

# Grain Inspection Advisory Committee

June 21-22, 2011

## Summary of Meeting National Grain Center--Kansas City, Missouri

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## **WELCOME**

Jerry Cope, Chairperson, Grain Inspection Advisory Committee (Advisory Committee) opened the meeting with a welcome and introductions.

## **ACCEPTANCE OF NOVEMBER 17-18, 2010, MEETING MINUTES**

The Advisory Committee approved the minutes of the November 17-18, 2010, meeting as presented.

## **REVIEW AND ACCEPTANCE OF JUNE 21-22, 2011, AGENDA**

The Advisory Committee approved the agenda of the June 21-22, 2011, meeting as presented.

## **MEETING ATTENDEES**

### **Committee Members**

Tammy Basel, Vice-President, Women Involved in Farm Economics  
David Cantu, Owner/Manager, A. Cantu Farms  
Theresa Cogswell, Consultant/President, BakerCogs, Inc.  
Jerry Cope, Commodity Manager, South Dakota Wheat Growers  
Tom Dahl, Vice-President, Sioux City Inspection and Weighing Service Company  
Rennie Davis, President/CEO, Davis Seed Farms, Inc.  
Rigoberto Delgado, Senior Partner, Delgado Farms Lcc.  
Warren Duffy, Vice-President/Export Operations, ADM Grain  
Edgar Hicks, Director, Nebraska State Grange  
Mark Hodges, Executive Director, Oklahoma Wheat Commission  
Jayce W. Hoyt, Managing Partner, Go Grain LLC  
Paul Lautenschlager, Manager, Beach Coop Grain Co  
Todd Russom, Manager, Quality-Raw Materials, Anheuser-Busch InBev  
Sarah Ann Sexton-Bowser, Director of Membership Services, KGFA  
James M. Stewart, Manager Drying and Storage, Lundberg Family Farms

### **Alternate Members**

Patricia Dumoulin, Producer, Farmer/Owner, Dumoulin Farms  
Jerald S. Kemmerer, CEO-GM, Dodge City Cooperative Exchange  
Chris Breedlove, Manager/CEO, Willacy Coop

### **GIPSA**

Rob Dorman, Policies, Procedures, and Market Analysis Branch, GIPSA  
Dave Funk, Acting Director, Technology and Science Division (TSD), GIPSA  
Ruth Goff, Grain Marketing Specialist, TSD, GIPSA  
Karen Guagliardo, Assistant Director, FMD, GIPSA  
Terri Henry, Management Analyst, Management and Budget Services, GIPSA

Eric Jabs, Ag Marketing Specialist, PPMAB, FMD, GIPSA  
Randall Jones, Deputy Administrator, GIPSA  
Bob Lijewski, Director, FMD, GIPSA  
David Lowe, Chief, Board of Appeals and Review, TSD, GIPSA  
Pat McCluskey, Chief, PPMAB, FMD, GIPSA  
Tim Norden, Chief, Analytical Chemistry Branch, TSD, GIPSA  
Tom O'Connor, Director, Quality Assurance and Compliance Division (QACD), GIPSA  
Byron Reilly, Departmental Initiatives and International Affairs, GIPSA  
Mark Wooden, Quality Assurance and Designation Branch, QACD, GIPSA

### **Other Attendees**

Cassie Eigenmann, Dickey-john  
Nick Friant, Cargill  
Abigail Hiles, AAGIWA  
Ben Lackey, Riceland  
Jess McCluer, National Grain and Feed Association  
David Steffen, Dickey-john  
Melvin E. Thompson, Office of Senator Pat Roberts

### **NOVEMBER 2010 RESOLUTIONS RECAP**

Randall Jones, Deputy Administrator, FGIS, GIPSA, provided an update on the status of the resolutions from the November 2010 meeting held in New Orleans.

1. The Advisory Committee recommends that GIPSA continue the current sorghum odor project with Dr. Chambers and KSU through September 2011. It is also recommended that GIPSA work with Dr. Chambers to identify potential companies that could have an interest in biosensor development for identifying chemical compounds that are believed to produce odors in sorghum or other grains.

The goal is to determine if chemical biosensor technology has advanced far enough to provide any assistance to odor inspection capabilities.

Moving forward, it is recommended that GIPSA determine if sorghum industry partners want to continue the sorghum odor project.

Dr. Chambers has identified a research instrument that would enable more rapid and precise identification of odor-causing chemicals in grain samples. GIPSA is working closely with the Sorghum Odor Taskforce in obtaining their input and recommendations.

GIPSA will provide a briefing in the Sorghum "Storage Musty" Odor presentation.

2. The Advisory Committee recommends the continuation/completion of the evaluation of rice shellers, in conjunction with the industry stakeholders.

GIPSA has agreed to requests by the California Warehouse Association and the California Rice Commission to use the Yamamoto Sheller as the official method for shelling California production Medium Grain and Short Grain rice for the 2011 crop year.

GIPSA will provide a briefing in the Yamamoto Sheller Study presentation.

3. The Advisory Committee requests that when reviewing and selecting new moisture testing technology that GIPSA include in its analysis parameters for “Green” rough rice during the harvest season, Aug-Sept.

GIPSA has conducted an experiment to assess the effects of “green rice” and “green soybeans” on difference technologies that might be chosen for official moisture measurement.

GIPSA will provide a briefing in the New Moisture Measurement Technology and Research presentation.

4. The Advisory Committee recommends that the Advisory Committee agenda (books) be transmitted electronically to members before the Advisory Committee in lieu of mailing unless otherwise notified that a hard copy is needed. Each Advisory Committee member would be responsible for printing and bringing the material to the meeting. This would cut down on the cost of shipping.

The Advisory Committee books were transmitted electronically to all members one week before the meeting which provided them the opportunity to print and review the material before the meeting.

5. The Advisory Committee proposes 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 resolves that oversight fees charged for export supervision be applied to the export Inspection and Weighing account #520.

GIPSA proposes to modify the national administrative tonnage fee to ensure fair application for all export inspections.

GIPSA will provide a briefing in the Review of Export Tonnage Fee presentation.

6. The Advisory Committee requests 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.

GIPSA proposes to levy the national administrative tonnage fee on all export inspections by designated agencies and delegated states. The new levy ensures an equitable allocation of national costs to all entities performing export inspections.

GIPSA will provide a briefing in the Review of Export Tonnage Fee presentation.

## **FGIS 2011 PROGRAMS**

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

**Flood Impact:** Recent floods slowed down operations in our New Orleans Field Office. Barges were not able to get to the lower Mississippi fleets as scheduled. The high water levels also contributed to slower barge unloading times because the barges were riding so high in the water they would not fit under the barge unloading legs. The high water level in the river came at a time when some elevators had scheduled maintenance “down time” which lessened the impact of the high water. The opening of the two spillways north of New Orleans and Baton Rouge kept the river at a level where actual impact from the flooding was greatly reduced as it relates to exporting grain.

In southeast Missouri, repairs began on the Birds Point – New Madrid Floodway frontline levee. All three crevasse sites and areas impacted by overtopping will be repaired. Farmers in the floodway say the repairs will give them a chance to get a crop in this season. Crop damages from that area alone will cost more than \$42 million according to the authors of a recent study by the Food and Agriculture Policy Research Institute at the University of Missouri.

**Market Overview:** Well into the 2010/11 crop year export inspections remain strong. Total grain inspections are running 10 percent ahead of last year, and 15 percent ahead of the five year average. China has been the main destination so far, accounting for 38 percent of total inspection volume. Nearly 66 percent of this has been soybeans.

In 2011, FGIS-Only export inspections have increased 13 percent from 2010. For the same period, total State and Agency export inspections are running 5 percent (1.6 mmt) ahead of last year. Wheat is the leading force up 59 percent (3.36 mmt). When looking at all export inspections (FGIS, State, and Other) over the past years, FY 2011 projections for the remaining of the year are above last year’s volume but slightly below FY 2008’s record year.

Export inspections for soybeans, corn, and wheat are as follows:

- Soybean inspections are 1.6 percent ahead of last year's pace (representing an additional .6 million metric tons). Soybean inspections for FGIS are 9 percent above last year at this time (2.1 million metric tons).
- Total export inspections of corn are down 1.8 percent (0.7 mmt). FGIS corn export inspections have decreased 1.5 percent (0.4 mmt).
- Total inspections of wheat are up 55 percent (8.9 mmt).

State and Agency domestic grain inspections are up 5 percent (3.4 mmt) compared to this time in 2010.

Based on the USDA reports rice inspections are expected to continue to decline into FY 2012 due to an estimated 22 percent decrease in planted acreage. As of March, Processed Commodity Inspections were at 4.1 mmt for FY 2011, nearly 50 percent of these inspections were distillers grain products. Containerized grain inspections are currently up 5 percent (.1 mmt) compared to a year ago.

## INTERNATIONAL PROGRAMS

Byron Reilly, Grain Marketing Specialist, Departmental Initiatives and International Affairs, FGIS, GIPSA, provided an update on several international trade and outreach efforts.

**Egypt-Corn:** Last fall, a FGIS representative traveled to Egypt with a U.S. Grains Council consultant and spent nearly a month in Egypt working closely with Egyptian officials to successfully gain entrance for most of the four U.S. corn shipments that were detained because Egypt claimed they exceeded Egypt's limit of 7.0 percent damage.

**Korea Corn Monitoring Project:** Prior to the 2009 corn crop Korea importers benefited from two good crop years, and it appears they came to expect U.S. No. 2 quality when they contracted for U.S. No. 3 corn. Then, in 2009 when they contracted for No. 3 corn, they received No. 3 corn. Korean importers claimed they received inferior quality. North American Export Grain Association (NAEGA) and FGIS developed a study to monitor three corn shipments to four different ports in Korea using different sampling methods at loading and discharge. The broken corn and foreign material (BCFM) was higher at destination using the Korean sampling method as compared to the FGIS diverter-type (D/T) sampling method used at loading.

**China-Soybeans:** Since February 2007, the Administration for Quality Supervision, Inspection and Quarantine alleged finding treated soybeans in 15 shipments. As an outgrowth of the treated soybean allegations, in 2009, a Memorandum of Understanding (MOU) between the Foreign Agricultural Service, the Animal and Plant Health Inspection Service, the Food and Drug Administration, and FGIS was drafted that addressed quality, phytosanitary, and food safety concerns relating to U.S. soybean shipments. The new MOU with China on soybeans was signed in December 2010. On June 20,

2011, a FGIS representative and representatives of the U.S. soybean stakeholders, including the seed industry, soybean farmers, and the grain handling/export industry traveled to Beijing, China, and met with Chinese officials and discussed the next steps for the implementation of the MOU.

**Asia Collateral Duty Officer Program:** In 2002, FGIS placed a representative in Asia on a long-term (3.5-month) temporary duty assignment to work with overseas customers and their governments in Southeast Asia. Following the successful completion of this initial assignment, FGIS have continued to annually place representatives in Asia under this program. The FGIS representative travels throughout the region to meet with importers and governments officials.

The FGIS presence in the region continues to draw praise from buyers, millers, processors, USDA Cooperators and Foreign Agricultural Service representatives in the area. Later this summer FGIS plans to send a representative to Asia for 3-5 week assignment

**International Complaints:** This year, FGIS has received more than normal number of complaints from importers of U.S. grain. Approximately 1.0 percent of all grain exported was involved in grain quality discrepancies as compared to 0.5 percent last year. The increase is due to China alleging treated seeds in six soybean shipments, accounting for 43 percent of the complaints and Egypt reporting complaints on five corn shipments, accounting for 30 percent of the complaints by weight.

## **QUALITY ASSURANCE AND COMPLIANCE DIVISION**

Tom O'Connor, Director, Quality Assurance and Compliance Division, FGIS, GIPSA, provided an overview of the roles, staffing, and responsibilities of the Quality Assurance and Compliance Division, including the status of the integration of the Quality Assurance and Quality Control Staff into the renamed Quality Assurance and Designation Branch.

Mr. O'Connor also reported on progress implementing the Agency's Quality Management Program, discussing its major features, history and benefits, as well as findings from recent reviews.

In addition, Mr. O'Connor summarized the findings for the Agency's so-called Contract Review Program in which GIPSA sampled vessel, rail, and container export shipments for conformance with the U.S. Grain Standards Act and associated regulations, directives, and policies. The review program found very high compliance with export vessels and rail with a lower compliance rate for export container shipments. Based upon these results, Mr. O'Connor stated that the Agency plans to continue the program for the foreseeable future but will limit the review to one quarter per year, with emphasis on container shipments because of that mode's lower compliance rate.

Mr. O'Connor concluded with remarks on GIPSA's Exception Program. He explained the history of the program and the three exceptions that allow an agency to provide service in an area assigned to another official agency. He reviewed the provisions of GIPSA's exceptions program directive, including who may request an exception, reporting requirements, and cancellation of inactive exceptions after 18 months. He also provided statistics on use of the exception program by mode of transportation and the status of exceptions that remain active in the official system.

## DIVERTER-TYPE SAMPLER UPDATE

Bob Lijewski, Director, Field Management Division (FMD), FGIS, GIPSA, provided a historical overview on how mechanical samplers, in particular, the Diverter-Type (D/T) sampler came to existence.

Currently, D/T samplers are check-tested for approval whenever they are newly installed or modified. This approval is based on a comparison of the D/T sampler vs. the standard reference method (pelican sampler or Ellis cup). However, issues such as safety and the speed of grain flow have caused GIPSA to evaluate other methods of approval. GIPSA proposes to review engineering drawings and require either a GIPSA, or third party engineering review of the D/T installations as part of the approval process. Additionally, GIPSA proposes to use "Drop Test" procedures comparable to those currently utilized by the Canadian Grain Commission (CGC) to check the D/T sampler and sample delivery system for grain breakage. In this test, samples of known quality grain are introduced close to the primary sampler, recovered, and then reanalyzed for quality. Factor results must meet those of the original result (+/- 10%). GIPSA will work with the official inspection agencies and industry to align the check-testing of sampling systems within GIPSA requirements.

## FGIS RESEARCH UPDATE

Dave Funk, Acting Director, Technology and Science Division (TSD), FGIS, GIPSA, provided the Advisory Committee updates on several research efforts.

**New Moisture Measurement Technology and Research:** An overview of GIPSA's moisture research was presented. The Advisory Committee was provided with bound copies of five conference papers GIPSA personnel prepared for the 9th International Conference on Electromagnetic Wave Interaction with Water and Moist Substances. Paper topics included (1) National Type Evaluation Program success, (2) secondary density correction for corn, (3) effects of test cell loading procedures, (4) feasibility of measuring oil or protein with dielectric moisture meters, and (5) effects of drying (rebound) and mixtures on dielectric and near-infrared (NIR) moisture measurements.

Mr. Funk reported on the preliminary testing to assess the effects of "green" soybeans and rice on moisture measurement with dielectric (149 MHz) and NIR methods. Sample moisture variations were simulated by mixing wet and dry sample portions and by drying (rebound) dielectric frequency, and extent of drying or mixing of extreme moisture levels. Additional tests at harvest time are needed to examine larger moisture ranges and provide more definitive results.

Mr. Funk presented crucial criteria for consideration in pursuing new moisture measurement technology for the Official Inspection System. It was proposed that acceptance of these criteria suggests only one suitable technology option – instruments compatible with use of the FGIS 149 MHz Unified Grain Moisture Algorithm. It was recommended that GIPSA implement this method as the new official moisture technology.



**Yamamoto Sheller Study:** Mr. Funk reported that the California rice industry requested that the Yamamoto FC2K rice sheller be used for 2011-crop short- and medium-grain rice. GIPSA has agreed and is working on an implementation plan to get the new technology in place by September 1, 2011. GIPSA will continue to use the Grainman sheller for long-grain rice, southern production short- and medium-grain rice, and all 2010-crop rice.

**Rapid Test Evaluation Program:** Mr. Funk provided the Advisory Committee with an update on FGIS' implementation of the revised Rapid Test Evaluation Program. Since the program was restarted in October 2010, FGIS has purchased reference materials, updated aflatoxin and DON reference methods, certified aflatoxin and DON reference materials, hired a program manager, moved into new laboratory space, and completed the evaluation of twelve rapid test kits. The backlog of test kits currently in the queue is expected to be cleared by October 2011.

**FGIS Wheat Functionality Research:** Mr. Funk provided the Advisory Committee with an overview of wheat functionality research initiatives including, Farinograph standardization, varietal identification for classification assistance, and gluten quality assessment. Progress on the Farinograph standardization project included an initial ring study that helped identify specific opportunities for improvement. These improvements were communicated to the manufacturer and a new, improved version of the Farinograph has been developed. GIPSA will continue to work with the manufacturer on this new model to help standardize Farinograph testing.

The varietal ID method involves high-performance liquid chromatographic (HPLC) analysis of wheat samples to produce a chromatogram or fingerprint of the soluble proteins. A mathematical program has been developed that enables matching of an unknown wheat sample to a library of wheat varieties. Accomplishments included creating a fingerprint library of most U.S. wheat varieties, developing a mathematical method for automated matching of chromatograms, verifying high matches for cultivars in different growing regions, successful transfer of the method to a different HPLC, and routine use of the method to assist the Board of Appeals and Review in classifying difficult wheat samples.

The background and fundamentals of a new test for wheat protein quality were described. GIPSA worked with Cornell University to develop a rapid rheological test to measure the viscoelastic properties of wheat gluten. Cornell University collaborated with Perten Instruments, who built a prototype instrument. Mr. Funk also shared data on the correlation of test results from eighteen wheat cultivars on the prototype gluten tester with results from the Mixolab, the Extensograph, and the Farinograph. The results look encouraging, but additional work is needed to refine the commercial prototype, test the performance of the new prototype, and continue to assess the relationship of this test to current functional tests for wheat. GIPSA also plans to use the test to attempt to develop an NIR calibration to predict gluten strength.

## **SORGHUM ODOR STUDY UPDATE**

David Lowe, Chairman, Board of Appeals and Review, TSD, FGIS, GIPSA, provided an update to the Advisory Committee on the Sorghum Odor Study.

Dr. Edgar Chambers has created a chemical cocktail that mimics “storage musty” odor in grain sorghum. A chemical concentration of Geosmine and 1, 2, 4-Trimethoxybenzene has been tentatively identified to represent the odor line for “storage musty” sorghum. In continuing this effort, GIPSA will reach out for industry and end-user feedback to attain their input on the importance of odor in sorghum for their prospective end use. GIPSA will also obtain a crosssection of industry representatives by sorghum usage to assist GIPSA in the assessment of the sorghum odor line.

### **CENTRALIZED QUALITY ASSURANCE ACTIVITIES**

Tom O’Connor, Director, Quality Assurance and Compliance Division, FGIS, GIPSA, briefed the Advisory Committee on the objectives and essential elements of the Agency’s quality control program, providing a review of the roles and responsibilities of Quality Assurance and Compliance, Field Management, and the Technology and Science Divisions within the quality program.

GIPSA is in the process of conducting a complete review of its quality control program, including resources, staffing, organization, training and other issues with the goal of further enhancing and strengthening quality within the official system and will provide a status update at the fall 2011 meeting.

### **REVIEW OF EXPORT TONNAGE FEE**

Eric Jobs, Ag Marketing Specialist, Policies, Procedures, and Market Analysis Branch, FMD, FGIS, GIPSA, briefed the Advisory Committee on export tonnage and grain inspection and weighing program (520) fees and proposed the following changes beginning in 2013:

- Reduce the national administrative tonnage fee based on a reallocation of workers compensation from the national to the local field office level.
- Modify local administrative tonnage fees based on updated field office costs, tonnages, and a reallocation of workers compensation from the national to the local field office level.
- Levy designated agencies and delegated states the national administrative tonnage fee in lieu of the current \$0.011/metric ton fee on all export inspections

GIPSA intends to publish a proposed rule in the near future and implement the changes October 1, 2012.

## **ELECTION OF VICE-CHAIRPERSON**

Paul Lautenschlager was elected as vice chair and will become the Chairperson at the spring 2012 meeting.

## **NEXT MEETING**

The Advisory Committee recommends the next meeting be held the first week of November or the first week of December 2011 in Portland, OR, Sacramento, CA, or Olympia, WA.

## RESOLUTIONS

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

1. The Advisory Committee recommends that GIPSA moves forward on implementing new Diverter-Type (D/T) check testing procedures at both the export and domestic markets. The Advisory Committee charges GIPSA to replace the current procedures with procedures that focus on safety and reliability such as drop, visual, and installation certification.
2. The Advisory Committee is concerned that the newly formed Domestic Inspection Operations Office (DIOO) is currently understaffed to properly perform their required duties (equipment, federal appeals, testing, SIMS samples, AMA) and supervise approximately thirty (30) agencies in the domestic market. The Advisory Committee recommends that GIPSA evaluate the number of personnel under the DIOO banner, including what steps will be taken to ensure that GIPSA will be able to facilitate the marketing of grain in the domestic market under the increased workload of DIOO.
3. The Advisory Committee recommends that GIPSA continues to support marketing to Asian markets through the Collateral Duty Officer (CDO) program and explore ways to expand the program. The Advisory Committee suggests that the Agency work with industry, if possible and appropriate, to look at ways this may be accomplished.
4. The Advisory Committee recommends that GIPSA continue to identify new and improve current rapid technology in the area of protein quality (visco-elastic test) and ensure that the results correlate with end users.
5. 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.
6. The Advisory Committee strongly recommends that export user-fees collected and maintained as retained earnings be solely used to support services that facilitate the export of grain and grain related products and not be subject to use for any other purpose.
7. The Advisory Committee recommends that FGIS/GIPSA continue to go forward with the evaluation and adoption of the 149 MHZ technology as the new official standard for grain moisture measurement.
8. The Advisory Committee recommends that GIPSA expedite the scheduled review of the barley standards considering the needs of all stakeholders.