



United States  
Department of  
Agriculture

Grain Inspection,  
Packers and Stockyards  
Administration

# **Meeting Minutes Grain Inspection Advisory Committee**

**April 7-8, 2015  
National Grain Center  
Kansas City, Missouri**

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

**National Grain Center  
April 7-8, 2015**

**WELCOME**

Mr. Larry Mitchell, Administrator, GIPSA, welcomed everyone to the meeting. He discussed the retained earnings that were posted on line per an earlier Advisory Committee Resolution but were removed due to changes in reporting platform and reconciliation that is still being worked on and will remain off the web until completed. Mr. Mitchell also discussed the reauthorization of certain provisions of the USGSA that are set to expire on September 30, 2015.

Scott Averhoff, Chairperson, Grain Inspection Advisory Committee (Advisory Committee), welcomed everyone and self-introductions were made.

**ACCEPTANCE OF NOVEMBER 4-5, 2014, MEETING MINUTES**

The Advisory Committee approved the minutes of the November 4-5, 2014, meeting as presented.

**REVIEW AND ACCEPTANCE OF APRIL 7-8, 2015, AGENDA**

The Advisory Committee approved the April 7-8, 2015, agenda as presented.

**MEETING ATTENDEES**

**Advisory Committee Members**

Scott E. Averhoff, Owner/Operator, Scott Averhoff dba SARA Farms  
Janice Cooper, Executive Director, California Wheat Commission  
Rigoberto Delgado, Senior Partner, Delgado Farms LCC  
Warren J. Duffy, Vice-President, Export Operations, ADM Grain  
Arvid Hawk, President, Global Agricultural Consulting, LCC  
Kent McAninch, Owner/Operator  
Marvin Paulsen, Professor Emeritus, University of Illinois  
Timothy D. Paurus, Vice President Terminal Operations, CHS Inc.  
Cesar Ramirez, Manager, Gavilon Grain LLC  
Maria Reinitz, Manager, Gavilon, LLC  
Todd E. Russom, Manager, Anheuser-Busch InBev  
Jessica L. Wilcox, Farmer/Crop Insurance Agent, Wilcox Farms  
Steven Wirsching, Vice President and Director, U.S. Wheat Associates

## **GIPSA**

Brian Adam, Chair, Board of Appeals and Review, Technology and Science Division (TSD),  
Federal Grain Inspection Service (FGIS), GIPSA  
Mary Coffey Alonzo, Director, TSD, FGIS, GIPSA  
Cathy Brenner, Chief, Inspection Instrumentation Branch, TSD, FGIS, GIPSA  
Rob Dorman, Grain Marketing Specialist, Policies, Procedures and Market Analysis Branch  
(PPMAB), Field Management Division (FMD), FGIS, GIPSA  
Ajit Ghosh, Chemist, TSD, FGIS, GIPSA  
Tony Goodeman, Deputy Director, FMD, FGIS, GIPSA  
Terri Henry, Management Analyst, Management Services Staff, GIPSA  
Eric Jabs, Deputy Director, Quality Assurance Compliance Division (QACD), FGIS, GIPSA  
Kendra Kline, Assistant to the Deputy Administrator, FGIS, GIPSA  
Bob Lijewski, Director, FMD, FGIS, GIPSA  
Pat McCluskey, Branch Chief, PPMAB, FMD, FGIS, GIPSA  
Larry Mitchell, Administrator, GIPSA  
Tim Norden, Acting Chief Scientist, Analytical Chemistry Branch, TSD, FGIS, GIPSA  
Byron Reilly, Director, Departmental Initiatives and International Affairs, FGIS, GIPSA  
Samantha Simon, Director, QACD, FGIS, GIPSA  
Tom Weber, Acting Chief, Analytical Chemistry Branch, TSD, FGIS, GIPSA

## **Other Attendees**

Dave Ayers, Champaign Danville Grain Inspection  
Sarah Bowser, United Sorghum Checkoff  
Mikel Brewster, Charm Sciences  
Tom Dahl, Sioux City Inspection  
Jason Ferrante, WSDA  
Breanna Francisco, Eastern Iowa Grain Inspection  
Nick Friant, Cargill  
Mark Fulmer, Eastern Iowa Grain Inspection  
David Funk, Grain Quality Analytics, LLC  
David Lowe, FGIS, GIPSA (retired)  
Jess McClure, National Grain and Feed Association  
Tom Meyer, Kansas Grain Inspection Service  
John Sharpe, AAGIWA  
Erica Venancio, AAGIWA

## NATIONAL PROGRAM OVERVIEW

Ms. Coffey reviewed the six resolutions that the Advisory Committee passed at the November 2014 meeting and provided an overview of FGIS operations.

The overview of the FGIS operations that were discussed included; export grain inspections to meet if not surpass the 2008 record; U.S. corn exports inspections are 2 percent higher than this time last market year; China continues to be the driving force in soybean exports; currently wheat export inspection tonnage is down 28 percent compared to this time last market year; and sorghum export inspections are currently 154 percent higher than this time last market year.

Ms. Coffey also presented a video slide, U.S. Drought Monitor, to show the progression of the drought throughout the U.S. from January 2012 to present.

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

## QUALITY PROGRAM UPDATES

Mr. Jabs provided updates on several Quality Initiatives and Compliance Issues.

In July 2014 the Advisory Committee passed a resolution recommending that “GIPSA review and update all the quality assurance tolerances utilized in the official inspection system. Specifically, the Advisory Committee recommends that the first to be reviewed reflect the Unified Grain Moisture Algorithm (UGMA) technology for moisture measurement.”

GIPSA formed a team with representatives from TSD, FMD, and QACD to address the resolution. The team evaluated inspection, moisture calibration, check test, and cu-sum tolerance data; identified components of variability; defined evaluation priority, and is seeking additional information on current warning and action limit methodologies. Quality assurance tolerance vary by grain, factor, and level. For example, corn moisture warning and action limits are 0.4 percent and 0.7 percent, respectively for moisture values up to 17.1 percent; however, they start to widen for higher moisture values. Warning limits are defined as 2 standard deviations from the mean level and represent 95 percent confidence level. Action limits are defined as 3 standard deviations from the mean level and represent a 99 percent confidence interval.

There are several components of variability that occur when comparing original to supervised inspection results including instrument repeatability, instrument reproducibility, and file sample variability. Instrument repeatability is the variability of a single instrument when a sample of known value is tested repeatedly on the same instrument. Instrument reproducibility is the variability in the alignment of multiple instruments when a sample of a known value is tested across multiple instruments. File sample variability is the variability of inherent file sample differences between an original and supervised file sample. Collectively, these three components of variability determine the variance between original and supervision results for non-subjective factors (e.g., moisture). The team analyzed supervision data prior to and following the implementation of the Unified Grain Moisture Algorithm (UGMA) technology to determine if there had been any significant variance in the results. Pre-UGMA data for corn moisture had a standard deviation of 0.276 percent for a calculated warning and action limit of 0.552 percent

and 0.828 percent, respectively. Post-UGMA data for corn moisture had a standard deviation of 0.260 percent for a calculated warning and action limit of 0.520 percent and 0.780 percent, respectively. Both of the numbers are higher than the current warning and action limits; however, the post-UGMA numbers are slightly lower potentially suggesting that there have been variability improvements.

The team needs to explore additional moisture data for other grains and research warning/action limit methodologies in order to determine the components of variability for old and existing instrument technologies. In addition, the team will research the relationship between limits and cu-sum tolerances to determine if adjustments to limits are warranted. Following the moisture review, the team identified corn, soybeans, and wheat as top priorities for grain reviews and damage and foreign material as top priorities for factor reviews. In the interim, it is imperative that monitoring continues to be conducted at a national and agency level to proactively identify any large variances in factor levels between original and supervised results.

GIPSA initiated the inspection performance program in March 2014 to ensure that inspections are accurate and consistent and to proactively identify and correct any inspection variations in a timely manner. In addition, GIPSA utilizes the data to provide the grain industry with quality assurances. The quality dashboard provides a visual representation of the inspection performance of GIPSA's field offices. In Fiscal Year 2015 YTD, overall accuracy is 96.6 percent based on 1,936 samples and 3,686 factors. In February 2015, overall accuracy is 97.6 percent based on 388 samples and 712 factors.

GIPSA has a storied history of being the "Gold Standard" for inspection and weighing services. To that end, GIPSA has decided to recognize official agencies that contribute to that mission at the highest level. GIPSA is planning to present award certificates at the upcoming AAGIWA Annual Meeting in May 2015 to each official agency that has demonstrated outstanding performance during the year. Agencies will be selected for the award if they meet or exceed the outstanding benchmark based on their quality management program score and if they have had no adverse administrative actions in the prior year.

GIPSA currently has 49 official agencies that are designated and/or delegated. In January 2015, one agency purchased another agency. In March 2015, one agency's designation was revoked. A *Federal Register* publication is forthcoming (May-June 2015) to seek a designee in the previously designated area and the remainder of unassigned areas in Texas.

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

## **SERVICE DELIVERY UPDATES**

Mr. Goodeman, provided an update on service delivery related topics.

He provided information to the Advisory Committee on the plan to revise Agricultural Marketing Act of 1946 (AMA) cooperator fees, which were implemented in January 2015. Under the AMA, FGIS administers and enforces certain inspection and standardization activities related to rice, pulses, lentils, and processed grain products such as flour and corn meal, as well as other agricultural commodities. Services under the AMA are performed upon request on a fee

basis for both domestic and export shipments by either FGIS employees or individual contractors, or through cooperative agreements with States.

Mr. Goodeman also provided a regulatory and standards update, which included an update on the fees for graded commodities and other proposed rules and grain standards under review. The fee schedule: delete tests no longer offered; include tests added since last fee review

- 5 % increase in first year
- 4 % increases in out years through 2020
- Reduce obligations by reducing headcount through attrition due to retirement and moving personnel to other revenue producing positions

He also discussed the Southwestern US wheat classing policy (which will remain unchanged at this time), and lastly provided an update on recent FMD initiatives including hiring, training, and other field office activities.

For additional details, please see the attached presentation, **Service Delivery Updates**.

### **SORGHUM PROJECT UPDATE**

Mr. Adam provided an updated on the sorghum project. For the second consecutive year, GIPSA continued a collaboration between the BAR, FMD, Official agencies, and industry in an effort to continue to strengthen alignment between origin and destination sorghum odor results. The project was originally instituted to facilitate China's entrance into the U.S. sorghum market in 2013. FGIS reviewed the processes employed to harmonize origin and destination inspectors with the BAR. The project has been able to produce an inspector alignment accuracy rate of 98 percent with the BAR. This project continues to receive support and positive feedback from industry.

For additional details, please see the attached presentation, **Board of Appeals and Review Update**.

### **BIOTECHNOLOGY**

Dr. Bell provided a status update regarding its development of a quantitative biotechnology rapid test kit program and reviewed the challenges associated with developing such a program.

The first round of testing using quantitative lateral flow strips has been completed, the first round of comparison of protein-based method to DNA-based method has been completed, and have performed preliminary particle size analysis. Using data from preliminary test results to develop precision and accuracy requirements for test kits against reference standards

For additional details, please see the attached presentation, **Biotechnology Lab Update**.

### **NEAR INFRARED TRANSMITTANCE**

Dr. Norden provided an update on the Near Infrared Transmittance (NIRT) Equivalency Project, which addresses an Advisory Committee resolution to investigate the possibility of approving

multiple NIRT instruments for official inspection without compromising accuracy and consistency in the measurement of wheat protein. GIPSA initiated a cooperative agreement with Iowa State University to evaluate wheat, barley, corn, and soybean samples on three different National Type Evaluation Program approved NIRT instruments.

Dr. Hurburgh provided the initial results on the analysis of a set of 250 wheat samples were presented along with the additional steps needed to complete the project.

For additional details, please see the attached presentations, **NIRT Equivalency Project** and **NIRT Study**.

## **MOISTURE METERS**

Ms. Alonzo reviewed the small number of appeals to date related to potential moisture results concerns since February 2015. Appeal results showed excellent alignment between meters within the Official inspection system. GIPSA will continue to pursue education and outreach opportunities regarding performance expectations for moisture meters.

For additional details, please see the attached presentation, **2015 Moisture Meter Update**.

## **METHODS DEVELOPMENT INITIATIVES**

Ms. Brenner provided updates on projects resulting from four prior resolutions and one new project underway.

### **USDA Rice Studio**

A Field Performance Study of the prototype USDA Rice Studio was conducted during the 2014 harvest. The study showed that the USDA Rice Studio results for the determination of percent total broken kernels in long grain milled rice is comparable to the current visual inspection determinations. The study also indicated that the sample presentation method needs further improvements. GIPSA is working on solutions. Implementation of a pilot test tentatively planned for 2015 will most likely be delayed for a year in order to improve the sample presentation method.

### **LED Lighting**

GIPSA has obtained light emitting diode (LED) lights with a high color temperature and is in the process of designing the layout of the LED lights to achieve the current grading lighting requirements.

### **Condensation Effects Study**

Grain movement from loading a barge upriver to unloading at an export elevator and then onto a ship was discussed along with where in the movement the potential for condensation could

occur. GIPSA has hired a contractor to conduct a study focusing on the condensation effects for moisture and test weight determinations in the grain delivery system to the onsite export inspection lab that will compare the results for samples tested under both condensing and non-condensing conditions.

### **Feasibility of Unified Grain Moisture Algorithm (UGMA) Test Weight Determinations**

Data collected by GIPSA for the 2012 – 2014 crop moisture calibration maintenance program that includes UGMA test weight and reference test weight apparatus determinations was discussed in a meeting with the UGMA manufacturers. Sorghum shows the most potential for developing procedures to align the UGMA models to each other and to the reference test weight apparatus.

### **Quadcopter**

GIPSA has begun investigating the use of a quadcopter for stowage examinations. Using a quadcopter could alleviate any safety concerns, provide documentation of findings, and has the potential to add equipment for additional tests.

For additional details, please see the attached presentation, **Inspection Instrumentation Branch Updates.**

### **MYCOTOXIN TEST KIT PROGRAM**

Mr. Weber provided an update on approvals for water-based test kits and those for testing distillers dried grains with solubles (DDGS) both as a result from previous Advisory Committee resolutions.

He also provided information on improvements regarding provision of mycotoxin test kit instructions, recommended changes for expansion of concentration ranges used in test kit evaluations and establishment of performance criteria for supplemental analysis.

For additional details, please see the attached presentation, **Mycotoxin Test Kit Program.**

### **INTERNATIONAL ACTIVITIES**

Mr. Reilly provided information on Phase II of the US/China Soybean Vessel Comparison Study. In the fall of 2014, FGIS began Phase II of the U.S.-China soybean vessel comparison study to sample two soybean ships destined for Dalian, China. In this phase, a study was conducted on the composition of the foreign material (FM) since China defines FM differently than FGIS.

Information was also provided on the status of the biotech corn event MIR 162 present in U.S. DDGs and corn exports to China. In December China approved MIR 162, but the Ukraine has since secured 90 percent of China's corn import market.

He also discussed FGIS' Export Cargo Sampling Project which began in 1985, to export wheat sample collection at the request of U.S. Wheat Associates and export corn sample collection at the request of U.S. Grains Council for their annual crop quality reports.

Mr. Reilly provided the current status of foreign complaints. In FY14, we received one quality complaint from China on sorghum odor. This accounted for about 0.08 percent by weight of all the grain exported from the U.S. in FY15 to date.

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

Steven Wirsching, Vice President and Director, U.S Wheat Associates, was elected as vice chair and will become the Chairperson at the spring 2016 meeting.

### **NEXT MEETING**

The Advisory Committee recommends the next meeting be held October 27-28, 2015, at the National Grain Center in Kansas City, Missouri.

### **RESOLUTIONS**

The following resolutions were introduced and passed by the Committee:

1. The Advisory Committee commends FGIS for its work in implementing and testing of UGMA moisture meters; and recommends that for the Sample Information Monitoring System (SIMS) that FGIS provide on their website a listing by grains for the approved UGMA moisture meters the following information: the moisture standard deviation,  $\pm$ warning limit, and  $\pm$ action limit and the moisture range for which these limits are applicable.
2. The Advisory Committee recommends FGIS move forward with expanding the mycotoxin concentration ranges to the following:  
Aflatoxin to 5 – 300 ppb  
DON to 0.5 to 30 ppm  
Fumonisin to 0.5 – 30 ppm

At the manufacturer's request FGIS will verify the supplemental analysis performance at the maximum range as established by the manufacturer.

3. The Advisory Committee recommends that FGIS develop reports based on Sample Information Monitoring System (SIMS) and Subjective Testing and Evaluation Process (STEP) data that reflects quality performance on a system-wide and official service provider level.

#