



United States  
Department of  
Agriculture

Grain Inspection,  
Packers and Stockyards  
Administration

# **Meeting Minutes Grain Inspection Advisory Committee**

**June 18-19, 2013  
Kansas City, Missouri**

**GRAIN INSPECTION, PACKERS AND STOCKYARDS ADMINISTRATION  
GRAIN INSPECTION ADVISORY COMMITTEE MEETING MINUTES**

**National Grain Center  
June 18-19, 2013**

**WELCOME**

Larry Mitchell, Administrator, Grain Inspection, Packers and Stockyards Administration and Mary Coffey Alonzo, Director, Technology and Science Division, Federal Grain Inspection Service, GIPSA, welcomed everyone to the meeting and introductions were made. Paul Lautenschlager, Chairperson, Grain Inspection Advisory Committee (Advisory Committee) called the meeting to order.

**ACCEPTANCE OF DECEMBER 6-7, 2011, MEETING MINUTES**

The Advisory Committee approved the minutes of the December 6-7, 2011, meeting as presented.

**REVIEW AND ACCEPTANCE OF JUNE 18-19, 2013, AGENDA**

The Advisory Committee approved the agenda of the June 18-19, 2013, meeting as presented.

**MEETING ATTENDEES**

**Advisory Committee Members**

Tammy Basel, Past President, Women Involved in Farm Economics  
Janice Cooper, Executive Director, California Wheat Commission  
Rennie Davis, President/CEO, Davis Seed Farms, Inc.  
Rigoberto Delgado, Senior Partner, Delgado Farms Lcc.  
Warren Duffy, Vice-President/Export Operations, ADM Grain  
Omar Garza, Special Project Coordinator, University of Texas, Pan American  
Arvid Hawk, President, Global Agricultural Consulting, LCC  
Edgar Hicks, Director, Nebraska State Grange  
Jayce W. Hoyt, Managing Partner, Go Grain LLC  
Paul Lautenschlager, Manager, Beach Coop Grain Co  
Kent McAninch, Owner/Operator  
Nannette Pfister, Operations Leader, Cargill/Farm Service Group  
Sarah Ann Sexton-Bowser, Director of Membership Services, Kansas Grain and Feed Association  
Maria Reinitz, Manager, Gavilon, LLC

**GIPSA**

Mary Coffey Alonzo, Director, Technology and Science Division (TSD), Federal Grain Inspection Service (FGIS), Grain Inspection, Packers and Stockyards Administration (GIPSA)

Rob Dorman, Policies, Procedures and Market Analysis Branch (PPMAB), Field Management Division (FMD), FGIS, GIPSA  
Dr. David Funk, Chief Scientist, TSD, FGIS, GIPSA  
Joe Han, PPMAB, FMD, FGIS, GIPSA  
Eric Jabs, Branch Chief, Quality Assurance and Designation Branch (QADB), Quality Assurance and Compliance Division (QACD), FGIS, GIPSA  
Randall Jones, Deputy Administrator, FGIS, GIPSA  
Bob Lijewski, Director, FMD, FGIS, GIPSA  
Pat McCluskey, Branch Chief, PPMAB, FMD, FGIS, GIPSA  
Larry Mitchell, Administrator, GIPSA  
Dr. Tim Norden, Chief, Analytical Chemistry Branch (ACB), TSD, FGIS, GIPSA  
Tom O'Connor, Director, QACD, FGIS, GIPSA  
Dr. Richard Pierce, Chief, Inspection Instrumentation Branch (IIB), TSD, FGIS, GIPSA  
John Pitchford, Director, Departmental Initiatives and International Affairs (DIIA), FGIS, GIPSA  
Denise Ruggles, Assistant to the Director, FMD, FGIS, GIPSA  
Jim Whalen, Chair, Board of Appeals and Review (BAR), TSD, FGIS, GIPSA

### **Other Attendees**

Richard Dempster, AIB International  
Cassie Eigenmann, Dickey-john Corp  
Jason Ferrante, Washington State Department of Agriculture  
Nick Friant, Cargill  
Mark Fulmer, Lincoln Inspection Service  
Tim Koeding, Perten Instruments  
Jess McCluer, National Grain and Feed Association  
Tom Meyer, Kansas Grain Inspection Service  
James Stewart, Lundberg Farms  
Roger Vanderkolk, Dickey-john Corp

### **MARKET UPDATE**

Randall Jones, Deputy Administrator, FGIS, GIPSA, gave a general overview of FGIS operations.

The 2012 crop year export inspections are at the lowest levels since 1983 and 1986. Corn is down 54 percent below last year's level. Compared to all grain, exports are down to 20 percent from last year's very low level and are 35 percent below the 5-year average. The 4 FGIS field offices are running approximately 25 percent below the 5-year average and 12 to 13 percent below last year's levels.

China's purchases of soybeans are the primary driver of our grain exports. Soybean exports will exceed corn this year. Wheat export levels are similar to last year's level and slightly below the 5-year average. Sorghum exports are better than last year but substantially below the 5-year

average. Low crop production is attributable primarily to weather with drought during the production season and then torrential rains during harvest.

FGIS Individual Port Locations:

- New Orleans –
  - January experienced low Mississippi river levels that restricted barge traffic
  - April and May there were problems with flooding making it very challenging
  - 2012 was lowest dating back to 2003, 15 percent below last year and 25 percent below 5-year average
- League City –
  - Very slow last year compared to the 5-year average, slightly better this year but still 30 percent below 5-year average
- Portland –
  - Past year very difficult
  - FGIS services three facilities
  - One shut down for improvements, one has limited service, and one operating 24/7
  - 35 percent below last year's level and 40 percent below the 5-year average
- Toledo –
  - Slightly above 5-year average
- Olympia (State of Washington) -
  - Very tough year for Washington Department of Agriculture
  - Staff layoffs
  - Labor issues
  - 20 percent below 5-year average and 20 percent below last year
- Canada –
  - When requested send staff to Canada from Toledo for inspection and weighing service
  - Services performed on a cost recovery basis
  - 45 percent below 5-year average

Domestic inspections are voluntary and primarily performed by Official Agencies (OA). Inspections are stable. Pulse inspections are slightly better than last year. Exports are still driving the pea and lentil trade. Rice inspections are very consistent over the last few years. This year's containerized grain inspections are slightly behind the 2011/12 average due to reduced exports. Out of 135 registered facilities, 90 are currently loading.

For additional details, please see the attached presentation, **National Program Overview**.

## **INTERNATIONAL PROGRAMS**

John Pitchford, Director, DIIA, FGIS, GIPSA, provided a briefing on foreign complaints, international trade, and outreach initiatives.

### **Importer Complaints**

In 2011, 15 Korean and Japan corn shipments received quality complaints; however the complaints have declined in the last few years. Last year, GIPSA received five quality complaints and one complaint from China this year on green soybeans. The decrease could be due to the decline in export inspections.

### **U.S./China Soybean Vessel Comparison Study**

Last year, USDA and China's General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) decided to conduct a joint vessel comparison study (VCS) of four shipments of U.S. soybeans between U.S. and Chinese ports to evaluate differences in sampling procedures and inspection results for treated soybean seeds and other quality factors.

GIPSA, in conjunction with the Foreign Agricultural Service (FAS), Animal and Plant Health Inspection Service (APHIS), Food and Drug Administration (FDA), American Seed Trade Association (ASTA), North American Export Grain Association (NAEGA), and U.S. Soybean Export Council (USSEC), drafted a protocol for the VCS and shared it with AQSIQ. During 2012, we negotiated and reached an agreement on the terms of reference for the study. The Chinese participants included the China Inspection and Quarantine Services (CIQ) and China's General AQSIQ.

M/V LADY MARITE began loading in Seattle, Washington, on February 24, 2013. CIQ officials from different port offices traveled to the U.S. to observe the loading of the first study vessel. At the time of loading, GIPSA personnel obtained representative samples by officially sampling the entire cargo using a D/T mechanical sampler. In addition, GIPSA used a 6-foot compartmented probe to collect five samples from the study holds 2, 4, and 6 when the vessel was half full and again when full, using a predetermined probe pattern. CIQ officials were not interested in GIPSA probe samples stating it is not a normal sampling practice during loading. They requested subplot samples from the entire cargo.

Representatives from GIPSA, FAS, and NAEGA traveled to Zhejiang, China, to observe China's sampling and inspection procedures during the discharge of the study holds and draw our own official probe samples. China used a small hand scoop to collect surface samples for phytosanitary inspection at three depths during discharge. For the quality inspection they used a probe to obtain samples at three depths.

GIPSA, FGIS Board of Appeals and Review are inspecting the samples officially collected by GIPSA at destination. GIPSA is waiting to receive China's inspection results so an interim report can be drafted.

Working with Chinese officials to develop this vessel comparison study facilitated the development of a strong rapport between USDA and AQSIQ. This will be strengthened during execution of the study. The project has served as a remarkable example of cooperation among U.S. and Chinese government and industry officials, including the entire U.S. soybean value chain, from seed to spout. Vessels #2, 3 and 4 will be monitored next shipping season. The project has been successful with no recent complaints.

### **Detection of GE Wheat**

In late April 2013, an Oregon winter wheat producer was preparing a 123-acre field for planting in the fall 2013. The field was last planted in the fall 2011 and harvested in July 2012. To prepare the field the producer sprayed the field with the herbicide glyphosate in the spring 2013. The producer noticed that volunteer wheat was not killed by the applied glyphosate and contacted the Oregon State University (OSU). OSU notified USDA that plant samples had tested positive for a protein that made them glyphosate-resistant.

APHIS enlisted the assistance of GIPSA's biotech testing laboratory during the investigation. AMS and GIPSA confirmed OSU's results and that the genetic material was part of a specific "event" developed by Monsanto known as MON71800. MON71800 was field tested with USDA approval under controlled conditions in 16 states from 1998 through 2005.

FDA consultation in 2004 confirmed that the GE wheat is as safe as non-GE wheat so there are no food/feed safety concerns. GIPSA is ready to work with the market responses and will issue a letterhead statement upon request that says there is "No GE varieties for sale or in commerce." GIPSA has no plans to provide official testing at this time.

On June 13, 2013, USDA validated an event-specific PCR (DNA-based) method for detecting MON71800 (provided by Monsanto to USDA on May 23, 2013). The USDA validation process included a specificity study and a sensitivity study. USDA determined that the method can reliably detect MON71800 when it is present at a frequency of 1 in 200 kernels. Additionally, USDA has provided this validated DNA test method to detect this specific GE variety to our trading partners that have requested it.

Major markets, such as Japan, Korea, and Taiwan have postponed imports of U.S. white wheat as they continue to study information from U.S. officials to determine what, if any, future action may be required. USDA officials will continue to provide information as quickly as possible as the investigation continues – with a top priority on giving our trading partners the tools they need to ensure science-based trade decisions. We have no other reports of overseas markets closing to U.S. wheat, or requiring testing of wheat shipments from the United States.

For additional details, please see the attached presentation, ***International Affairs***.

## **FIELD MANAGEMENT DIVISION UPDATES AND INITIATIVES**

The Advisory Committee was briefed on a number of Field Management Division (FMD) issues.

### **Fall Protection and Safety**

Bob Lijewski, Director, FMD, FGIS, GIPSA, discussed the background of the fall protection and safety issues. In October 2011, OSHA cited GIPSA for alleged violation of fall protection regulations. GIPSA appealed the citation and in December 2012, OSHA responded and dismissed the citation. OSHA requested that GIPSA ensure all persons working on the top of rail cars be trained in safety issues. Qualified GIPSA personnel will be sent to all rail sampling sites where GIPSA sampling is provided to determine the feasibility of constructing fall protection. A rolling stock fall protection assessment will be completed and after discussions with the field office managers there will be a policy put in place just for FGIS.

### **Laboratory Modernization Project**

Mr. Lijewski discussed lab space improvements. The FGIS Executive Management Team's initiative is to make the laboratories safer, more efficient, and improve customer service. Most of the inspection labs are over 30 years old and are not adequate anymore. Industry is working with FGIS on the lab space improvements, relocations, and in some cases new lab spaces to comply with FGIS Directive 9160.5. The goal is to link inspections electronically and sync with the quality control system.

### **Water-based Mycotoxin Test Kits**

Mr. Lijewski discussed aflatoxin kits. GIPSA currently has 14 approved aflatoxin kits with only 12 currently used in the official system. GIPSA reviewed the waste disposal program and found there are significant regulatory concerns related to the disposal of solvents which should be considered hazardous waste. This not only drives up the cost for disposal but could be a safety hazard for employees. GIPSA would prefer to implement water-based testing for the official system to eliminate the need for organic solvents and disposal cost. Currently approved water-based test kits are the Charm Rosa Wet Aflatoxin and the Neogen Reveal Q Aflatoxin Green. The industry will be notified ahead of time so they may be prepared. If the aflatoxin water-based system is a success then GIPSA will move forward with approving water-based test kits for Ochratoxin A, Zearanlenone, and Fumonisin.

### **Canadian Phytosanitary Inspections**

Mr. Lijewski provided an update on potential changes to Canadian Food Inspection Agency (CFIA) requirements on grain imported into Canada. The changes could lead to an increase in FGIS phytosanitary inspections on approximately 37,000 land carriers a year going into Canada. The inspections would occur near land border crossings between the U.S. and Canada in Seattle, WA; Pembina, ND; Duluth, MN; Buffalo, NY; St. Albans, VT; Great Falls, MT; Minneapolis, MN; Detroit, MI; Ogdensburg, NY; and Portland, ME. FGIS and Official Agencies (OA)

perform the inspections in these locations since APHIS does not always have staff available in specific areas.

### **Role of DIOO**

Mr. Lijewski provided an update on the Domestic Inspections Operations Office (DIOO) located in Kansas City. DIOO is the Wichita, Kansas City, and Cedar Rapids field offices merged into one central office. DIOO responsibilities are to coordinate and oversee the front-lines for FGIS program execution at the OA level. Their mission is to provide policy and procedural support to OA, coordinate necessary actions as a result of Compliance reviews, work with the processed commodity program, official weighing, collaborate with BAR/GSL/QACD on the monitoring, appeals, equipment checktesting program, and proctoring for inspection licensing. This is the only domestic grain inspection supervision office in place; Grand Forks supervises pulse inspections and Stuttgart provides rice supervisions.

### **Rulemaking and Export Inspection Fees**

Pat McCluskey, Chief, PPMAB, FMD, FGIS, GIPSA, provided updates on rulemaking activities currently in the clearance process. Progress and timelines were discussed regard the following:

- Final Rule: U.S. Standards for Wheat become effective May 1, 2014
- Final Rule: Container Rule in clearance
- Proposed Rule: U.S. Standards for Barley in clearance
- Notices of request for public comment: Whole Dry Peas, Beans, Lentils, Feed Peas and Split Peas
- Effective date for Export User Fee Structure was May 1, 2013.

### **North Dakota Pulse Grading**

Mr. McCluskey provided an update on the pulse grading in North Dakota. US Dry Pea and Lentil Council requested official inspection services in western North Dakota. GIPSA established a lab at United Pulse Trading after finding it challenging to find space and personnel in the Minot area due to the oil business. The Minot agency collects the samples for shipment to Grand Forks by AMTRAK and results are provided to the customer the next day. This is extremely cost effective.

For additional details, please see the attached presentation, *Field Management Division Updates and Initiatives.*

## **OVERVIEW OF QUALITY PILOT IN NEW ORLEANS**

Eric Jabs, Chief, QADB, QACD, FGIS, GIPSA, discussed the quality pilot program that began on May 1st in New Orleans and will run through to September 30, 2013.

The purpose of the project is to evaluate the benefits of expanding the Agency's quality program to include a measure of inspector performance based upon an analysis of their separations of

three quality factors. The pilot is part of a comprehensive review of the Agency's quality program. At the conclusion of the pilot project, the results will be evaluated to determine who best to implement the system of inspector performance that includes separations at all field offices. GIPSA will work with union officials on procedures that will be used to fully implement the new system of measuring inspector performance.

For additional details, please see the attached presentation, **Quality Pilot Project**.

### **CENTRALIZATION OF QUALITY ASSURANCE**

Jim Whalen, Chair, BAR, TSD, FGIS, GIPSA, discussed the final phases of the centralization of the quality assurance.

GIPSA has completed a multi-year process to centralize quality assurance functions into a central monitoring lab. Effective June 10, 2013, quality assurance functions for monitoring, licensing, and appeals transitioned from the Domestic Inspection Operations Office (DIOO) to the Grading Services Laboratory (GSL) within the Board of Appeals and Review (BAR). Effective August 1, 2013, all equipment performance verification will be centralized into the BAR. A key improvement this type of centralization offers is that any potential for stacking of tolerances is reduced or eliminated.

For additional details, please see the attached presentation, **Centralization of Quality Assurance**.

### **SORGHUM ODOR PROJECT**

Mr. Whalen provided background information on the Sorghum "Storage Musty" odor project timeline.

The Sorghum "Storage Musty" Odor project was initiated in response to an Advisory Committee resolution in October 2011. Reference samples are created by adding Geosmine and 1, 2, 4-Trimethoxybenzene to base samples of stored sorghum with established "okay" odors. Official inspection personnel were trained from February to March, 2012, to use the samples, and the reference samples themselves were distributed for use shortly thereafter. A shelf-life study had earlier determined that the reference samples were only viable for a 90 day period, so reference samples were refreshed quarterly. TSD also monitored use of the samples, and found that use was minimal. In order to avoid the cost associated with preparing and distributing samples, TSD now dispenses the reference samples on an as-needed basis. TSD maintains a reserve stock of reference samples at all times. Follow-up training is performed at annual Quality Assurance Seminars to maintain awareness.

For additional details, please see the attached presentation, **Sorghum Odor Project**.

## **RICE INITIATIVES**

Richard Pierce, Chief, IIB, TSD, FGIS, GIPSA, provided a background on Rice Initiatives and Determining Percent Broken Kernels.

A Rice Surface Lipid Pilot study is currently underway that will test the accuracy and consistency of NIRT calibrations on market samples. Data will be collected to improve the performance of the calibrations and to determine whether NIRT analysis can serve as a measure of the degree of milling of rice kernels. The primary assessment will compare NIRT predicted surface lipid content against laboratory reference values. In addition, degree of milling determinations made subjectively by both FGIS field based grain inspectors and the BAR will be compared with surface lipid content values. GIPSA is also working on a method for determining the percent of broken rice kernels using a low cost flatbed scanner system. The study is still in the early phase.

For additional details, please see the attached presentation, *Rice Initiatives*.

## **UGMA-COMPATIBLE MOISTURE METERS**

David Funk, Chief Scientist, TSD, FGIS, GIPSA, provided an update on the status of UGMA-compatible moisture meters.

Dr. Funk reported that GIPSA completed implementation of the Unified Grain Moisture Algorithm (UGMA)-compatible moisture meters on May 1, 2013.

The history of the development and implementation of UGMA-Compatible moisture meters was reviewed along with the benefits of having multiple approved models of the new technology.

For additional details, please see the attached presentation, *UGMA-Implementation Summary*.

## **FEASIBILITY OF APPROVING MULTIPLE MODELS FOR WHEAT PROTEIN**

Dr. Funk reported that GIPSA was assessing whether or not it was feasible to approve multiple equivalent near infrared technology instruments.

The desirability of developing and defining suitable compatible NIR technology for wheat protein (and other official factors) was discussed. Several significant technical challenges were identified that may prevent defining "equivalent" NIR technology. The timeline for such a development was estimated at 5 to 10 years.

For additional details, please see the attached presentation, *UGMA-Implementation Summary*.

## **GLUTEN STRENGTH ANALYZER**

Tim Norden, Chief, ACB, TSD, FGIS, GIPSA, provided a briefing on the gluten strength analyzer.

In 2003, GIPSA, working with its stakeholders, identified gluten strength as a key market need for which no test or instrumentation existed. GIPSA initiated development of a market-relevant test for gluten strength that can be accomplished in 30 minutes or less for any wheat sample. GIPSA's Wheat Functionality Laboratory was established and over the last 6 years, prototypes have been developed by Perten Instruments. The final commercial prototype was tested using 48 hard wheat pure cultivar flour samples. The wheat industry has been kept apprised of the status of the project. Future work consists of GIPSA completing their evaluation and initiating a collaborative study with key wheat quality laboratories as a way to introduce this new test to the wheat industry.

For additional details, please see the attached presentation, **Gluten Strength Analyzer**.

## **MYCOTOXIN QUALITY ASSURANCE PROGRAM**

Dr. Norden reported that GIPSA is implementing a national quality assurance program for Falling Number testing that involves collecting and reanalyzing samples weekly from service locations, and providing feedback on results received. A check sample program will also be included in the QA program to focus on troubleshooting issues. The implementation date for the program is July 2013.

GIPSA is also implementing a national quality assurance program for mycotoxin testing with an inspection monitoring program. Samples will be reanalyzed for testing accuracy and real-time feedback provided to the service locations. A mycotoxin check sample program, which assesses system-wide performance and test kit/operator troubleshooting, was just initiated for the second year. Implementation of the full program is planned for FY 2014.

For additional details, please see the attached presentation, **Mycotoxin Quality Assurance Program**.

## **MANAGING LABOR COSTS**

Tom O'Connor, Director, QAQC, FGIS, GIPSA, provided an overview of labor-management relations within GIPSA. He noted that labor relations are governed by a national contract between the American Federation of Government Employees and FGIS addressing a wide range of issues, including employee and union rights; discipline and adverse action; grievance and arbitration procedure; leave; RIF and furlough; contracting out; promotions; mid-term negotiations ; industrial disputes and civil disorders.

Mr. O'Connor noted that some FGIS field offices have entered into a supplemental contract with their local union leadership that covers issues, such as overtime and scheduling, that are unique to that location.

Mr. O'Connor explained that only employees located at FGIS field offices are covered by the national and local contracts with the exception of supervisors, managers, professional employees and employees engaged in personnel work in other than a purely clerical fashion. He pointed out that this exclusion includes employees at TSD, DIIA, QACD and FMD HQ staff.

Mr. O'Connor reviewed the legal roles and responsibilities of the Union in representing its membership: negotiations with management; attend meetings with management; investigate and prepare grievances, appeals and complaints; and attend hearings or third party proceedings. He briefly described the legal roles and rights of management: the right to determine its mission, budget, organization, number of employees and internal security practices; hire, assign, direct, layoff, and retain employees, suspend, reduce in grade or pay or take other disciplinary measures; assign work, determine with respect to contracting out, determine the personnel by which agency operations will be conducted; make selections, take emergency actions; and permissive – numbers, types and grades, tours of duty.

Mr. O'Connor discussed the legal procedures for settling labor disputes in the federal government, including grievance, arbitrations, and impasses. He described the Agency's efforts to work with its labor organizations to reduce costs and improve operating efficiency through the use of different work schedules. Mr. O'Connor observed that these types of efforts can sometimes run into Union resistance, which can slow down the process of change. Nonetheless, the Agency continues to pursue these efforts through all legal means available to it.

For additional details, please see the attached presentation, [National Program Overview](#).

## **TRUST FUND REVIEW**

Denise Ruggles, Assistant to the Director, FMD, FGIS, GIPSA, provided an overview of the trust fund.

### **520 Program – Export Inspections**

FY13, Export Program, was based on the information contained in the Fee Adjustment Rule 78FR22151. The Rule estimated FGIS retained earnings closing with a negative \$2.3M. FGIS estimated operating expenses of \$35.1 million and revenue of \$30.9 million. The period ending May 31, 2013, the retained earnings balance is a negative \$2.5M.

### **530 Program – Oversight of Official Agencies**

It is estimated that FY13 will close with a positive \$5.8 in retained earnings. For the period ending May 31, 2013, the retained earning balance is a positive \$5.9M.

### **570 Program – Rice Inspections**

It is estimated that FY13 will close with a positive \$5.9M in retained earnings. For the period ending May 31, 2013, the retained earnings balance is a positive \$5.4M.

## **580 Program – Commodity Inspections**

It is estimated that FY13 will close with a positive \$800K in retained earnings. For the period ending May 31, 2013, the retained earnings balance is a positive \$1.5M.

For additional details, please see the attached presentation, [User Fee Overview](#).

### **ELECTION OF VICE-CHAIRPERSON**

Tammy L. Basel, Past President of Women Involved in Farm Economics, was elected as vice chair and will become the Chairperson at the spring 2014 meeting.

### **NEXT MEETING**

The Advisory Committee recommends the next meeting be held in April 2014 (exact date not yet scheduled) at the National Grain Center in Kansas City, Missouri. The Advisory Committee also agreed on quarterly conference calls limited to an hour discussion due to the Advisory meeting limitation of once a year.

### **RESOLUTIONS**

The following resolutions were introduced and passed by the Advisory Committee:

1. The Advisory Committee recommends that GIPSA initiate research to determine the feasibility of extending the theory of “equivalency” to multiple-constituent instruments in order to utilize standardized technology while maintaining accuracy and consistency in measurement of wheat protein.
2. The Advisory Committee recommends that GIPSA continue its work in support of the APHIS investigation of the Genetically Engineered (GE) wheat issue. More importantly we encourage engagement with the entire value chain in efforts to retain and recover markets as well as provide regular updates of the investigation.
3. The Advisory Committee supports the use of water- based mycotoxin test kits in the official inspection system. The committee recommends seeking official agency and industry stakeholder input regarding the implementation timeline.

# National Program Overview



**GRAIN INSPECTION ADVISORY COMMITTEE**

**RANDALL JONES  
DEPUTY ADMINISTRATOR  
JUNE 18, 2013**



United States Department of Agriculture

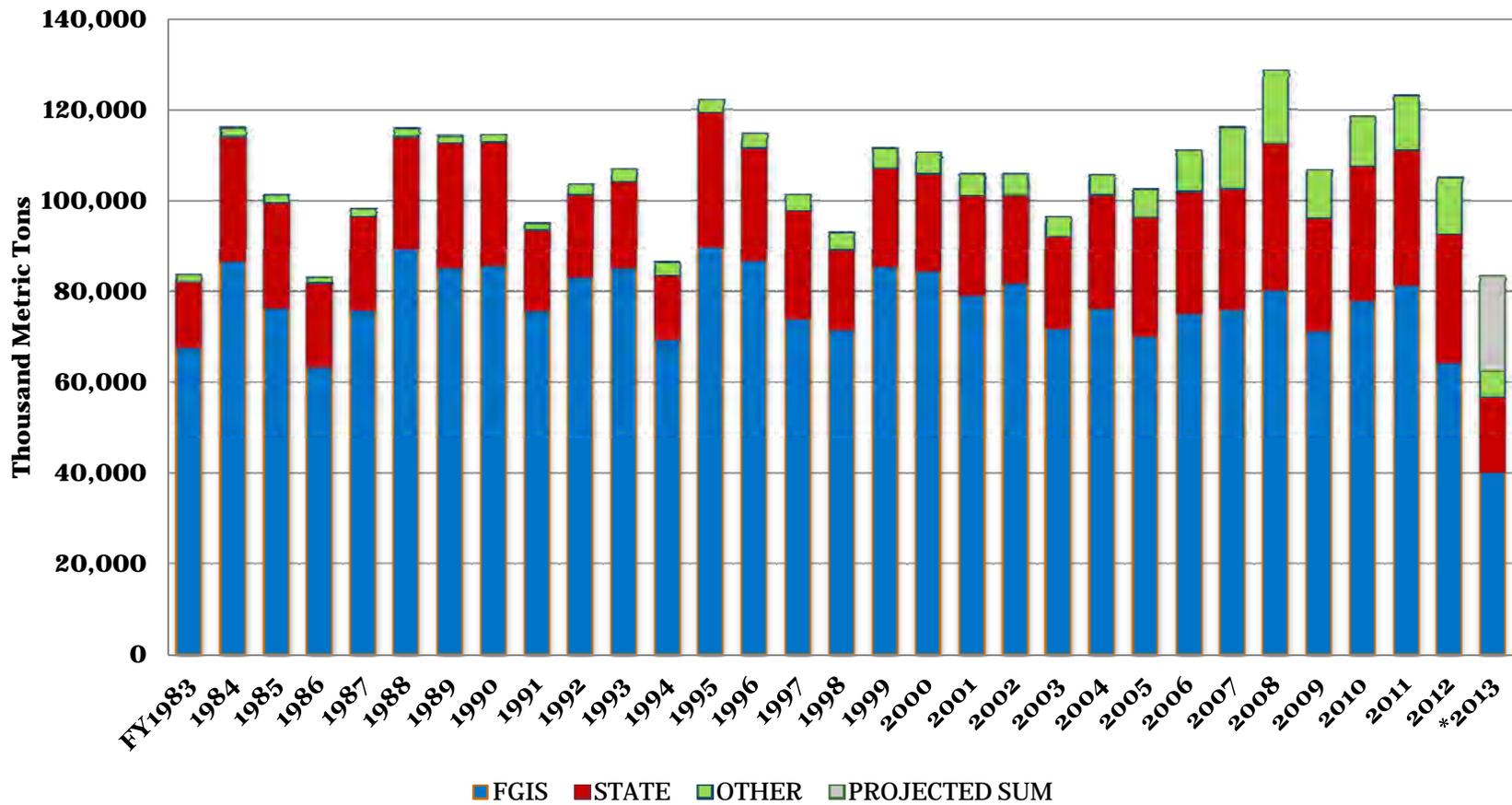
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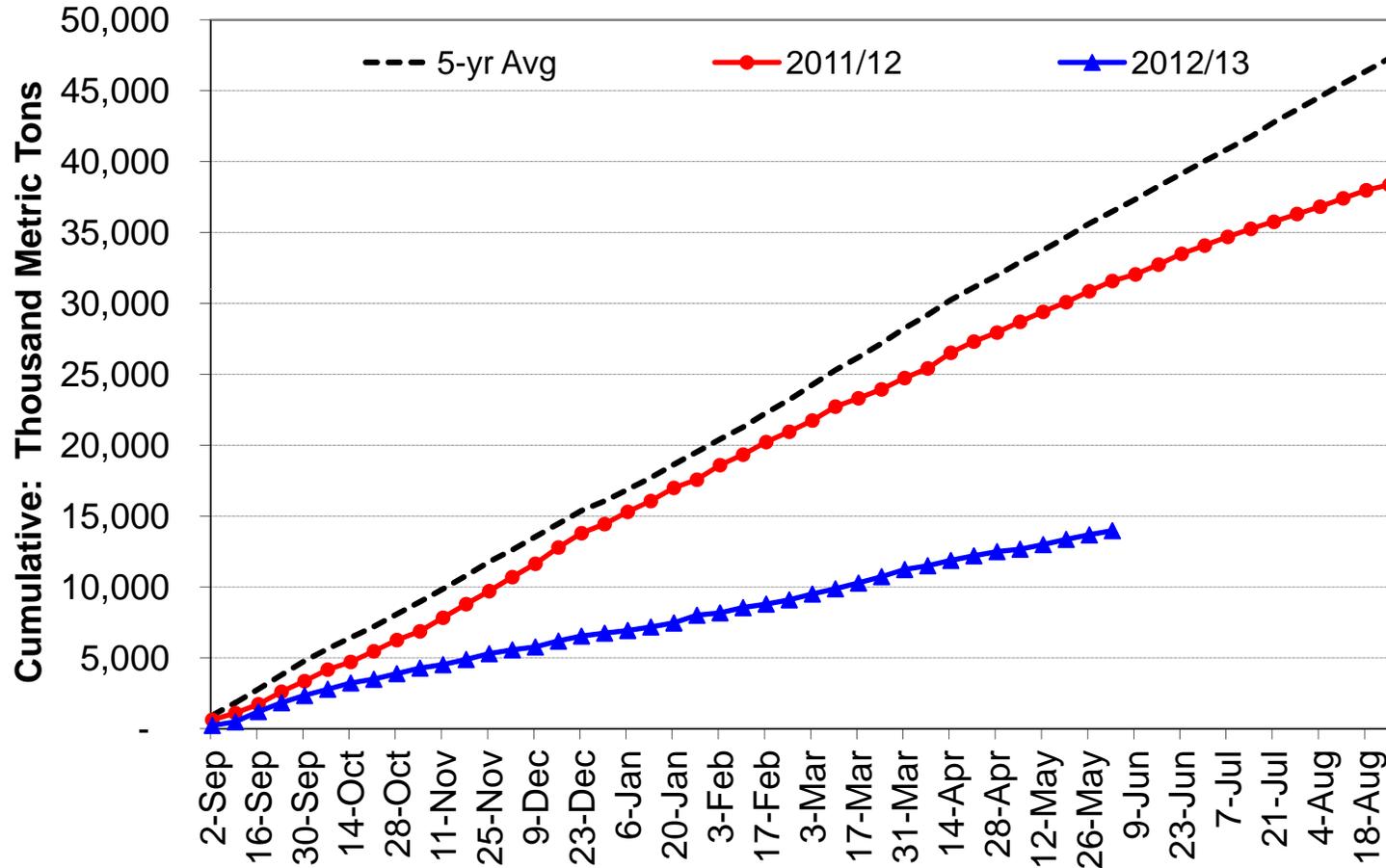
- International Affairs
  - John Pitchford
- Field Management Division Update
  - Robert Lijewski
- Compliance Division Update
  - Tom O'Connor
- Technology and Science Division Update
  - Mary Alonzo
  - Dr. David Funk
- Managing Labor Costs
  - Tom O'Connor
- Trust Fund Review
  - Denise Ruggles



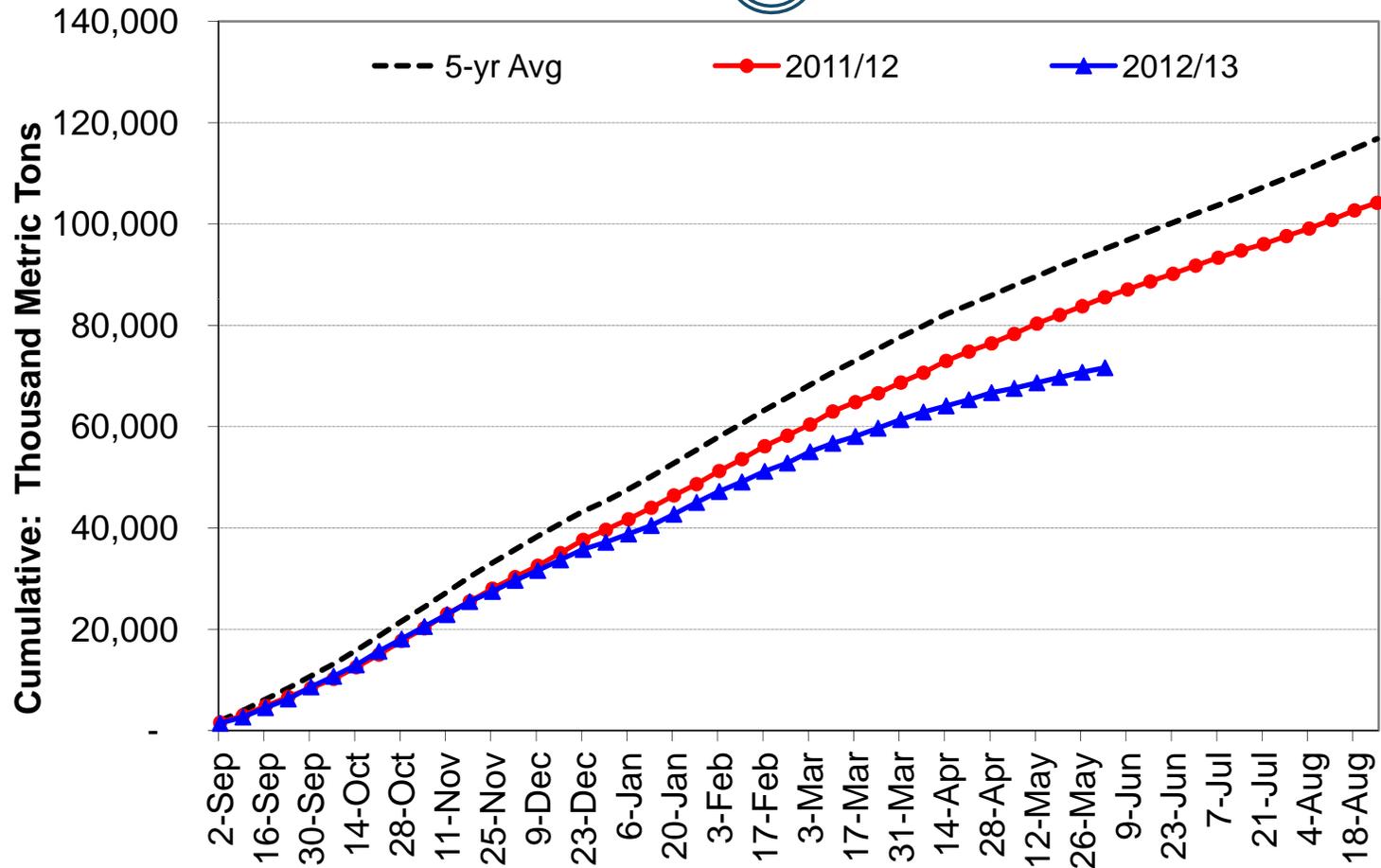
# Export Inspections



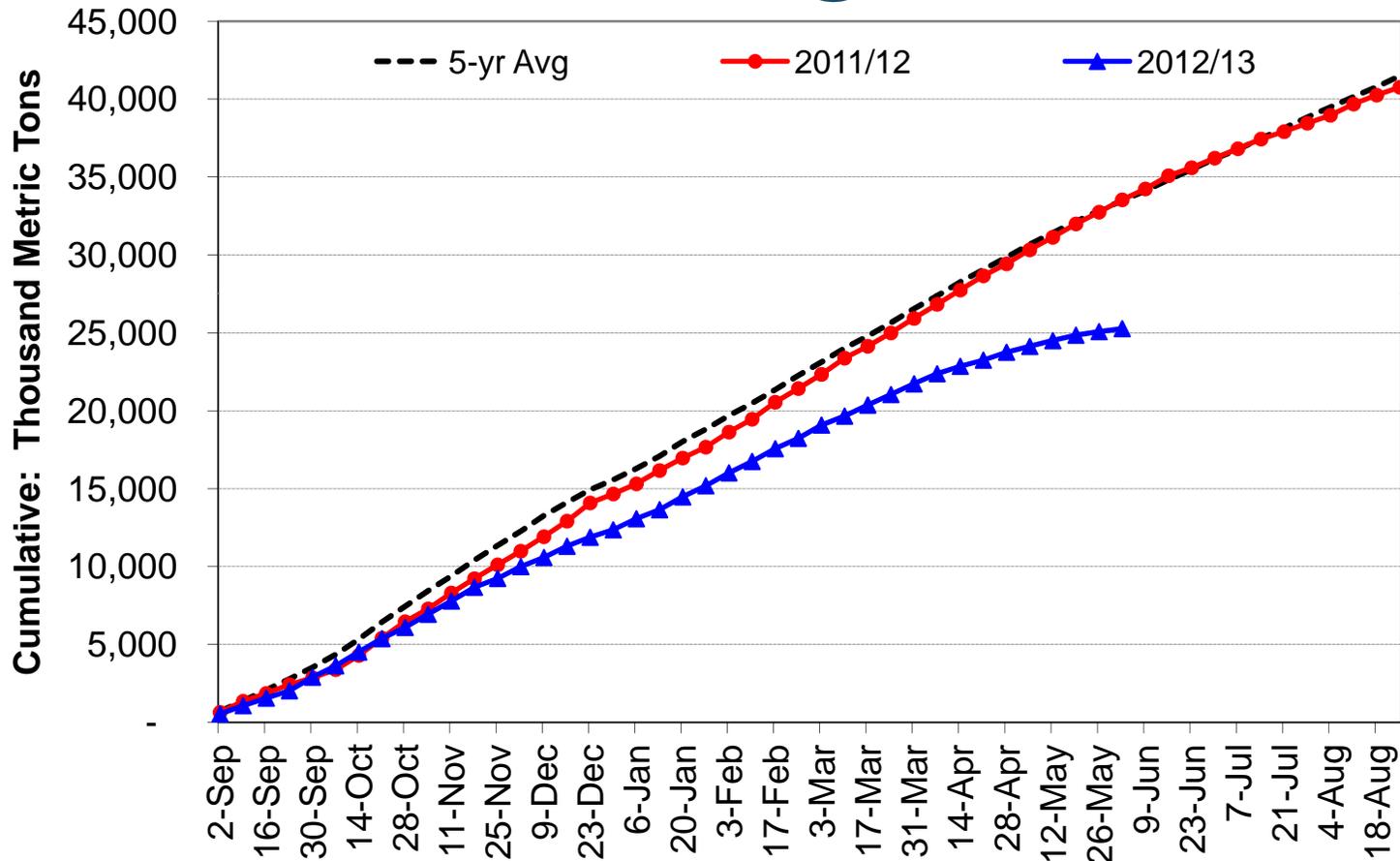
# Export Corn : FGIS, States, & Agencies



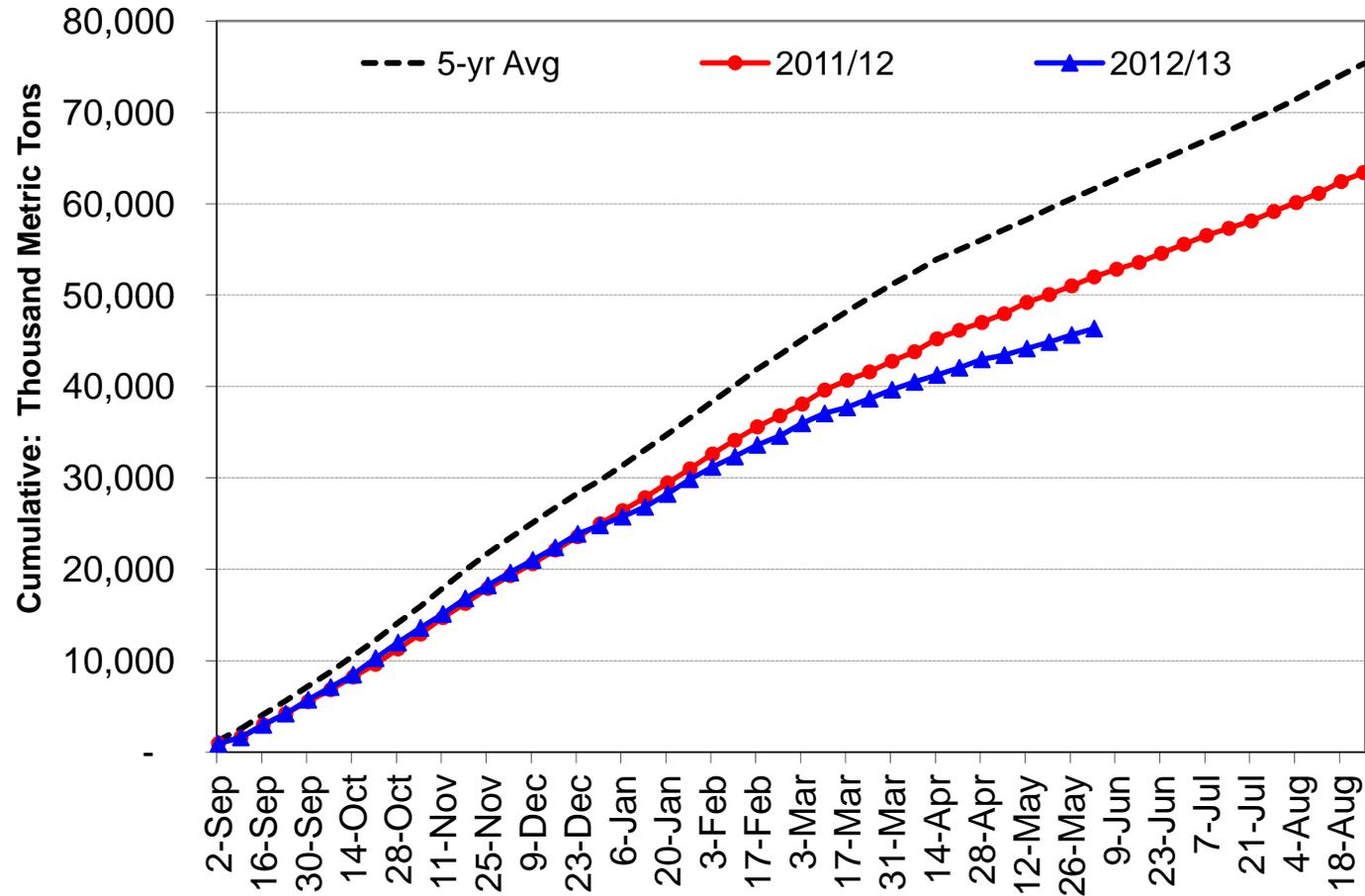
# Export: All Grains-FGIS, States, & Agencies



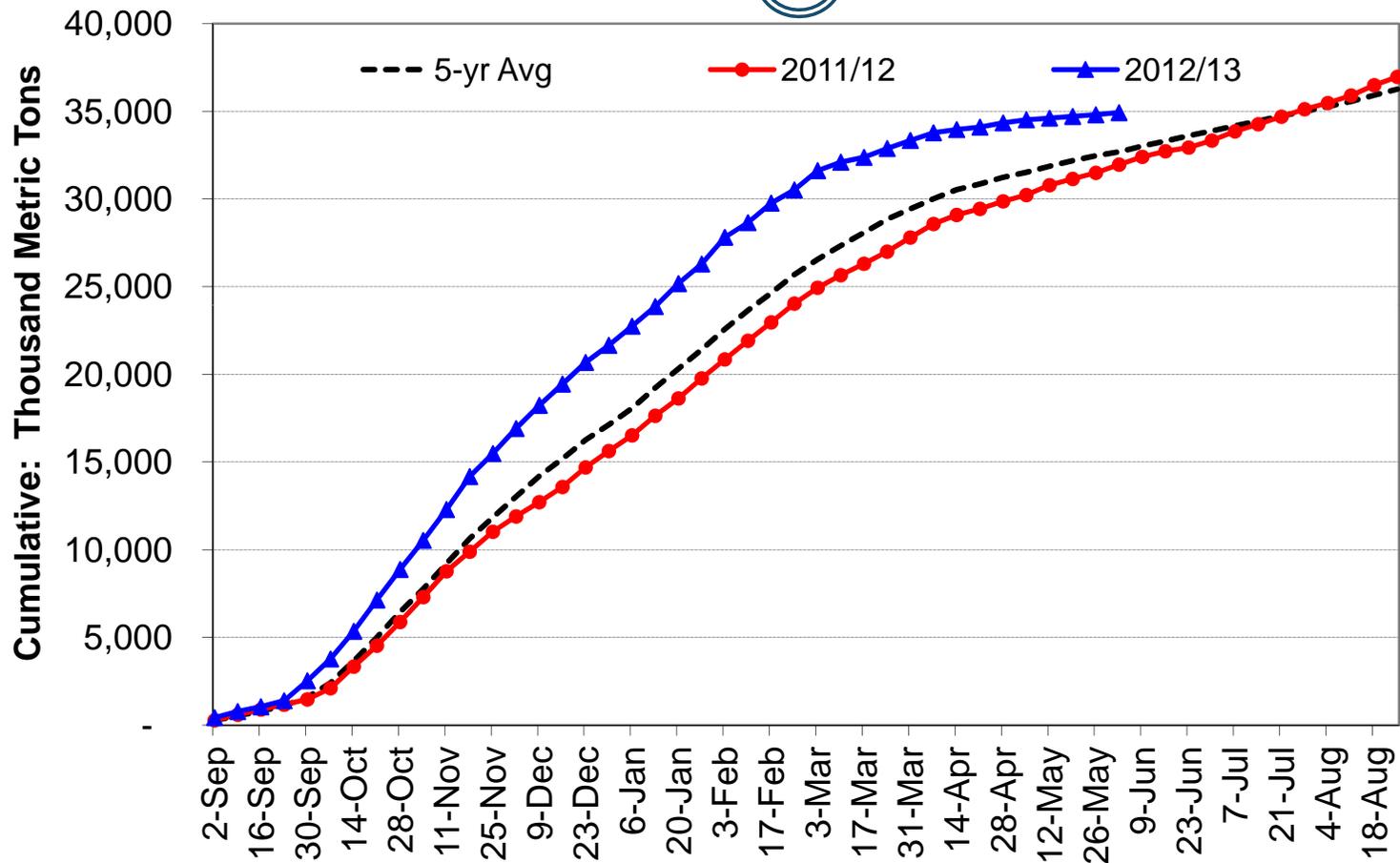
# Exports: All Grains – States & Agencies



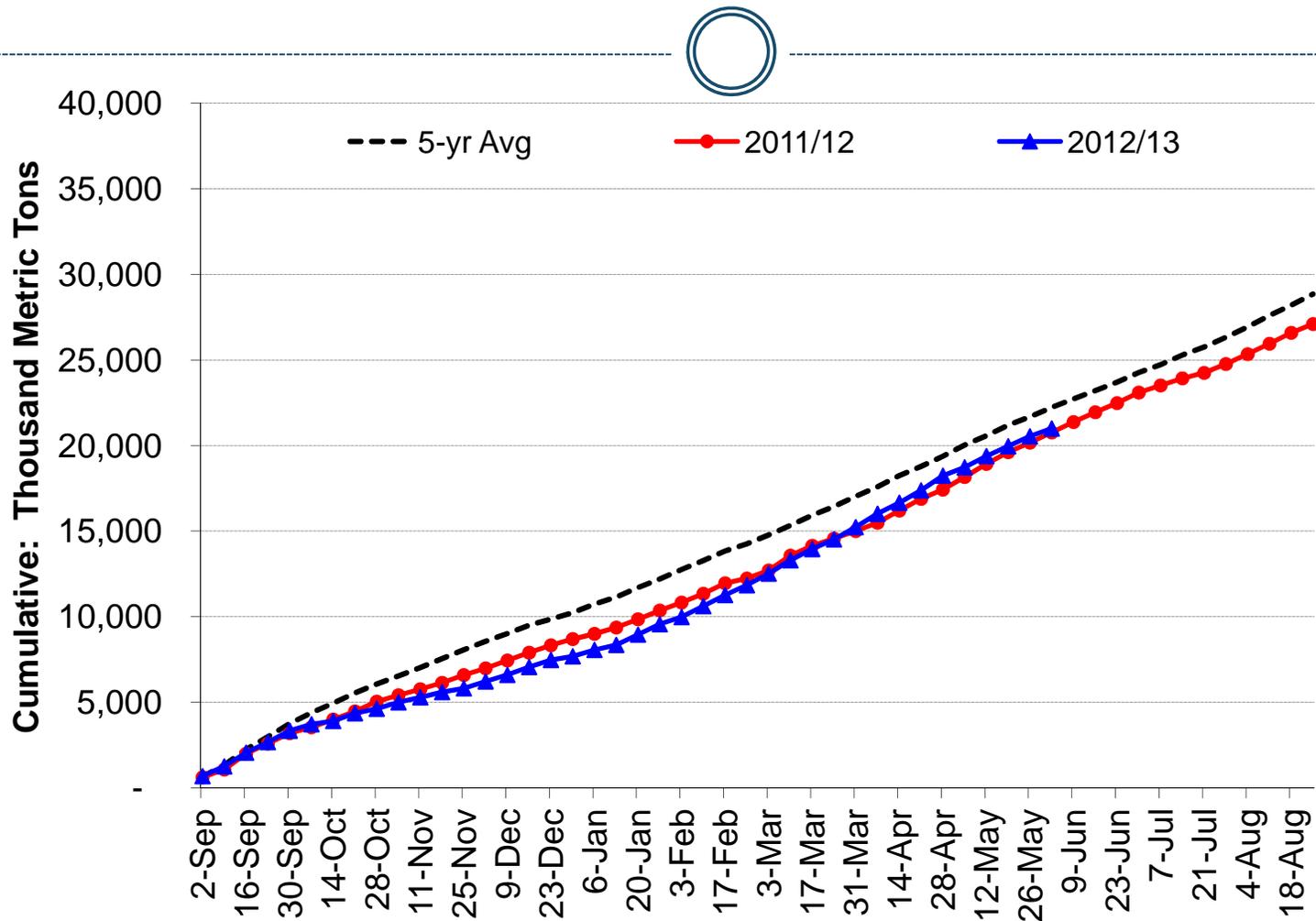
# Export: All Grains – FGIS Only



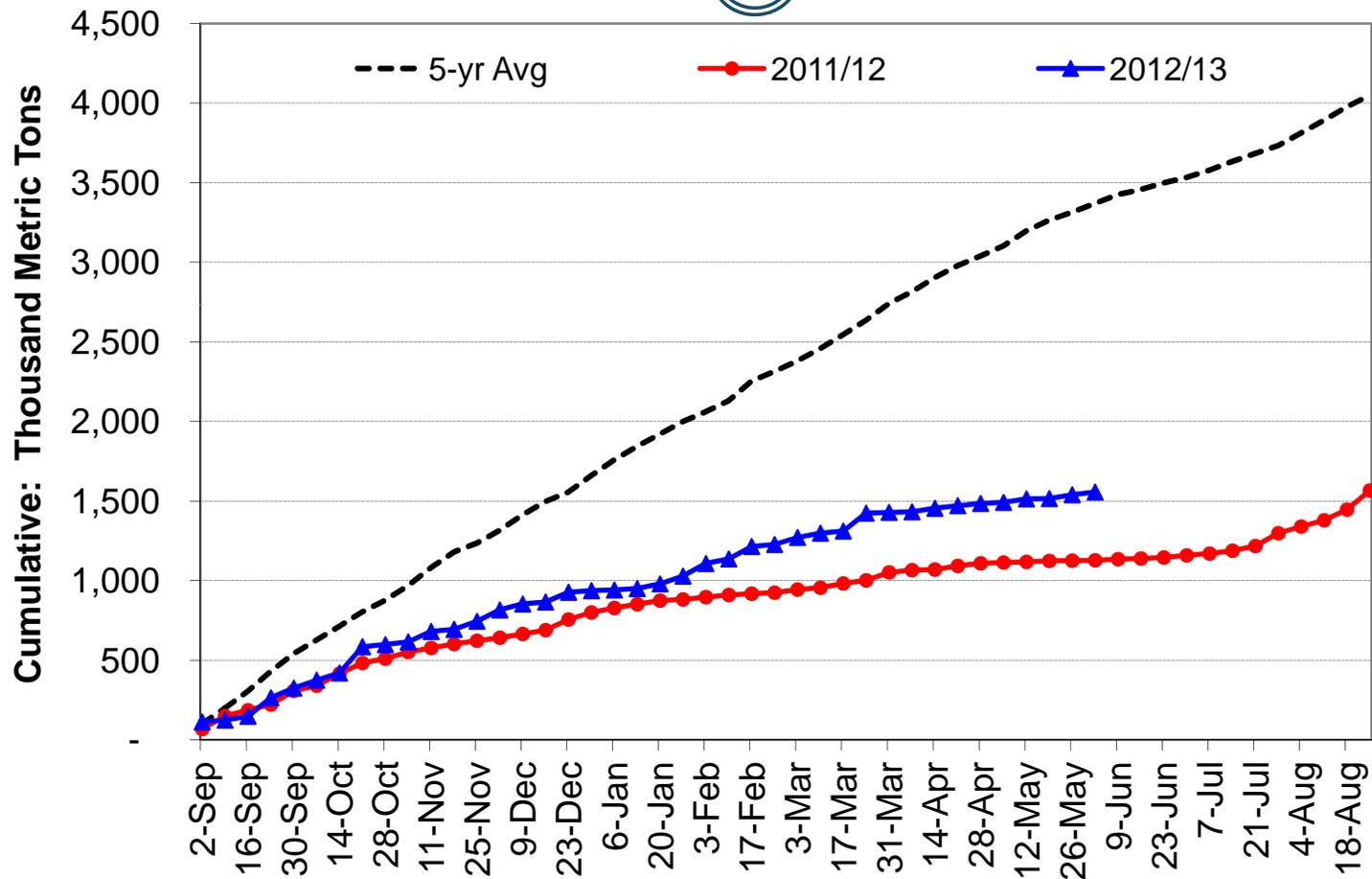
# Export Soybeans : FGIS, States, & Agencies



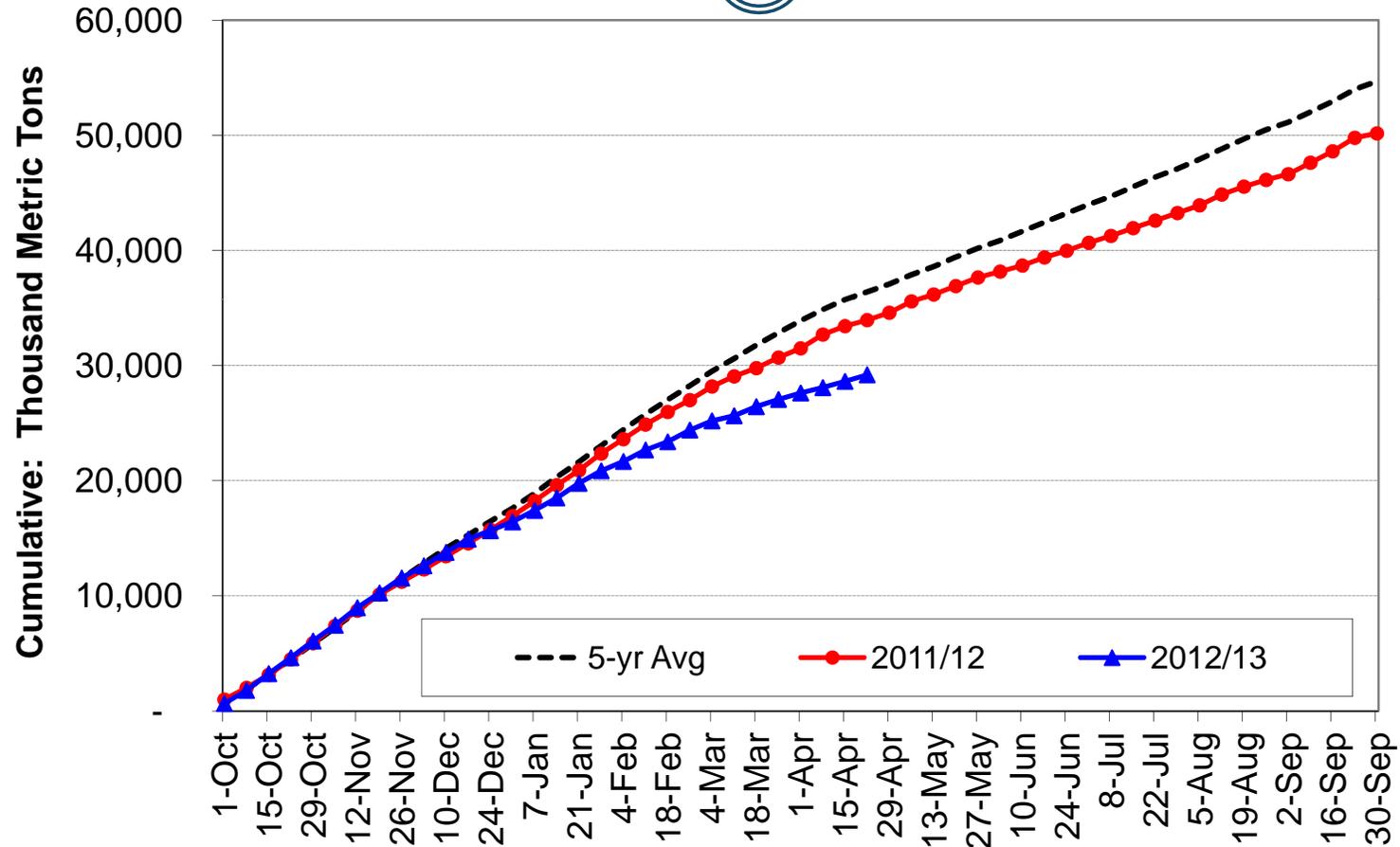
# Export Wheat : FGIS, States, & Agencies



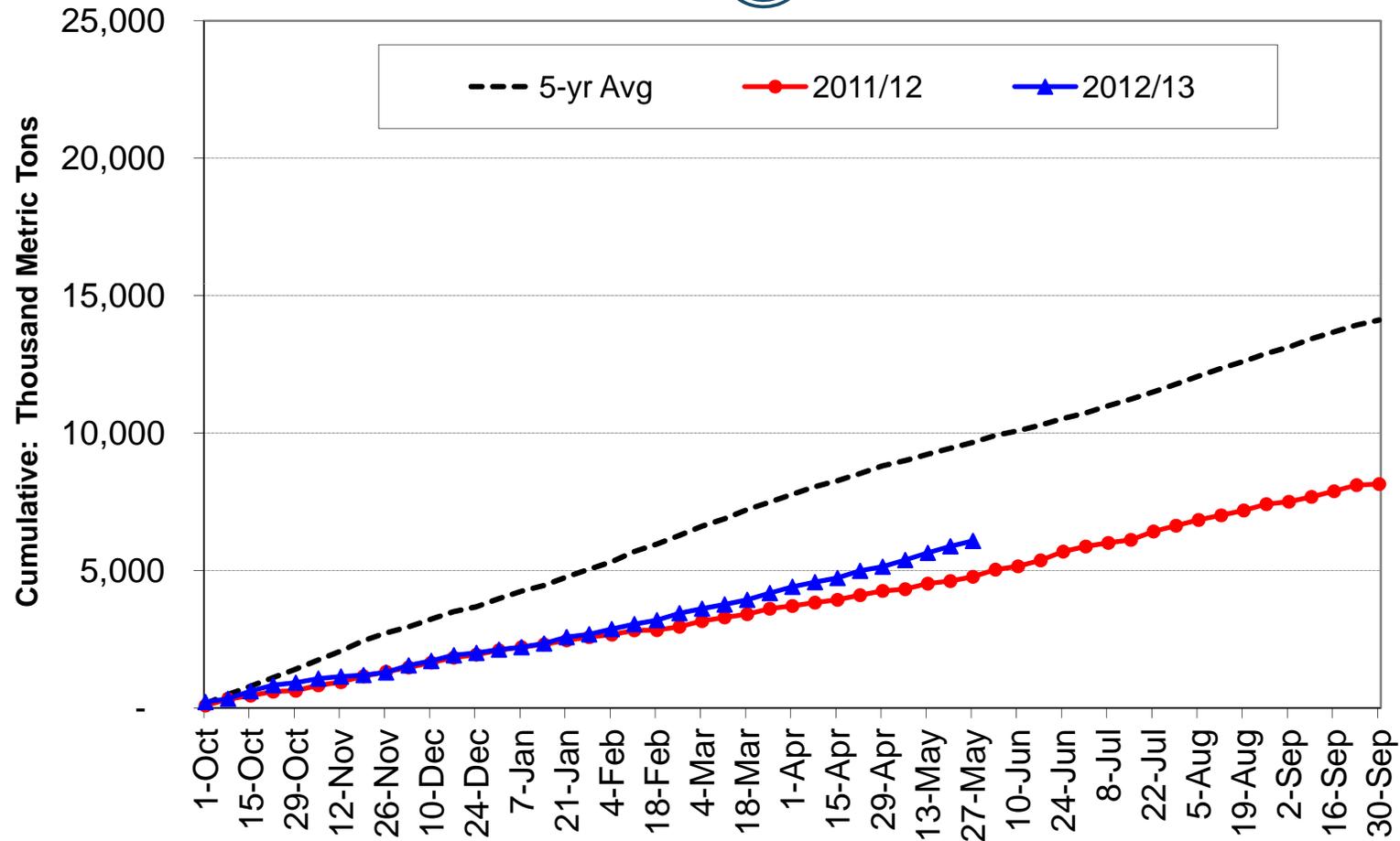
# Export: Sorghum-FGIS, States, & Agencies



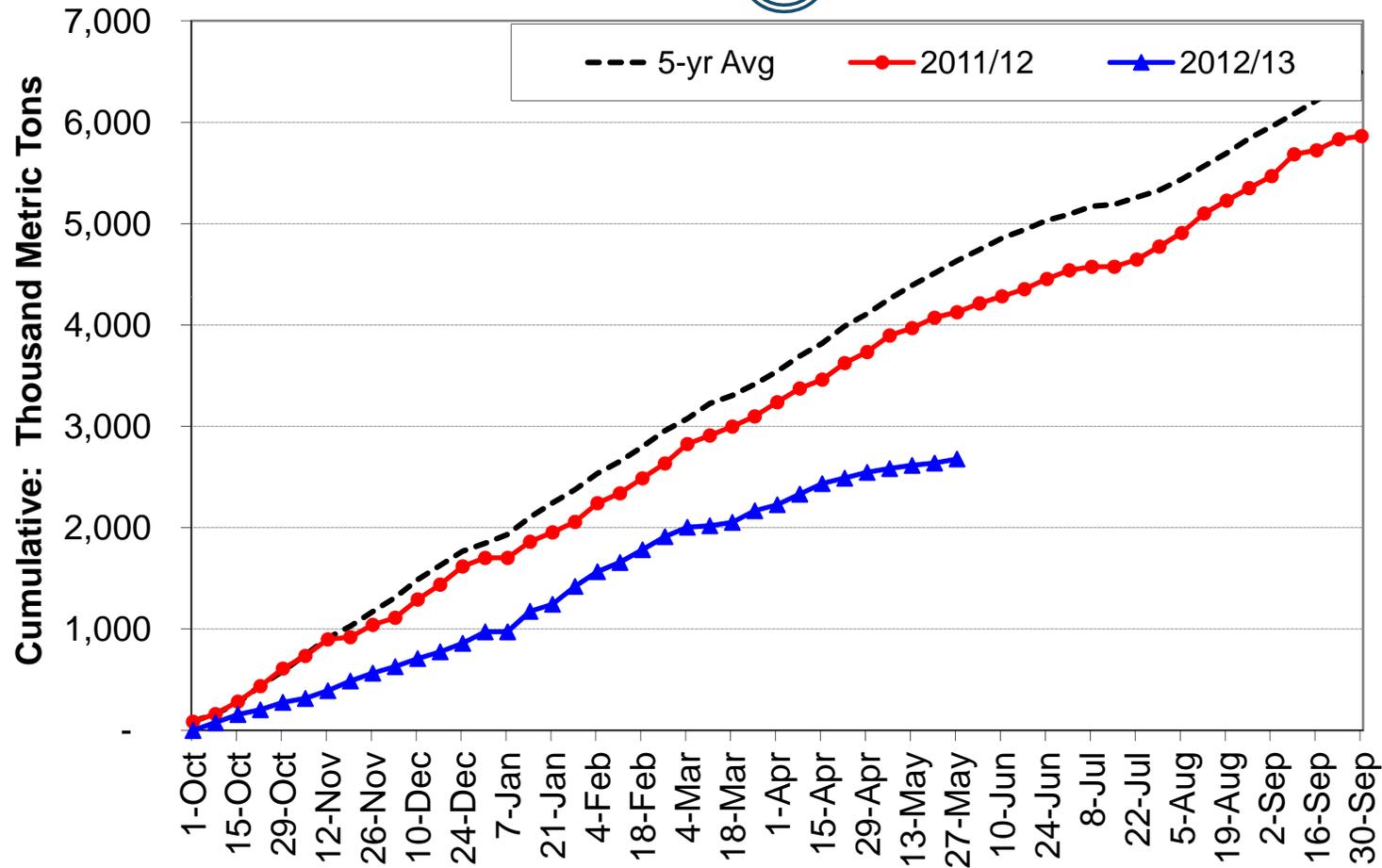
# Export: All Grains- New Orleans



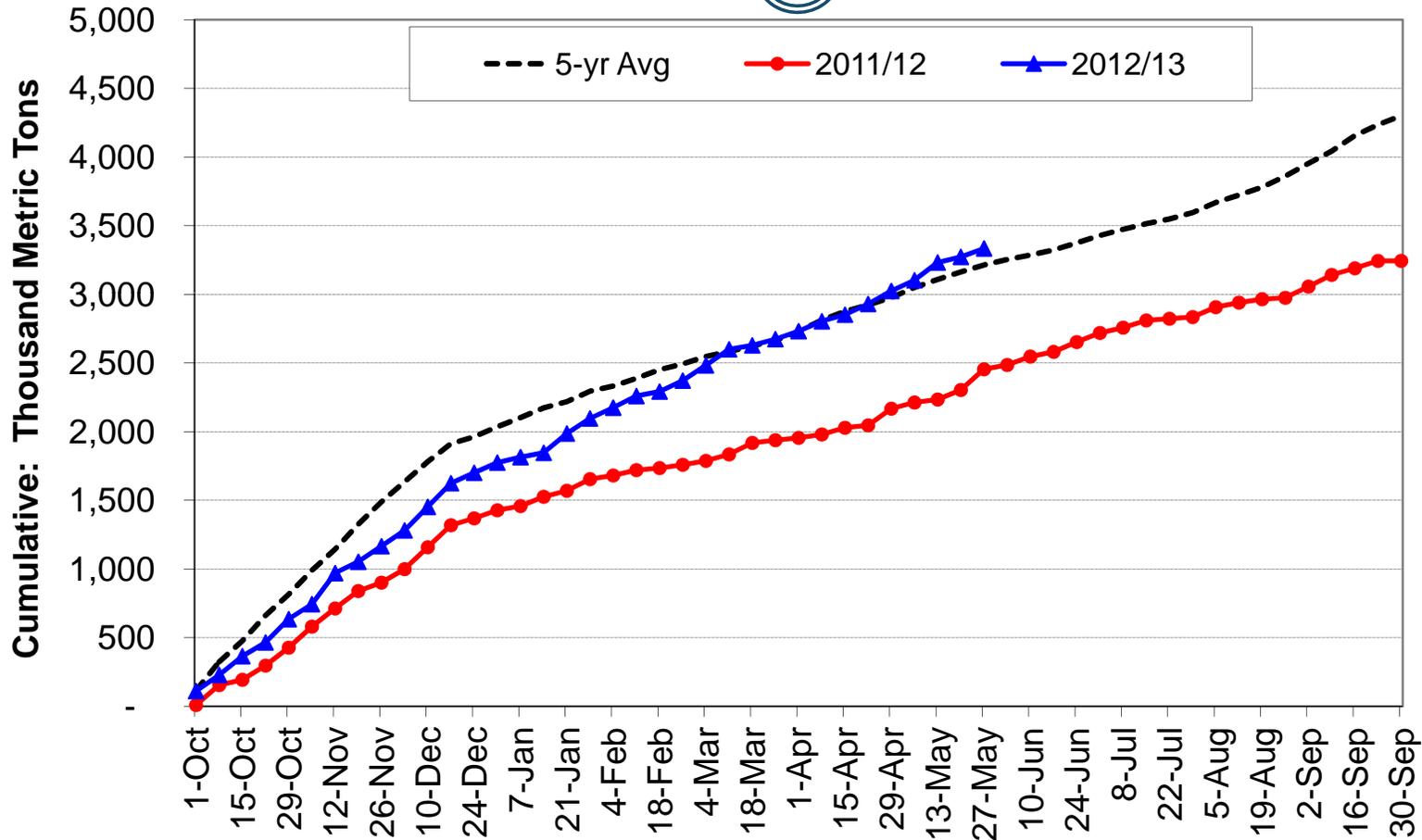
# Export: All Grains- League City



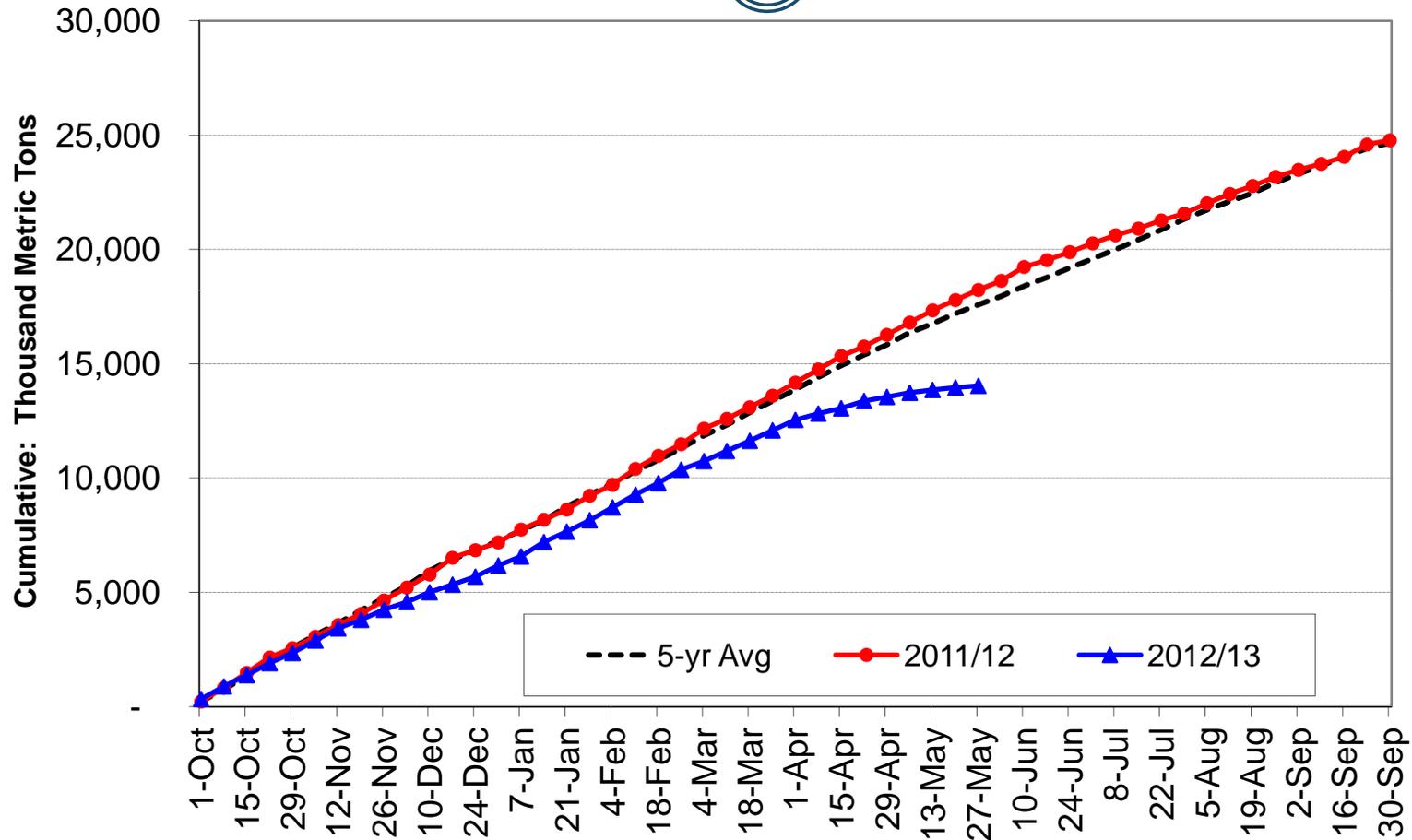
# Export: All Grains- Portland



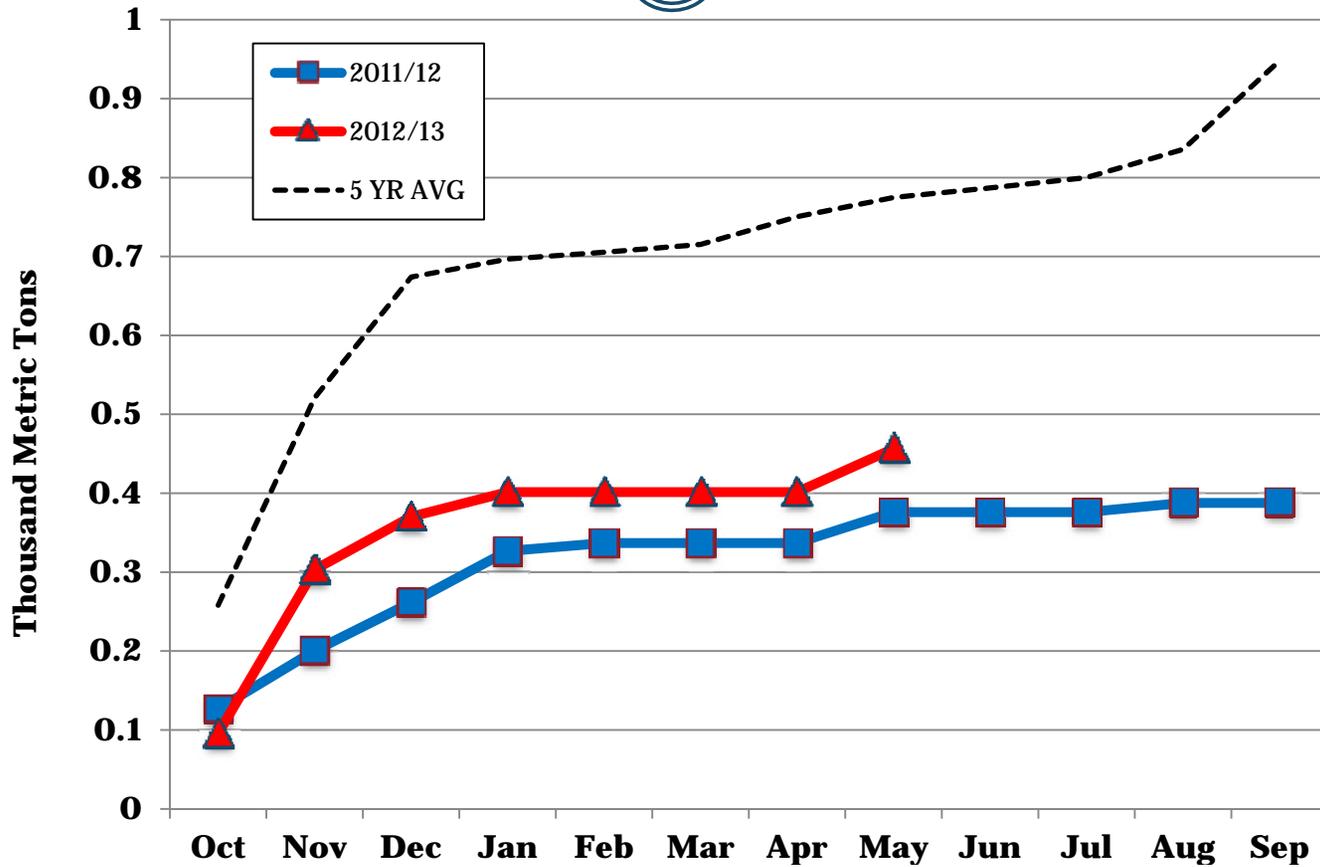
# Export: All Grains- Toledo



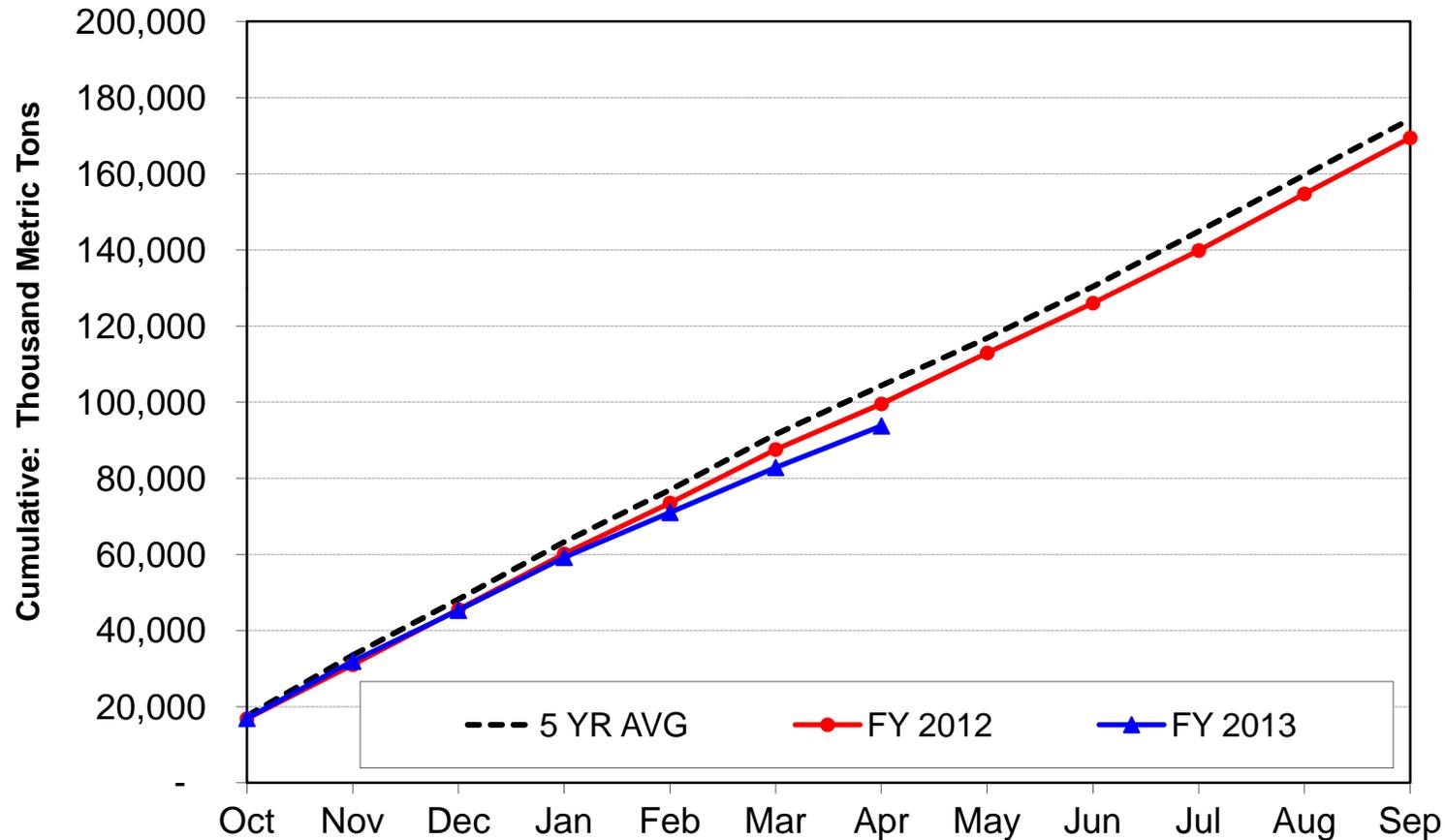
# Export: All Grains- Olympia



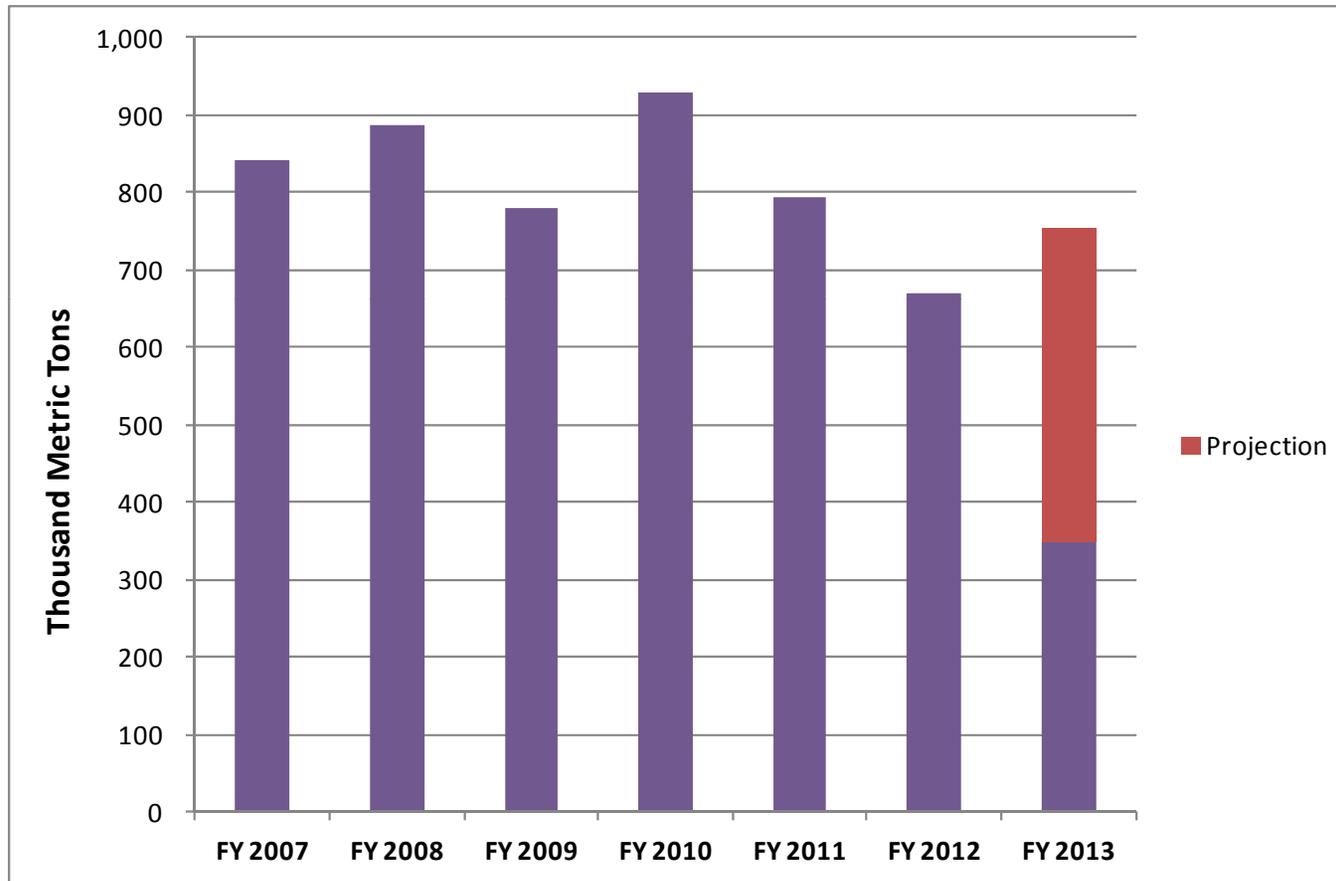
# Canadian Port Grain Inspection by FGIS



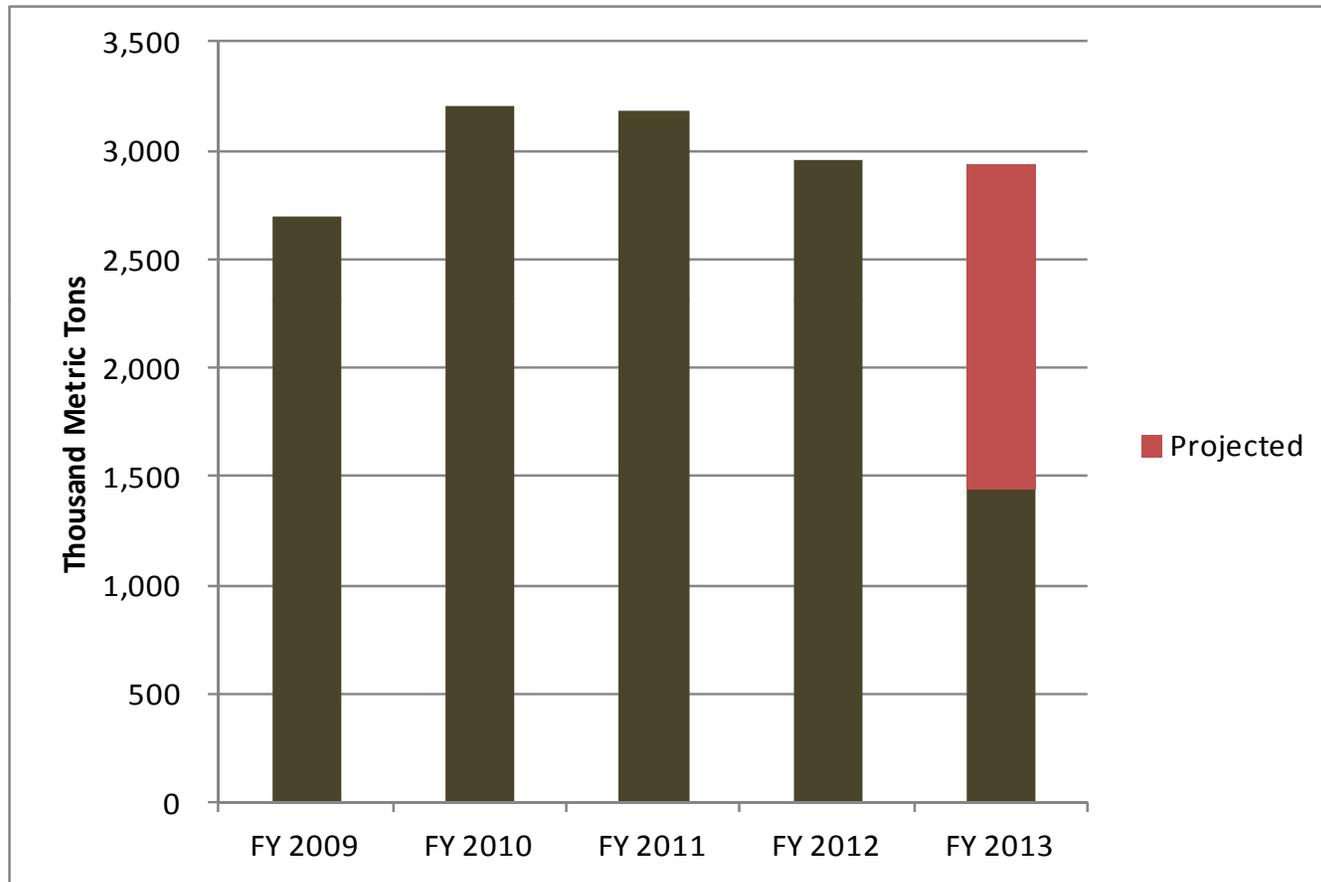
# Domestic Inspections State and Agencies



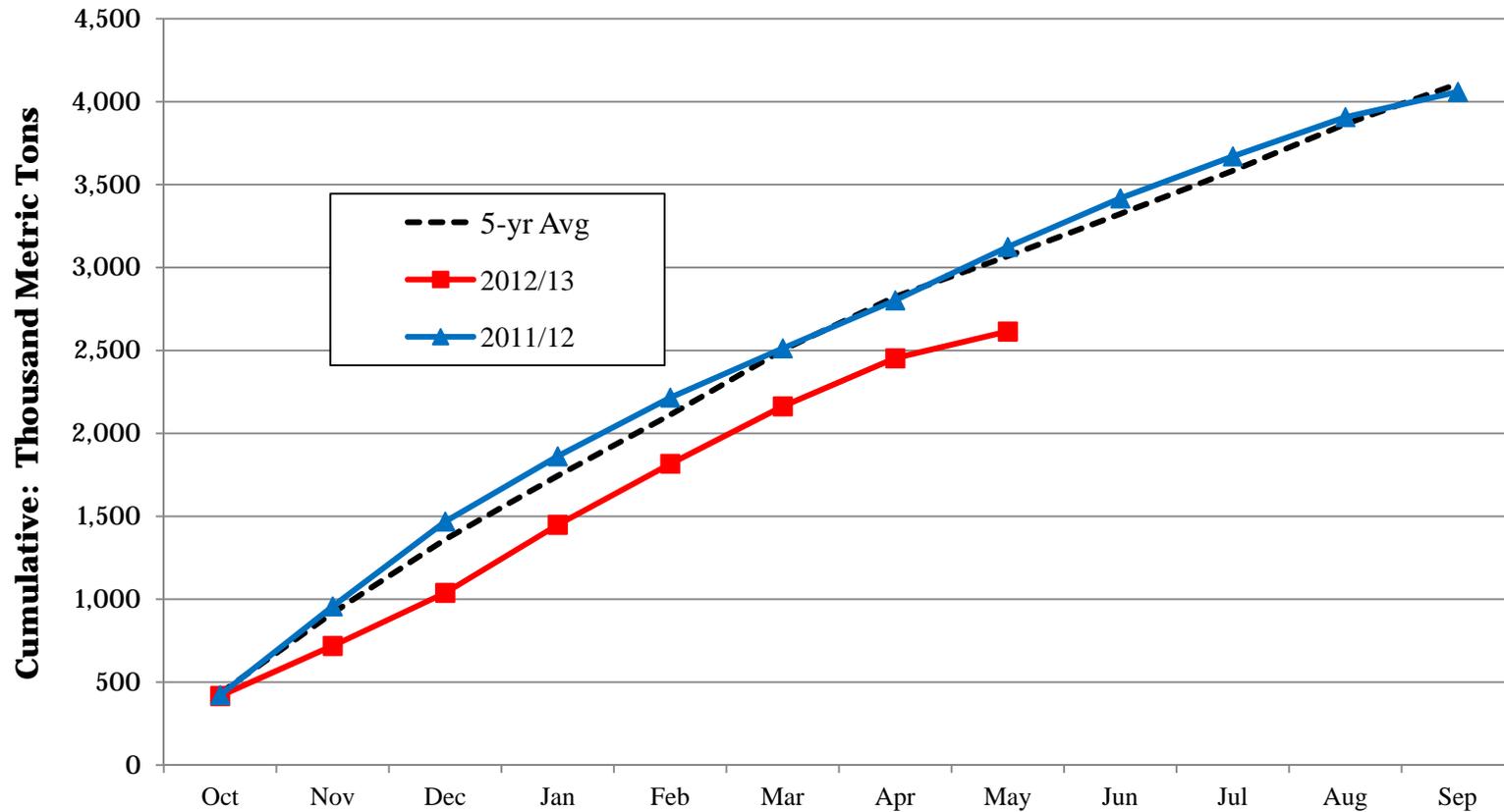
# Pulse Inspections



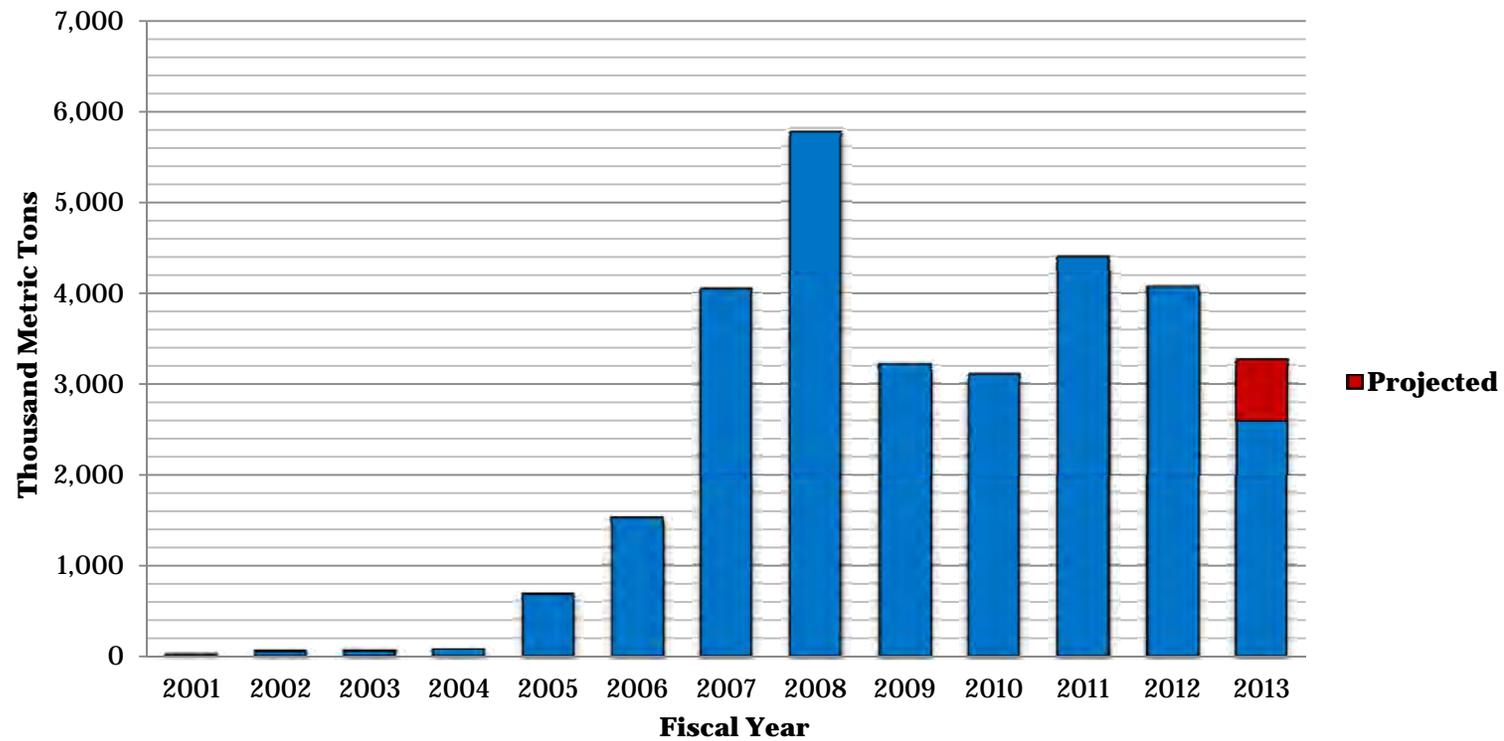
# Rice Inspections



# Containerized Inspections



# Containerized Inspections



# Market Overview



## U.S. Planted Acreage (Millions of Acres)

	2008	2009	2010	2011	2012	2013 (Projected)
Corn	86.0	86.4	88.2	91.9	97.2	97.3
Soy	75.7	77.5	77.4	75.1	77.2	77.1
Wheat	63.2	59.2	53.6	54.4	55.7	56.4
Sorghum	8.3	6.6	5.4	5.5	6.2	7.6
Rice	3.0	3.1	3.6	2.7	2.7	2.6



# Market Overview



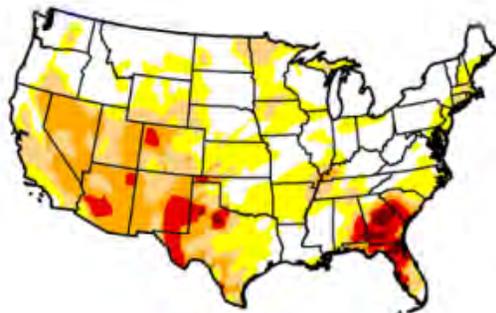
## U.S. Production (Million Metric Tons)

	2008	2009	2010	2011	2012	2013 (Proj)
Corn	307.1	332.5	316.2	313.9	273.8	355.7
Soybean	80.7	91.4	90.6	84.2	82.1	92.3
Wheat	68.0	60.4	6.01	54.4	61.8	56.6
Sorghum	12.0	9.7	8.8	5.4	6.3	10.8*
Rice	9.2	10.0	11.0	8.4	9.0	8.6

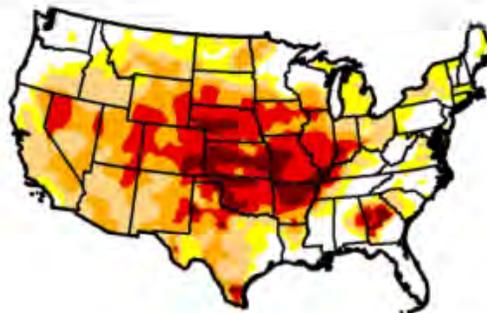
\*Based on average yield on 7.62 MAc



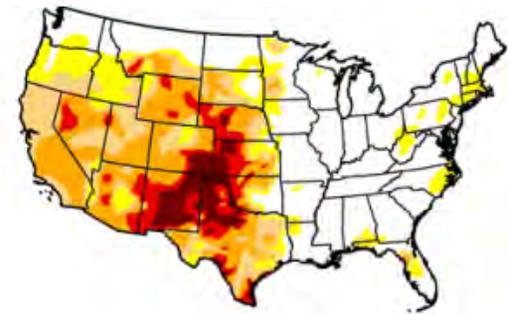
# U.S. Drought



**May 29, 2012**



**August 28, 2012**

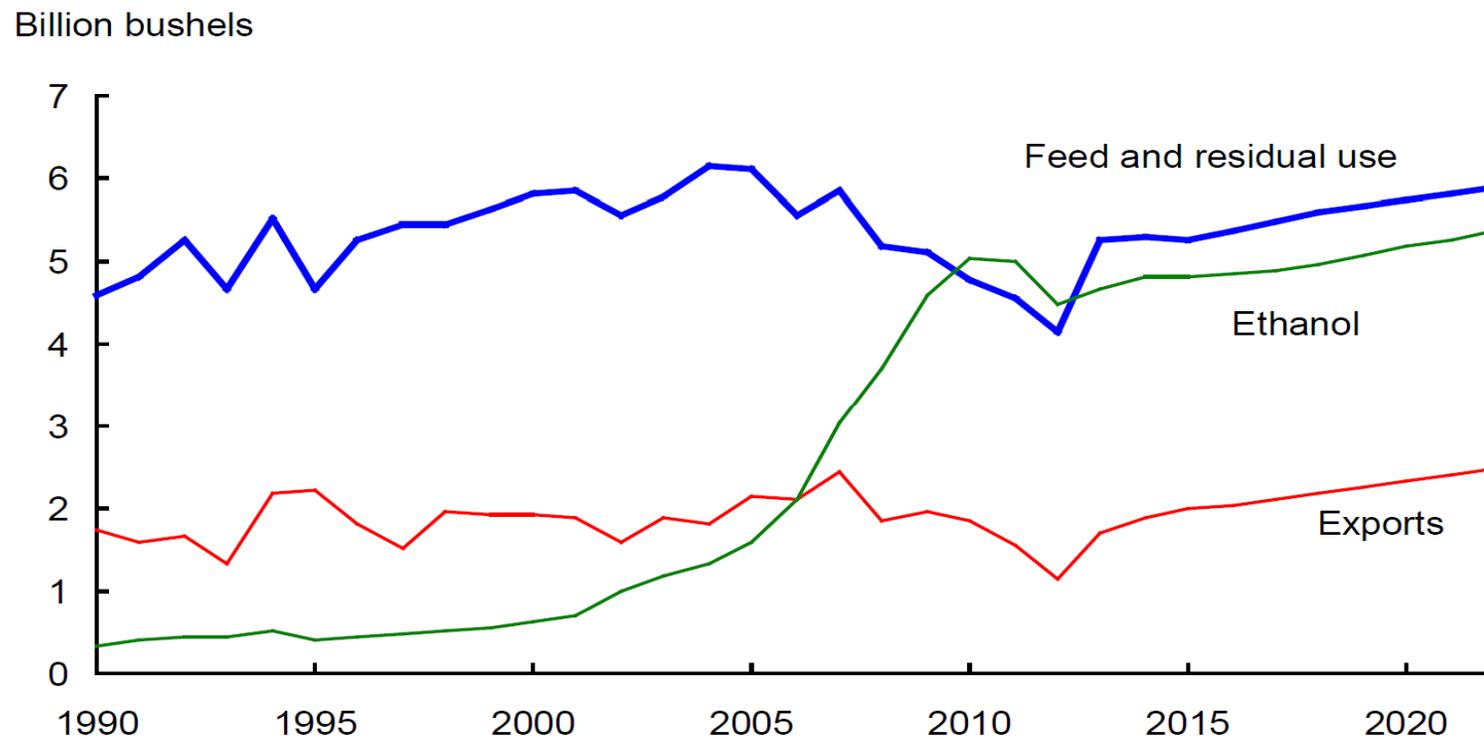


**May 28, 2013**



# Market Overview

## Corn: Feed and Residual Use, Ethanol, and Exports



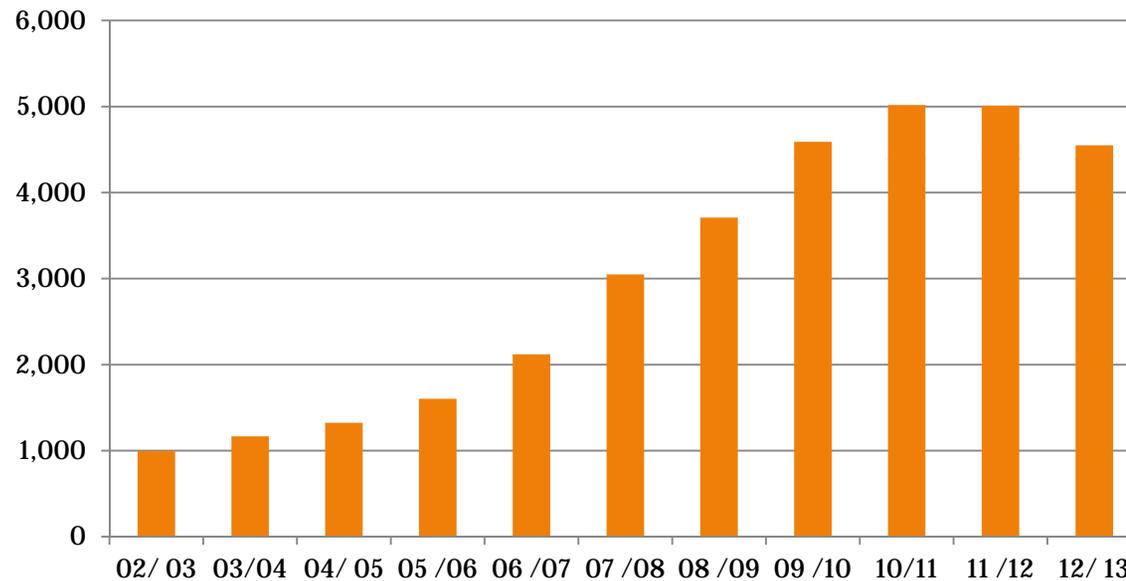
Source: USDA-ERS Feb. 2013



# Market Overview



## Consumption of Corn for Ethanol: Million bushels



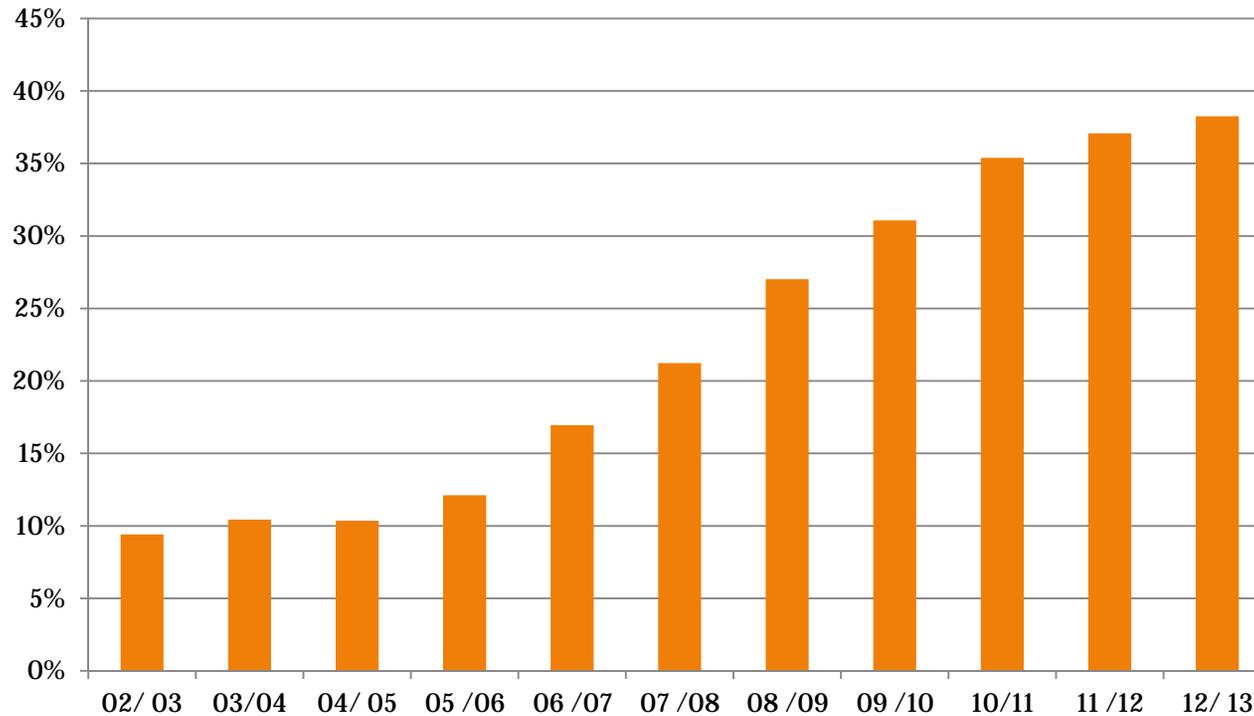
Source: USDA-ERS 04-15 -2013



# Market Overview



## Consumption of Corn for Ethanol: % of Production



Source: USDA-ERS 04-15 -2013





**Questions?**



# International Affairs



## **GRAIN INSPECTION ADVISORY COMMITTEE**

**JOHN B. PITCHFORD, DIRECTOR  
DEPARTMENTAL INITIATIVES AND  
INTERNATIONAL AFFAIRS  
JUNE 18, 2013**



United States Department of Agriculture

# Topics

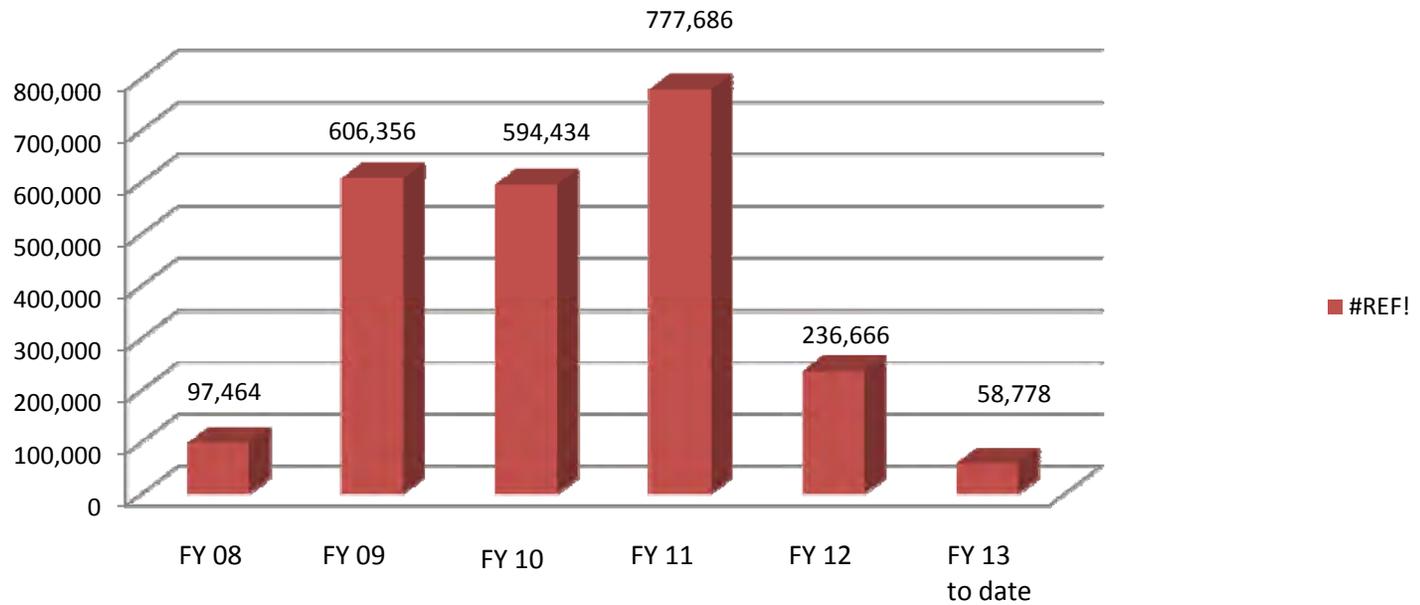


- Quality Complaints
- U.S./China – Soybean Vessel Comparison Study
- Detection of GE Wheat



# Importer Complaints

Metric Tons



United States Department of Agriculture

# U.S./China Soybean Vessel Comparison Study



- Purpose: to evaluate differences in sampling and inspection results for treated seeds and other quality factors
- U.S. Participants – GIPSA, FAS, APHIS, NAEGA, USSEC
- Chinese Participants – AQSIQ, CIQ



# First Ship – M/V LADY MARITE



- Loaded in Seattle, 2/24/13
- Holds 2, 4, 6 selected for study
- U.S. and China participants attended loading and discharge
- WA State Dept. of Agriculture provided assistance at loading



# First Ship – M/V LADY MARITE



- Sampling at loading (FGIS)
  - Diverter-type (D/T) – entire cargo
  - 6-ft. probe in study holds - half full and full
  
- Sampling at destination
  - FGIS            6-ft. probe – full and half full
  - AQSIQ        Hand scoop for quarantine  
                    Probe for quality



# First Ship – M/V LADY MARITE



- All samples were exchanged
- FGIS analysis complete
- FGIS and CIQ results shared and analyzed
- Evaluate lessons learned
- Vessels #2, 3, and 4 next season



# Detection of GE Wheat



- April – Oregon winter wheat producer – volunteers not killed by glyphosate
- May 3 – OSU notifies USDA that plant samples tested positive for glyphosate-resistant protein
- USDA investigation begins
- Extensive testing confirms wheat is MON71800
  - Monsanto field trials in 16 states, 1998 to 2005
- May 29 – USDA public announcement
- No food/feed safety concern. FDA consultation in 2004 - as safe as non-GE wheat



# GE Wheat – USDA Response



## USDA Response

- Two tracks
  - Investigation
  - Market response, need for testing



# Biotech Testing



- Transgenic plants have specific DNA sequence, or “event” inserted
- DNA-based testing - Polymerase Chain Reaction (PCR) detects a DNA sequence
  - Qualitative or quantitative
  - Event-specific or non-event specific
- Protein-based testing – detects protein produced by the transgenic gene sequence



# GE Wheat – FGIS Role



## Investigation Support

- Obtained event-specific PCR method from Monsanto
- Confirmed subject wheat plants contained MON71800
- Confirmed wheat plants from same seed source – another field – were negative
- Tested wheat seed samples from supplier
- Tested wheat grain samples from subject positive field



# GE Wheat – FGIS Role



## Market Response, Needs for Testing

- Letterhead statement: “No GE varieties for sale or in commerce” – since 2003
- Validated event-specific PCR method for detection
  - specificity study
  - sensitivity study - 1 in 200 kernels
  - provided to Japan, Korea, Taiwan, Europe



# Detection of GE Wheat



- Investigation findings to date:
  - No indication of GE wheat in commerce
  - Extensive interviews with farmer, seed supplier, 200 area growers
  - Obtained samples of wheat seed sold to the producer and other growers
  - Obtained samples of producer's wheat harvest
  - All of these samples of seed and grain were negative
  - No other finding of any other GE wheat volunteers - an isolated incident in a single field on a single farm.



# Market Situation



- Japan – temporary suspension of U.S. white wheat purchases
- Korea – testing all U.S. wheat imports
- EC – advised Member States to test U.S. white wheat imports (little impact)
- Other markets have been “wait and see”



# Question #1



*Will a rapid test be developed?*



## Question #2



*Will FGIS provide official testing?*



United States Department of Agriculture

## Question #3



*Will USDA survey the U.S.  
wheat pipeline?*



## Question #4



*So...what really happened?*



# Question #5



*What next?*



United States Department of Agriculture

# Question #6



???



United States Department of Agriculture



***Thank You!***



United States Department of Agriculture

# Field Management Division Updates and Initiatives



## **GRAIN INSPECTION ADVISORY COMMITTEE**

**June 18, 2013**

**Bob Lijewski**  
**Director**

**Pat McCluskey**  
**PPMAB Branch Chief**



United States Department of Agriculture

# Agenda



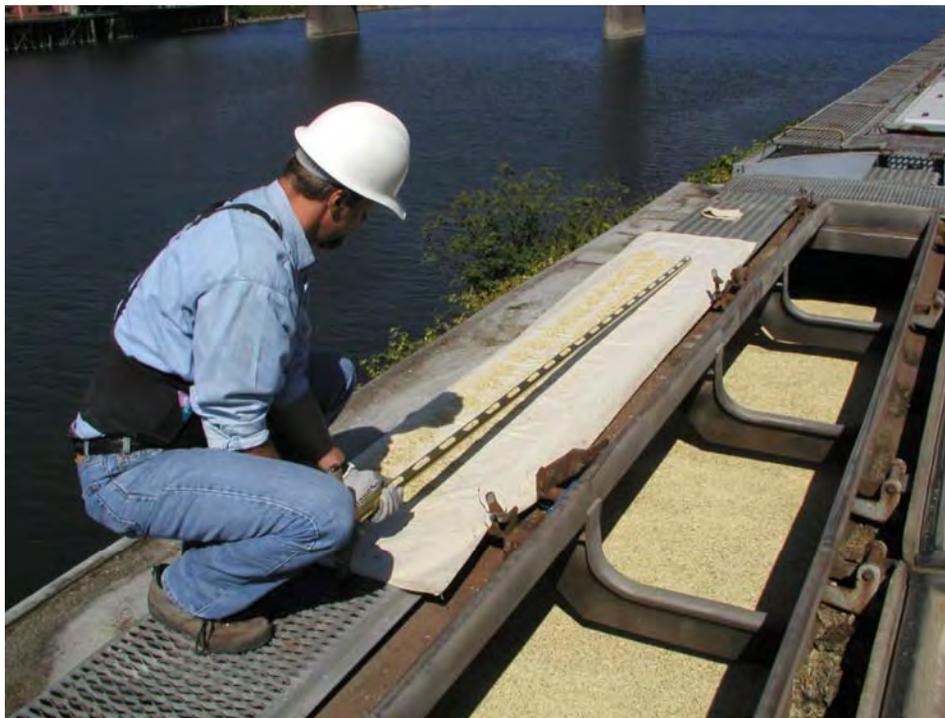
- **Fall Protection and Safety**
- **Laboratory Modernization Project**
- **Water based Mycotoxin Test Kits**
- **Phyosanitary Inspection: Canada**
- **Role of DIOO**
- **Rulemaking and Export Inspection Fees**
- **North Dakota Pulse Grading**



# Fall Safety



## Railcar Fall Protection



# Fall Safety



## BACKGROUND

The “Miles Memorandum” (October 18, 1996)

John Miles, Director of Compliance Programs

### SUMMARY:

Fall protection is required when rolling stock is inside of or contiguous to the structure where fall protection is feasible.



# Fall Safety



## BACKGROUND

**June 24, 2011**

- OSHA Compliance Officer visits Corpus Christi sub-office; questions employees regarding FGIS policy on probing railcars; gives a verbal warning
- Rejects GIPSA interpretation of Miles Memorandum



# Fall Safety



## BACKGROUND

**July 11, 2011** - OSHA request in writing for 19 documents;

GIPSA responded on July 18

**October 14, 2011** - FGIS cited for alleged violation of fall protection regulations; GIPSA appeals citation

**November 8, 2011** - Informal Conference: OSHA Corpus Christi Director, others

**December 20, 2011** - Conference call with OSHA at regional (Dallas) level



# Fall Safety



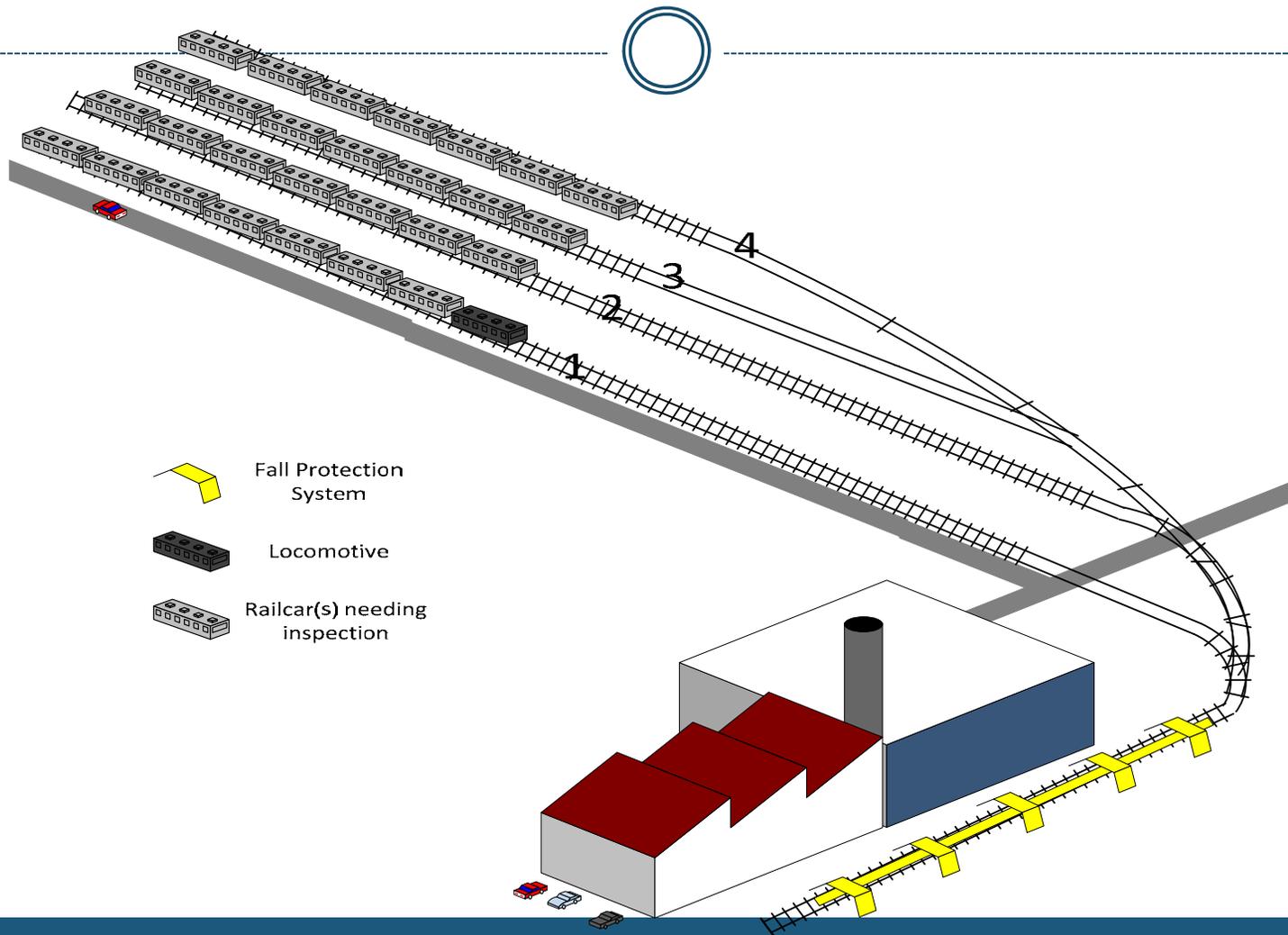
## **RULING ON FGIS APPEAL**

**Dec. 2012** - OSHA responded to appeal:

- **OSHA Dismissed citation** for allowing employees on top of rail cars where fall protection was not feasible
- However, in strong language, requested that GIPSA ensure all persons working on top of rail cars be trained in safety issues.
- GIPSA will send a qualified person to all rail sampling sites where GIPSA persons provide sampling to determine the feasibility of constructing fall protection.



# Fall Safety



# Fall Safety



## **Rolling Stock Fall Protection Assessment:**

Is a fall arrest system installed in location where GIPSA employees are sampling or performing stowage exams?

Is the area where sampling/stowage exam is to take place contiguous to a building or permanent structure?

If yes, why isn't fall protection provided?

How far is the nearest building or permanent structure from the area GIPSA employees are to sample/perform stowage exam?

What type of surface is contiguous to the area where sampling/stowage exam is to take place?

Is this a multiple track yard?

If yes, how many tracks are used for sampling?

Can railcars be positioned next to a building, structure, or other area where fall arrest system may be used?

Can a freestanding mobile system be used?

**FINAL ASSESSMENT – IS FALL PROTECTION FEASIBLE?**

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# Laboratory Modernization Project



# Laboratory Modernization Project



- Initiative of FGIS Executive Management Team to make laboratories safer, more efficient, and improve customer service
- Multiple labs being redesigned or relocated to comply with FGIS Directive 9160.5
- Composed team to look at best practices



# Laboratory Modernization Project



# Laboratory Modernization Project



- Goal is to link inspections electronically and sync with quality control system
- Currently conducting study to use new technology to link equipment
- Publishing Handbook for use in official system to facilitate best practices in lab design



# Water-based Mycotoxin Test Kits



# Water-based Mycotoxin Test Kits



- **GIPSA currently has 14 approved aflatoxin kits**
  - However, only 12 are currently used in the Official System
  - GIPSA intends to provide instruction for the kits currently used in Official System
- **Currently, 1 water-based test kit is approved for use**



# Water-based Mycotoxin Test Kits



- **Waste Disposal Concerns:**
  - FGIS Industrial Hygienist and GIPSA Safety & Health Manager recently conducted review of waste disposal program
  - Significant regulatory concerns related to disposal of solvents
  - Almost everything that has been saturated with methanol (including slurry) must be disposed in a waste drum



# Water-based Mycotoxin Test Kits



- Ideally, GIPSA would like to move to water-based testing to eliminate the need for organic solvents and disposal costs
- One test kit is currently approved (Charm Rosa Wet); and one kit is in the testing phase



# Canadian Phytosanitary Inspections



- Potential changes to Canadian Food Inspection Agency (CFIA) requirements on grain imported into Canada
- This change could lead to an increase in phytosanitary inspections on grain (e.g., corn, corn screenings) going into Canada
- Estimated number of trucks carrying grain & screenings into Canada is approximately 37,000/year



# Canadian Phytosanitary Inspections



- These inspections would occur near land border crossings between US & Canada

<b>Sites Include:</b>	
Seattle, WA	Great Falls, MT
Pembina, ND	Minneapolis, MN
Duluth, MN	Detroit, MI
Buffalo, NY	Ogdensburg, NY
St. Albans, VT	Portland, ME

- FGIS would utilize official agencies and field offices, if needed, to cover the additional work



# Role of DIOO



- **The Domestic Inspections Operations Office (DIOO) is to coordinate and oversee the front-lines for FGIS program execution at the Official Agency (OA) level**
  - Provide policy and procedural support to OA's as the primary contact for OA's to FGIS;
  - Coordinate necessary actions as a result of Compliance reviews;
  - Execute processed commodity program (CSB, Margarine, Syrup);
  - Coordinate official weighing;
  - Collaborate with BAR/GSL/QACD on monitoring (rates, results, corrective actions);



# Role of DIOO



- **DIOO responsibilities (continued)**
  - Collaborate with BAR on equipment checktesting (resolving equipment checktesting errors identified through Checktesting or monitoring or complaints);
  - Collaborate with BAR/GSL on appeals (be aware of market issues; resolving grading issues at OA level);
  - Collaborate with BAR on proctoring for Licensing for graders and OA's for sampler/technical functions as needed;
  - Report volumes from OAs (DEC, 938/922);
  - Other duties as assigned by the Director of FMD.



# Regulatory Update



## Rulemaking:

- **Final Rules**
  - Export User Fees Revision: Published in Federal Register April 15, 2013 , effective May 1, 2013
  - Wheat Standards: Published in Federal Register May 13, 2013, effective May 1, 2014
  - Inspection of Grain in Single and Combined Lots–
- **Proposed Rules**
  - Barley Standards
- **Notices of Request for Public Comment**
  - Whole Dry Peas
  - Beans, Lentils, Feed Peas, Split Peas



# Export Fees Rulemaking



## 7 U.S.C. 79 (j)

**(1)** The Secretary shall, under such regulations as the Secretary may prescribe, charge and collect reasonable inspection fees to cover the estimated cost to the Secretary incident to the performance of official inspection except when the official inspection is performed by a designated official agency or by a State under a delegation of authority. The fees authorized by this subsection shall, as nearly as practicable and after taking into consideration any proceeds from the sale of samples, cover the costs of the Secretary incident to its (!1) performance of official inspection services in the United States and on United States grain in Canadian ports, including administrative and supervisory costs related to such official inspection of grain.



# Export Fees Rulemaking



## 7 U.S.C. 79 (j)

**(2)** Each designated official agency and each State agency to which authority has been delegated under subsection (e) of this section shall pay to the Secretary fees in such amount as the Secretary determines fair and reasonable and as will cover the estimated costs incurred by the Secretary relating to supervision of official agency personnel and supervision by the Secretary of the Secretary's field office personnel, except costs incurred under paragraph (3) of subsection



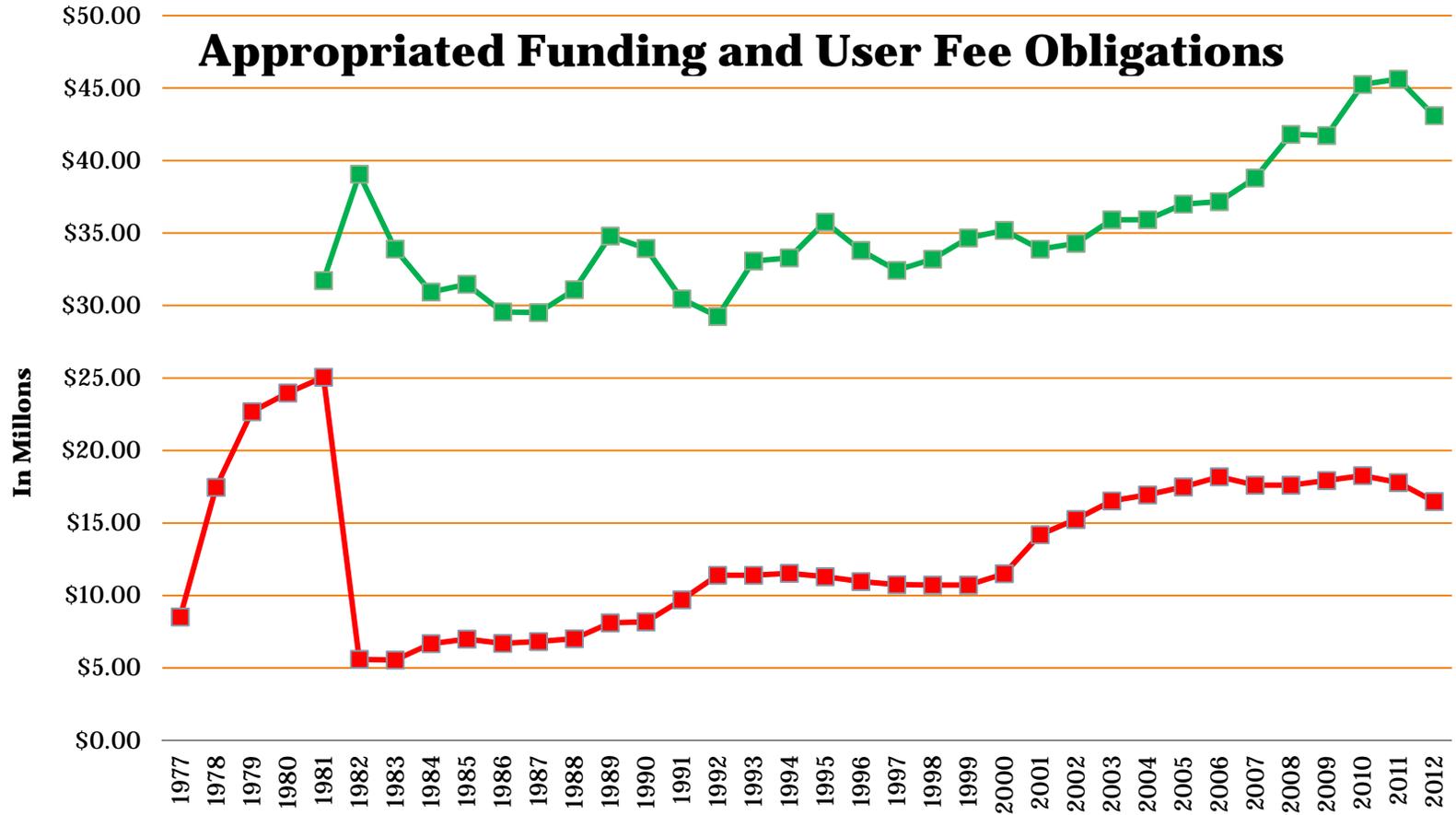
# Export Fees Rulemaking

## NOVEMBER 2010: GIAC RESOLUTIONS

- The Advisory Committee proposed that GIPSA review its allocation of Export oversight fees. GIPSA currently is assigning revenue derived from supervision of export loadings by Delegated States and Designated Agencies to the Domestic Service Official Agency account #530. The Advisory Committee resolved that oversight fees charged for export supervision be applied to the export Inspection and Weighing account #520.
- The Advisory Committee requested that the GIPSA staff do a formal review of the current GIPSA headquarters tonnage assessment. This review would establish an equitable headquarters tonnage oversight fee for all Export tonnage loaded utilizing the official system.



# FGIS - Historical Funding

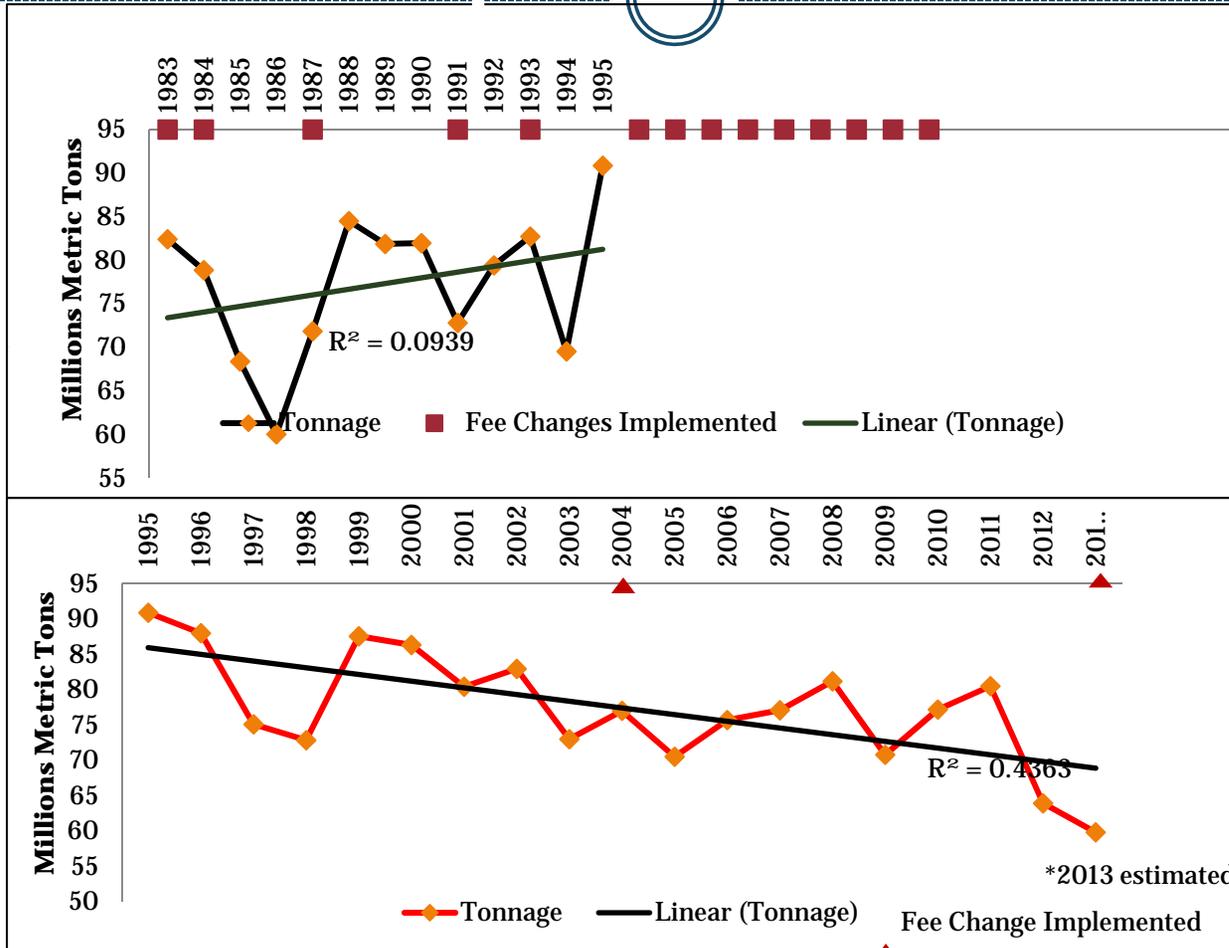


United States Department of Agriculture  
GIAC Meeting June 2013

■ Appropriated Amount (authority) - in millions

■ User Fee (obligation) - in millions

# Export Fees Rulemaking



# Export Fees Rulemaking



## 520 Revenue Stream Distribution (All Offices FY 09-12)

Component	% of Total
Weighing & Inspection Services	74-75
Stowage Examinations	5
National Tonnage Fees	11-12
Local Tonnage Fees	8-9



# Export Fees Rulemaking



Fiscal Year	Revenue (\$)	Obligations (\$)	Profit (Loss) (\$)	Retained Earnings (\$)
2007	31,408,894	30,526,565	882,329	3,638,142
2008	35,996,736	33,447,549	2,549,187	6,330,532
2009	31,192,780	33,263,593	(2,070,813)	4,673,916
2010	36,887,797	35,474,405	1,413,392	6,527,776
2011	37,652,241	36,557,052	1,095,189	7,993,300
2012~	28,160,218	34,285,325	<b>(6,125,108)</b>	1,886,192
2013*	30,916,368	35,117,277	<b>(4,200,909)</b>	<b>(2,232,717)</b>

~2012 estimated

\*2013 projection without fee increase



# Export Fees Rulemaking



## 9. LEVEL OF UNOBLIGATED BALANCES

- a. The Agency has determined in consultation with the Industry Advisory Committee that each fee-supported program should maintain an unobligated balance of at least 3 months of operating expenses.\* This unobligated balance is needed to cover accrued liabilities should the program terminate. The Administrator may waive or modify this requirement if an applicant agrees to assume responsibility for shutdown costs and maintains sufficient funds in escrow, bonds, taxing authorities, or other means satisfactory to the Agency.
- b. Fee-supported programs not having sufficient unobligated balances to cover 3 months of operating expenses should plan to gradually increase user fees over a period of time to reach this level.

**\*NOTE: Depending on circumstances, more than 3 months may be necessary.**



# Export Fees Rulemaking



- Published Proposed Rule Jan 14, 2013
- GIPSA received 5 comments:
  - 1 unconditionally supported rule as proposed
  - 3 conditionally supported as rule as proposed
  - 1 comment not germane to rulemaking
- Final Rule drafted and cleared promptly
- Published April 15, 2013 in *Federal Register*
- Effective date for new fee structure was May 1, 2013



# Export Fees Rulemaking



## LOCAL TONNAGE FEE CHANGES

- Local Tonnage Fees support administrative costs for field office
  - ✦ Rent
  - ✦ Administrative personnel salaries
- Workers Compensation shifts the costs away from Headquarters to the local level where costs occur



# Export Fees Rulemaking



## NATIONAL TONNAGE FEE CHANGES

- The National Tonnage Fee supports Headquarters costs
  - ✦ Personnel
  - ✦ Departmental charges
- Previous rate of \$0.052/MT became \$0.055/MT for FY13 and increases \$0.002 annually through FY 2017.



# Export Fees Rulemaking



## LEVY NATIONAL TONNAGE RATE ON ALL EXPORTS

Before: Delegated states & designated agencies paid \$0.011/MT

- ✦ National tonnage fee of \$0.055/MT will apply to:
  - State of Washington shiplots
  - All containers (unless identified as domestic)
  - Excludes rail and truck to Canada & Mexico
- ✦ No local tonnage rate.
- ✦ State of Washington billable tonnage effects:
  - approx. 10-15 MMT in balance of FY 2013
  - approx. 30+ MMT for FY2014 and out years



# Export Fees Rulemaking



## PROGRAM FEES CHANGE:

- Fees change approximately 5% in FY 2013; 2% annually thereafter through FY 2017
- Pertains to service performed at:
  - ✦ Onsite Labs-contract and non-contract rates
  - ✦ In an FGIS lab not at applicants facility
- Appeal inspection and review of weighing
- Stowage exam
- In Canada: U.S non-contract rate + Toledo local tonnage rate
- Miscellaneous services



# Cost Reduction Efforts

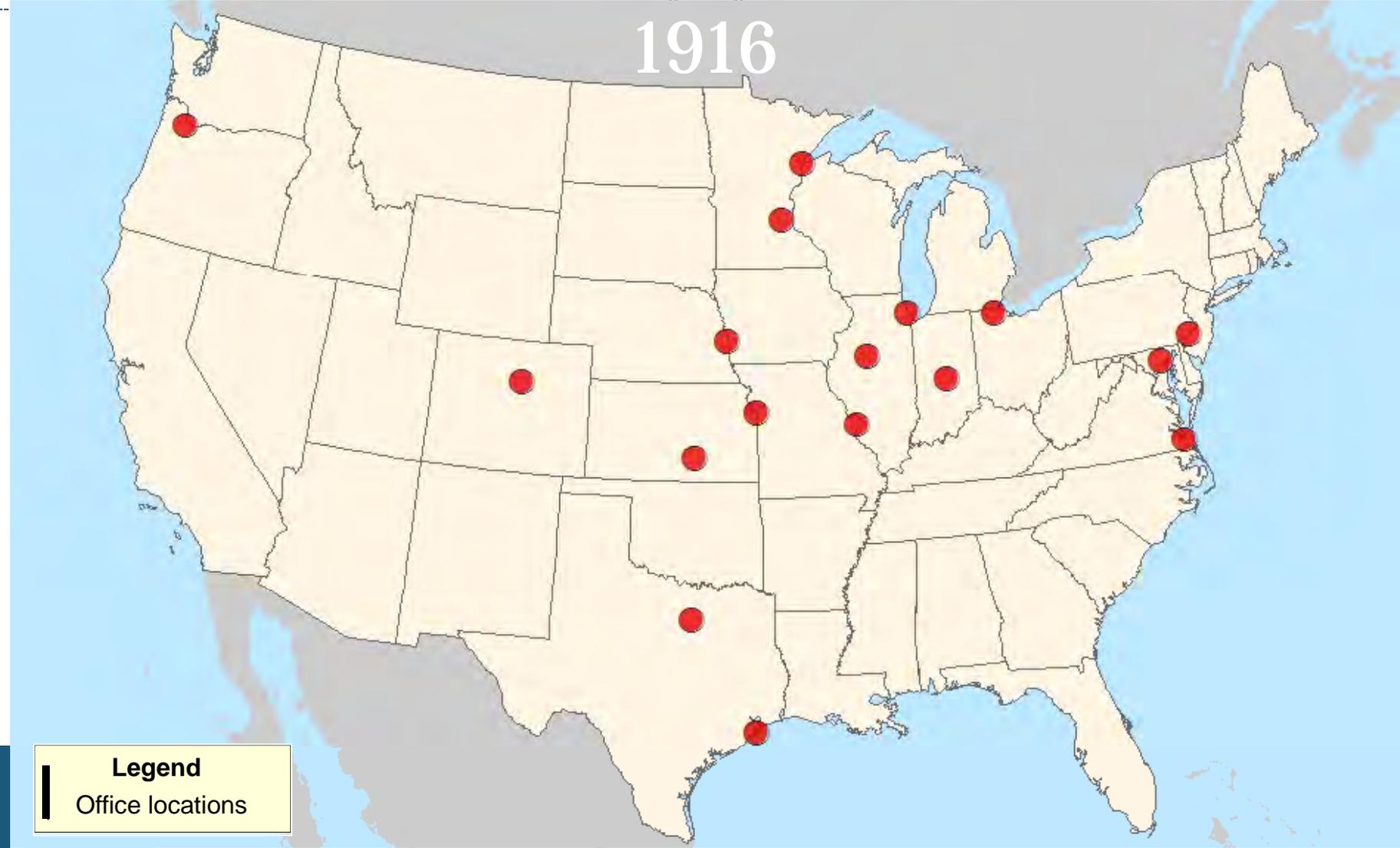


- Close Field Offices
- Reduce Program staffing levels
- Reduce overtime paid to grain inspectors via work schedules favorable to bottom line
- Schedule part-time and intermittent employees during fluctuating work periods
- Minimize travel, equipment, and other administrative costs to immediate and/or emergency need



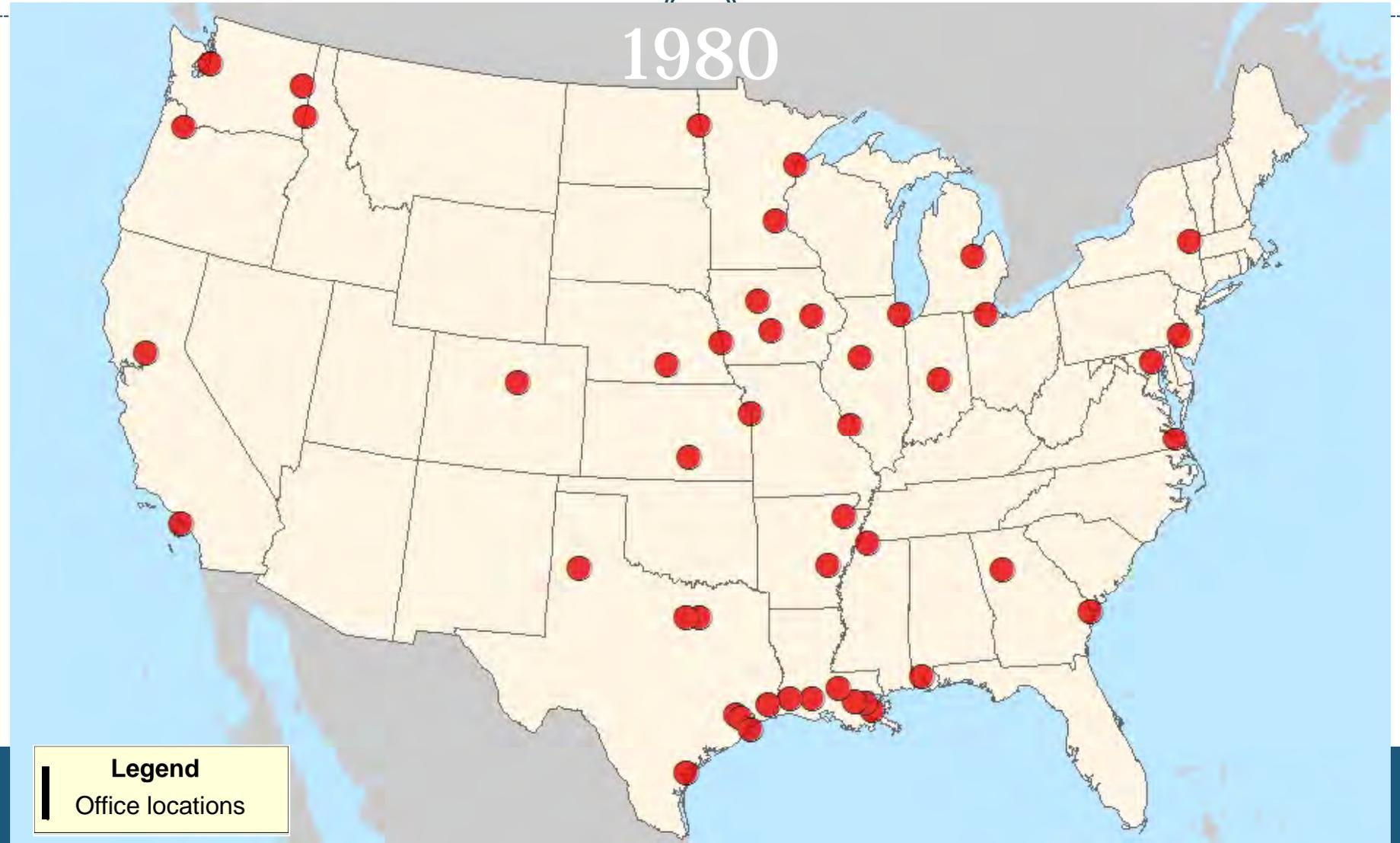
# FGIS Field Offices

1916



# FGIS Field Offices

1980



**Legend**  
Office locations

# FGIS Field Offices

2013

- Legend**
- Field Offices
  - ▲ Suboffices
  - Duty Points
  - ◆ Federal State Office



# North Dakota Pulse Grading



- USA Dry Pea and Lentil Council (USADLPC) requests official inspection services in western North Dakota
- GIPSA established a lab at United Pulse Trading (UPT)
  - Williston-specifically serves UPT
- Challenges finding space and personnel in Minot area
- Overnight shipping a two day ordeal
- AMTRAK to the rescue!



# North Dakota Pulse Grading



- Minot Agency collects samples, delivers to AMTRAK
- 7 30 p.m. deadline to make overnight train
  - Grand Forks by 1 a.m.; on to Minneapolis
- Grand Forks FOM takes delivery at 730 a.m.
- Field Office grades and reports results same day
- Customer gets next day service
- Extremely cost effective
- 4 week pilot study

Every one is happy (so far)



# Questions?



# Quality Pilot Program



**Eric Jobs**  
**Grain Inspection Advisory Committee Meeting**  
**Kansas City, MO**  
**June 18-19, 2013**



United States Department of Agriculture

# Agenda



- **Quality Process**
- **Quality Pilot**
  - Details
  - Objective
  - Results
  - Next Steps
  - Summary



# Quality Process



- **Current Quality Program**
  - SIMS/STEPS
- **Quality Meetings**
  - Monitoring, Performance, Tools, Training, Roles
- **White Paper**
  - Outlined Management Options
- **Strategic Plan**
  - Identified Quality Initiatives
- **Quality Pilot**
  - First step in comprehensive review of current quality system
  - Enhanced monitoring of inspector performance



# Quality Pilot (Objective)



- Gather inspector level quality data to enhance the quality dataset
- Identify inspector training needs
- Validate alignment between the inspector, QAS, and the Board of Appeals and Review (BAR)
- Substantiate certificate accuracy
- Evaluate use as a performance appraisal system for inspectors
- Reduce random sample variability component by reviewing separations



# Quality Pilot (Details)



- **New Orleans Field Office**
- **Export sublots and submitted samples**
- **May 1-September 30, 2013**
- **Quality Assurance Specialist (QAS) team to monitor critical interpretive factor separations**
  - DKT/HT for Corn/Soybeans
  - DKT/HT/WOCL for Wheat
- **Randomly select one factor/inspector/week**
- **Selections sent each Tuesday for prior Sunday-Saturday**
- **Pilot data not used to rate inspector performance**



# Quality Pilot (Results)



## 5/1-6/1/2013

- 190 Samples Selected
  - 175 samples supervised
  - 15 samples unsupervised

	<b>DKT</b>	<b>HT</b>	<b>WOCL</b>	<b>Total</b>
Wheat	34	20	20	74
Corn	52	25	NA	77
YSB	16	8	NA	24
Total	102	53	20	175

- 47 selected on 6/11 for 6/2-6/8



# Quality Pilot (Results)



- **100% certificate accuracy for all 175 results**
  - No grade change between inspector/QAS
- **Address small variability within grade through training**

	<b>DKT</b>	<b>HT</b>	<b>WOCL</b>	<b>TOTAL</b>
Wheat	3	1	4	8
Corn	1	0	NA	1
YSB	2	0	NA	2
Total	6	1	4	11



# Quality Pilot (Next Steps)



- **Evaluate data**
- **Evaluate logistics**
  - Retention, Labeling, Storing, Transporting, Grading, Recording
- **Evaluate as a replacement for performance appraisal system**
- **Define optimal mix of quality tools**
  - SIMS and Local/National STEP



# Quality Pilot (Summary)



- **Quality measurement tool to evaluate certificate and inspector accuracy**
- **Collect and analyze data over the next four months**
- **Evaluate permanent implementation and expansion to other field offices and official agencies**



# Questions



**Eric Jabs**

Branch Chief

USDA, GIPSA, Quality Assurance and Compliance Division

Quality Assurance and Designation Branch

National Grain Center

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(Office) 816-659-8408

(Cell) 816-206-0569

(Fax) 816-872-1257

[Eric.J.Jabs@usda.gov](mailto:Eric.J.Jabs@usda.gov)



# Centralization of Quality Assurance

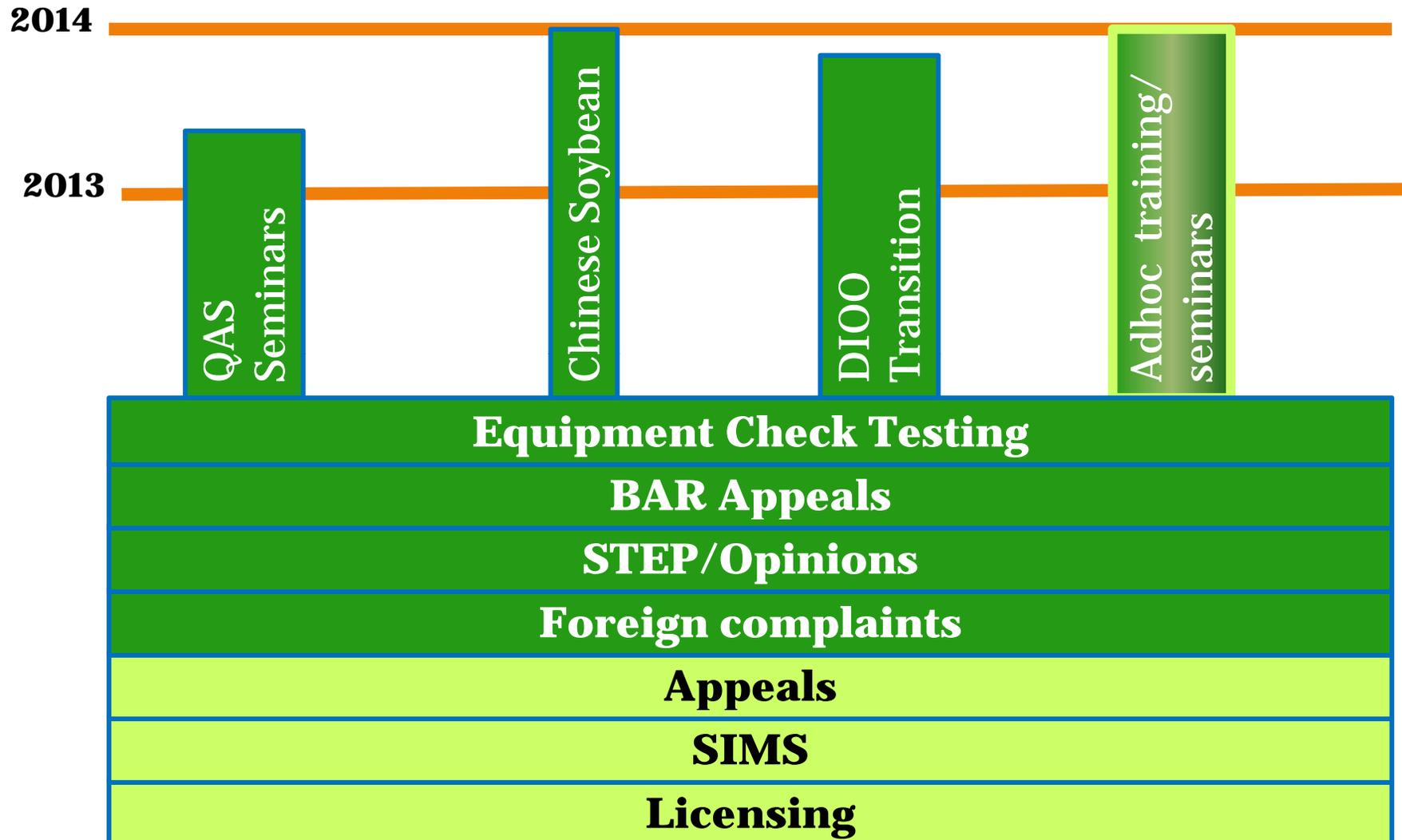


## Quality Assurance Workload Transferring to GSL

- **Monitoring**
  - **Appeals**
  - **Licensing**
- } **Effective June 10, 2013**
- **Equipment Performance Verification – Effective Aug 1, 2013**



# BAR PROGRAMS AND PROJECTS



# Sorghum “Storage Musty” Odor



- **June 2011 GIAC Resolution:**

“The Advisory Committee recommends that GIPSA continue working on sorghum odor. In continuing this effort, reach out for industry and end-user feedback to set a storage musty sorghum odor reference that refers to end uses.”



# Reference Sample Specification



- Base Sample : Stored sorghum with “okay” odor
- Chemicals Added:
  - Geosmine (0.0125 mg/kg)
  - 1, 2, 4–Trimethoxybenzene (12.5 mg/kg)
- Sample Size : 500 grams
- Applicability: “Storage Musty” odor in sorghum



# End-User Survey



## Locations visited

- Pork Producers Council
- Seaboard Foods
- Bonanza Bioenergy
- Wind River Grain
- ADM Milling
- Hills

## Primary Output

Pork  
Pork  
Ethanol  
Ethanol  
Drywall, Food  
Pet Food



# Project Timeline



- **October 2011** Initiated a new shelf-life study
- **November 2011** Trained official inspection personnel
- **January 2012** Complete shelf-life study
- **Feb-March 2012** Prepared/distributed reference samples



# Utilization



- **March 2012 - June 2012:** Conducted follow-up training at Quality Assurance Seminars.
- **January 2013:** Initiated Sorghum Reference Sample use survey among Official Service Providers.
- **February 2013:** Revised distribution criteria.
- **April 2013 - June 2013:** Conducted follow-up training at Quality Assurance Seminars.



# Review of Rice Initiatives



**Investigate use of NIRT to Determine Rice Surface Lipid Content**

**Investigate use of Scanner Technology to Determine Percent Broken Kernels in Rice**

Richard Pierce



# Rough, Brown and Milled for Rice Classes



# Milling Degree



Visual assessment of the degree to which a commercial miller has removed the rice bran layers.

Terms used to describe milling degree are:

- Hard milled
- Well-milled
- Reasonably well-milled



# Rice Surface Lipid Pilot Study - Goals



**Test Accuracy and Consistency of NIRT Calibration on Market Samples**

**Obtain Data to Improve Performance of the NIRT SLC Calibration**

**Assess Relationship between NIRT Surface Lipid Content (SLC), Reference Laboratory SLC, and Inspector Degree of Milling**

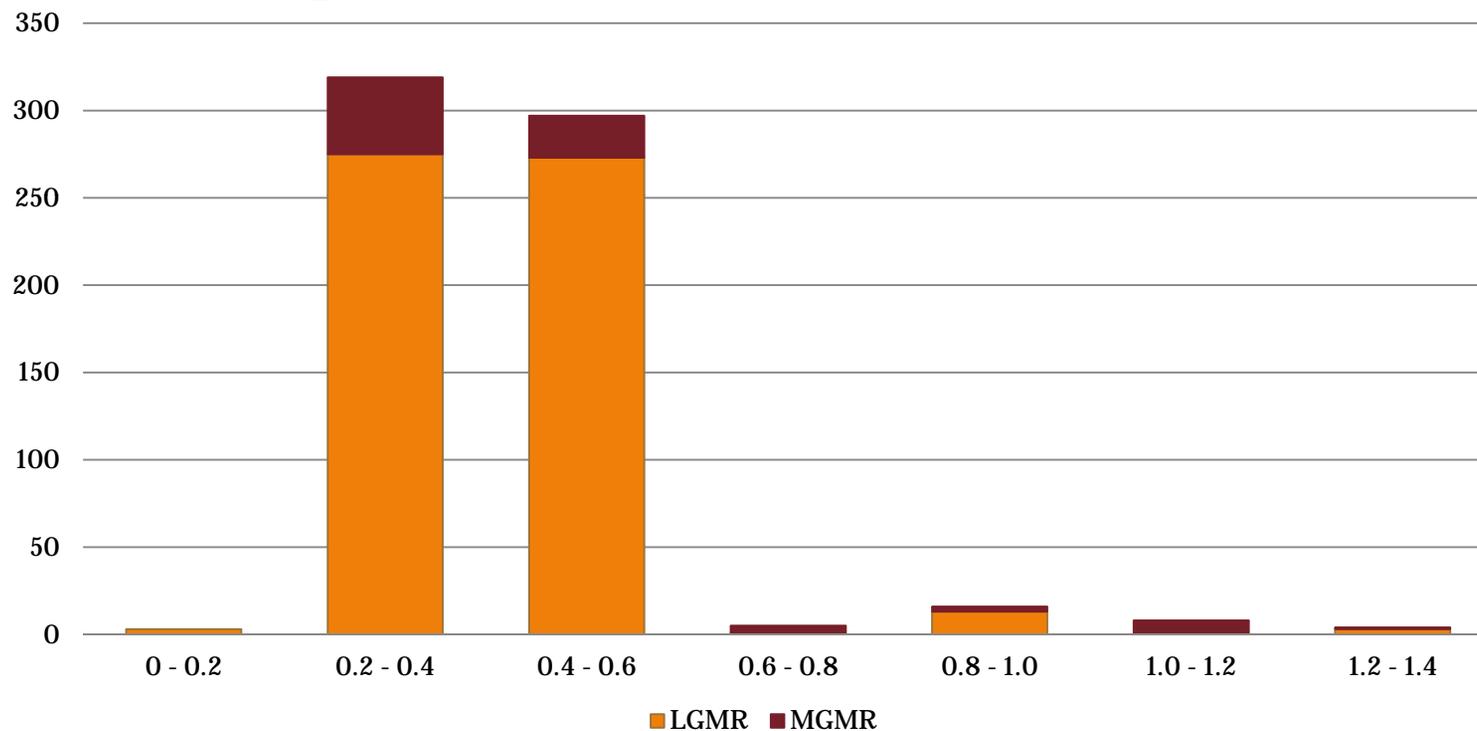
**Assess Consistency of Field versus BAR Degree of Milling Determinations**



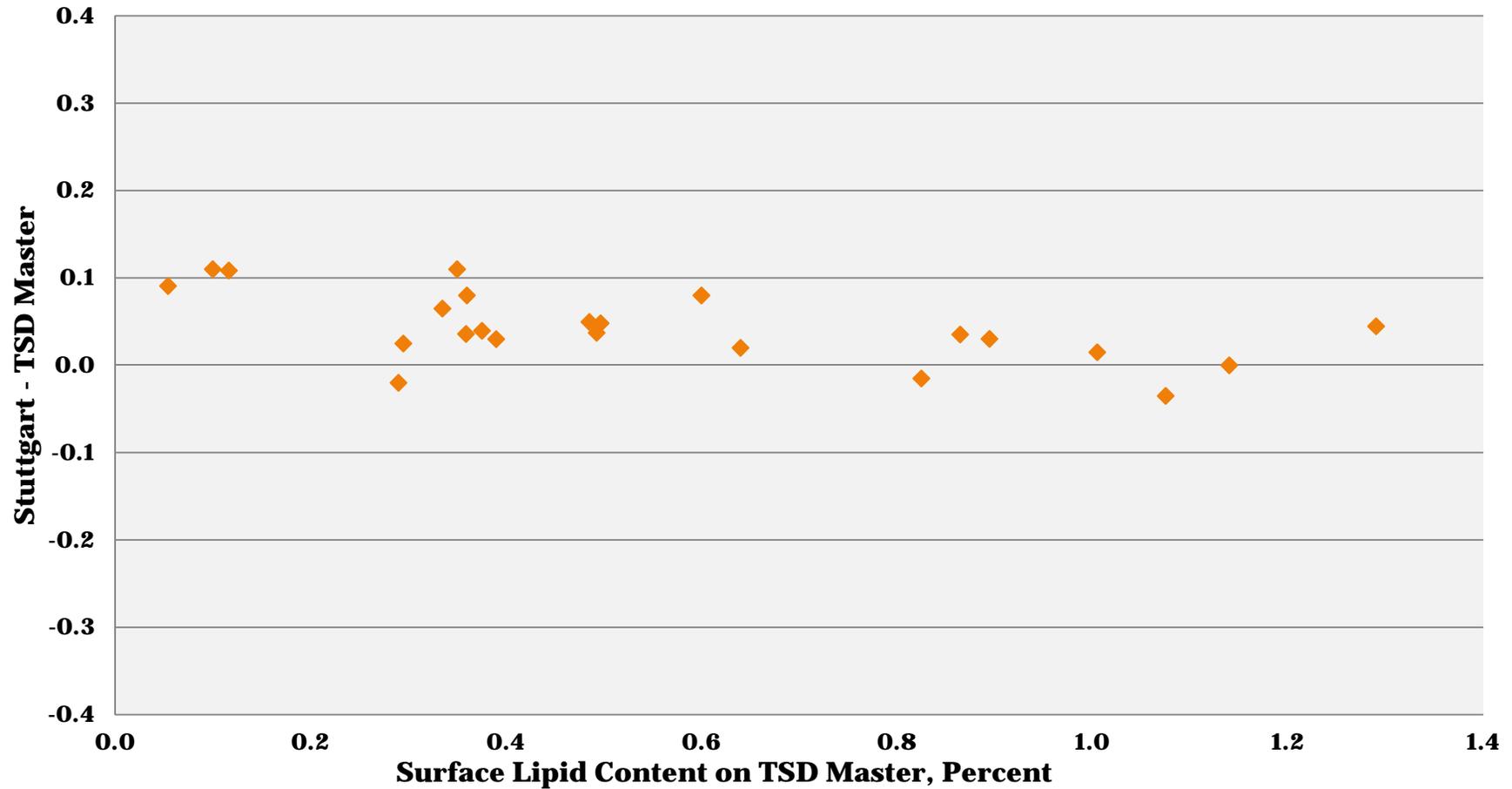
# Rice SLC Range for Initial Samples



## Stuttgart FO NIRT Rice SLC as of 05/21/2013



# Stuttgart NIRT vs TSD Master



# Determining Percent Broken Kernels



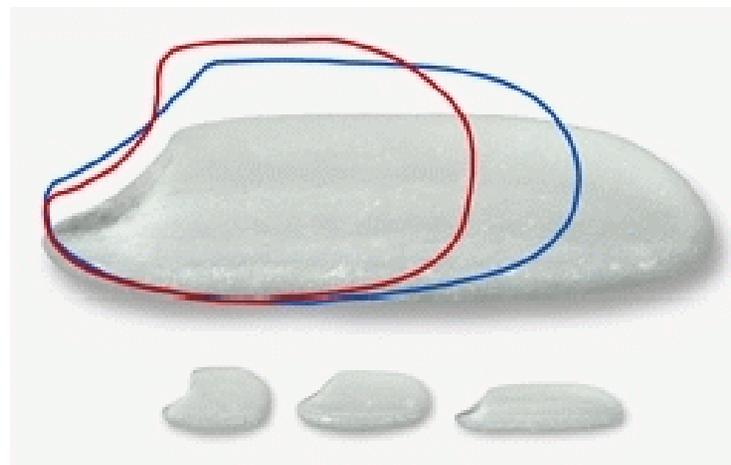
A "Whole" Rice kernel is defined as 75 Percent or more of the Original Kernel



**Whole Kernels**



**Large Broken Kernels**



# Grain Check 2312



The Grain Check 2312 is an automated system for separating whole and broken kernels and providing comparable results to visual inspection.

The Grain Check 2312 is discontinued and no longer supported!!!



# Scanner System for Rice Broken Kernels



Low Cost Flatbed Scanner

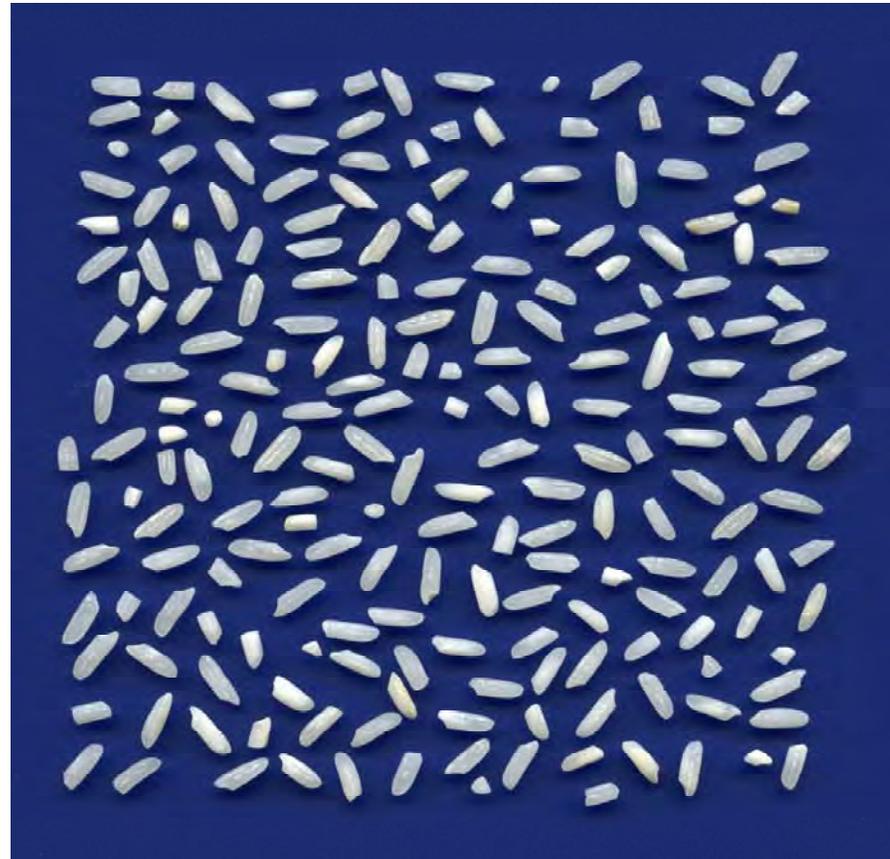
## Challenges:

Placement of Rice  
Kernels on the Scanner  
Platform

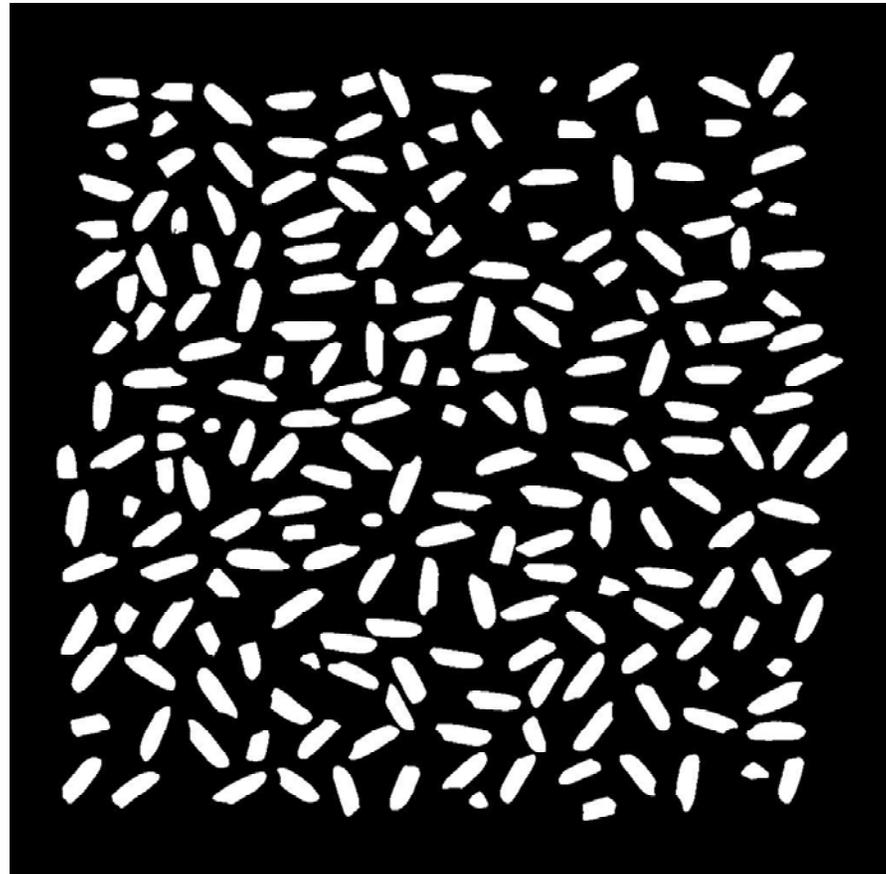
Mathematical  
Algorithms to Identify  
Broken Kernels



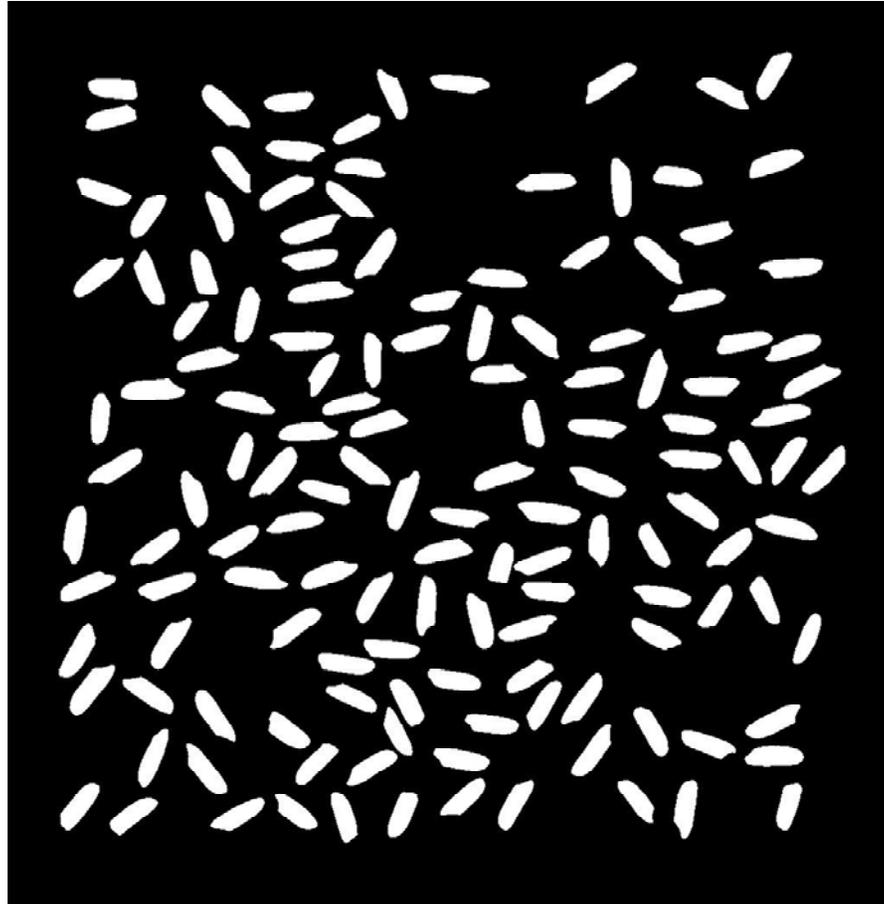
# Original Image (300 dpi) from Scanner



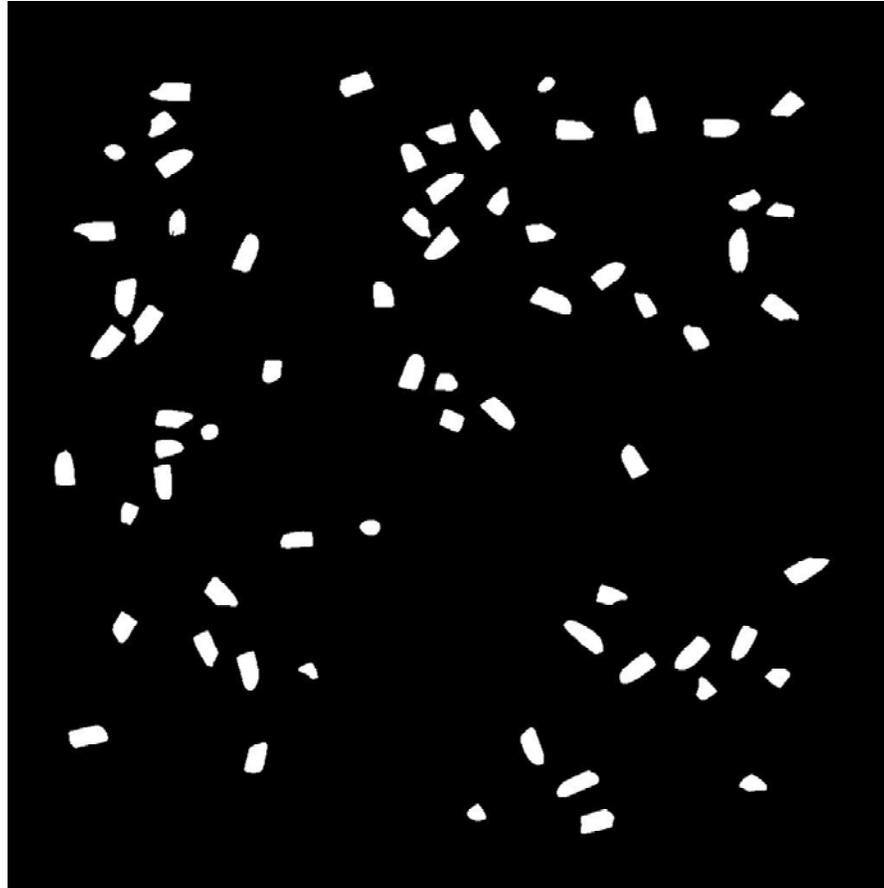
# Binarized Image Using Intensity Threshold



# Whole Kernels



# Broken Kernels





**Thank you!**



# UGMA Implementation Summary



**GRAIN INSPECTION ADVISORY COMMITTEE**

**DAVID B. FUNK, PH.D.  
GIPSA CHIEF SCIENTIST  
JUNE 18, 2013**



United States Department of Agriculture

# Key Dates in Official Moisture Meter History

- 1937: Tag-Heppenstall approved
- 1960: Motomco Model 919 approved
- 1990: Farm Bill authorized FGIS to work with NCWM to standardize commercial grain inspection equipment
- 1995: FGIS initiated research that led to UGMA
- 1998: Dickey-john GAC 2100 approved
- 2001: Basic Unified Grain Moisture Algorithm (UGMA) method published
- 2002: ARS declined to undertake UGMA refinement



# Key Dates in Official Moisture Meter History

- 2002-2010: FGIS conducted and supported research to refine UGMA and assisted manufacturers.
- 2006-2011: Three UGMA-based instruments received NTEP certification.
- June 2010: GIAC resolution supported adoption of new official moisture technology.
- Aug 2010: FGIS decision to pursue adoption of new technology.
- November 2010: GIAC resolution urged testing new technology with “green” rough rice.



# Key Dates in Official Moisture Meter History

- June 2011: GIAC resolution urged continued evaluation and adoption of 149 MHz technology as new official standard.
- Sept–Nov 2011: FGIS conducted “green” grain studies for soybeans and rough rice.
- Dec 2011: GIPSA reported to GIAC
  - “Green” rice and soybean studies
  - Important improvements in accuracy for extreme test weight corn
- Dec 2011: GIAC urged acceleration of UGMA implementation.



# Key Dates in Official Moisture Meter History

- Feb 2012: UGMA-Compatibility Criteria document issued
- April 2012: First two UGMA-Compatible moisture meters approved
- June 2102: UGMA instruments delivered to FGIS labs
- July-Aug 2012: UGMA instruments delivered to other Official labs
- September 10, 2012: UGMA implemented for corn, soybeans, sorghum, and sunflower seed
- May 1, 2013: UGMA implemented for all other grains and commodities under FGIS responsibility



# GIPSA's Basic Definition of Equivalency

- **Same technology**
  - The technologies of two models are judged so similar (by expert assessment) that consistent results would be expected.
- **Very close agreement among types**
  - The sample-by-sample agreement among units of different “equivalent” instrument types must be essentially as tight as sample-by-sample agreement within either instrument type.
  - The overall consistency of results in official inspection must not be appreciably degraded by including multiple types.
- **Same calibrations and standardization processes**
  - Adding an “equivalent” instrument type must not require undue duplication of support processes and cost.



# UGMA-Compatibility Criteria (1)

- NTEP Certification
- Documented & stable production processes
- Standardized measurement frequency
- Standardized test cell design
- Standardized loading method
- Standardized measurements
  - Sample dielectric constant
  - Sample mass
  - Sample temperature



# UGMA-Compatibility Criteria (2)

- **Tight tolerances specified for individual subsystems as well as moisture results**
- **Must use specified mathematics**
- **Units' agreement with FGIS Master system must meet tolerances in FGIS Regulations**
  - +/- 0.05% M for Headquarters Standard units
  - +/- 0.15% M for other Official units
  - Mean difference on medium-moisture HRWW

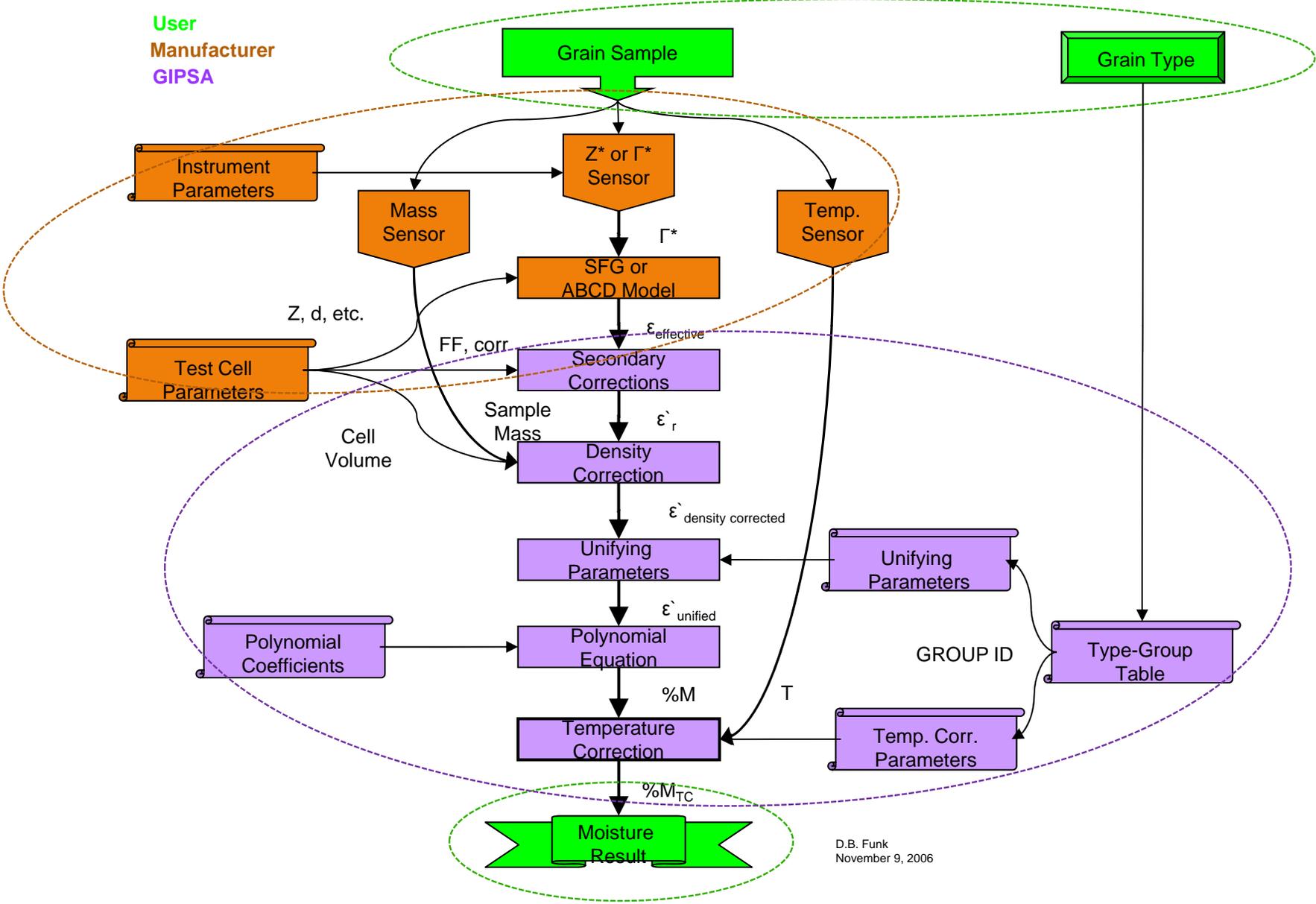


# UGMA-Compatibility Criteria (3)

- All UGMA-Compatible models must be able to use the same check testing process.
- A simple check testing process must ensure performance on all grains over full moisture ranges.
- Instruments must provide for efficient means of entering calibrations.
- Instruments must provide standardized output data stream for printing or networking.



# Unified Grain Moisture Algorithm



# GIPSA-Certified UGMA-Compatible Moisture Meters

- Dickey-john GAC  
2500UGMA



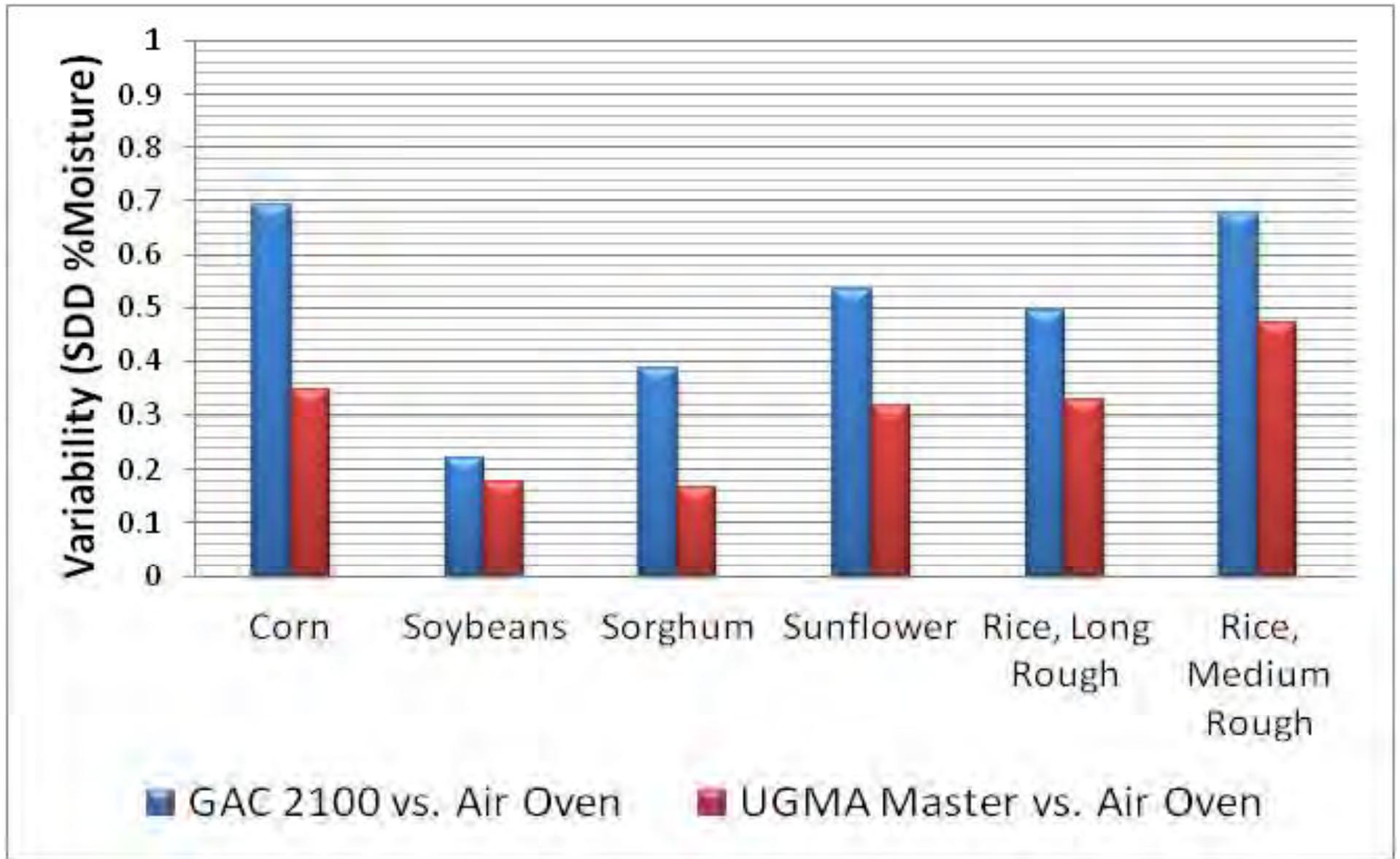
- Perten AM 5200-A



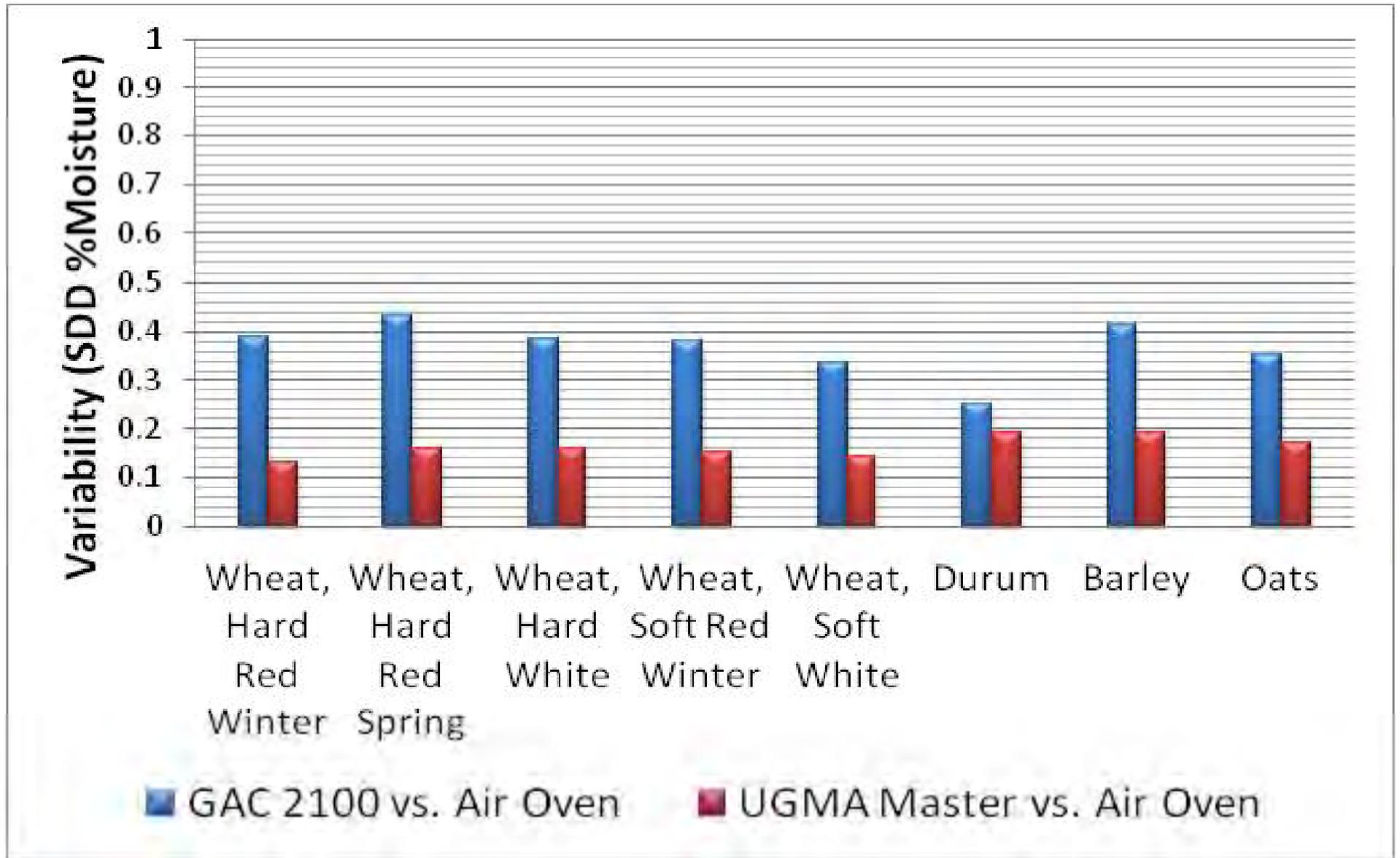
What benefits have we achieved by  
implementing the  
**Unified Grain Moisture Algorithm?**



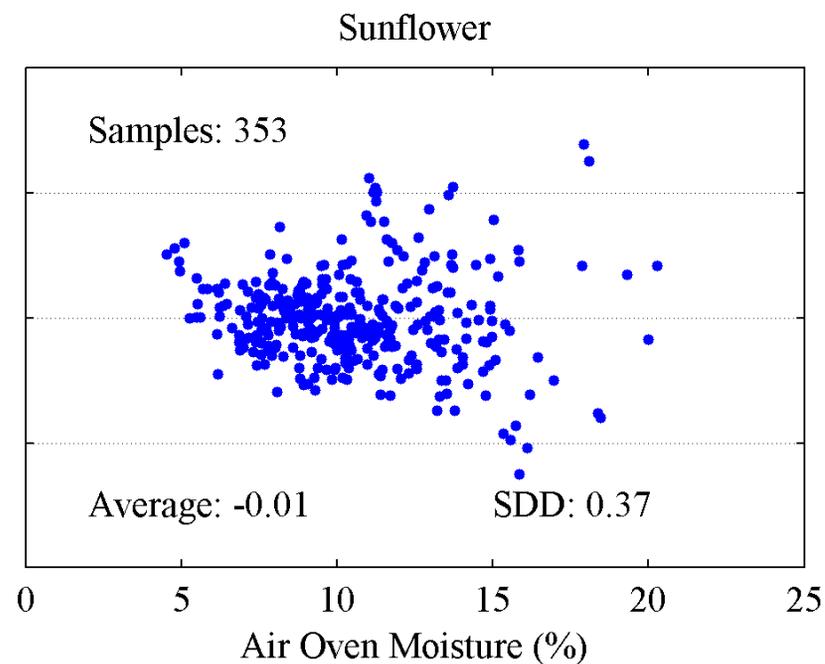
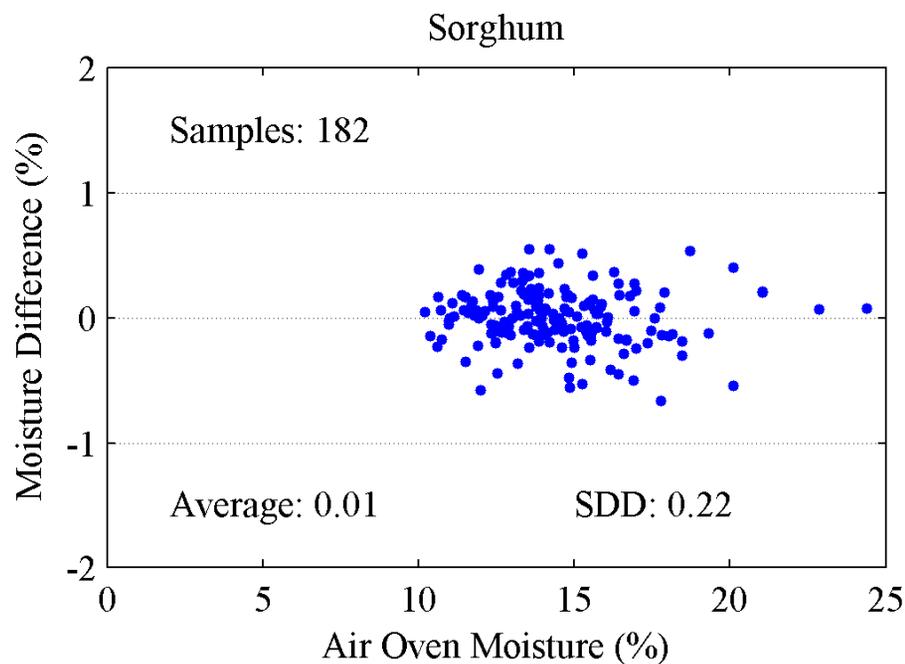
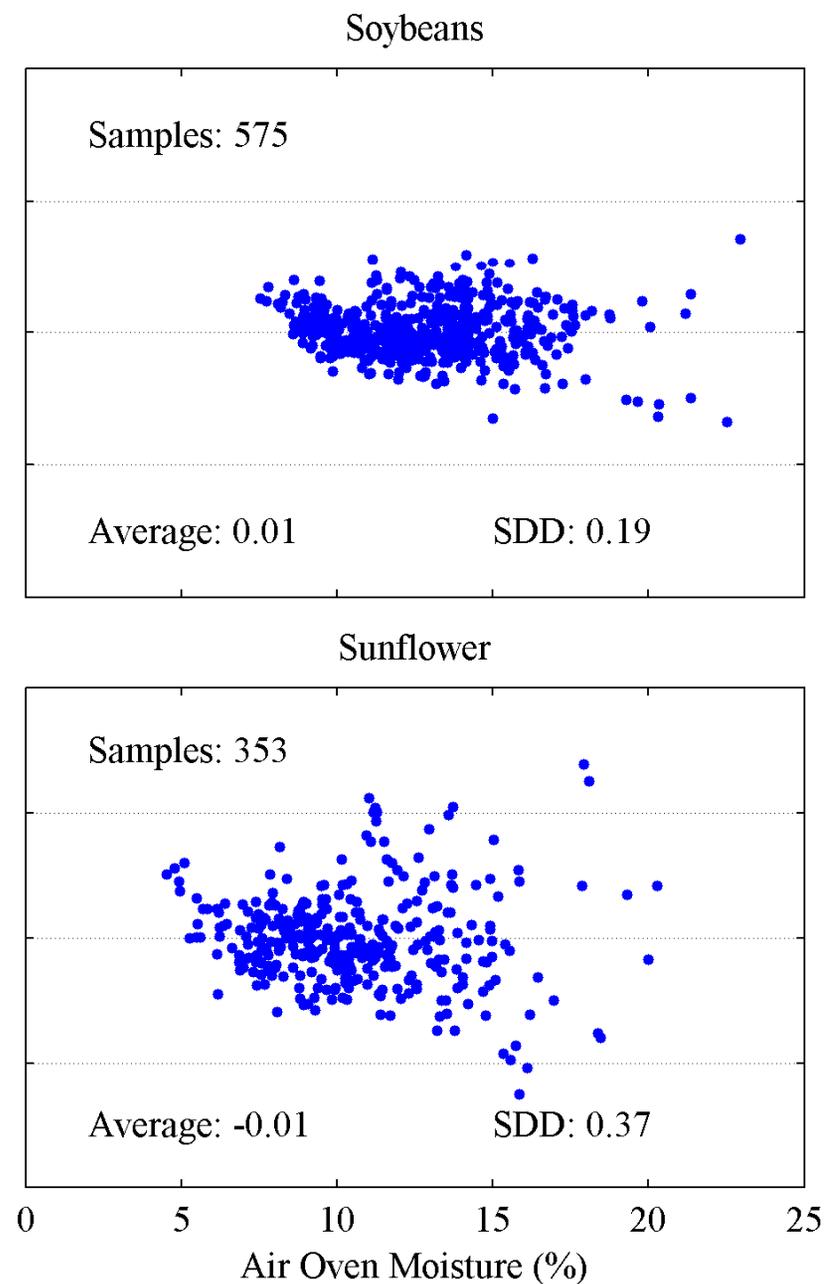
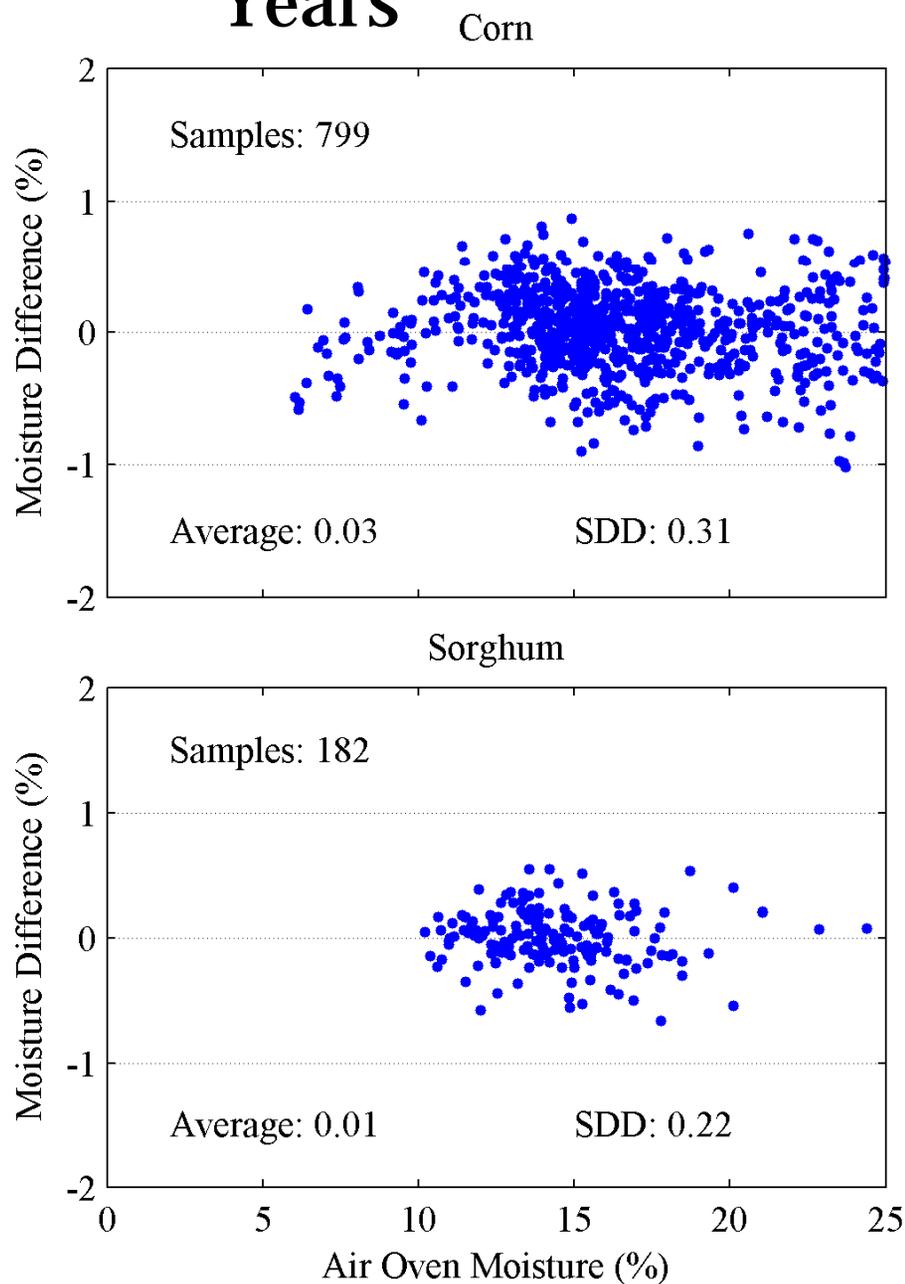
# Improved Accuracy



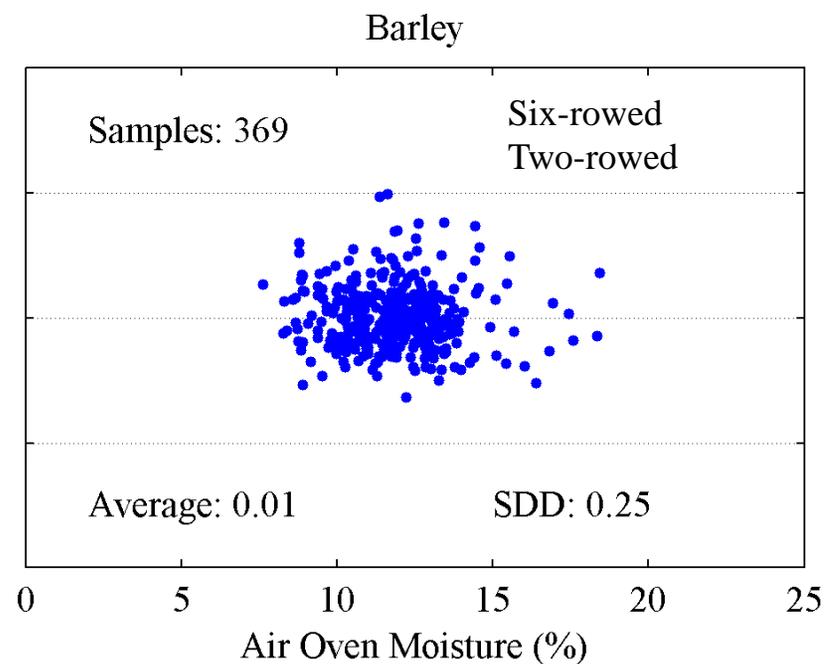
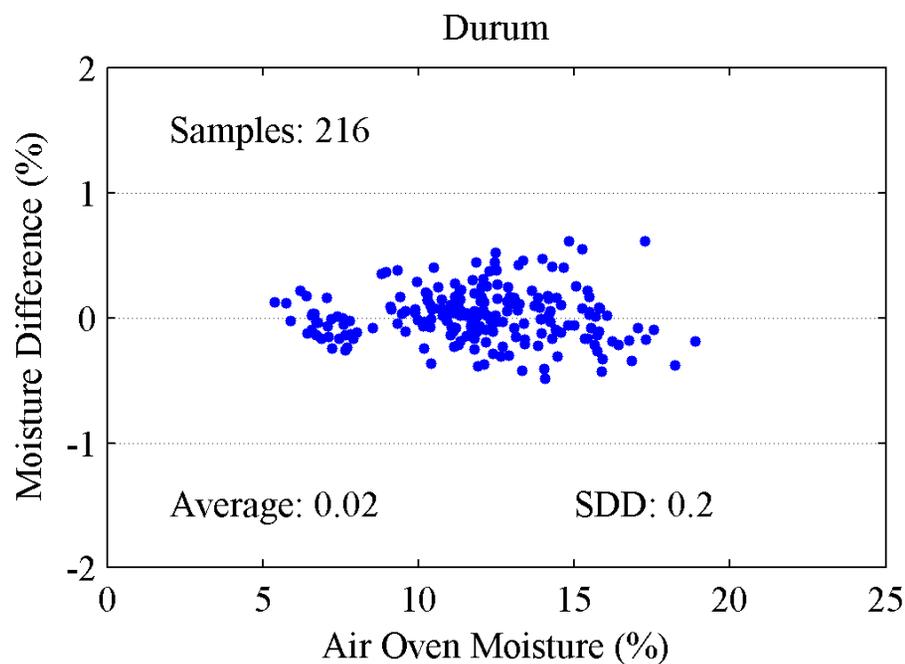
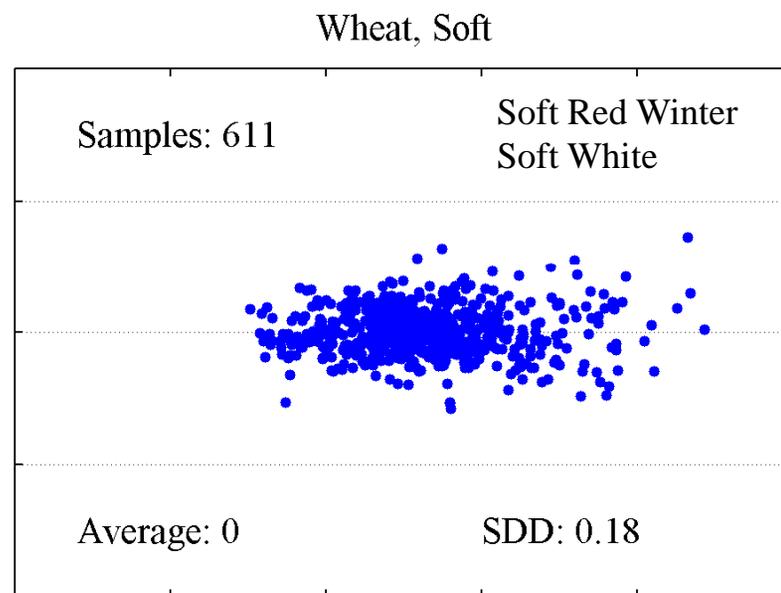
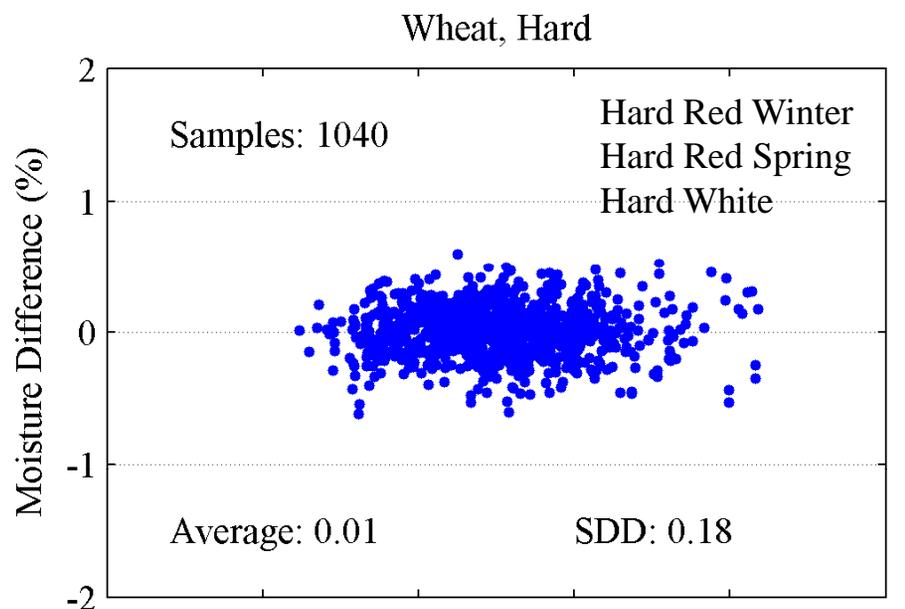
# Improved Accuracy



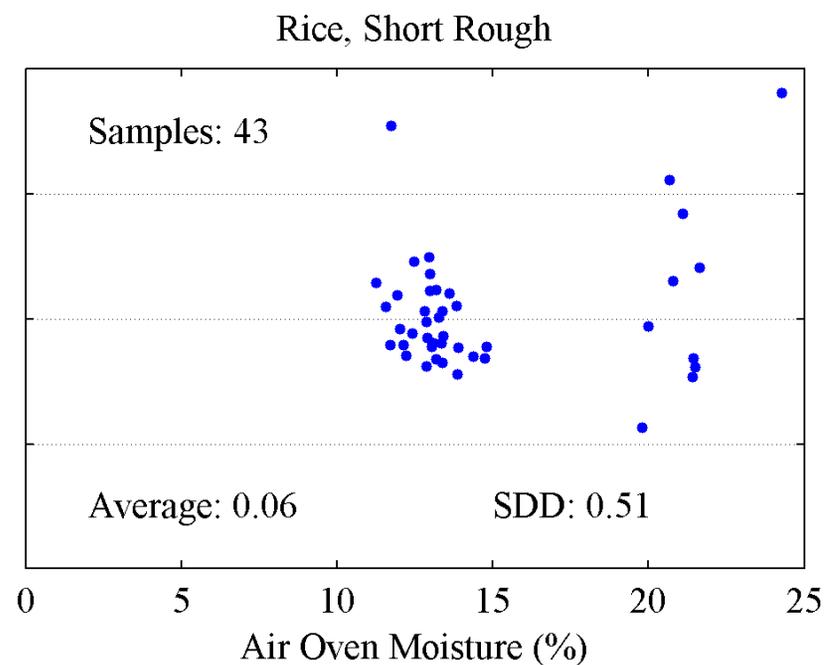
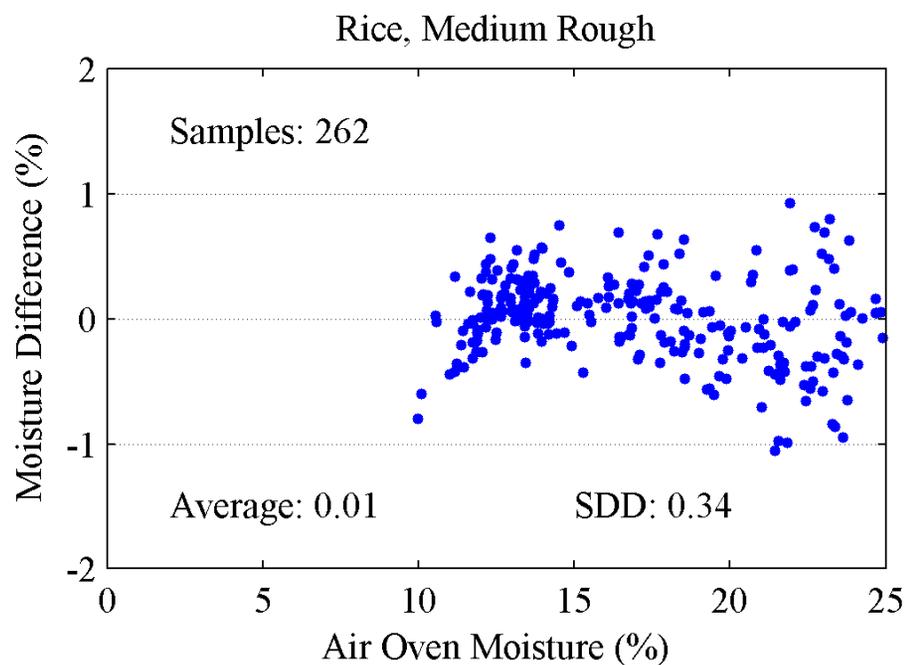
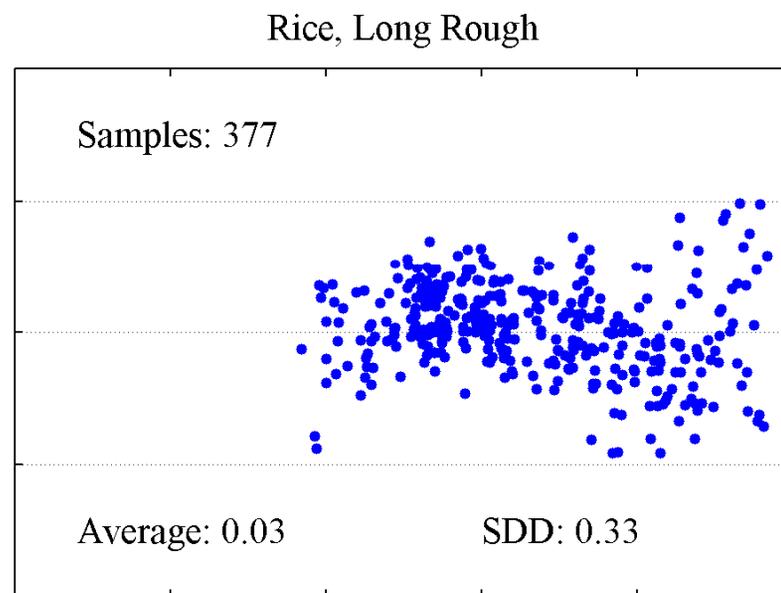
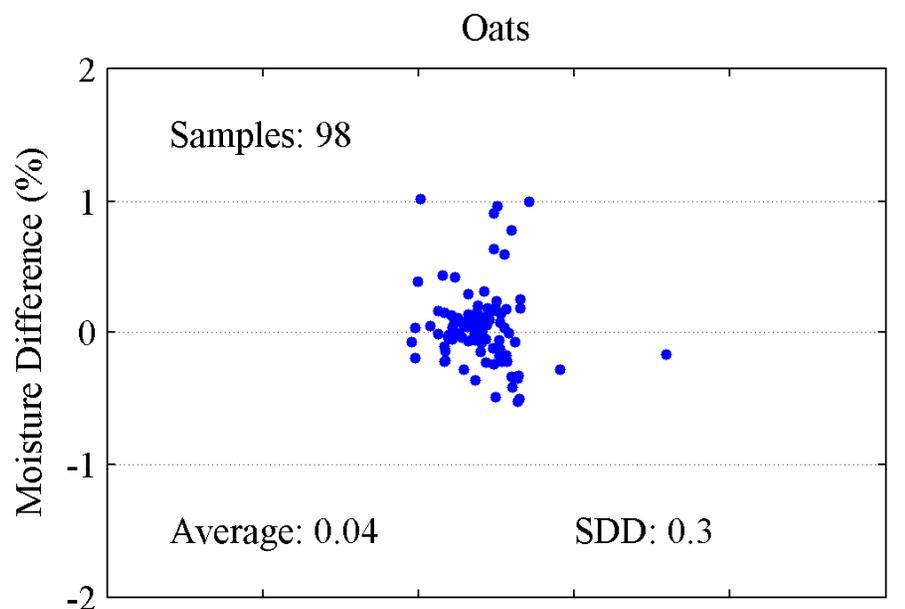
# UGMA Performance for 2008-2012 Crop Years



# UGMA Performance for 2008-2012 Crop Years



# UGMA Performance for 2008-2012 Crop Years



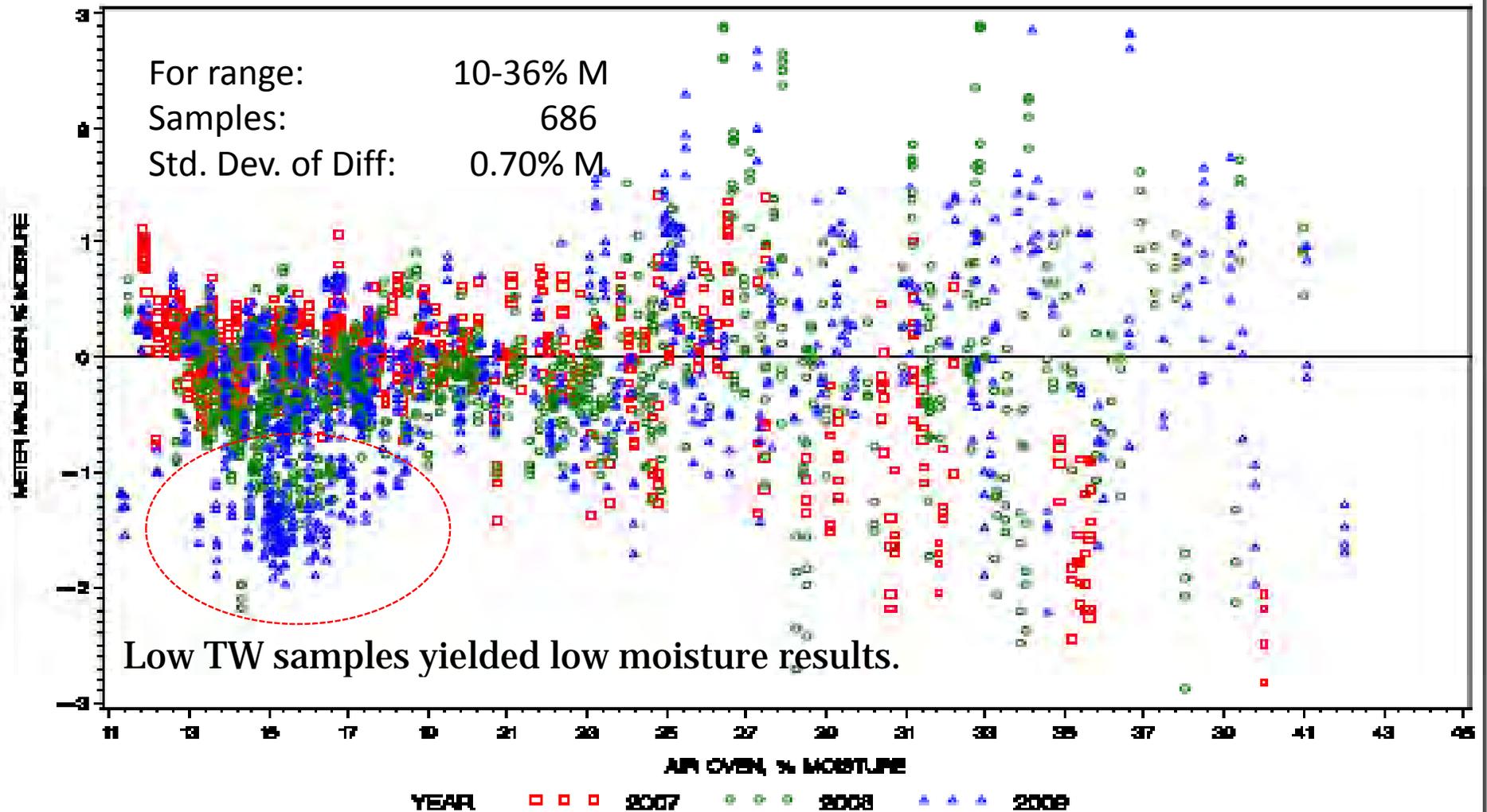
# Drastically Improved Accuracy on High and Low Test Weight Corn



United States Department of Agriculture

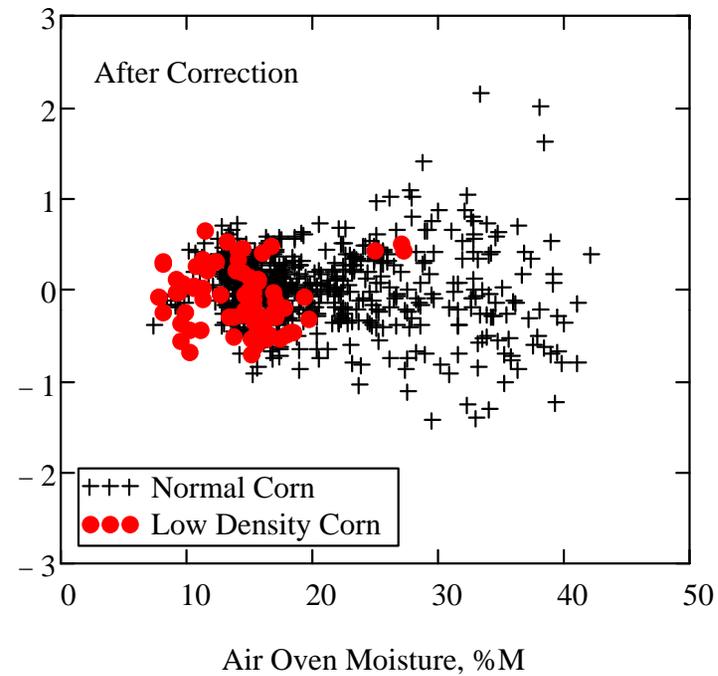
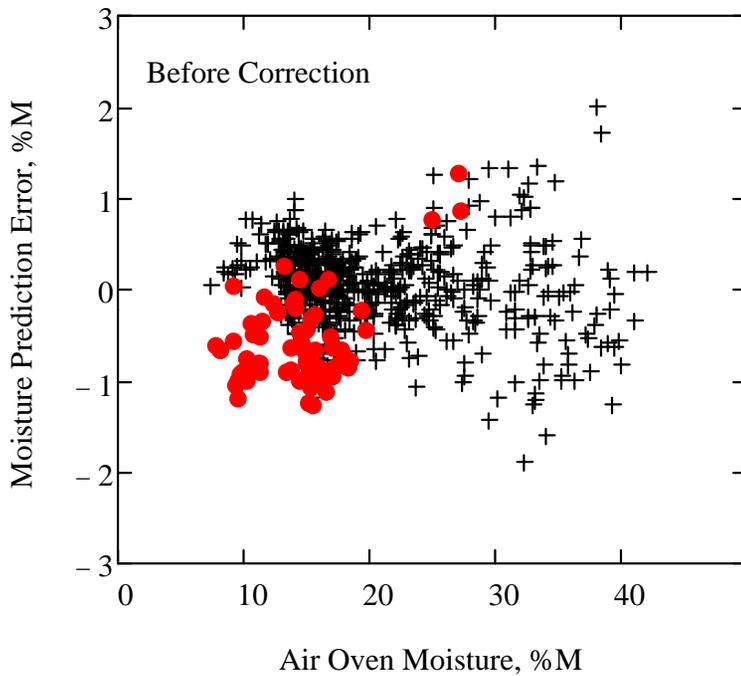
# GAC 2100 Corn Results—Density Issue Accuracy for 2007-2009 Crops

**A. Plot of GAC2100 Accuracy vs. USDA Air Oven Moisture,  
Room Temperature Data Only**



# Secondary Density Correction

## Corn Results for UGMA



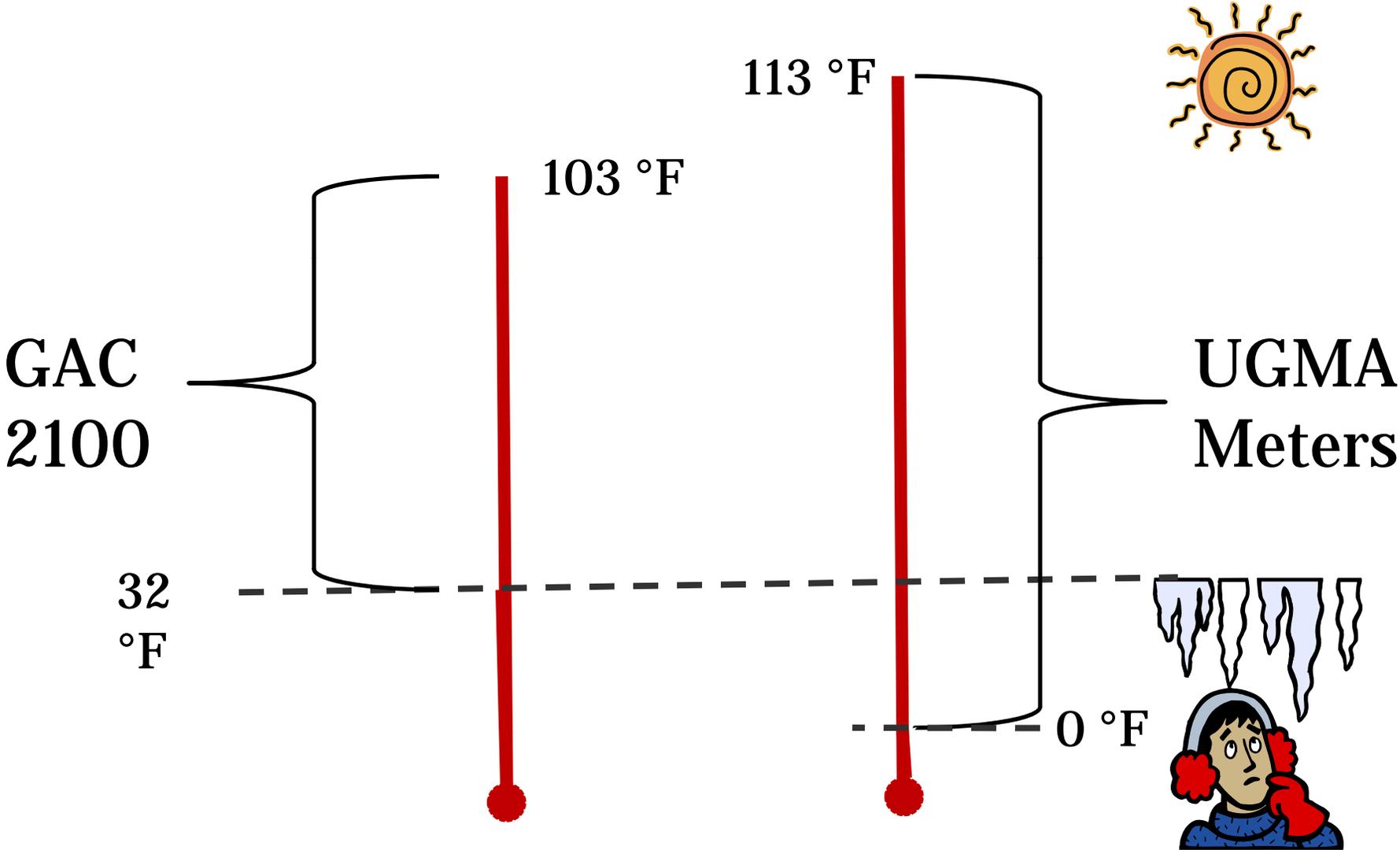
	<b>Before</b>	Bias	STD	Slope	<b>After</b>	Bias	STD	Slope
All Samples		-0.04	0.46	-0.01	All Samples	-0.01	0.31	-0.01
Low Density		-0.66	0.34	0.00	Low Density	-0.11	0.32	-0.03
Normal		0.09	0.36	-0.04	Normal	0.01	0.30	-0.01

# Faster Measurements

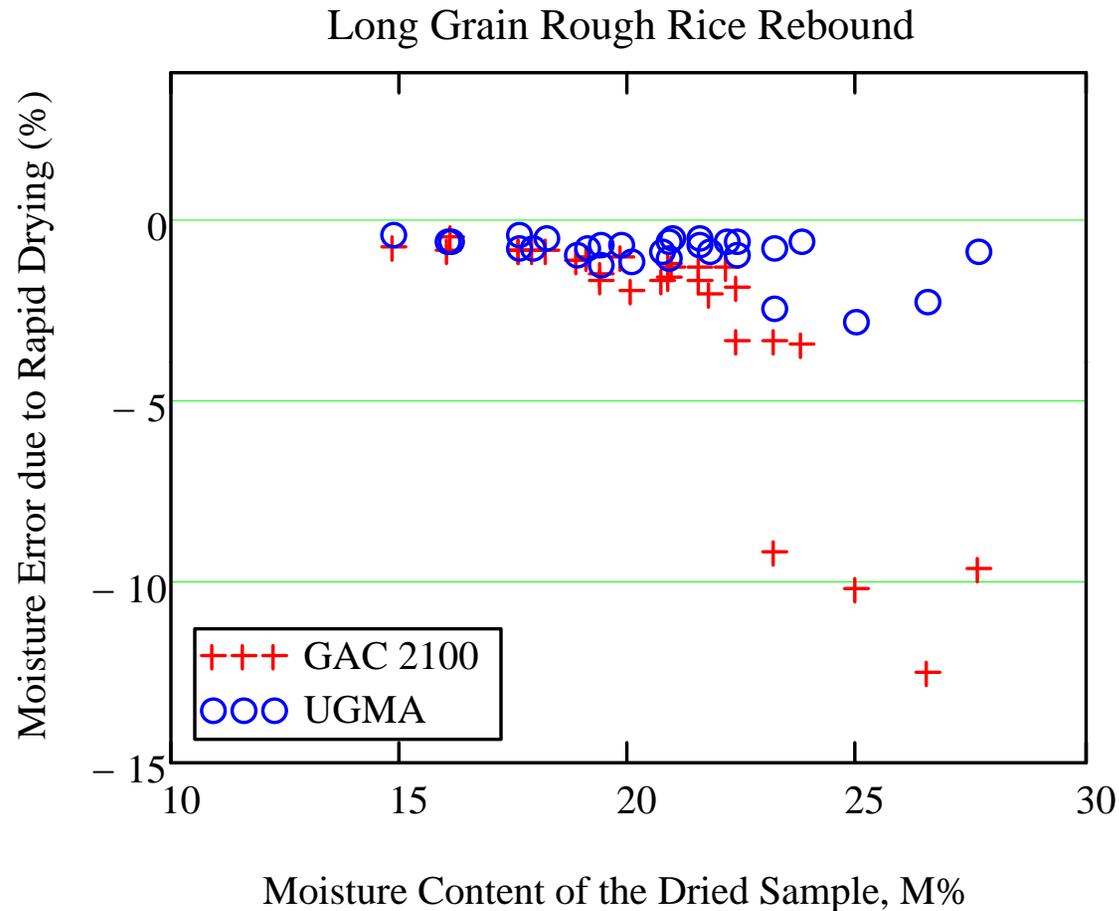


United States Department of Agriculture

# Wider Sample Temperature Ranges



# “Green” Grain Effects Reduced



United States Department of Agriculture

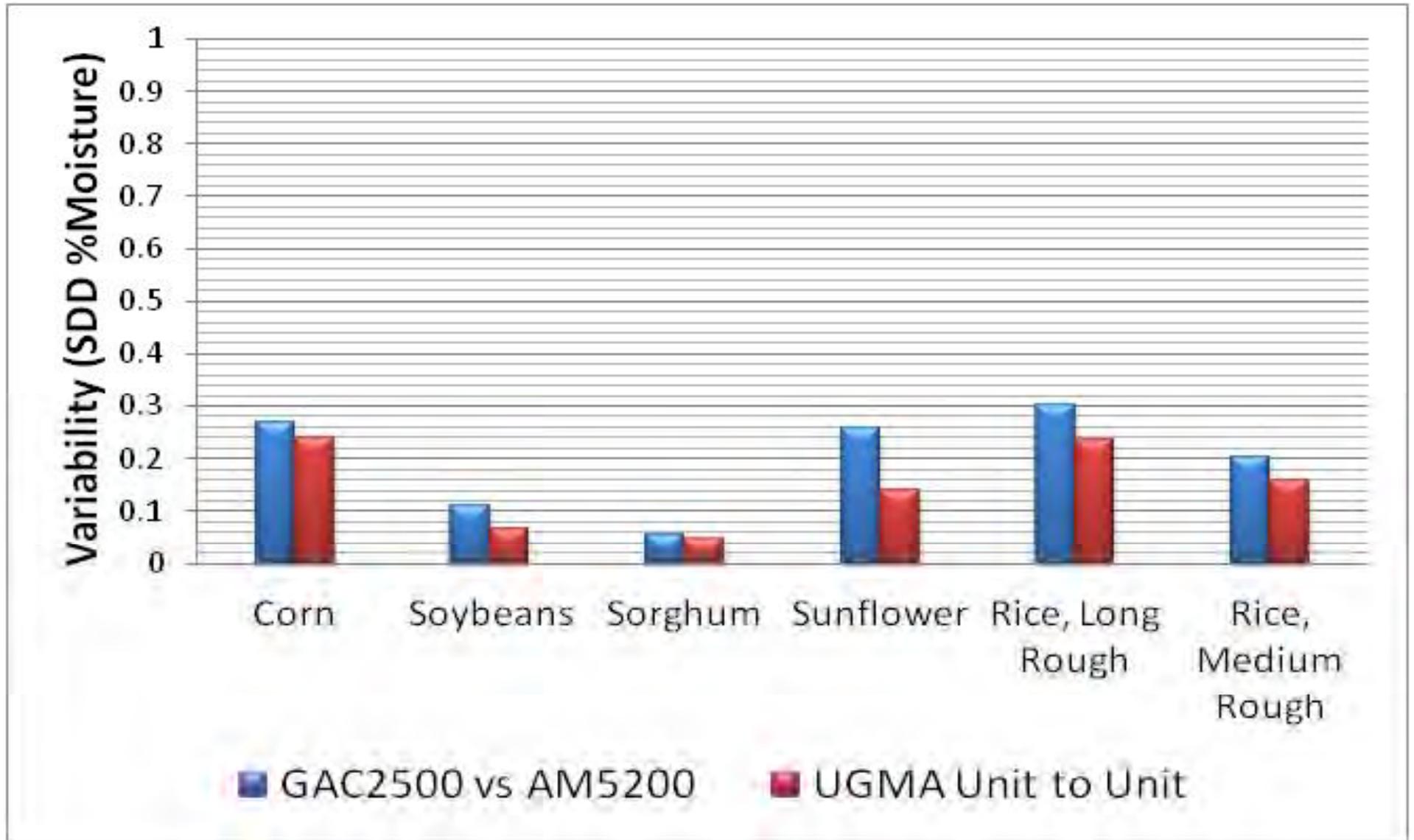
# Multiple Equivalent Official Moisture Meter Models

- Introduced competition
- Reduced purchase cost
- Promotes continuing development of new UGMA-Compatible instruments

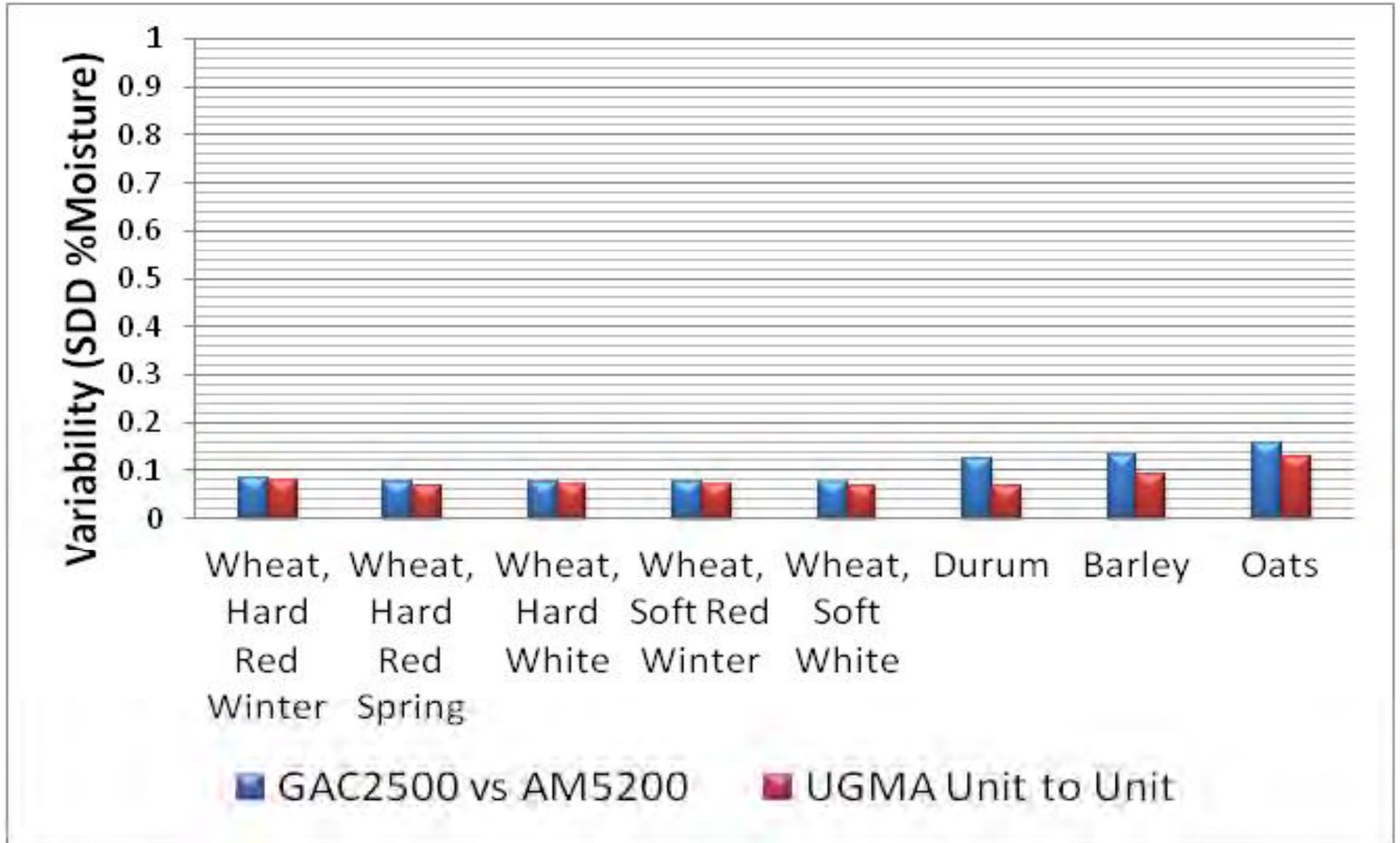


United States Department of Agriculture

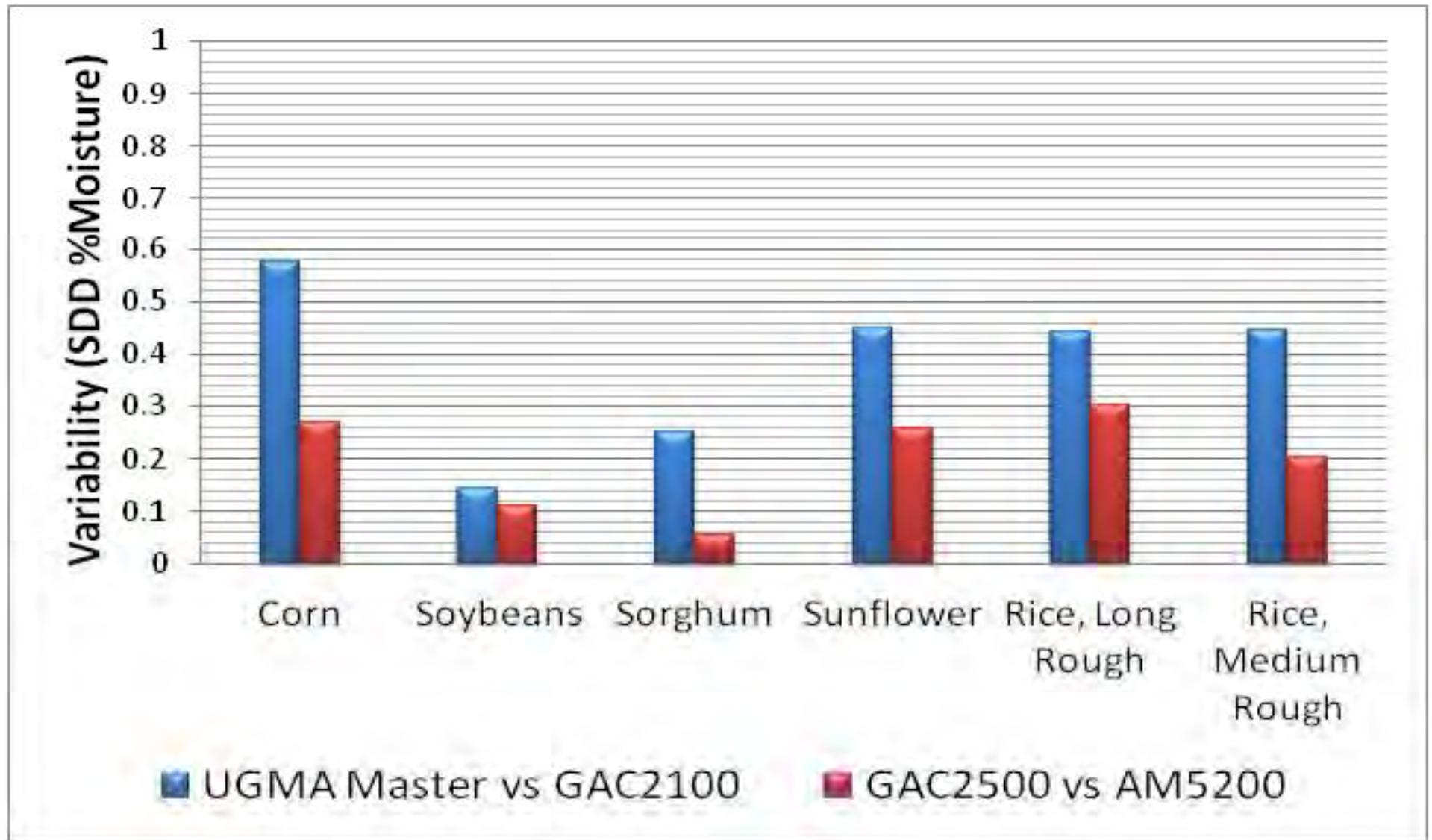
# Excellent Agreement Between UGMA Models



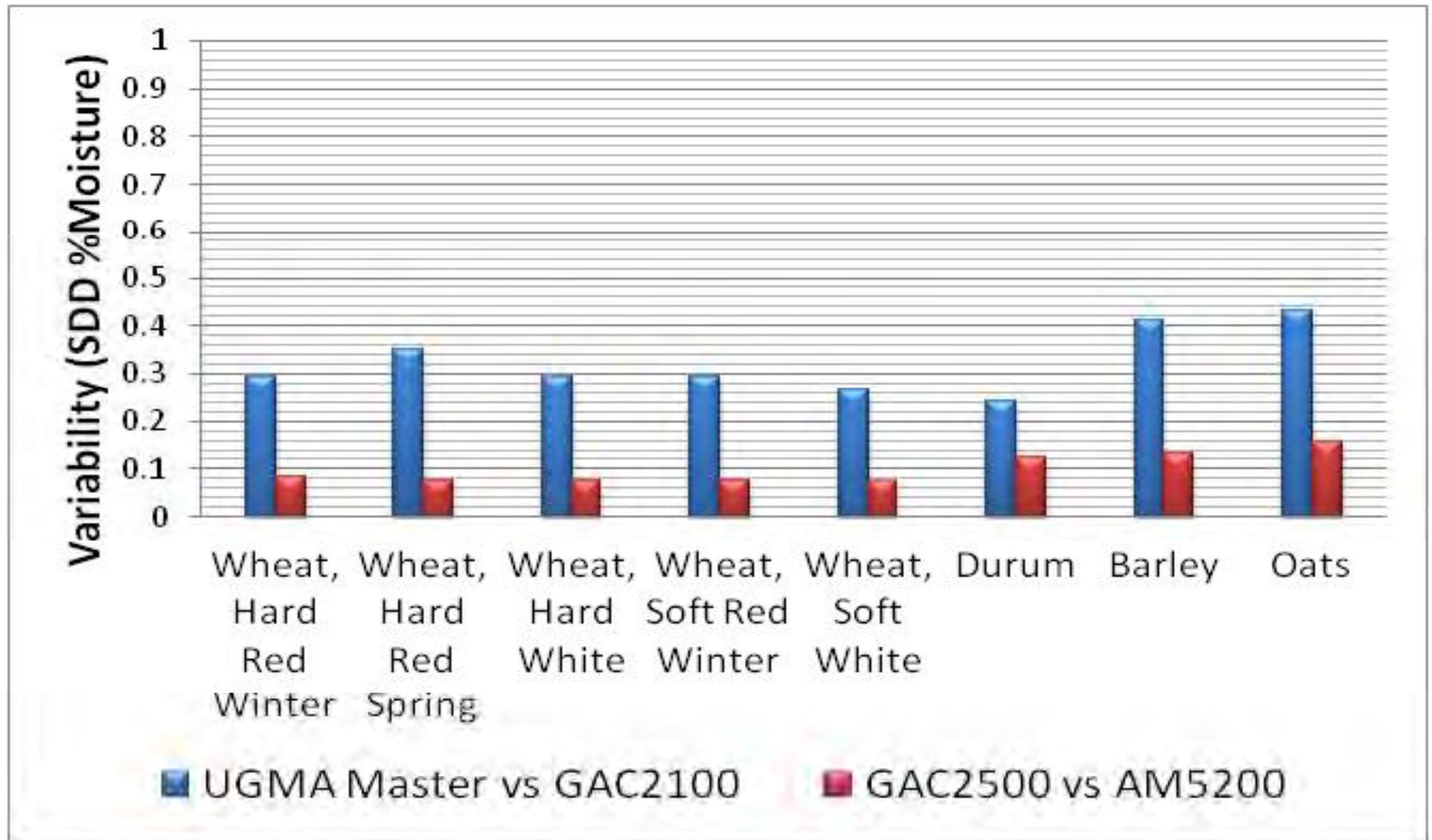
# Excellent Agreement Between UGMA Models



# Far Better Agreement Than Between Different Technologies



# Far Better Agreement Than Between Different Technologies



# Lower On-going Cost for Calibration Maintenance

- **Simpler calibration development due to UGMA math**
- **Fewer calibration samples required**
- **Many grain types use the same calibrations**
- **Better stability of calibrations across crop years and grain varieties**
- **All UGMA-Compatible moisture meters use the same calibrations (with slight adjustments for loading differences)**



# Easier Calibration Installation

- Via USB memory device



- Download from Internet to USB memory device
  - <http://www.gipsa.usda.gov/fgis/equipment.html>

***No numbers to enter by hand!!!***



United States Department of Agriculture

So...

Could FGIS Achieve Similar Benefits by  
Approving Multiple Equivalent NIR  
Models for Wheat Protein, etc?

*Maybe....*



United States Department of Agriculture

# Why Would Multiple Official NIR Models be Desirable?

- **FGIS has depended on one model line of NIR instruments for over 20 years.**
- **Promote competition**
  - Consistent with general government procurement policy
  - Reduce purchase prices
  - Enhance customer service
- **Stimulate development of new NIR models with compatible technology**
- **Improve consistency among NIR instrument results in commercial as well as official service**



# Why Would Approving Multiple Official NIR Models be Difficult?

- Customers demand (and are accustomed to receiving) extreme accuracy and consistency in official NIR measurements.
- Simply approving multiple existing NIR models is not a viable option.
- Existing NIR models are not “equivalent.”
- NIR calibrations are far more costly and complex than UGMA calibrations to develop and maintain.
- Crucial NIR instrument characteristics are extremely difficult to measure and control.
- Replacing current official NIR units with new technology will be expensive.



Instrument Type 2

Basic  
Measurements

Calibration C

Instrument Type 1

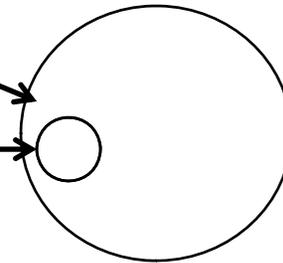
Basic  
Measurements

Calibration A

Instrument Type 1

Basic  
Measurements

Result  
Consistency



**Instrument Type 2**

**Basic  
Measurements**

*Calibration C*

**Instrument Type 1**

**Basic  
Measurements**

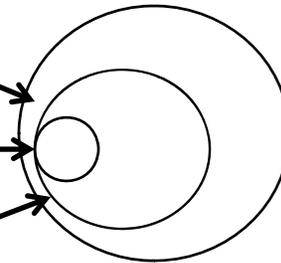
**Calibration A**

**Instrument Type 1**

**Basic  
Measurements**

*Calibration B*

**Result  
Consistency**



**United States Department of Agriculture**

Instrument Type 3

Standardized  
Measurements

Instrument Type 1

Standardized  
Measurements

Instrument Type 2

Standardized  
Measurements

Calibration A

Result  
Consistency



United States Department of Agriculture

# How to Move Forward on Approving Multiple NIR Models?

- Test existing instruments to assess the potential for achieving equivalency without major hardware and software changes.
- Perform R&D to define suitable technology (similar to what was done to develop UGMA).
- Publish technology requirements for compatibility.
- Assist manufacturers in developing compatible instruments.
- Conduct NTEP evaluation of new instruments to ensure commercial acceptability.
- Evaluate instruments according to official technology-compatibility criteria.
- Transition to new NIR technology with multiple models.

# Timeline?

- It will take five to ten years to develop and transition to new NIR technology.
- If the Agency is going to move in this direction, it is crucial that the work begins now while experienced staff are here to guide the development.

Questions? Comments?

*GIAC guidance is important to GIPSA's  
actions in this matter.*



United States Department of Agriculture

# Gluten Strength Analyzer



**GRAIN INSPECTION ADVISORY COMMITTEE**

**Tim Norden, Chief  
Analytical Chemistry Branch  
Technology and Science Division  
June 18, 2013**



**United States Department of Agriculture**  
Grain Inspection Advisory Committee Meeting, June 2013

# Gluten Analyzer Project Timeline



- 2003 GIPSA identified gluten strength as a key market need
- 2004-06 Established a wheat functionality laboratory
- 2007 U.S. Wheat Associates strongly encouraged GIPSA to develop official tests for end-use functionality
- 2007 Formed a collaborative project with ARS who partnered with Cornell University, Oklahoma State University, and Perten Instruments
- 2008-09 Demonstrated that a gluten analyzer prototype differentiates gluten strength
- 2010-11 Fine tuned prototypes
- 2012-13 Tested commercial prototype using 48 hard wheat pure cultivar flour samples



# GIPSA Wheat Quality Meeting

## Wheat Industry Stakeholders, April 2003



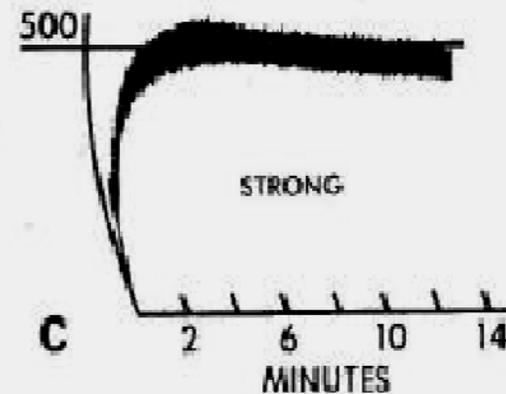
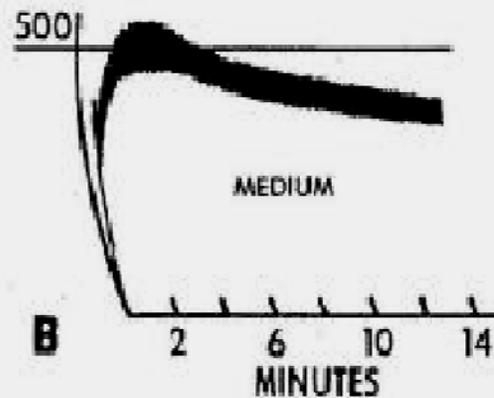
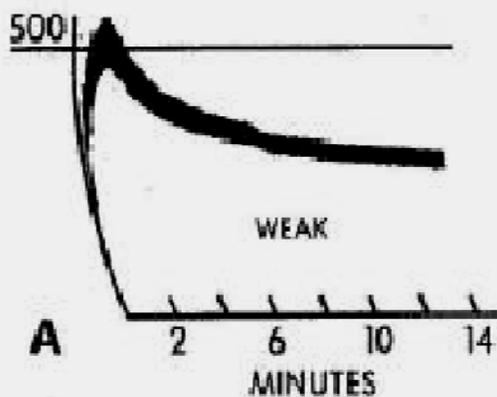
- **Consensus on most important functional test for wheat**
  - Gluten strength
  - Dough and mixing stability
  - Varietal identification
  - Water absorption



# What is Gluten Strength?



- As measured by Farinograph
  - 24-hour test on flour
    - ✦ Peak time (min)
    - ✦ Stability time (min)



# Gluten Analyzer Project Goal



- **Develop a market-relevant test for gluten strength that can be accomplished in about 30 minutes or less for any wheat sample**

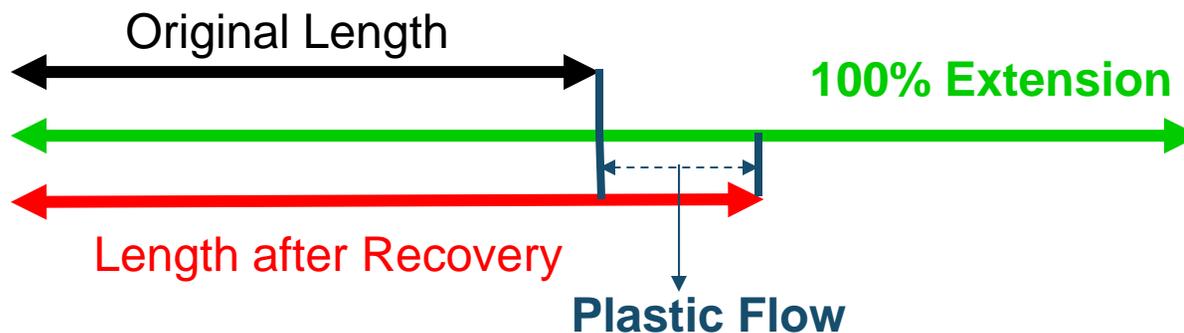


# Gluten Analyzer Project

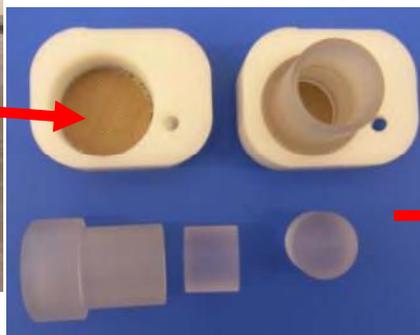
## Definition of Gluten Strength



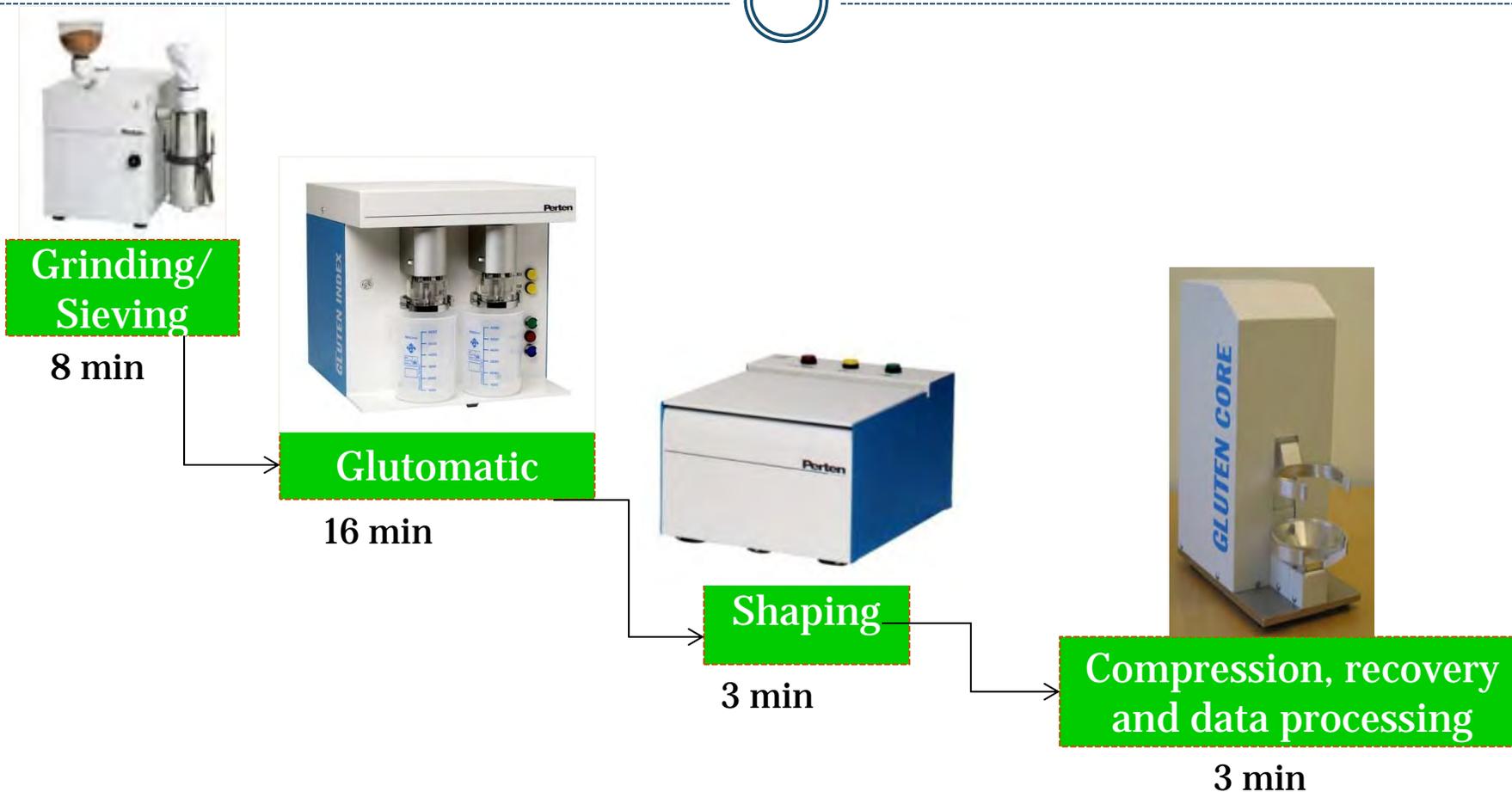
- Gluten quality defined by its visco-elastic properties
- Viscous: Plastic Flow
- Elastic: Recovery after stress



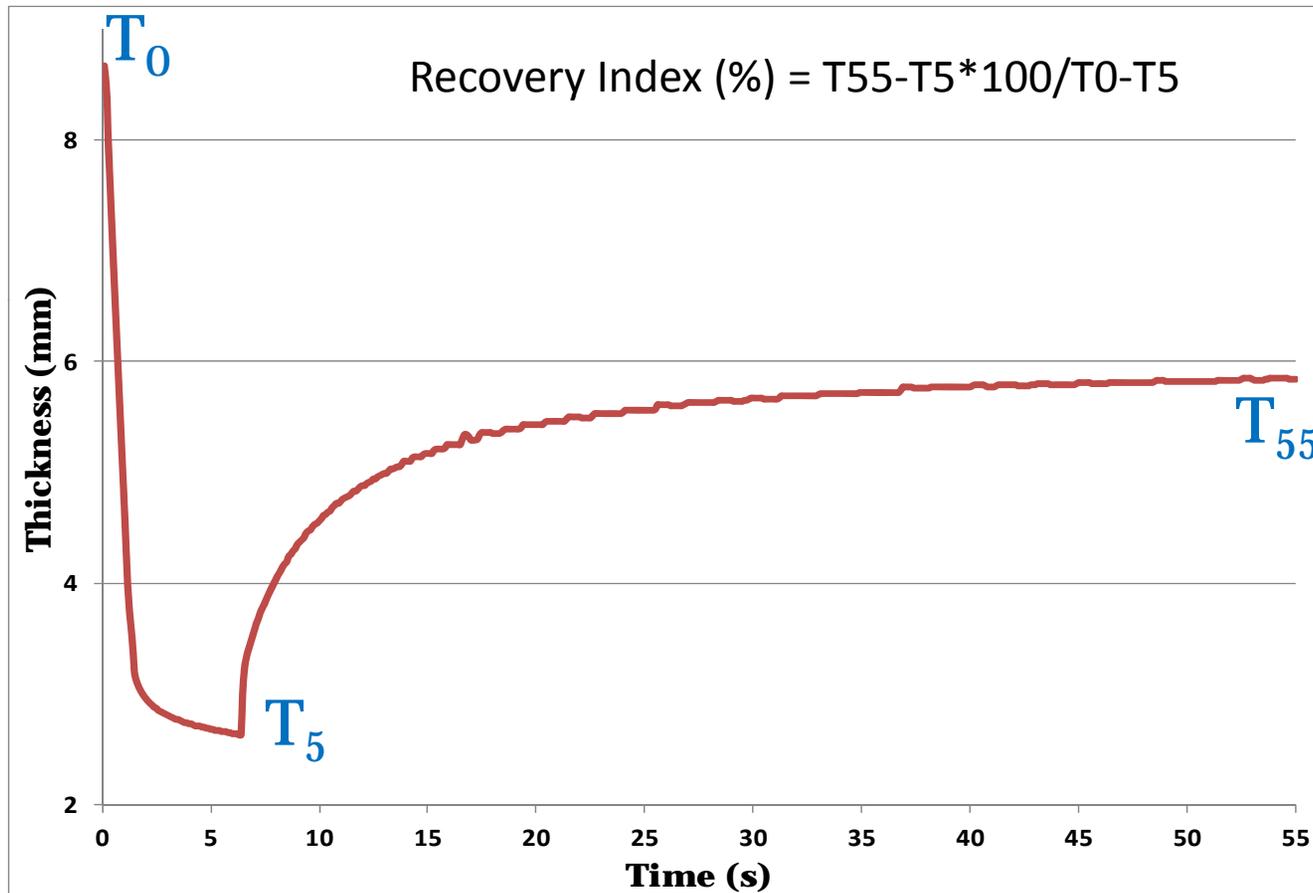
# Gluten Analyzer Method



# Gluten Analyzer Procedure Time



# Gluten Analyzer Output



# Hard Wheat Sample Set

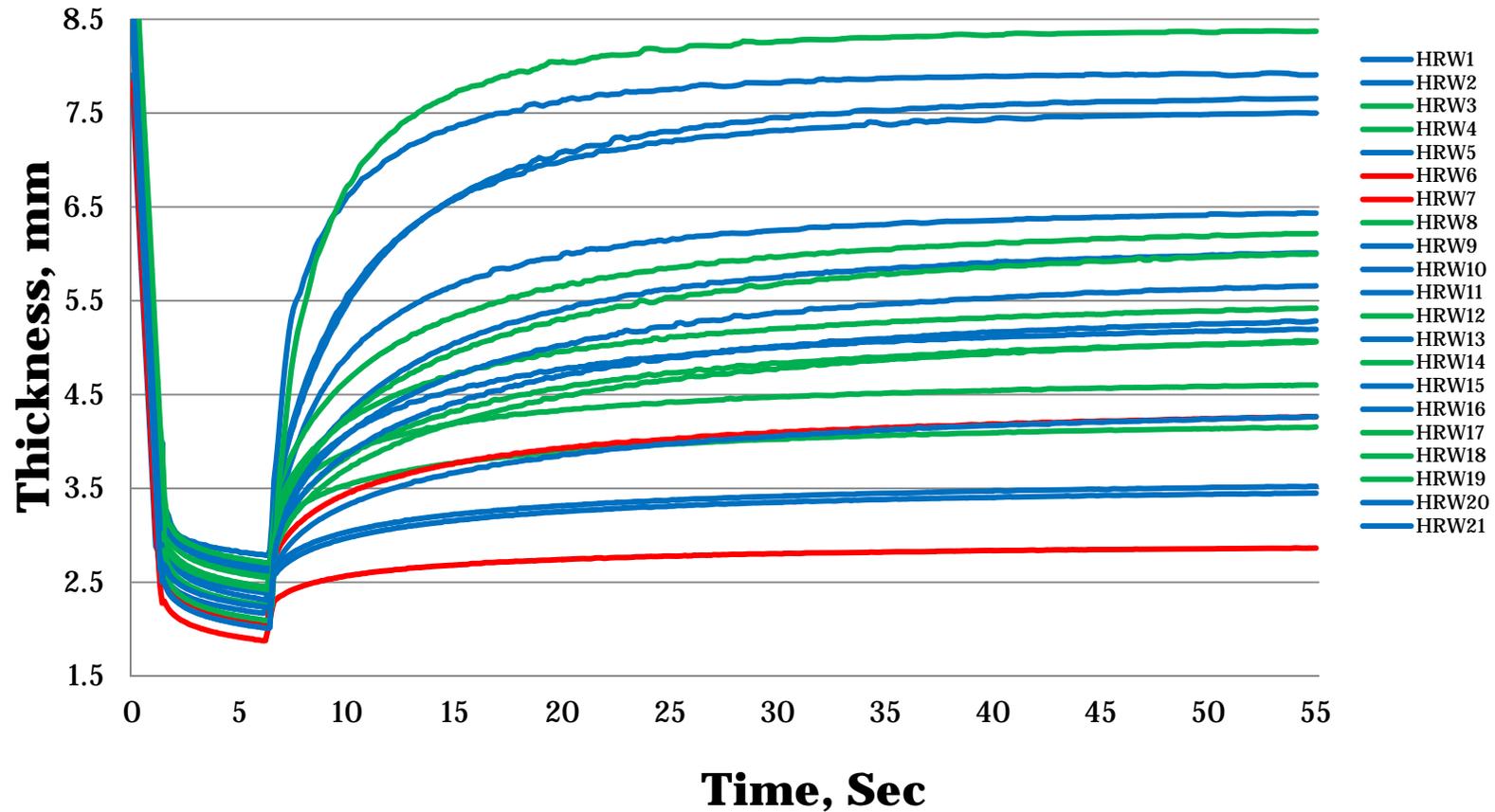


- **Hard red winter & hard red spring wheat**
  - 21 Samples from Wheat Quality Council-Kansas City
  - 16 Samples from Pacific Northwest Wheat Quality Council
  - 11 Samples from Cornell project—most popular U.S. cultivars
  - All samples are pure cultivars
  - Wide protein range
  - Wide Farinograph stability time



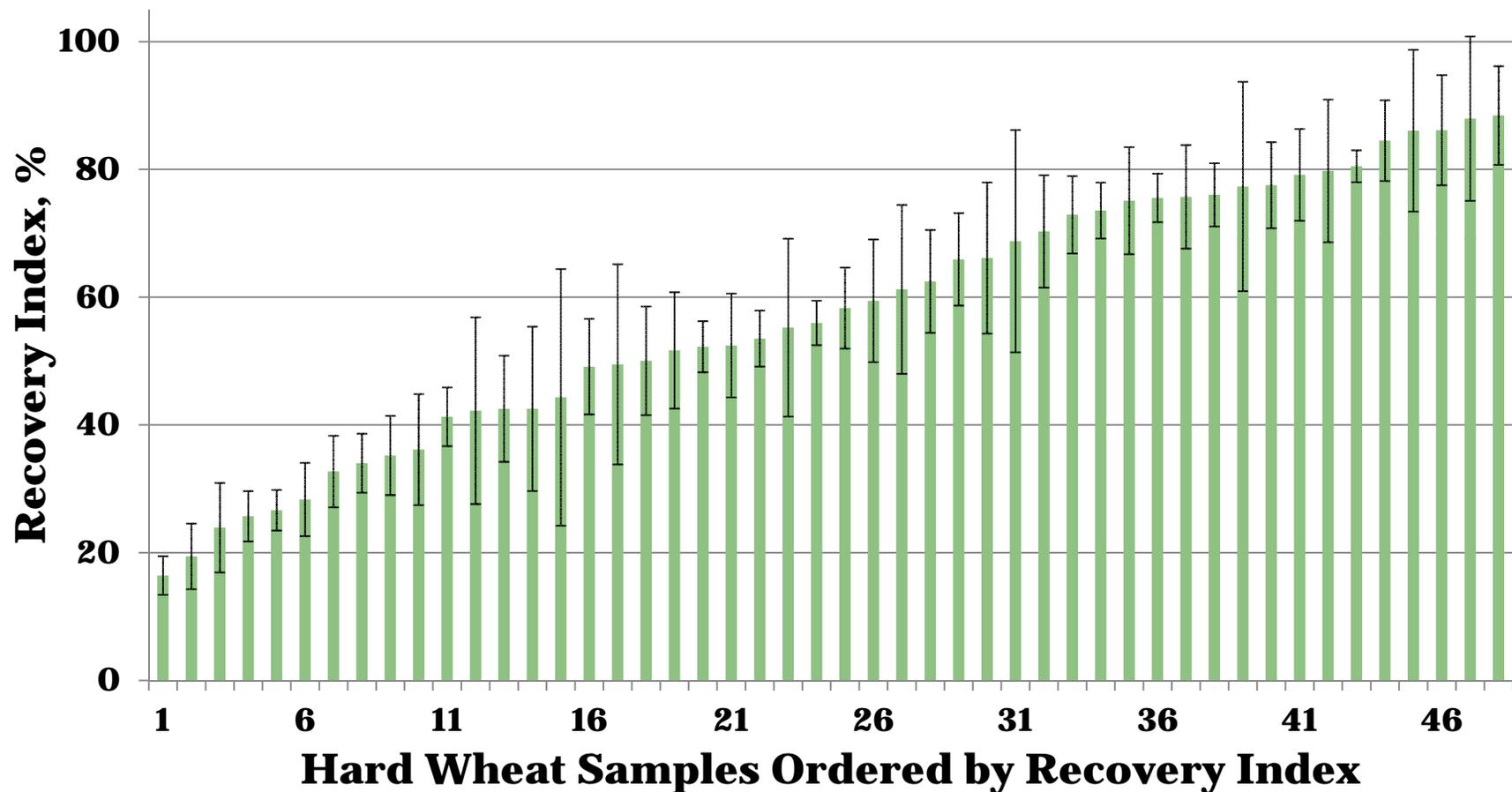
# Gluten Analyzer Output

## Hard Red Winter Sample Set – Flour



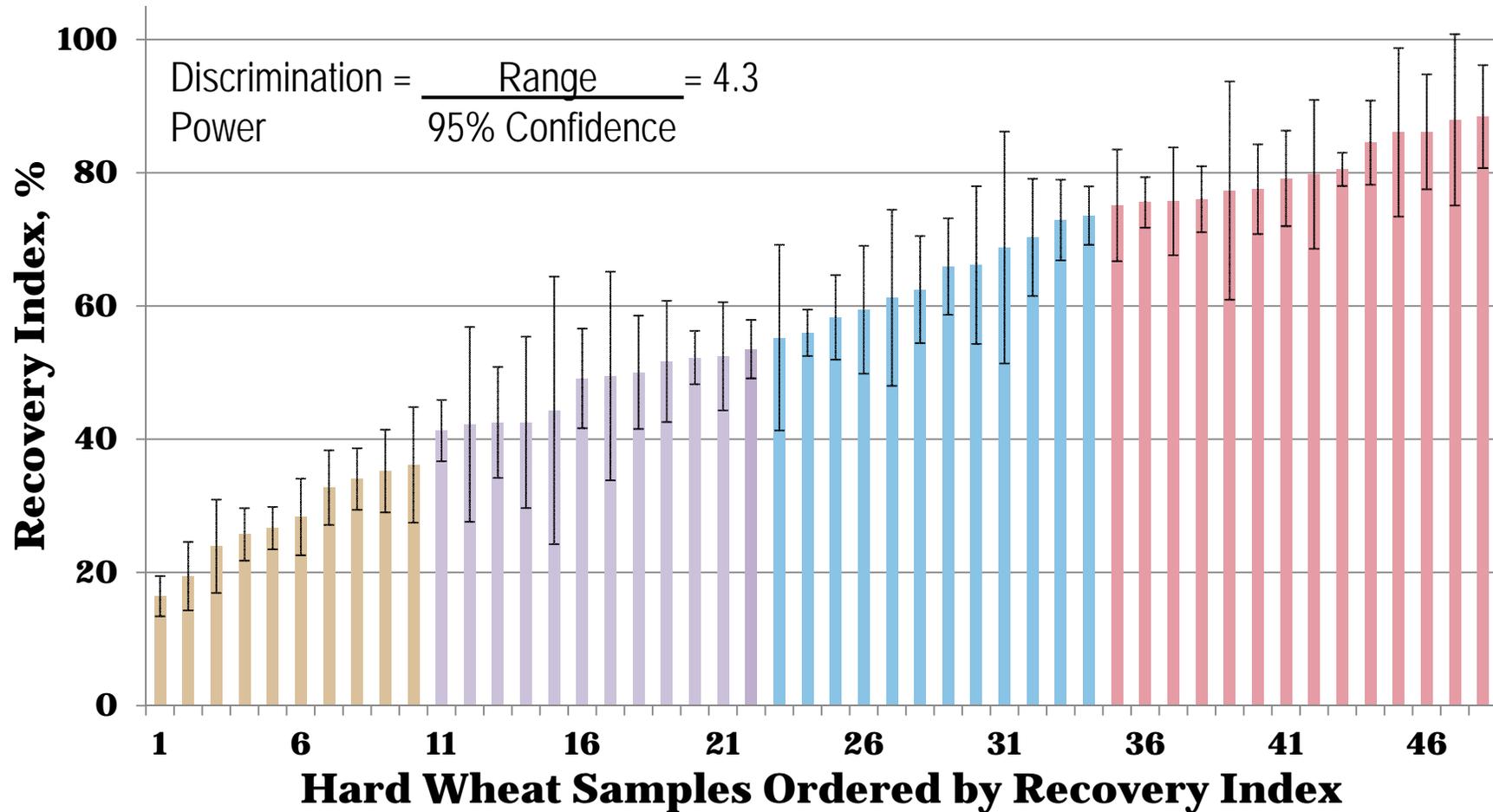
# Gluten Analyzer Recovery Index

## Hard Wheat Sample Set – Flour



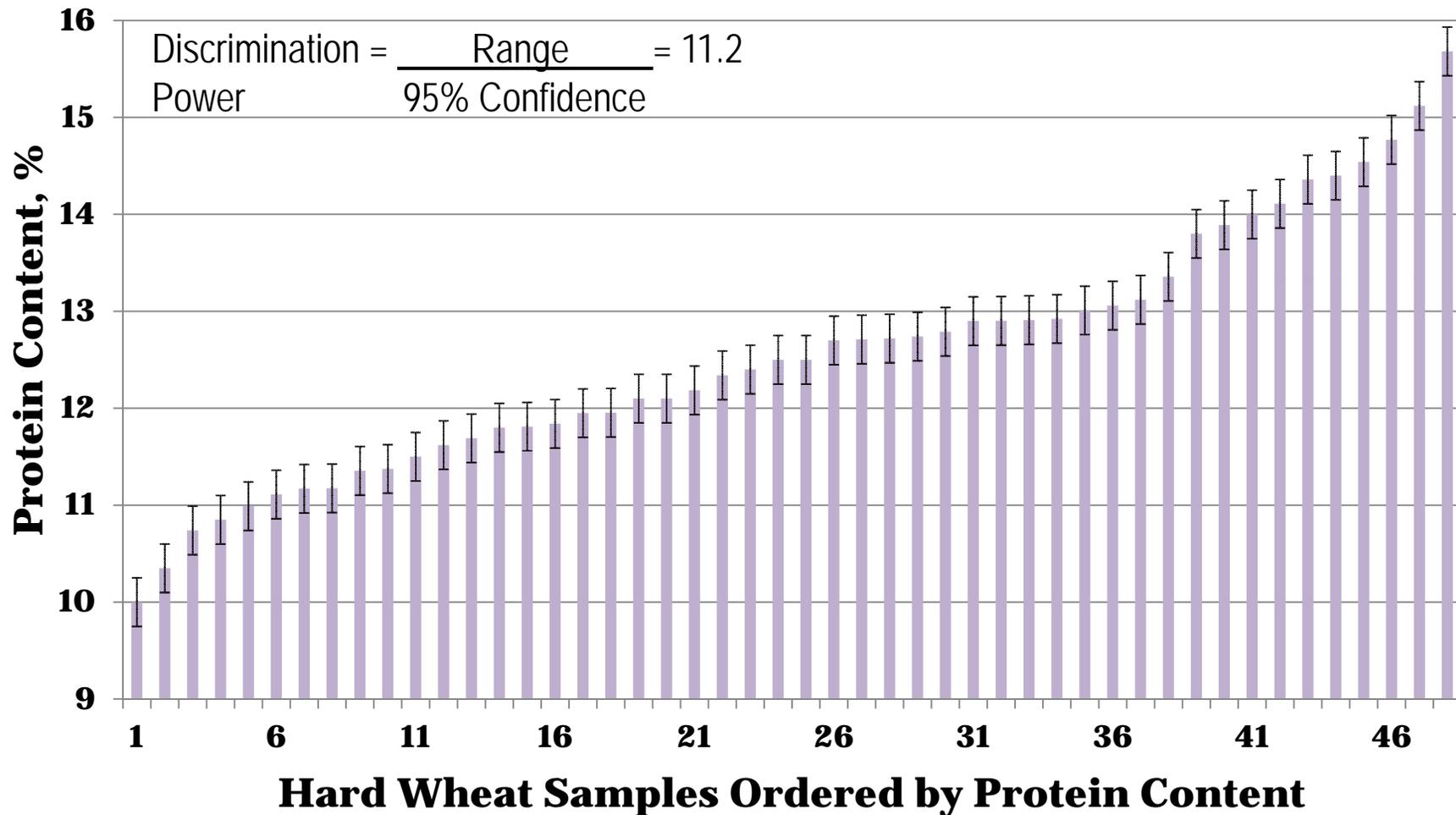
# Gluten Analyzer Recovery Index

## Hard Wheat Sample Set – Flour



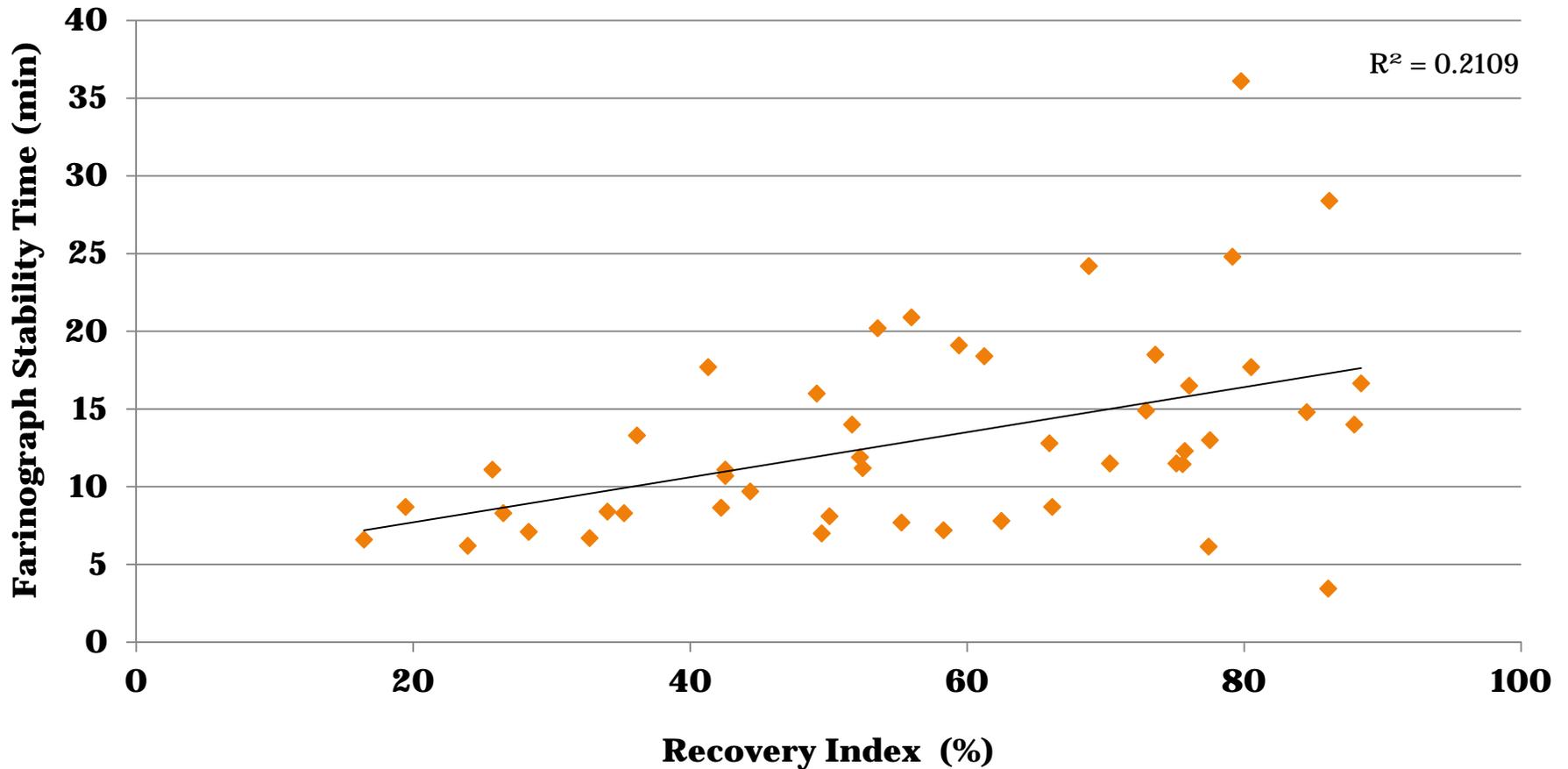
# NIRT Protein

## Hard Wheat Sample Set – Pure Cultivars



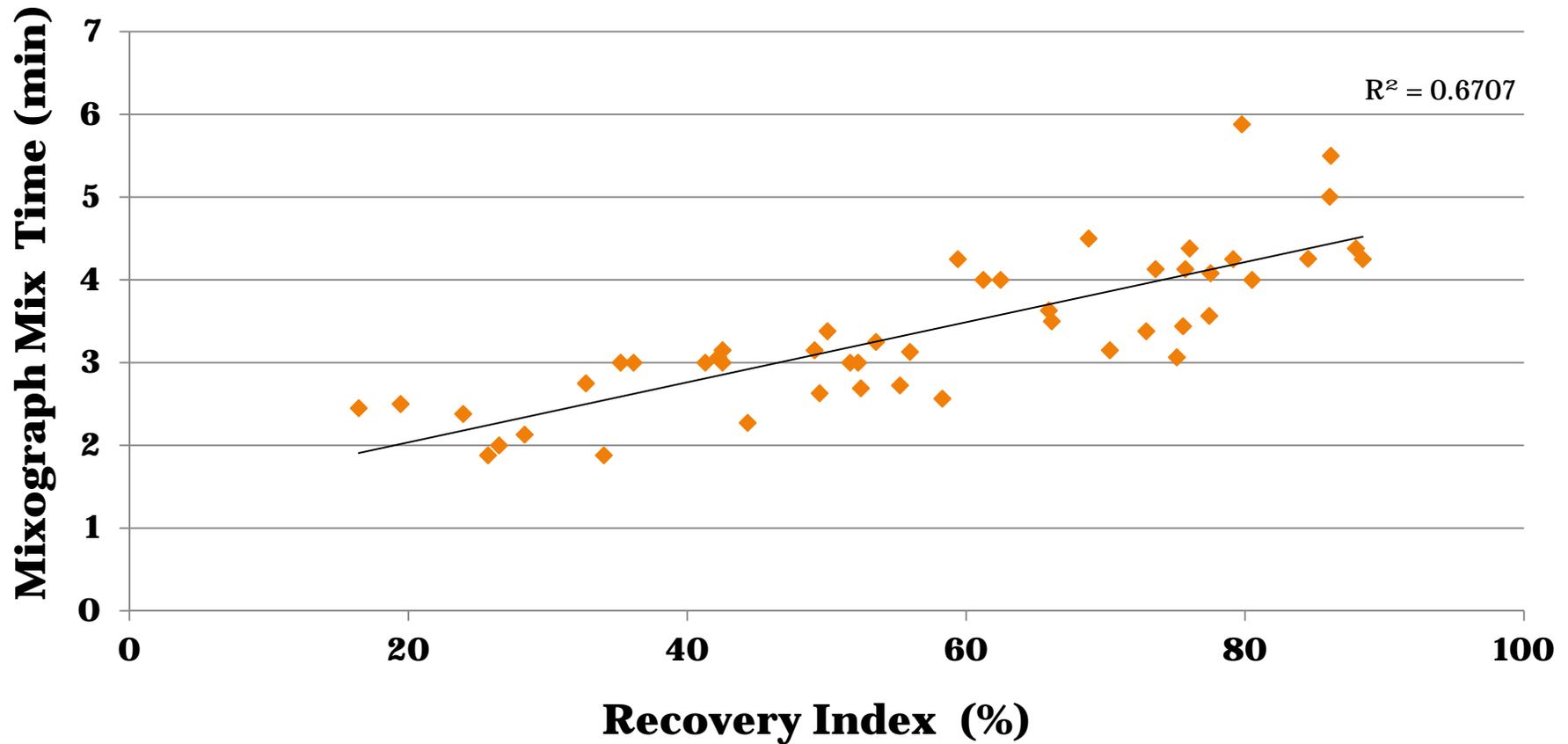
# Recovery Index vs. Farinograph Stability Time

## Hard Wheat Sample Set – Pure Cultivars



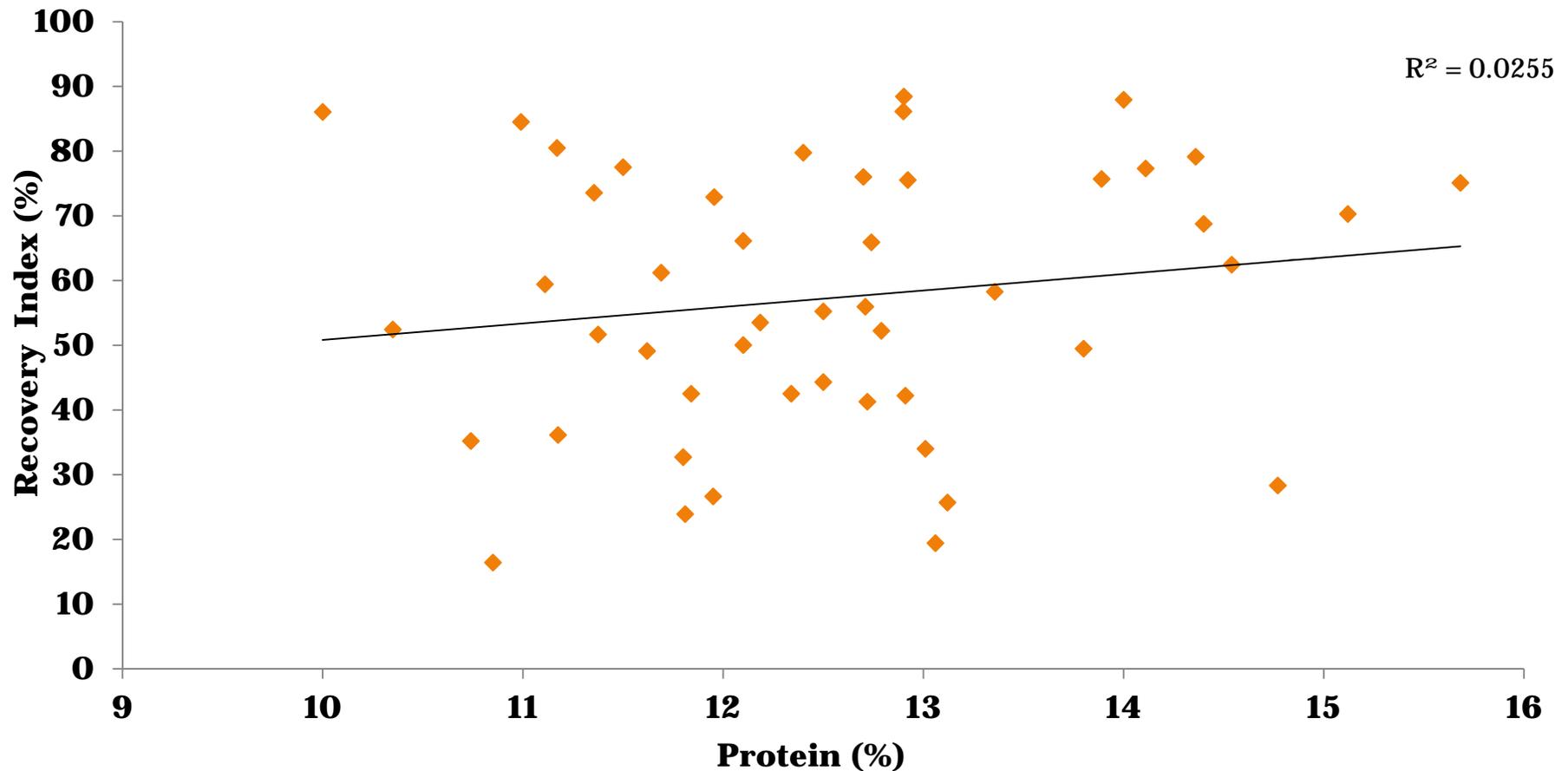
# Recovery Index vs. Mixograph Mixing Time

## Hard Wheat Sample Set – Pure Cultivars



# Recovery Index vs. Protein

## Hard Wheat Sample Set – Pure Cultivars



# Future Work



- **Complete evaluation using ground whole-meal samples**
  - Test hard wheat sample set
  - Evaluate discrimination power
  
- **Initiate collaborative study with key wheat quality laboratories**
  - Introduce test to wheat industry
  - Investigate inter-lab repeatability
  - Perten Instruments defines timeline
    - ✦ Additional instruments needed



# Questions?



# Mycotoxin and Falling Number Quality Assurance Programs



**GRAIN INSPECTION ADVISORY COMMITTEE**

**Tim Norden, Chief  
Analytical Chemistry Branch  
Technology and Science Division  
June 18, 2013**

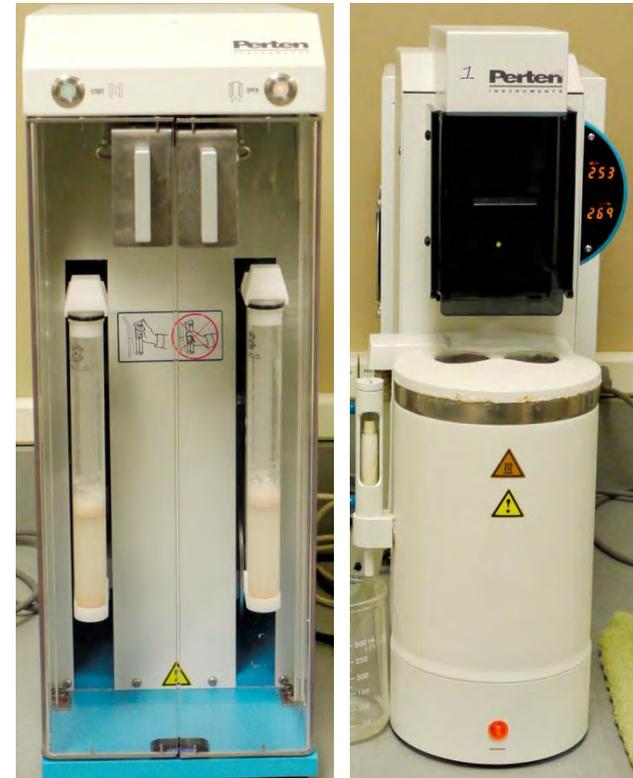


**United States Department of Agriculture**  
Grain Inspection Advisory Committee Meeting, June 2013

# Falling Number Test



- Measures effects of sprout damage
- Viscosity of wheat flour / water mix
- 25,000 official tests in 2012
  - Up 350% from previous years
- 24 official service points



# Falling Number National Quality Assurance Program



- **Inspection monitoring**
  - Reanalysis of samples at TSD – Wheat Functionality Lab
  - 5 samples per week – 24 locations
  - Direct information on testing accuracy
  - Real-time feedback to service points
    - ✦ In-range, warning range, or action range



# Falling Number National Quality Assurance Program



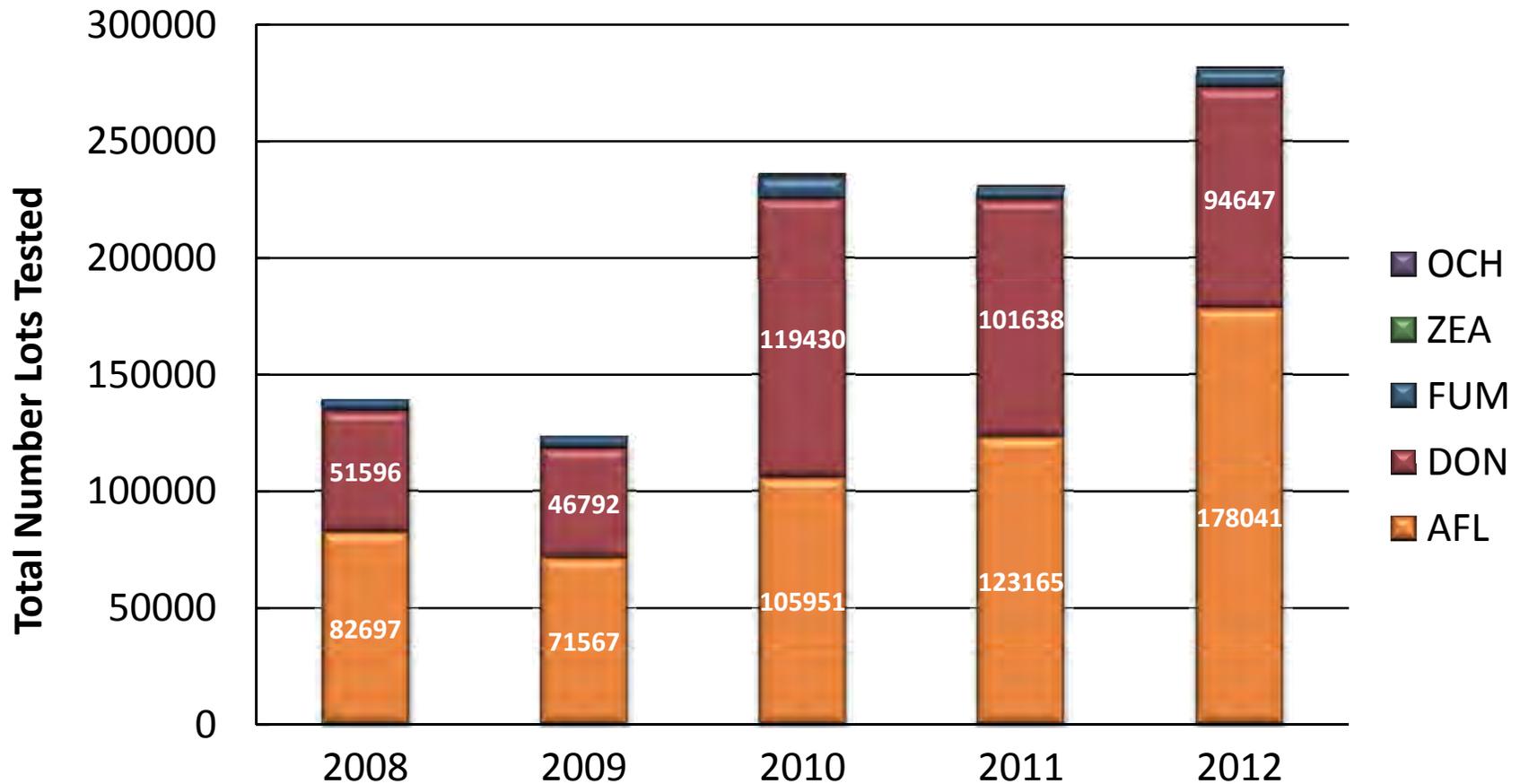
- **Check sample program**
  - Certified reference samples sent from TSD
  - Biannual distribution
  - System-wide performance
    - ✦ Certified reference samples
    - ✦ Report sent to all service points
  - Focus on finding and troubleshooting issues
  
- **Program implementation – July 2013**



# Overall Mycotoxin Testing by Year

Mean number of lots tested: 202,245

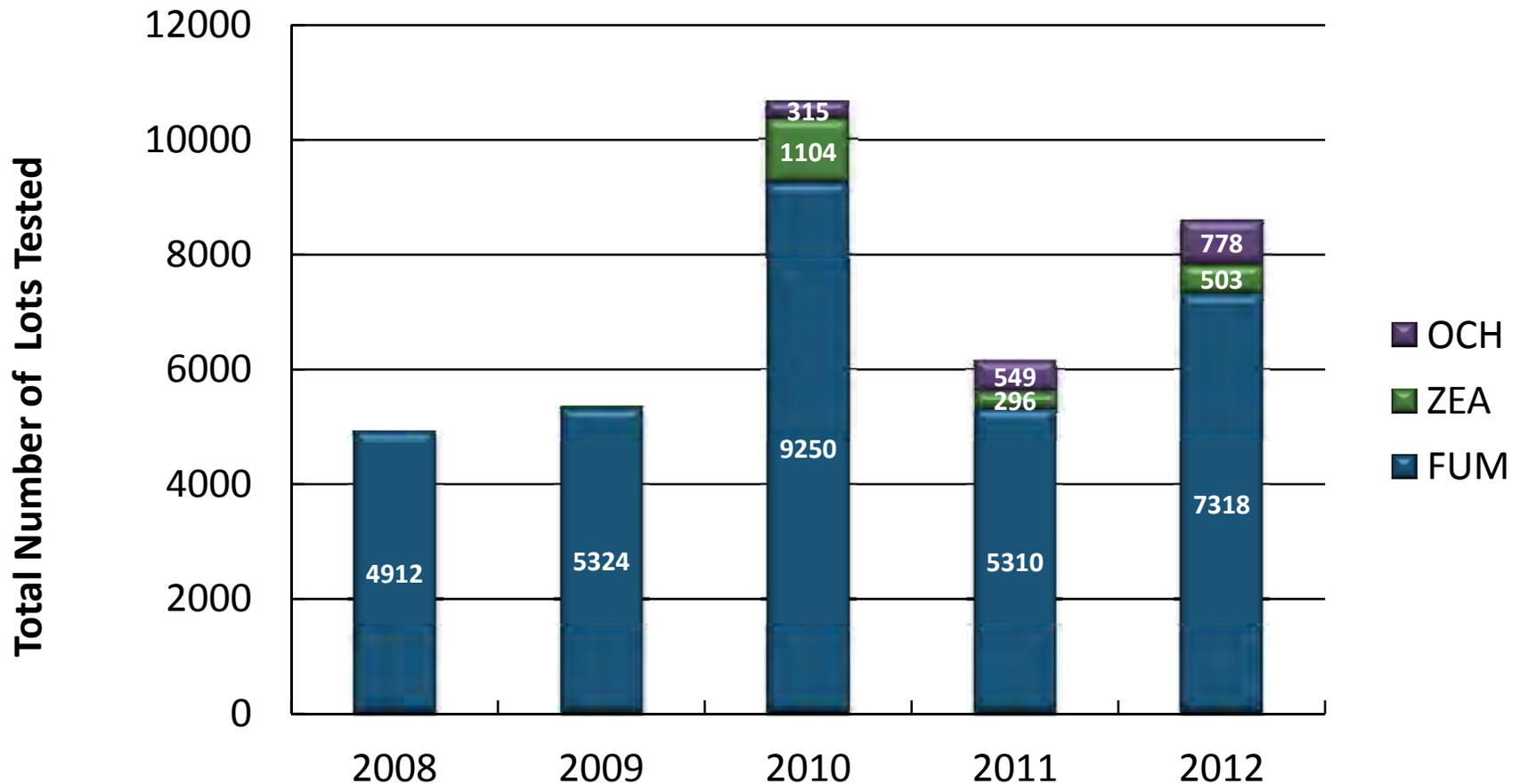
October 1 – September 30



# Overall Mycotoxin Testing by Year

Ochratoxin A, Zearalenone, and Fumonisin

October 1 – September 30



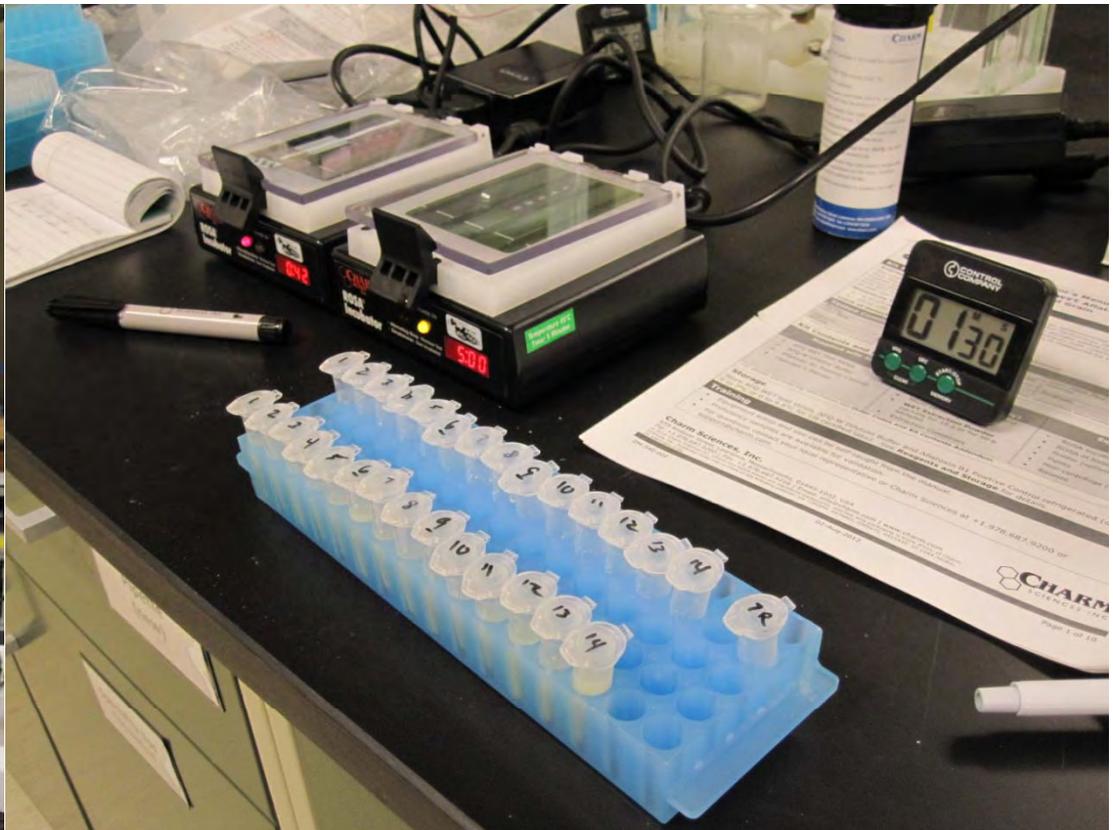
# Mycotoxin National Quality Assurance Program



- **Rapid test kit evaluation**
- **Inspection monitoring**
  - Direct information on testing accuracy
  - Focus on real-time feedback to service points
- **Check sample program**
  - System-wide performance
  - Focus on test kit / operator troubleshooting
- **Operator training**
- **Technical assistance**



# Rapid Test Kit Evaluation



# Rapid Test Evaluation Program



- **Quantitative**

- Criteria Document
- Performance Verified
- GIPSA issues  
“Certificate of  
Conformance”

- **Qualitative**

- Manufacturer Claims
- Performance Verified
- GIPSA issues  
“Certificate of  
Performance”



# Mycotoxin Test Performance Criteria

## Quantitative Test Kits



- Analysis time
- Primary grain
- Additional commodities
- Accuracy & precision
- Equipment sensitivity to electromagnetic fields
- Temperature sensitivity
- Reagent stability
- Avoidance of toxic & hazardous substances
- Performance verification



# Performance Criteria Qualitative Test Kits



- **Detection threshold**
  - The lowest concentration that can be reliably detected
  - Specified by manufacturer
- **Data required (manufacturer)**
  - 120 at detection threshold
    - ✦ Naturally contaminated grain
    - ✦ Certified concentration – reference method
  - 120 blank samples
  - All blanks negative, all fortified positive



# Steps in Performance Evaluation Quantitative or Qualitative Test Kits



- **GIPSA develops performance criteria document**
- **Manufacturer provides data for review**
- **GIPSA verifies performance**
  - GIPSA develops naturally-contaminated reference materials
  - Manufacturer provides training
  - GIPSA performs evaluation
    - ✦ **Pass: certificate of conformance or performance**
    - ✦ **Fail: manufacturer redesigns and resubmits the test kit**



# Rapid Test Kit Evaluation Program

Number of Test Kits Evaluated – 39

October 1, 2011 – September 30, 2012

Rapid Test Kit	Quantitative			Qualitative		
	Pass	Fail	Total	Pass	Fail	Total
Aflatoxins	7	4	11	10	0	10
Deoxynivalenol	7	3	10	1	0	1
Fumonisin	3	0	3	-	-	-
Ochratoxin A	2	0	2	-	-	-
Zearalenone	2	0	2	-	-	-



# Rapid Test Kit Evaluation Program

Number of Test Kits Evaluated – 9

October 1, 2012 – June 6, 2013

Rapid Test Kit	Quantitative			Qualitative		
	Pass	Fail	Total	Pass	Fail	Total
Aflatoxins	5	0	5	1	0	1
Deoxynivalenol	2	0	2	0	0	0
Fumonisin	0	0	0	-	-	-
Ochratoxin A	1	0	1	-	-	-
Zearalenone	0	0	0	-	-	-



# GIPSA Website – Approved Kits



- Updates
  - Certificate expiration dates
  - Future - hyperlinks to current test kit instructions

GIPSA Performance Verified Mycotoxin Test Kits – Effective MM/DD/YYYY									
Manufacturer	Test Kit	Part Number	Test Type	Test Kit Range	Test Format	Identified Commodities	Detection Method	Certificate Expiration Date	Test Kit Instructions
Charm Sciences, Inc.	ROSA Ochratoxin Quantitative Test	LF-OCHAQ-G	Ochratoxin A (quantitative)	5 – 100 ppb	Lateral flow strip	Wheat, barley, corn, corn gluten meal, malted barley, oats, rye, sorghum, and soybean meal	ROSA-M Reader (LF-ROSAREADER-M-NB)	10/1/2015	<a href="#">MHB 10.1</a>
Charm Sciences, Inc.	ROSA Zearalenone Quantitative Test	LF-ZEARQ	Zearalenone (quantitative)	100 – 1000 ppb	Lateral flow strip	Corn, barley, distillers dried grains with solubles, flaking corn grits, milled rice, oats, rough rice, sorghum, wheat, and wheat flour	ROSA-M Reader (LF-ROSAREADER-M-NB)	12/30/2014	<a href="#">MHB 9.1</a>
EnviroLogix, Inc.	QuickTox for QuickScan Aflatoxin	AQ 109 BG	Aflatoxin (quantitative)	5 – 100 ppb	Lateral flow strip	Corn and wheat	EnviroLogix QuickScan System	6/29/2013	<a href="#">MHB 6.1</a>
EnviroLogix, Inc.	QuickTox for QuickScan DON	AQ 204 BG AQ 204 BG2 AQ 204 BG3	Deoxynivalenol (quantitative)	0.5 – 5.0 ppm	Lateral flow strip	Corn, wheat, barley, distillers dried grains with solubles, oats, wheat bran, and wheat flour	EnviroLogix QuickScan System	11/8/13	<a href="#">MHB 7.10</a>
Neogen Corporation	Agri-Screen for Aflatoxin	8010	Aflatoxin (qualitative)	Screens @ 20 ppb	Microtiter well plate assay	Corn	Visual	10/19/2014	<a href="#">MHB 6.5</a>
Neogen Corporation	Agri-Screen for DON	8310	Deoxynivalenol (qualitative)	Screens @ 1 ppm	Microtiter well plate assay	Wheat	Visual	6/17/2014	<a href="#">MHB 7.4</a>
Neogen Corporation	Agri-Screen for DON	8311	Deoxynivalenol (qualitative)	Screens @ 1 ppm	Microtiter well plate assay	Corn	Visual	6/17/2014	<a href="#">MHB 7.4</a>
Neogen Corporation	Reveal for Aflatoxin (MeOH)	8015	Aflatoxin (qualitative)	Screens @ 20 ppb	Lateral flow strip	Corn	AccuScan III Reader and visual	11/14/2014	In Progress
Neogen Corporation	Reveal for Aflatoxin (EtOH)	8015	Aflatoxin (qualitative)	Screens @ 20 ppb	Lateral flow strip	Corn	AccuScan III Reader and visual	11/14/2014	In Progress
Neogen Corporation	Reveal for DON	8315	Deoxynivalenol (qualitative)	Screens @ 2 ppm	Lateral flow strip	Wheat	Visual	6/22/2014	In Progress
Neogen Corporation	Reveal Q+ for Aflatoxin	8085	Aflatoxin (quantitative)	5 – 100 ppb	Lateral flow strip	Corn, brewers rice, corn flaking grits, corn germ meal, corn gluten meal, corn meal, corn screenings, corn/soy blend, corn starch, cracked corn, distillers dried grains with solubles, popcorn, and sorghum	AccuScan III Reader	3/9/2015	<a href="#">MHB 6.6</a>



# GIPSA Test Kit Evaluation Program

## History and Recent Advances



- **Encourages advances in technology**
  - Late 1980's aflatoxin analysis was performed by thin-layer chromatography and Holaday-Velasco minicolumn
    - ✦ Benzene and chloroform solvents
- **New technical advance – water-based extraction**
  - Eliminates organic solvents – safety and hazardous waste issues
  - Approved DON test kits – all water-based extraction
  - Recently two aflatoxin test kits have been approved by GIPSA
    - ✦ One for a wide range of commodities
    - ✦ One for corn only
- **Exciting development – *caution recommended***
  - No change in GIPSA test kit evaluation criteria
  - Let market and field performance determine acceptance
  - Full conversion to water extraction possible when new fumonisin, zearalenone, and ochratoxin test kits are approved



# Aflatoxin Check Sample Distribution

## August 2012

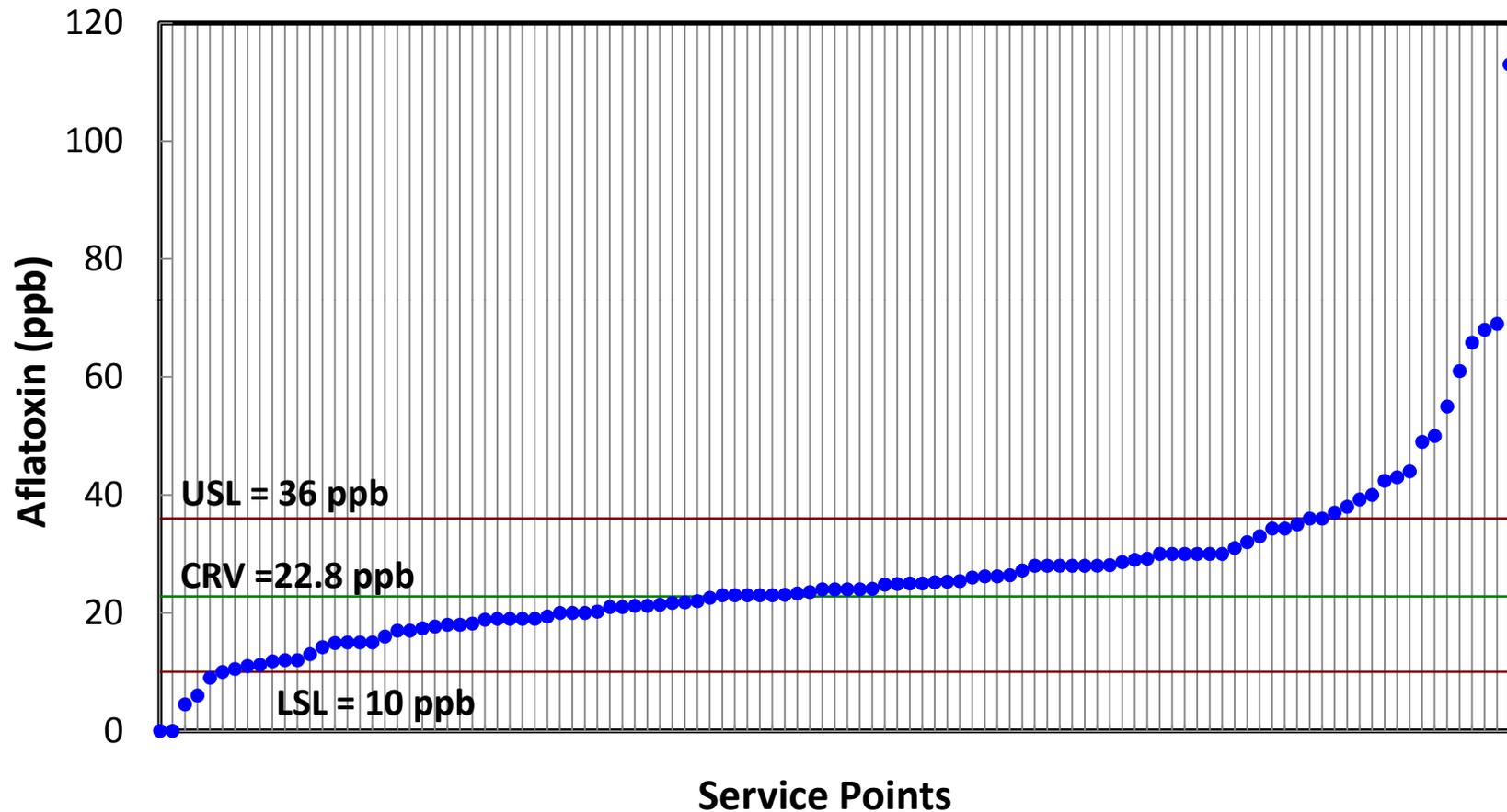


- **111 Testing locations**
- **3 Blind samples**
  - Ground corn
  - Certified aflatoxin content
  - Blank (< 0.3 ppb), 22.8 ppb, 78.2 ppb
- **Acceptable accuracy ranges defined**
  - Horwitz equation
- **Follow-up on labs reporting outside range**



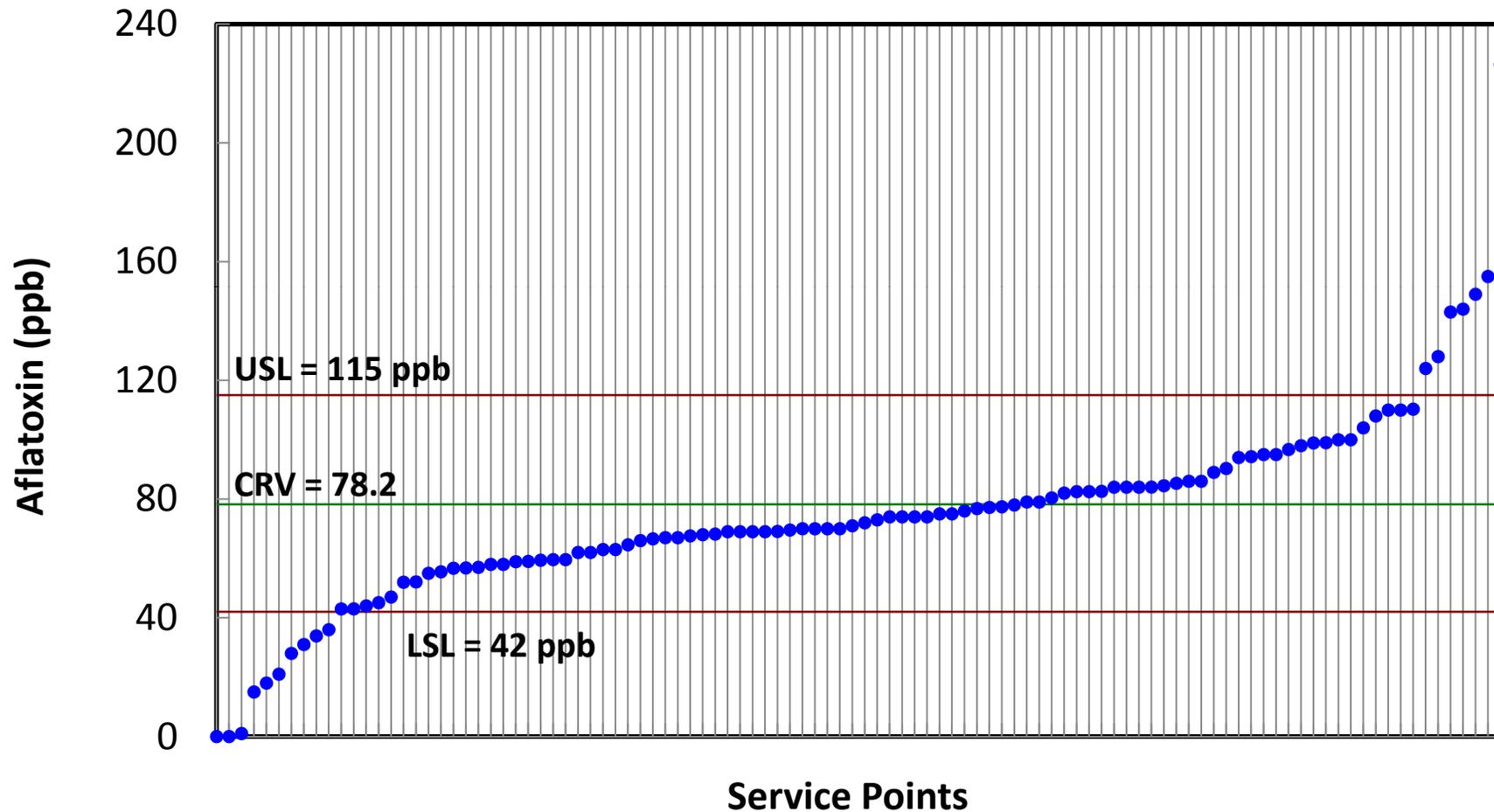
# Aflatoxin Check Sample Distribution

Labs within range: 82%



# Aflatoxin Check Sample Distribution

Labs within range: 84%



# Operator Training



- **Mycotoxin proficiency and licensing seminar**
  - NGC – November 14-16, 2012
  - Sessions for Manufacturers / Participants
  - 39 participants; 71 total attendees
  - Simultaneous training for 9 aflatoxin test kits
  - Licensing Session
  
- **Aflatoxin check sample distribution**
  - Round 2 – June 2013



# Future Plans



- **Test kit evaluation**
  - Update performance criteria
    - ✦ Extend aflatoxin range - eliminate supplemental testing
    - ✦ Clarify policy on multiple procedures
  - Improve availability of instructions to end-users
  
- **Biannual check sample surveys**
  - Focus on aflatoxins and DON
  - TSD sends samples to ~100 service point locations
  - Certified reference materials
  
- **Inspection monitoring**
  - Field locations send samples to TSD
  - Approximately 1% of official tests (~2,700 samples/yr)
  - Samples analyzed by the reference method



# Future Plans – cont.



- **Test kit training seminars**
  - Regularly scheduled
  - Analytical principles and practice
  - Designed based on feedback from end-users of kits
- **Technical assistance**
  - Reference method testing
  - Ad hoc distribution of certified reference materials
  - Troubleshooting
- **Recruit additional staff**
- **Full program implementation – FY 2014**



# Questions?



# National Program Overview



**GRAIN INSPECTION ADVISORY COMMITTEE**

**THOMAS C. O'CONNOR  
DIRECTOR, QACD  
JUNE 18, 2013**



United States Department of Agriculture

# Introduction



- **Labor Contracts**
  - National
  - Local
- **Bargaining unit**
- **Role of the Union**
- **Management rights**
- **Dispute resolution**

# National Contract



- **American Federation of Government Employees**
  - National Council 237
  - Signed in 1984
- **Covers a wide range of LR issues, e.g., employee and union rights; discipline and adverse action; grievance and arbitration procedure; leave; RIF and furlough; contracting out; promotions; mid-term negotiations ; industrial disputes and civil disorders**

# Local contract



- **Supplement to national contract**
- **Between local management and local union**
  - New Orleans
  - League City
  - MOUs in Portland
- **Issues specific to the local office, i.e., work assignments, official time, overtime, rotational schedules, holidays, sick and annual leave**

# Bargaining Unit



- **Employees at the Agency's field offices with the exception of:**
  - Managers
  - Supervisors
  - Professional employees (e.g., engineers, lawyers, scientists)
  - Employees engaged in personnel work in other than a purely clerical fashion
- **Also excluded: FMD HQ; QACD, DIIA, and TSD**

# Role of the union



- **By law, the exclusive representative of all members of the bargaining unit**
- **Attend meetings with supervisor and managers**
- **Investigate and prepare grievances, appeals and complaints**
- **Attend hearings or third party proceedings, acting on behalf of members of the union**
- **Negotiations**
- **Official time**

# Management rights



- **By law, management has the authority to:**
  - Determine its mission, budget, organization, number of employees and internal security practices
  - Hire, assign, direct, layoff, and retain employees, suspend, reduce in grade or pay or take other disciplinary measures
  - Assign work, determine with respect to contracting out, determine the personnel by which agency operations will be conducted
  - Make selections, take emergency actions
  - Permissive – numbers, types and grades, tours of duty

# Dispute resolution



- **Grievance**
  - Interpretation, application or violation of the contract
  - Personnel policies, practices and conditions of employment (COE)
  - Violation, misapplication or misinterpretation of an agency or department rules or regulation affecting COE
- **Three step process – local, FMD, Administrator**
- **Arbitration**

# Dispute resolution



- **Impasse**
  - NOFO contract negotiations – 3 years
  - Weekend overtime – ACGs to ACGs, ACTs to ACTs
  - Failed ratification – back to the table – all 11 articles
  - Since January– reached agreement with exception of weekend overtime assignments and use of first 40 tour of duty
  - Declare impasse – FSIP – final authority to resolve the dispute
  - Current contract remains in force until dispute settled

# Dispute resolution



- **First 40 in the PFO**
  - Inform the union and engage in “I&I” bargaining
  - Develop ground rules
  - Negotiate and reach agreement
- **Reality – union refuses to engage until management proves that it has the right to use the tour**
  - Filed a ULP with FLRA – bad faith bargaining
  - Union engaged Congress

# Dispute resolution



- **MOU in Portland**

# Conclusion



- **GIPSA's mission is to facilitate the marketing of grain**
- **GIPSA recognizes that cost-of-service is an important component in its mission**
- **Managing in an environment of lower and less certain exports -- financial losses**
- **Most union officials are not unreasonable but have an obligation to represent their members in disputes with management**
- **Managing labor costs in a union environment can present challenges – change takes time**

# User Fee Overview



**GRAIN INSPECTION ADVISORY COMMITTEE**

**DENISE RUGGLES  
ASSISTANT TO THE DIRECTOR  
JUNE 18, 2013**



United States Department of Agriculture

# FGIS User Fee Programs – U.S. Grain Standards Act (USGSA)



- ✓ **Export Inspection & Weighing Service Program**
  - Services performed by FGIS in the United States and Canada and export grain inspected and/or weighed (excluding land carrier shipments to Canada and Mexico) from delegated and designated agencies. The fees are comprised of an hourly rates, unit fees for services beyond the basic grade analysis (e.g., protein, aflatoxin, oil, scale testing, etc.), and a per-metric-ton-exported fee to cover local administrative and/or national support costs.
  
- ✓ **Official Agency Program**
  - FGIS supervises grain inspection and weighing services provided by delegated States and designated official agencies to the U.S. grain industry. The current fee is \$0.011 cents per metric ton.



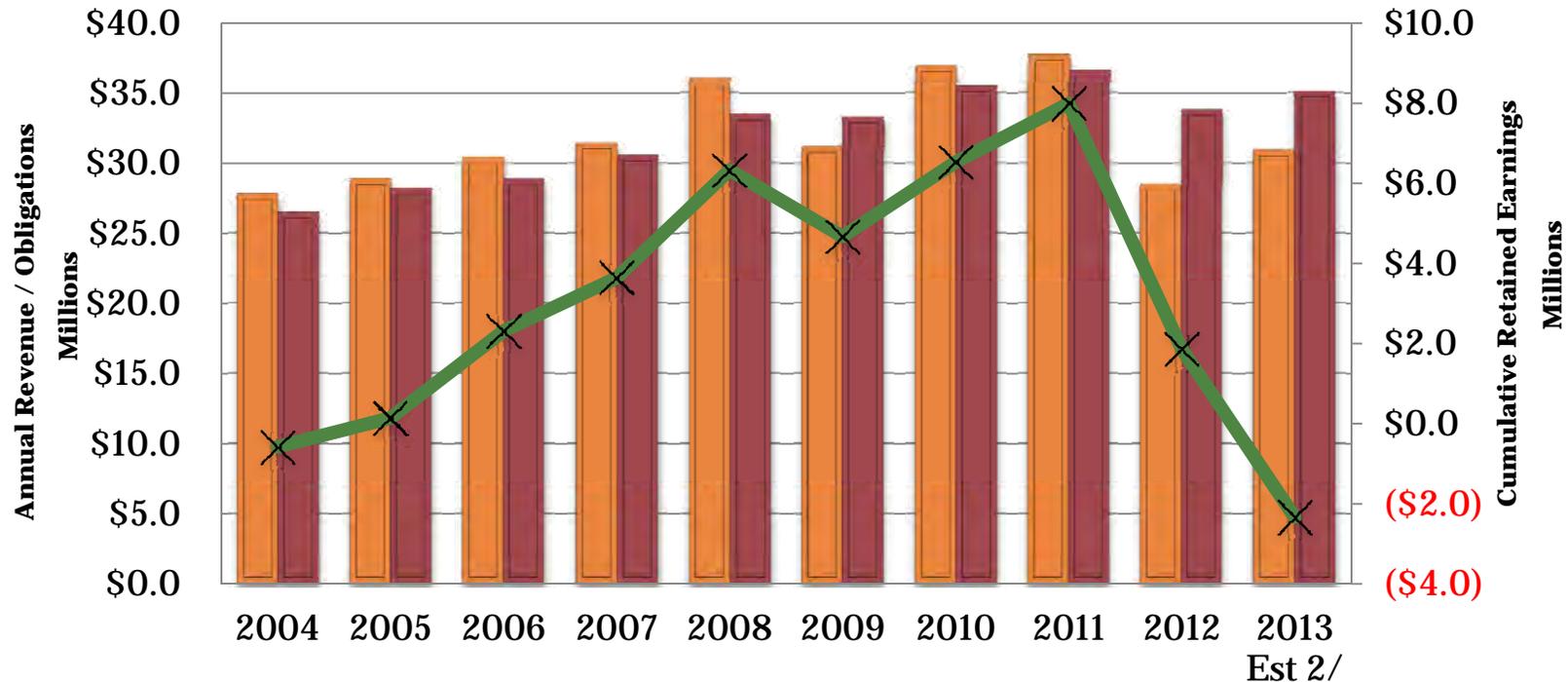
# FGIS User Fee Programs – Agricultural Marketing Act of 1946 (AMA)



- ✓ **Rice Program**
  - The fees for rice inspection and weighing services are comprised of hourly rates, unit fees for testing services (e.g., inspection for quality, total oil and free fatty acid, stowage examination, etc.), and a per-hundredweight export port services.
  
- ✓ **Commodity Program (Graded and Processed Products)**
  - The graded commodity market is made up of producers and processors of edible beans, peas, and lentils. The processed commodity market consists of processors and shippers of products such as wheat flour, soybean meal, vegetable oil, and corn meal. The fees for the commodity program are comprised of hourly rates, unit fees for testing services (e.g. inspection for quality, stowage examination, etc.), and Commodity Testing Lab quality fees.



# Export Inspection & Weighing Program



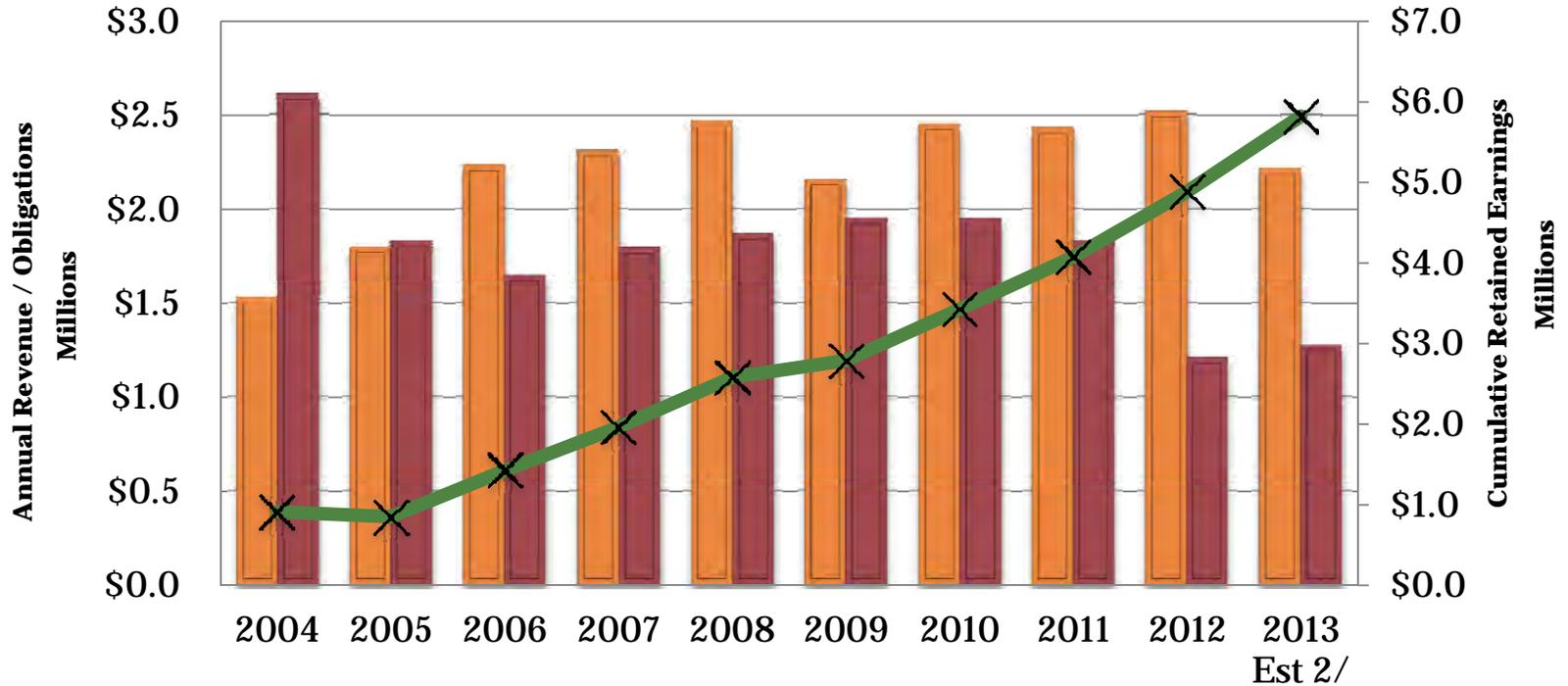
<sup>1/</sup> Includes prior year adjustments after Annual Reporting is finalized in October of each year.

<sup>2/</sup> Based on 78FR22151 projected revenues and costs.

■ Revenue    
 ■ Obligations    
 —x— Retained Earnings 1/



# Official Agency Program



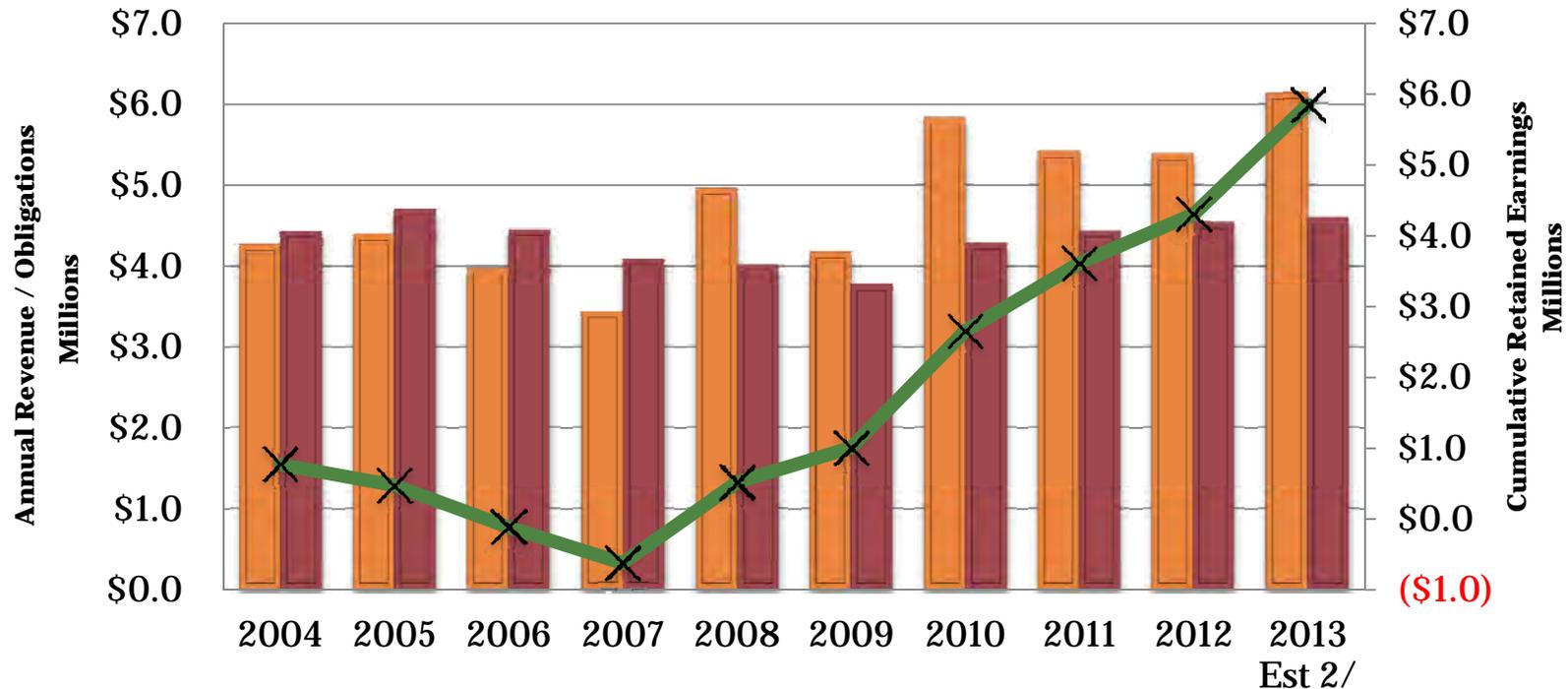
<sup>1/</sup> Includes prior year adjustments after Annual Reporting is finalized in October of each year.

<sup>2/</sup> Estimates based on prior year revenues with 78FR22151 adjustments to export tonnage revenue change.

■ Revenue    
 ■ Obligations    
 —x— Retained Earnings <sup>1/</sup>



# Rice Program



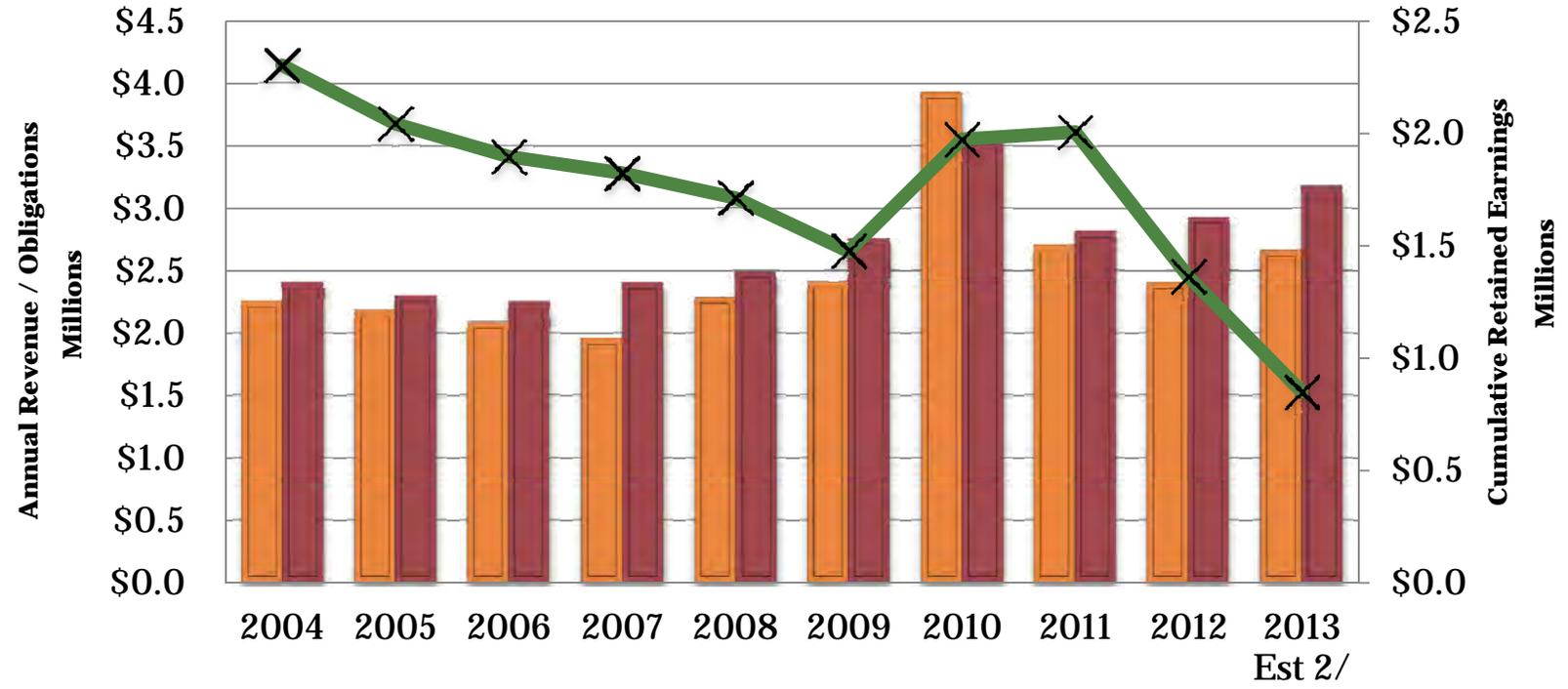
<sup>1/</sup> Includes prior year adjustments after Annual Reporting is finalized in October of each year.

<sup>2/</sup> Estimates based on prior year revenues with Field Office projections.

Revenue
  Obligations
 
x
 Retained Earnings <sup>1/</sup>



# Commodity Program



<sup>1/</sup> Includes prior year adjustments after Annual Reporting is finalized in October of each year.

<sup>2/</sup> Estimates based on prior year revenues with Field Office projections.

Revenue
  Obligations
  Retained Earnings <sup>1/</sup>



# FGIS User Fee Programs Reviews



- ✓ **Fee Adjustments Published:**
  - 520 – 78FR22151 final rule 04/15/2013 (five year adj. thru FY17)
  - 530 – 70FR50149 final rule 08/26/2005
  - 570 – 72FR1913 final rule 01/17/2007 (five year adj. thru FY11)
  - 580 – 66FR17775 final rule 04/04/2001 (currently under review)
  
- ✓ **Costs –**
  - Cost of Living Adjustments (COLA) frozen at 2010 levels.
  - Cost reduction efforts – while many can only be maintained temporarily
  - Reorganization with office closures and central monitoring program.



# Questions?



United States Department of Agriculture