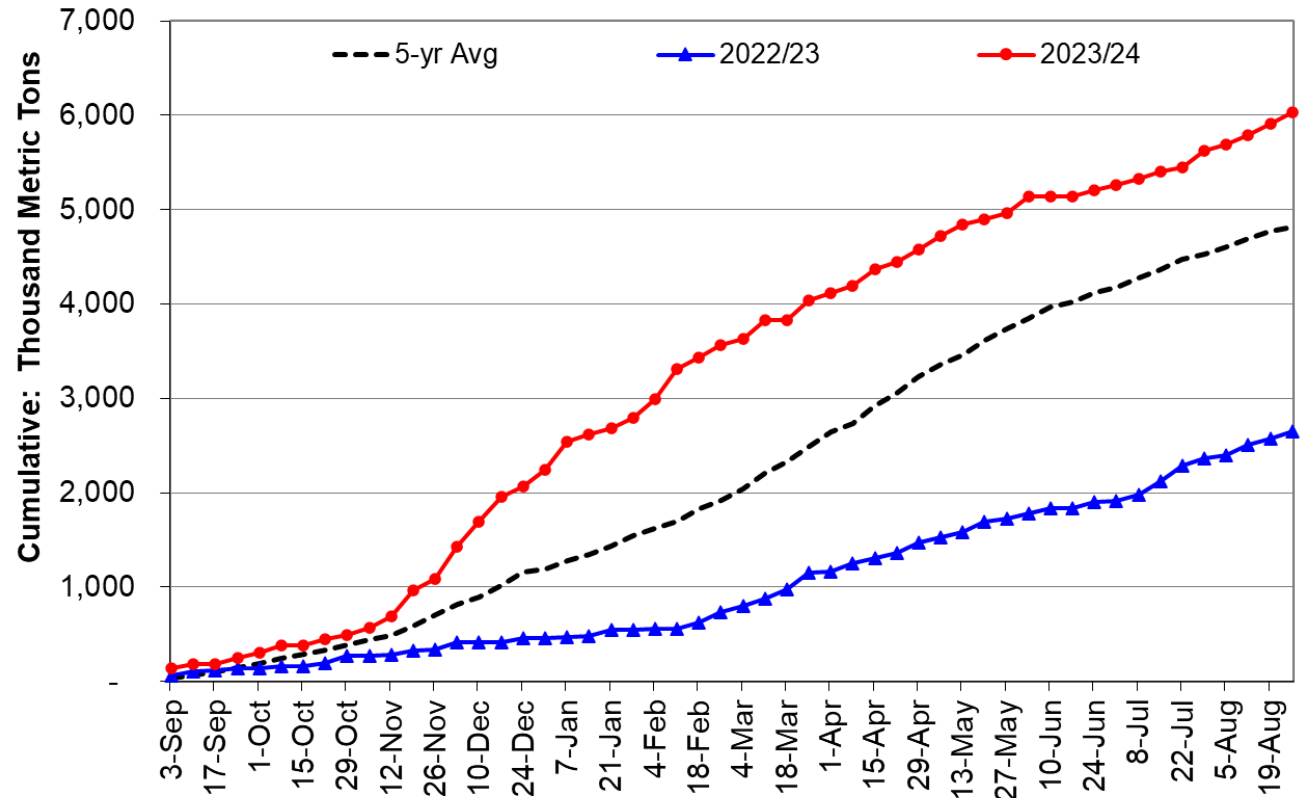


Export Sorghum: FGIS, States & Agencies

-Sorghum exports finished 128% higher than last year and up 25% compared to the 5-year average.

-China is the number one destination totaling 93% of all sorghum exports with Eritrea at 2% and Japan at 1%.

-Sorghum exports to China are up 122% year-over-year.

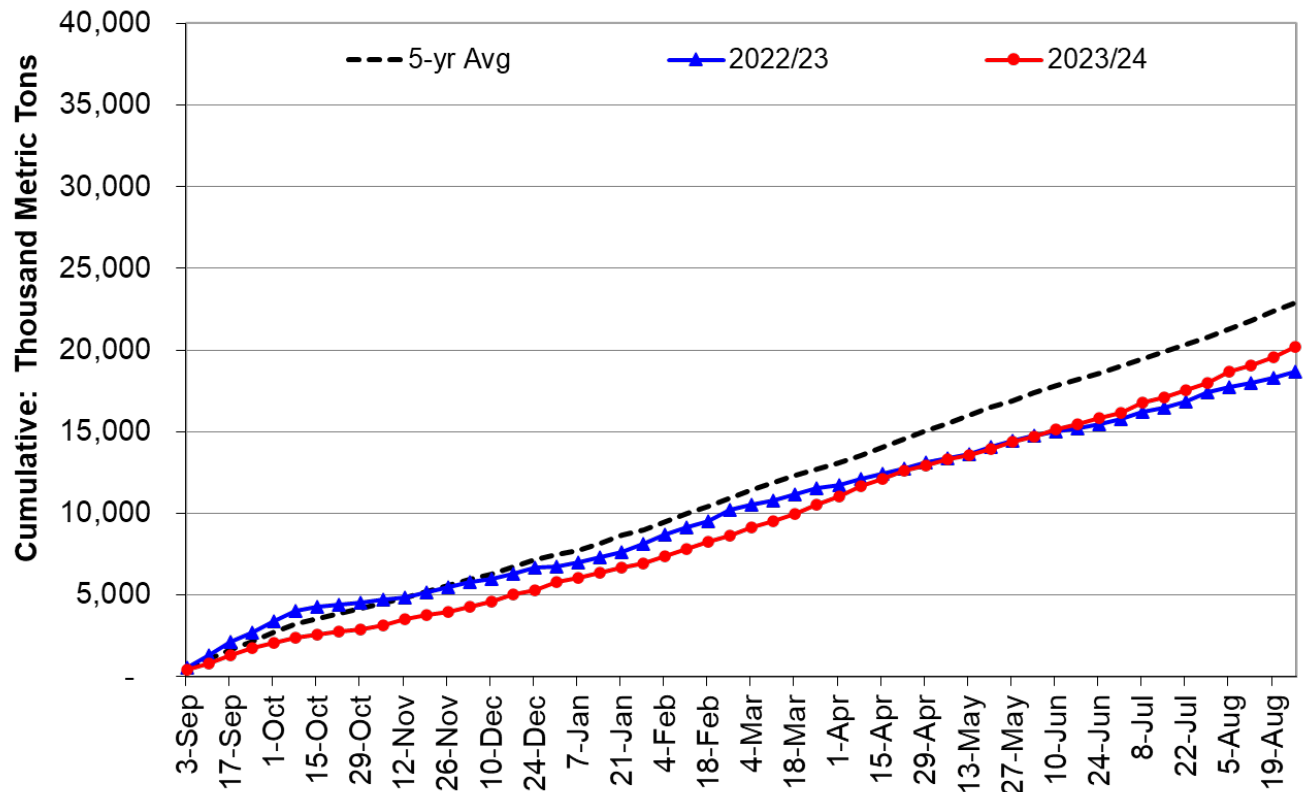


Export Wheat: FGIS, States & Agencies

-Wheat exports finished up 8% compared to last year but down 12% compared to the 5-year average.

-Mexico is the number one destination totaling 18% of all wheat exports with Philippines at 13% and Japan at 10%.

-Russia has kept its wheat price low compared to other wheat exporters making it hard to compete in the global market. However, Russia's wheat crop has endured several challenges this last year from a May frost to drought. With the drought persisting it is currently making it hard for Russia to plant winter wheat crop.





Field Management Division Operations



FMD Outlook

Goal is to become “Lean & Mean” with operations

- PPMAB to report to the Office of the Deputy Administrator
- Begin to process to simplify FGIS Instructions
- New process for policy questions has been developed
- Specialize in Export Vessel Inspection
- Adjust staffing levels through hiring freeze and travel
 - **Begin the process of rightsizing staffing levels MDR**
- Shift remaining Domestic Responsibility to Official Agencies...



Toledo Field Office

North Dakota Grain Inspection (NDGI)

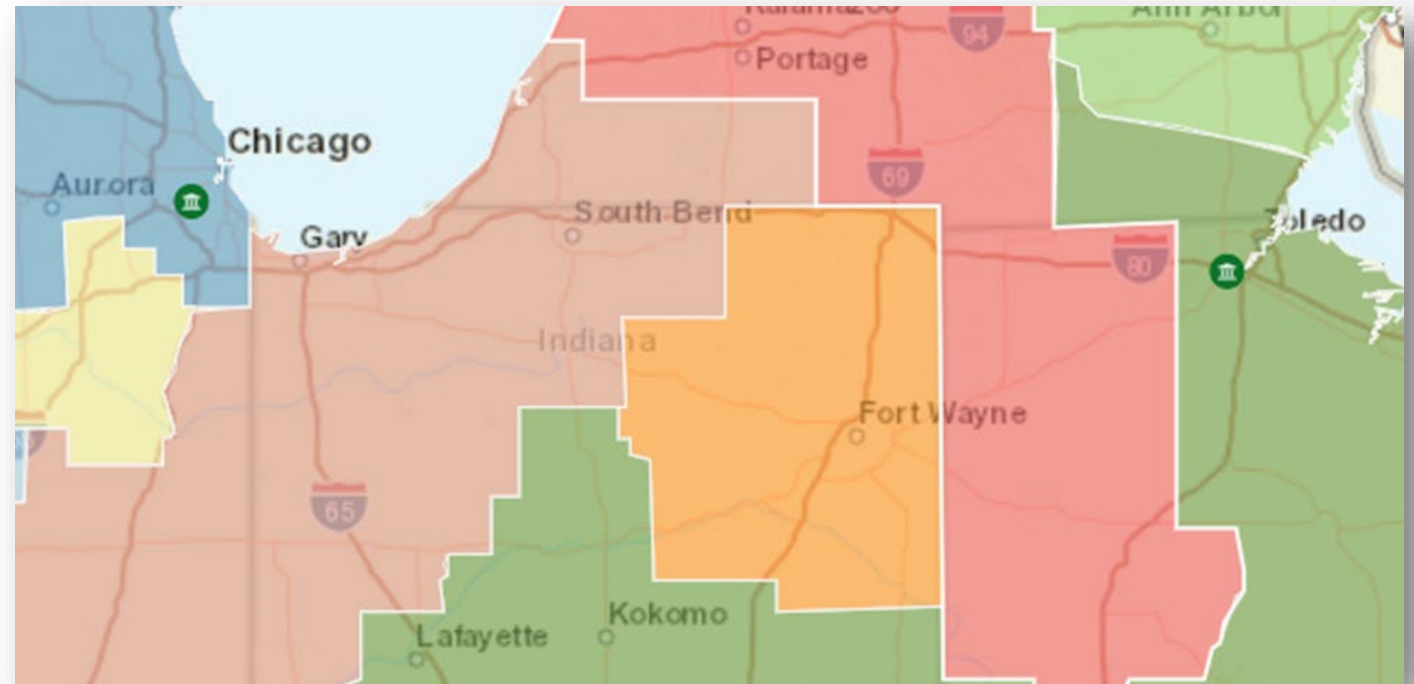
USGSA & AMA Domestic in Michigan and Ohio

Eastern Iowa Grain Inspection (EIGIS)

Predominately AMA and phytosanitary inspections for the Chicago metro area

Kankakee Grain Inspection & Champaign-Danville Grain Inspection (CDGID)

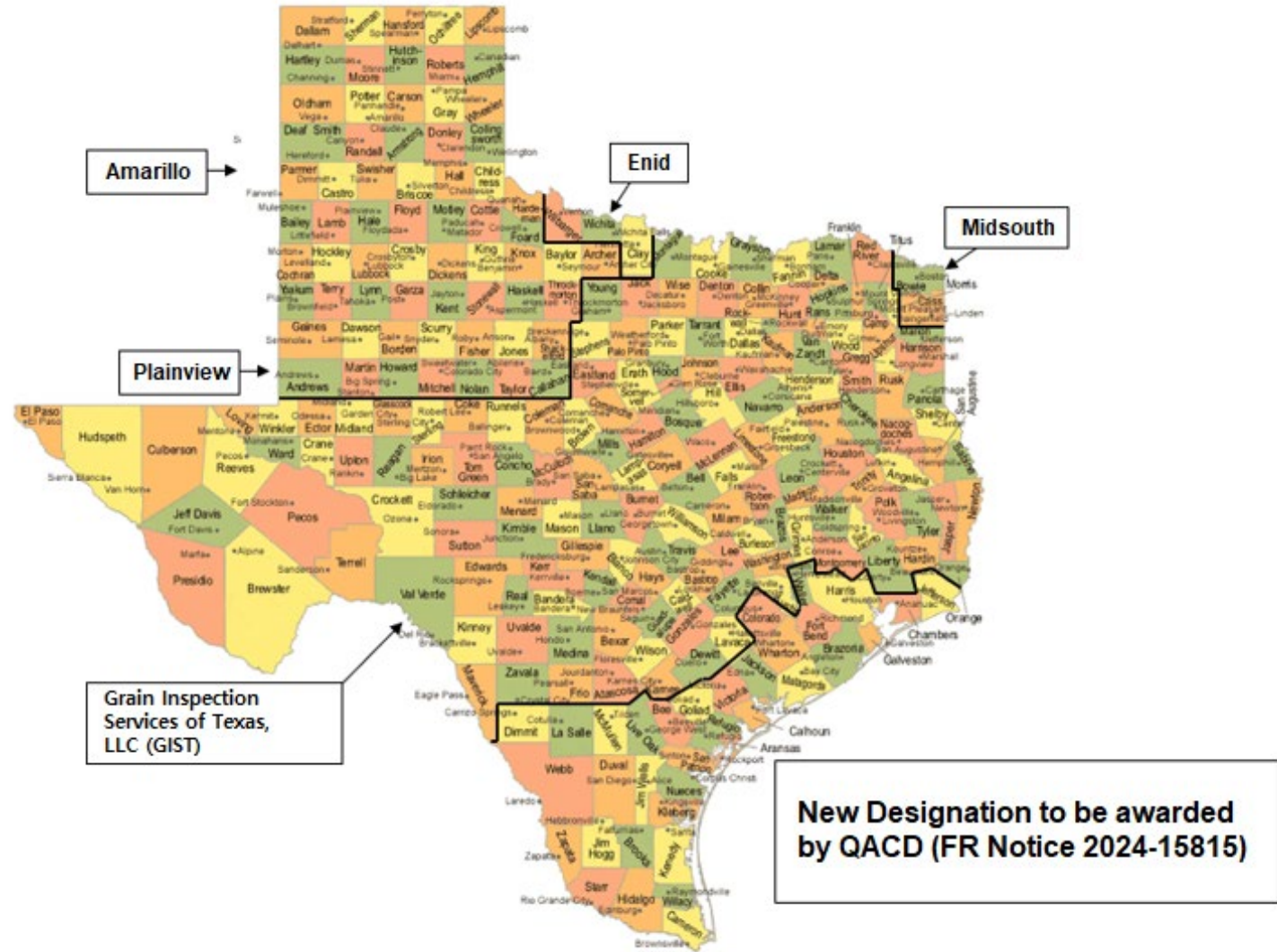
Potential for AMA and phytosanitary inspections for the Chicago metro area



League City Field Office

Previously unassigned territory in the central part of the state has been designated and being serviced by Grain Inspection Services of Texas-LLC (GIST)

Southeastern portion of the state currently being serviced by LCFO was opened in the Federal Register for designation, the application period is closed, and QACD is very close to naming the agency awarded.



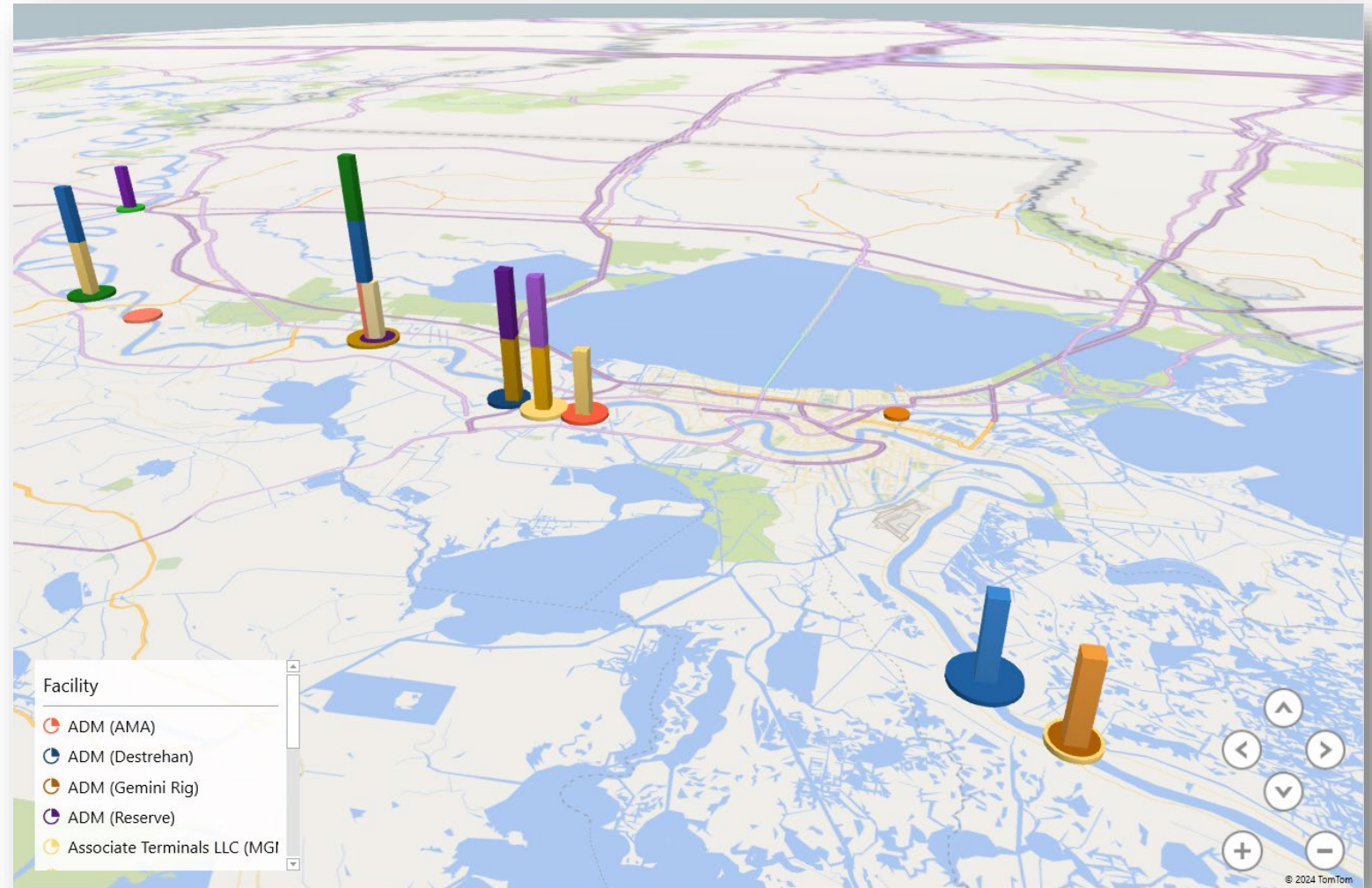


Staffing Continual Improvement

FGIS Staffing needs have been and will be continuously evaluated across Field Office locations.

Management Directed Reassignments will take place to right size Field Office staff.

Succession planning and future hiring have a new approval process that includes sound recruitment practices cost recovery analysis.





Anybody got any questions?



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Technology and Science Division Updates



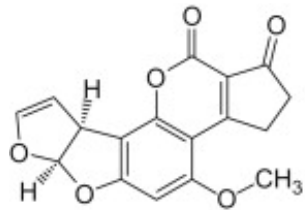
Program Updates

- **Program analyses:**
 - **What we do—how we do it**
 - **What data are we collecting and what does it say**
- **Outcome driven focus—providing an impact to internal and external stakeholders**

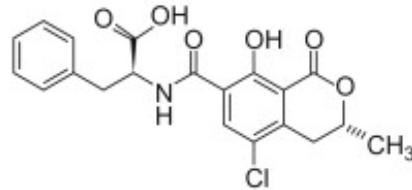




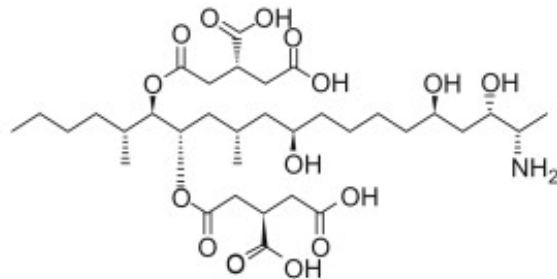
Mycotoxins



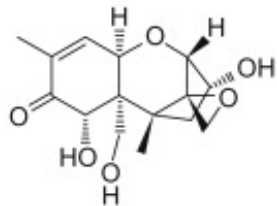
Aflatoxin B1



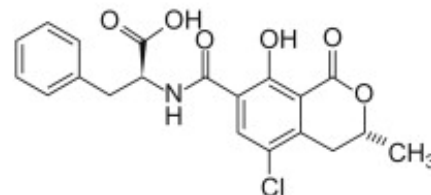
Ochratoxin A



Fumonisin B1



Deoxynivalenol



Zearalenone

Mycotoxin Monitoring Program

- Evaluate, maintain and improve
- Weekly report to participants

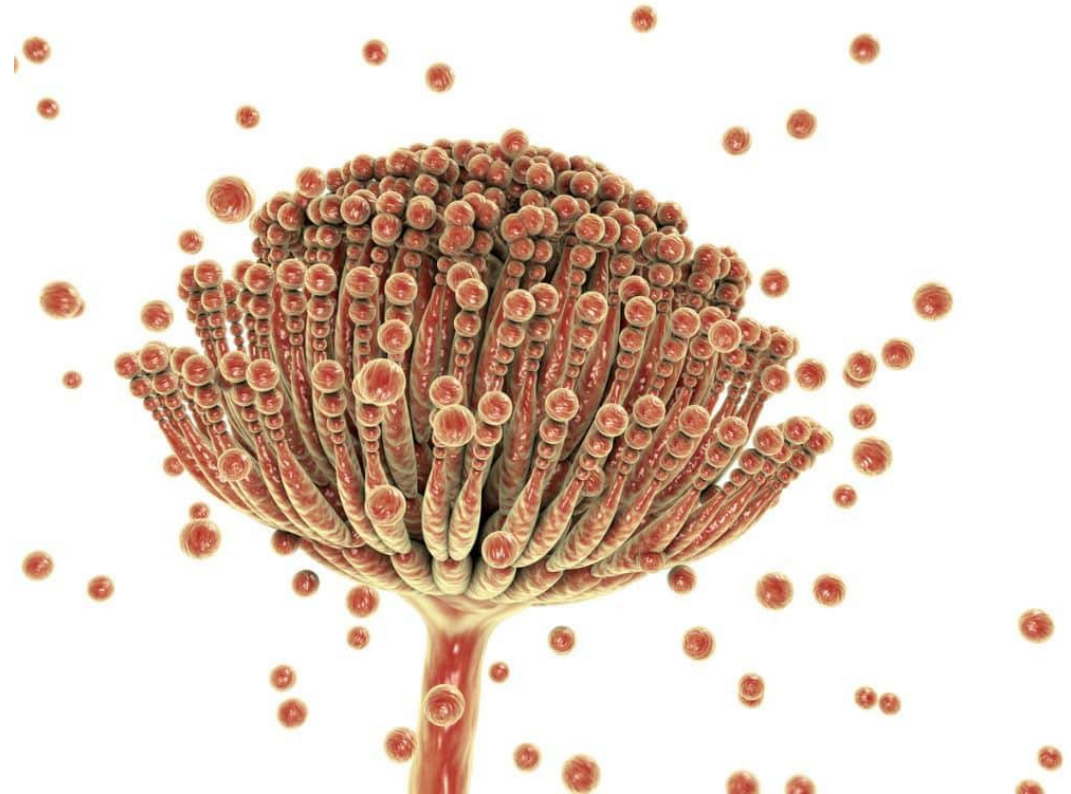
Opportunities:

- Operator proficiency
- Quality control
- Sample preparation
- Test kit and reader performance



Mycotoxins

- **Monitoring vs Proficiency**
 - **Distribution of samples**
 - **Control over variables**
 - **Statistical analysis straightforward**
- **Outcome: targeted training, continual improvement and reduced variability**

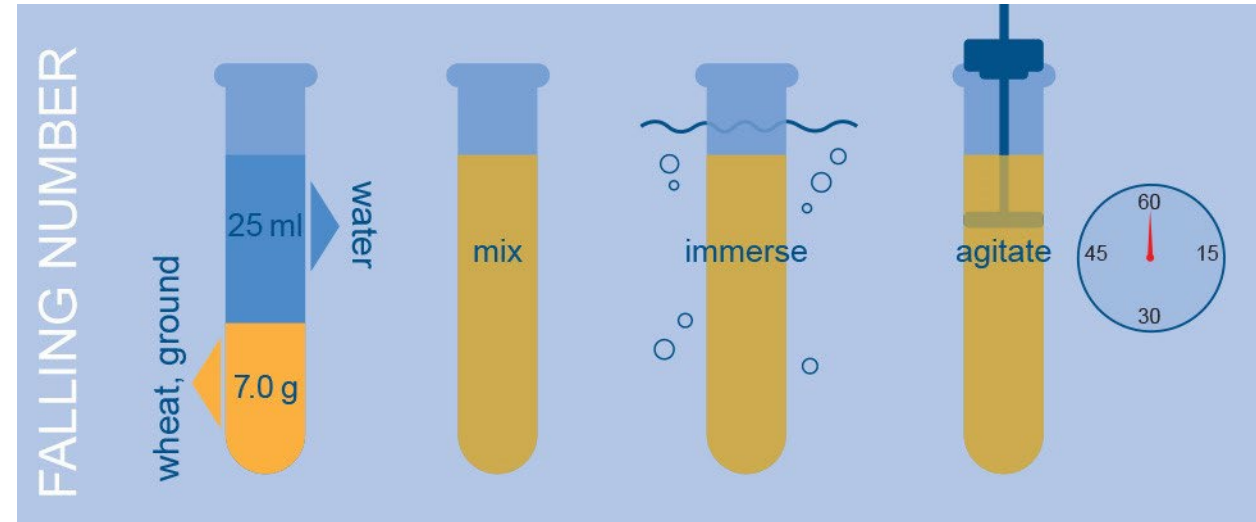




Falling Number

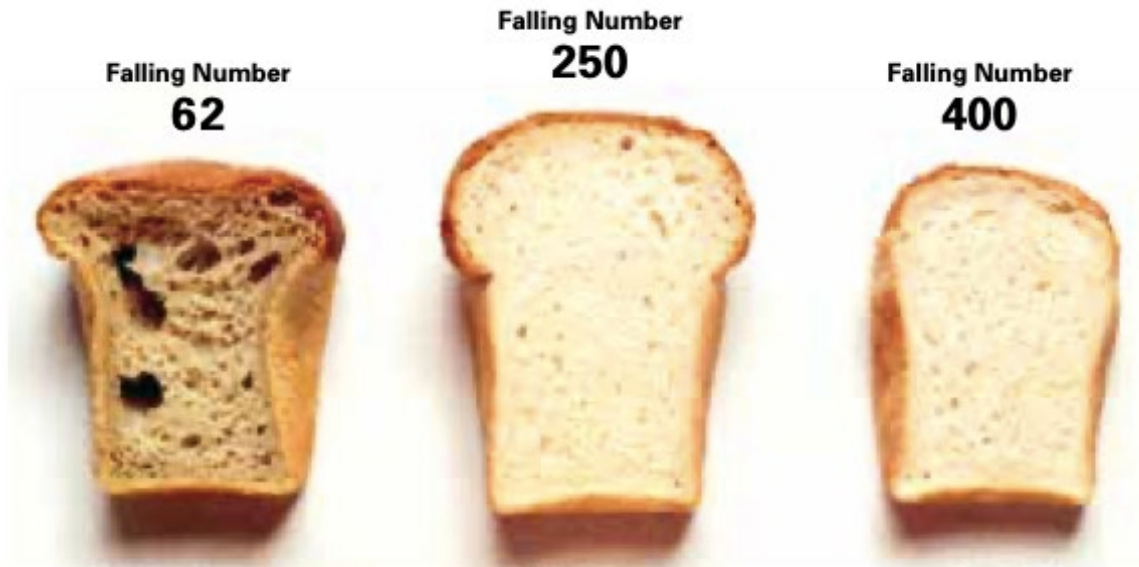
Monitoring Program:

- **Incorrect calculations**
- **Differences in moisture**
- **Barometric pressure and water temperature tolerances**





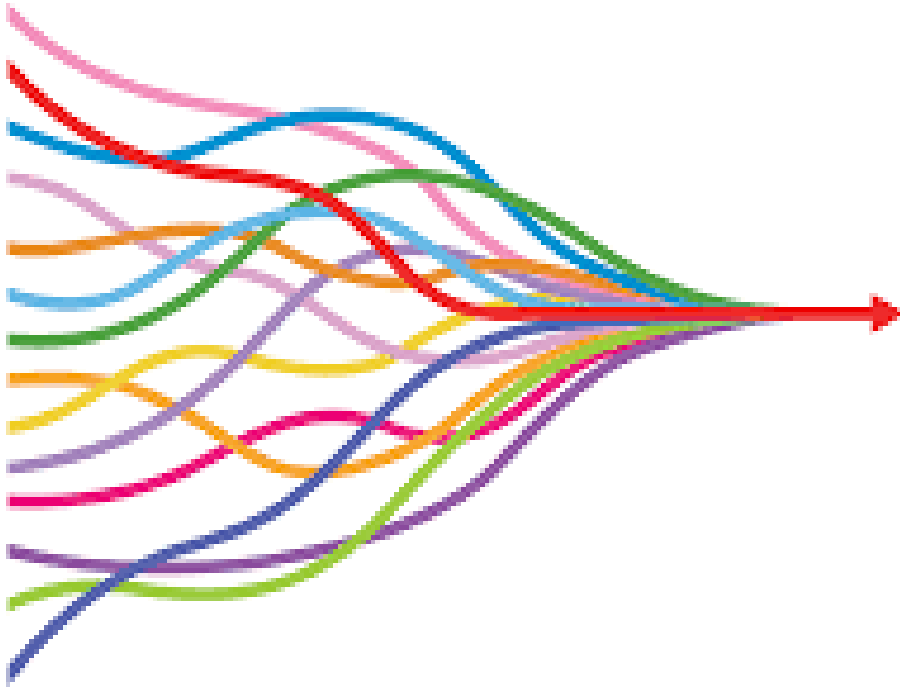
Falling Number



- **Improve participation**
- **Review current approved list**
- **Explore ways to improve alignment**



Board of Appeals and Review



Enhanced Training for QAS/inspectors

- Final corn damage training video
- Begin development of soybean and wheat videos
- Implementation of microscope communication tool
- Referee samples and focused training and development



Technology Update

- 1. UGMA moisture meters and quart kettle**
- 2. Imaging technology and grading**





Why Explore TW with UGMA?

- **Simultaneous processes**
- **Reduce labor, time and space**
- **Eliminate operator dependency of test weight measurements**





Potential Barriers



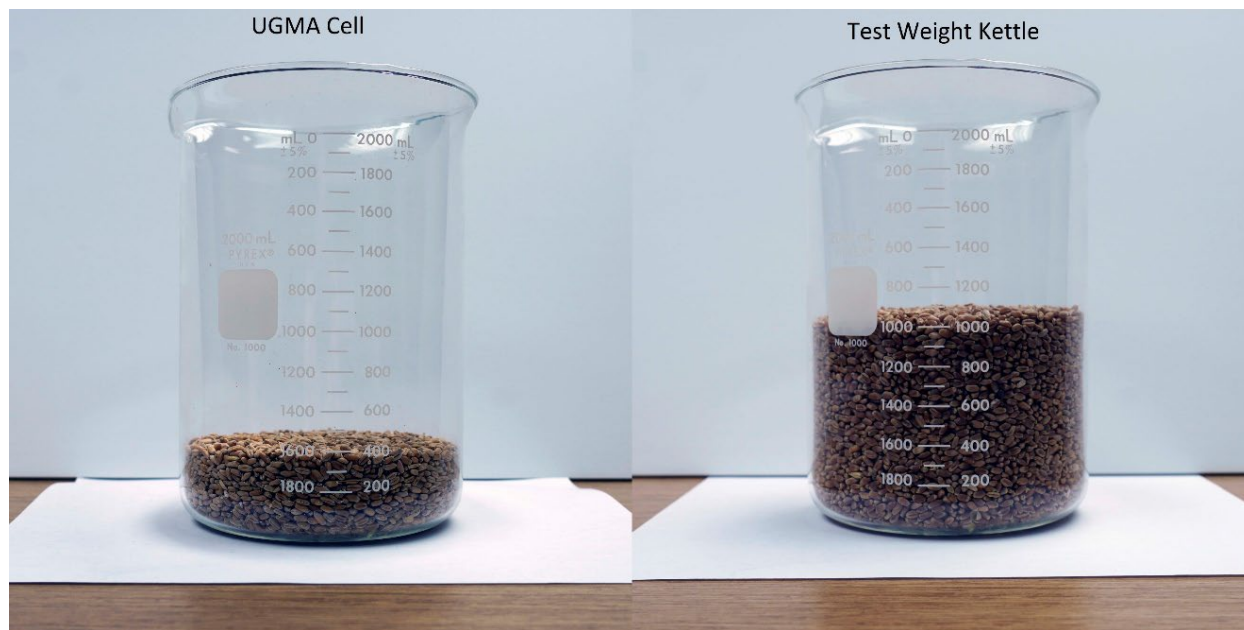
- **Basis of determination for moisture and test weight**
- **Existing test weight tolerances (SIMS)**
- **Impact of dockage/FM on accuracy of test weight**
- **Fundamental physical differences**



Basis of Determination

Group	Grade-Determining	Moisture	Test Weight
Barley	Yes	With dockage	Remove dockage
Corn	Yes	With BCFM	With BCFM
Oats	Yes	With FM	With FM
Rough Rice	No	With dockage	With dockage
Sorghum	Yes	With dockage	With dockage
Soybeans	No	With FM	With FM
Sunflower Seed	Yes	With FM	Remove FM
Wheat	Yes	With dockage	Remove dockage

2013-2014

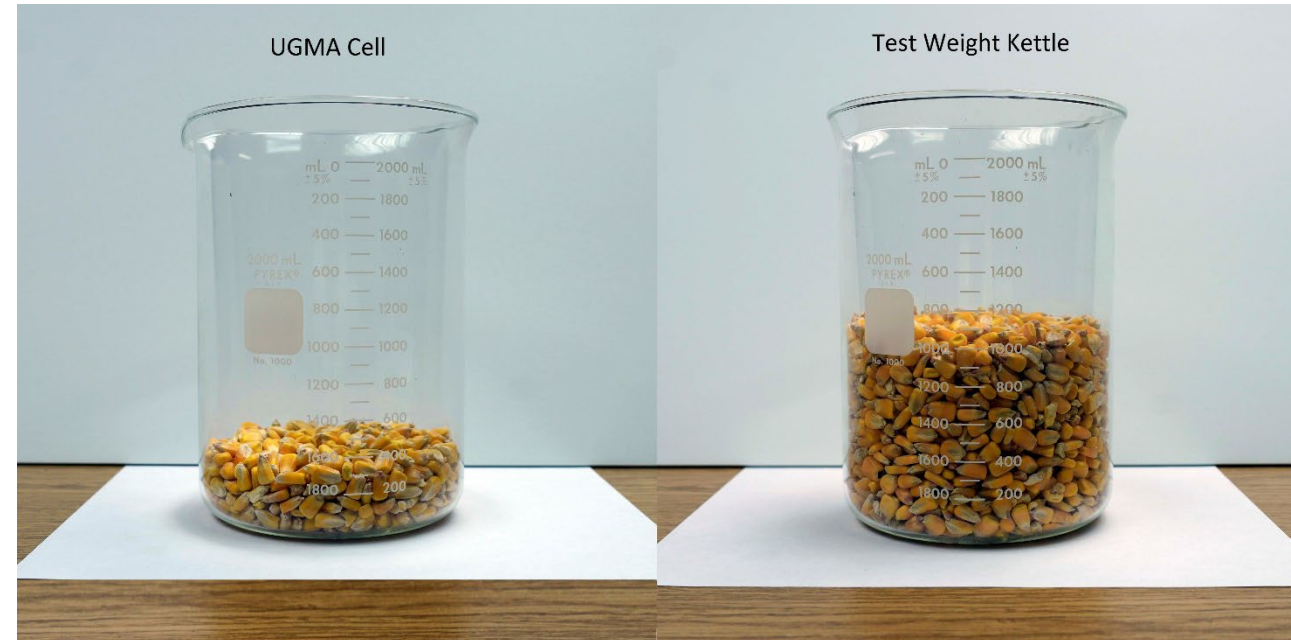


- 1. Assess UGMA test weight accuracy**
- 2. Simulate test weight checktest simultaneously with moisture checktest**
- 3. Assess effects of dockage/FM on UGMA test weight**



2013 Outcomes

- **Wider tolerances**
- **Bias adjustments**
- **Agreement between UGMA and kettle *improved with DKG/FM removed for hard red wheat***
- **Recommendation: use clean grain to minimize/reduce impact of FM**





2017

- 1. How do the methods compare?**
 - **Compare grain against grain**
- 2. What is the probability to exceed a defined limit?**
 - **Address experimental variables:**
 - **Remove dockage/FM**
 - **Study utilized measurements of the same physical sample**
- 3. What is the expected range of differences between methods?**



What's the probability...

What is the probability to exceed a specified limit?

SIMS tolerance for assessing whether field test weight measurement agree with a standard measurement

Is there an equal probability of exceeding SIMS tolerance?

Example results for corn:

	Fail	Pass	Total
UGMA-Kettle	103	166	269
Kettle - Kettle	8	261	269
Total	111	427	538



2017 Outcomes

- **UGMA has a higher likelihood of exceeding the SIMS tolerance on more than half of the grain types tested.**
- **SIMS tolerances will need to be widened if UGMA is adopted.**
- **UGMA has higher measurement variation than the quart kettle**

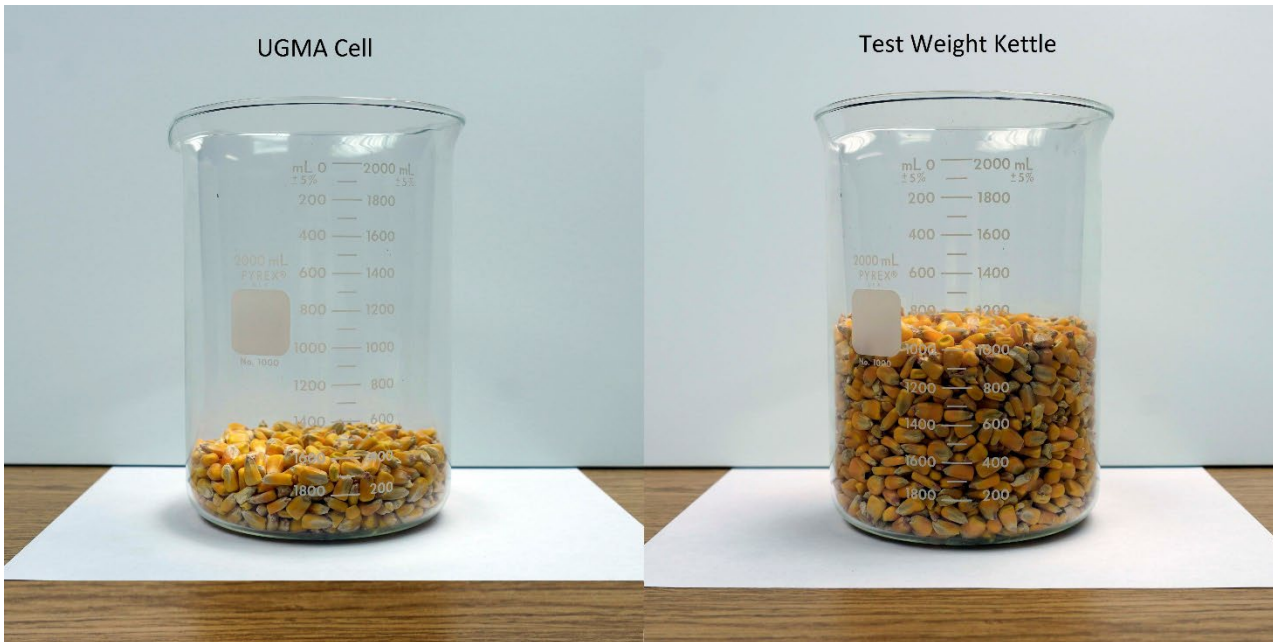
2024 Corn Test Weight

- **Corn samples with broken corn/foreign material (BCFM)**
- **6 groups representing 6 grades**
- **Each group had proportion of BCFM present in the samples to correspond to five major grade levels**

Grade	BCFM Maximum Limits (%)
U.S. No. 1	2.0
U.S. No. 2	3.0
U.S. No. 3	4.0
U.S. No. 4	5.0
U.S. No. 5	7.0
U.S. Sample Grade	>7.0



2024 Corn Test Weight



Repeatability limits represent the range in which 90% of differences between each method and itself would be expected to fall:

- **UGMA-UGMA limit = ± 0.75 lb/bu**
- **UGMA-UGMA limit = ± 0.78 lb/bu**
- **Kettle-Kettle limit = ± 0.29 lb/bu**

SIMS tolerance for corn = 0.6



Imaging Technology

Grain VALUETM



Videometer





How?



How?

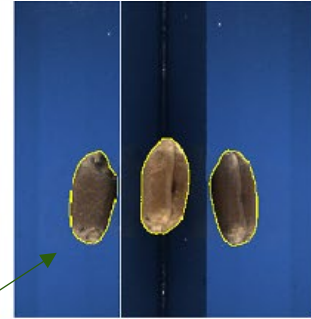
Samples...Lots of Samples



Wheat--Cgrain

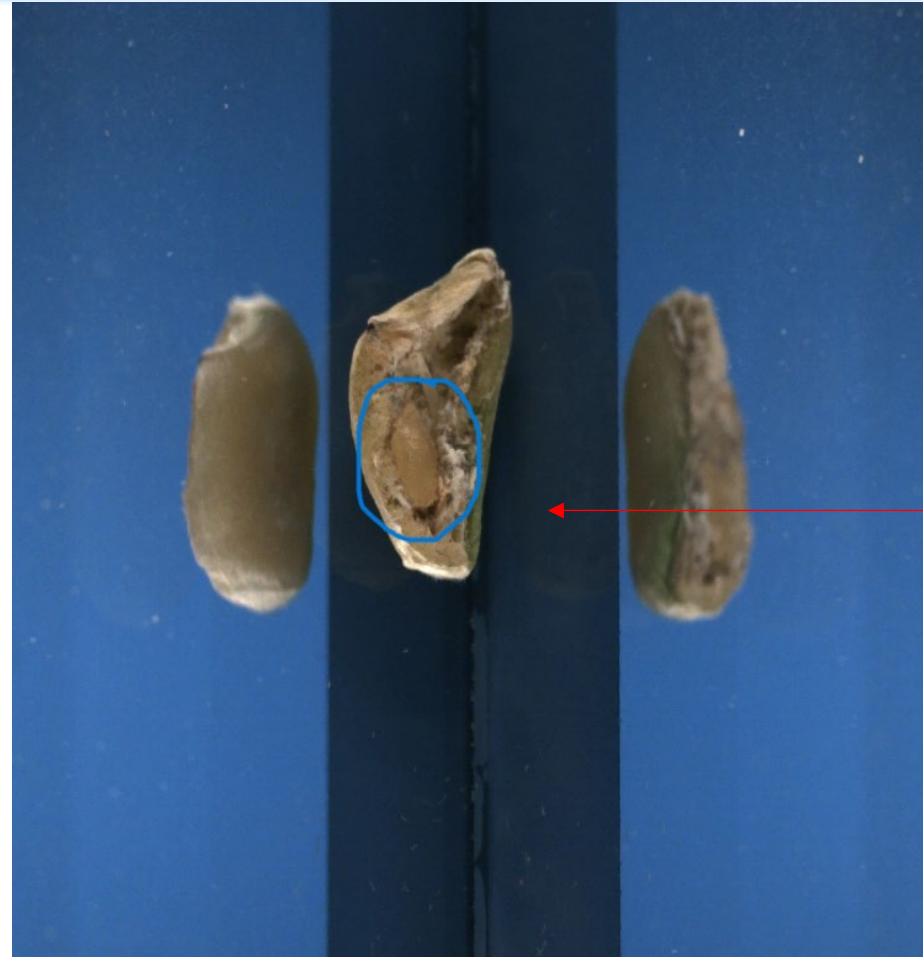
Factor	Current	Target
Sound Kernels (HRW)	24,000	As many as possible over time
Germ Damage	6150	10,000
Mold Damage	6100	10,000
Sprout Damage	6000	10,000
Insect Damage	5500	10,000
Insect Chewed (Not damage)	1650	10,000

Images of Sound Kernels



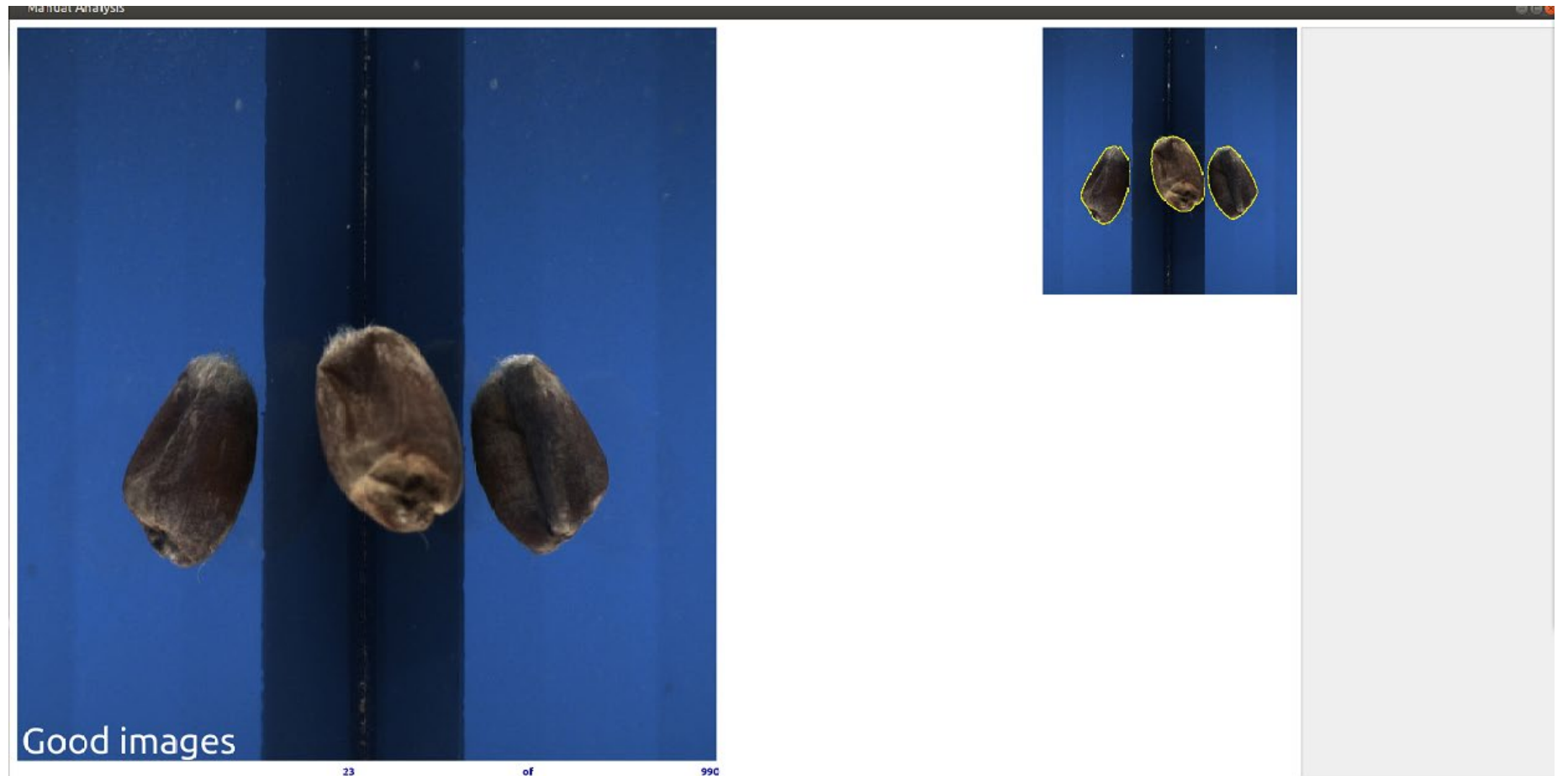
The yellow outline
around the kernel
shows what the model
is looking at

Even Found an Insect!

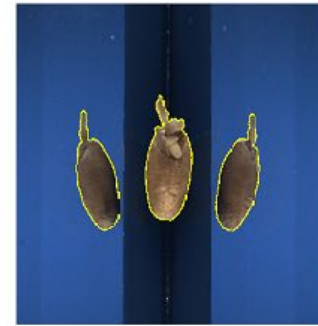


Insect within Kernel

Germ Damage



Sprout Damage





Corn-Videometer

Factor	Current	Target
Blue-eye Mold Damage	5000	10,000
Cob Rot Damage	2200	10,000
Germ Damage	6100	10,000
Heat Damage	500	10,000
Insect Damage	2000	10,000
Sprout Damage	300	10,000



Outlook





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Thank You!