

# Grain Inspection Advisory Committee

June 12-13, 2007

## Summary of Meeting Hampton Inn--Kansas City, Missouri

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## **WELCOME**

Tim Paurus, Chairperson, opened the meeting with a welcome and introductions.

### **ACCEPTANCE OF MEETING MINUTES FROM DECEMBER 12-13, 2006**

The Committee approved the minutes of the December 12-13, 2006, meeting as presented.

### **REVIEW AND ACCEPTANCE OF JUNE 12-13, 2007, MEETING AGENDA**

The Committee accepted the agenda as presented.

## **MEETING ATTENDEES**

### **Committee Members**

Tim Paurus, Chairperson, Vice President, Terminal Operations - CHS Inc.  
Chester Boruff, Association of Official Seed Certifying Agencies  
William J. Cotter, Port of Corpus Christi  
William Crockett, Mound Bayou Public Schools  
William Dumoulin, producer, Illinois  
Kenneth L. Dalenberg, Production Agriculture Farmer  
Curtis Engel, The Scoular Company  
Mark Fulmer, Lincoln Inspection Service  
Daniel Kidd, producer  
Nicholas Friant, Cargill  
Dutt Vinjamoori, Martek Biosciences  
Jerry Gibson, Bunge North America

### **Committee Alternates**

Warren Duffy, Archer Daniels Midland  
Bob Smigelski (Retired), The Anderson's Inc.  
Thomas Fousek, Bartlett Grain, L.P.  
Donnie Love, Archer Daniels Midland

### **GIPSA**

James E. Link, Administrator, GIPSA  
David Shipman, Deputy Administrator, Federal Grain  
Inspection Service (FGIS), GIPSA  
John Sharpe, Director, Technical Services Division (TSD), FGIS, GIPSA  
John Giler, Acting Director, Field Management Division (FMD), FGIS, GIPSA  
Pat Donohue-Galvin, Director, Budget and Planning Staff (BPS), GIPSA  
Marianne Plaus, Chief, Market and Program Analysis Staff (MPAS), FGIS, GIPSA  
John Pitchford, Director, Office of International Affairs, FGIS, GIPSA  
David Funk, Associate Director, TSD, FGIS, GIPSA

Donald Kendall, Deputy Director, TSD, FGIS, GIPSA  
Rich Pierce, TSD, FGIS, USDA  
Terri Henry, Management Support Staff, GIPSA  
Kathryn McCaw, Portland Field Office, FMD, FGIS, GIPSA  
Mike Eustrom, TSD, USDA, GIPSA  
Tim Norden, TSD, USDA, GIPSA  
Diane Palecek, FMD, FGIS, GIPSA  
Bev Whalen, MPAS, FGIS, GIPSA

### **Other Attendees**

David Ayers, Champaign-Danville Grain Inspection  
Larry Kitchen, Missouri Department of Agriculture  
Randy Deike, Washington State Department of Agriculture  
Tom Dahl, Sioux City Inspection  
Josh Winder, Roser Labs  
Pat Dumoulin, producer, Illinois  
Tom Meyer, Kansas Grain Inspection Services, Inc.  
Robert Peterson, American Association of Grain Inspection and Weighing Agencies

### **ADMINISTRATOR'S WELCOME and BRIEF STATUS OF DECEMBER 2006 RESOLUTIONS**

James E. Link, Administrator, USDA, GIPSA, welcomed the Committee and attendees. He reported on the GIPSA contracting pilot project.

GIPSA Grain Inspection Contracting Pilot Project. Mr. Link informed the group of the Federal government's initiative on outsourcing government functions to the private industry in an effort to streamline government services and costs. In response to this initiative and Congressional direction given to GIPSA during the 2005 reauthorization of FGIS, GIPSA initiated a study in 2006 to gather data on the impact of contracting with private entities to provide export services. Upon completion of the 2-year study, GIPSA will assess the impact of contracting for export service on cost to customers, including oversight costs, and the integrity of the official system.

Mr. Link closed by thanking the attendees for taking part in the Committee meeting.

## FGIS INITIATIVES

David Shipman, Deputy Administrator, GIPSA, FGIS, briefly reiterated the Committee's December 2006 resolutions. He noted that all would be discussed in detail by GIPSA experts throughout the remainder of the meeting.

**Resolution No. 1**, "The Committee recommends GIPSA to report on the working agreement with APHIS as it pertains to phytosanitary certificates." Mr. John Giler will report on this resolution.

**Resolution No. 2**, "The Committee recommends that GIPSA continue to cooperate with the ethanol community and trade associations to learn of their needs to facilitate the movement of grain and grain by-products." Ms. Marianne Plaus will report on this resolution.

**Resolution No. 3**, "The Committee recommends that GIPSA work with the U.S. and Mexico's grain industry to better define Mexican end users' concerns about U.S. grain quality at the point of final destination in Mexico." Mr. John Pitchford will report on this resolution.

**Resolution No. 4**, "The Committee recommends that GIPSA help establish an informal consultative grain industry group with Mexico in furtherance of the above resolution". Mr. Pitchford will address this resolution.

**Resolution No. 5**, "The Committee recommends that GIPSA review its ability to institute a laboratory proficiency program for mycotoxins." Mr. John Giler will report on this resolution.

FGIS Initiatives. Mr. Shipman provided the Committee with an overview of several FGIS initiatives, including:

**Wheat Functionality**. Mr. Shipman first touched on GIPSA wheat functionality initiatives. He noted that GIPSA received a letter from U.S. Wheat Associates that strongly encouraged GIPSA to rapidly develop official tests for end-use functionality. U.S. Wheat Associates stated that to "meet our customers' changing needs, the export marketing system must soon have additional end-use functionality tests that are fast, accurate, more predictive and may be applied real time in the marketing chain even during vessel loading." The letter concluded that U.S. Wheat Associates is "concerned that if FGIS is not forthcoming with applicable tests in the short-to intermediate-term it will leave FGIS behind in this evolution and increasingly isolated from the export marketplace."

**FGISonline**. FGISonline is a portfolio of online business applications that will change the way FGIS does business, and bring official inspection and weighing to the desktop. These online business services will improve internal business operations, and better serve the customers of the official grain inspection and weighing service.

These online business services will improve FGIS' and our customers' internal business operations by providing integrated information technology programs and tools to deliver official services and data. FGISonline applications will be developed and deployed over the next several years. The Delegation, Designation, and Exporter Registration program is up and running, and the certificates/Inspection Data Warehouse applications will be deployed this year. Mr. Shipman encouraged Committee members to visit [www.gipsa.usda.gov](http://www.gipsa.usda.gov), and click on FGISonline to learn more about the project and the specific applications.

**Restructuring Oversight Activities.** Mr. Shipman discussed the consolidation of equipment performance testing and monitoring of grader performance, and the implementation of Quality Management Systems by official service providers.

Mr. Shipman reported that centralizing the processing of monitoring samples, combined with our new information management systems, will improve our internal efficiency and provided official agencies with more timely performance feedback. He reported that a new GIPSA facility in Kansas City, Missouri, is scheduled for occupancy in the summer of 2008. The facility will house various TSD, FMD, and CP personnel, including the Grading Services Laboratory, Field Operations Support Staff, and Quality Assurance and Control staff. He reported that 35 percent of equipment testing scheduled for centralization is currently centralized in the Technical Center. By 2009, 100 percent of equipment testing will be centralized. He added that the Kansas City facility will assume responsibility for monitoring the performance of all graders; as well as licensing and authorizing all graders.

As part of the efforts to improve the efficiency and effectiveness of our oversight functions, Mr. Shipman reported that official agencies will be required to develop and maintain quality management systems (QMS) in accordance with GIPSA "Quality Standards". The official service providers' QMSs will result in official service providers demonstrating consistent quality products and services produced through the use of documented procedures; establishment of management and assessment procedures; implementation of corrective and preventive actions; retention of records and data describing the quality of the product or service, and continuous improvements embraced throughout the organization.

These initiatives to restructure oversight activities will, Mr. Shipman affirmed, allow the Agency to provide better, consistent service.

**Succession Planning.** Mr. Shipman also reported on a number of initiatives underway to plan for the effective succession of employees into mission critical and managerial positions as attrition continues to accelerate. He noted that GIPSA instituted a Leadership Development Program for GIPSA employees; continues to encourage participation in USDA and other leadership programs; implemented a formal development program for agricultural commodity graders; expanded our web-based training capacity; and increased staffing in Kansas City rather than Washington, DC, to enhance recruitment and retention efforts.

## SERVICE DELIVERY AND OPERATIONS

John Giler, Acting Director, GIPSA, FGIS, Field Management Division, discussed export container services, phytosanitary certification, and in-transit vessel fumigation.

**Export Container Services.** The rapid growth of the export container market is presenting new challenges to the official inspection system. GIPSA has been educating new exporters about the 15,000-metric-ton waiver for mandatory inspection and weighing, and the need for firms to register as exporters. The significant increase in export containers has also taxed the scale testing program with the addition of 85 scales, and required additional official agency personnel to be trained and licensed to properly weigh containers for export. Currently, there are 82 active container loading facilities in the United States.

**Phytosanitary Certification.** APHIS' policy to use GIPSA for sampling and inspecting grain and grain-product shipments for phytosanitary certification information is bringing more business to the official system. Additionally, more products are requiring phytosanitary certification due to import requirements.

The growing export container business is also affecting phytosanitary certification. Some of the challenges being faced by official personnel are the difficulties in obtaining samples; differences in requirements for the local issuance of phytosanitary certificates; logistical and timing issues regarding the movement of containers to export loading sites, and the ability to conduct these activities within the APHIS-required 30 days inspection process.

**In-Transit Fumigation.** GIPSA is working to improve the consistency of in-transit fumigation procedures for export grain vessels. The Agency has implemented procedures for short voyage (less than 5 days) fumigation and held local employee training sessions to review and improve local procedures. Further, GIPSA is evaluating use of mandatory application methods based on the depth of the commodity in the hold and implementation of minimum dosage rates for vessel treatment.

## INTERNATIONAL AFFAIRS

John Pitchford, Director, GIPSA, FGIS, Office of International Affairs, briefed the Committee on several international trade and outreach initiatives, including Resolutions 3 and 4 from the December 2006 meeting.

**Resolution 3 – Mexico's Quality Concerns.** Mr. Pitchford updated the Committee on GIPSA's interactions with Mexican representatives subsequent to the December 2006 meeting, at which Dr. Javier Trujillo from Mexico's Department of Agriculture and several private-sector importers expressed concerns about grain quality.

At the December 2006, meeting, the Committee offered two resolutions regarding Mexico. The first was that "GIPSA work with U.S. and Mexican grain industry to better define end user concerns about U.S. grain quality." Mr. Pitchford informed the Committee that the Agency has held and will schedule additional discussions with

Mexico. The Agency also provided Mexico with an inventory of the official services available from FGIS and official agencies. We also have made progress toward adding official mycotoxin testing services.

At the December 2006 meeting, Mexican importers were asked to provide specific information about recent quality problems so that GIPSA could better understand their concerns and respond accordingly. GIPSA has not received any further information from the importers.

Mr. Shipman participated in the annual NAEGA/APPAMEX grain trade forum in Mexico in February 2007. (While attending the forum, Dr. Trujillo verbally commented to Mr. Shipman that he had not received any substantiated quality complaints from Mexican grain industry representatives.)

In May 2007, GIPSA addressed the APPAMEX monthly Board of Directors meeting in Mexico City. APPAMEX had met with CONAGO and asked them about recent quality concerns they have identified with U.S. grain shipments. CONAGO did not provide any such information.

**Resolution 4 – U.S./Mexico Consultative Group.** The second Committee resolution was for “GIPSA to help establish an informal consultative grain industry group with Mexico...” The Agency sent a letter to Dr. Trujillo thanking him for participating in the Advisory Committee meeting and offering to further discuss establishing a collaborative group.

GIPSA’s overall strategy with Mexico is to continue appropriate consultation and information sharing between our two Governments, in conjunction with our industries. Several initiatives are underway:

- GIPSA, at the request of the Mexican Embassy in Washington, will develop a program to bring Mexican government policy and/or industry officials to the United States to gain a better understanding of the U.S. grain marketing and inspection system, and the roles of GIPSA, official agencies, and APHIS. The Agency is preparing a tentative agenda for Mexico’s consideration.
- GIPSA is planning a multi-agency USDA trip to SENASICA border offices in Piedras Negras and Nogales, Mexico, early this fall to learn more about border clearance issues related to certificate validation. The USDA team will include GIPSA, the Animal and Plant Health Inspection Service (APHIS), the Foreign Agricultural Service (FAS), the Agricultural Marketing Service (AMS), and the American Association of Grain Inspection and Weighing Agencies (AAGIWA). The USDA team also will meet with Mexican customs officials, representatives of the Mexican railroads, and several brokers and freight forwarders to explain the role of each USDA agency represented on the team and to learn more about the roles of our Mexican counterparts in the grain clearance process. The team will gain a better understanding of logistical barriers, costs, and concerns related to railcar and truck delays at the border.

**European Commission.** Mr. Pitchford briefed the Committee on European Commission requirements for vomitoxin (DON) and other mycotoxins in wheat that went into effect July 1, 2006. At this time, GIPSA is not aware of any disruptions that have arisen due to the new European requirements.

GIPSA's is working to secure European recognition of pre-export testing and certification of these toxins. The Agency is currently capable of providing vomitoxin testing, and expects to identify rapid ochratoxin testing capabilities by the fall of 2007.

GIPSA also is working to demonstrate to Europe that there is testing parity between our two nations. In December 2006, the Committee resolved that GIPSA explore the possibility of initiating a proficiency program for mycotoxins. While several organizations are running mycotoxin collaborative studies, GIPSA believes that a targeted sample exchange program would allow for better comparison, and allow the Agency to target mycotoxins of primary le exchange program for ochratoxin testing services this fall.

**Quality and Phytosanitary Restrictions in India.** Mr. Pitchford informed the Committee that since 2006, USDA has been working to resolve quality and phytosanitary restrictions in Indian tenders for wheat that prevent U.S. participation due to insect and fumigation requirements, i.e., ergot, TCK, weed seeds, and sampling requirements. During the past 2 years, a USDA team that includes representatives of GIPSA, APHIS, and FAS have worked with U.S. industry stakeholders and, as of last month, resolved the obstacles related to insects and fumigation, ergot, and TCK. In May 2007, an Indian team visited the Pacific Northwest with USDA. While here, the team witnessed a demonstration of typical wheat handling, sampling, and inspection procedures that illustrated the challenges the USDA faces in meeting India's requirements for weed seeds. The Indian delegation acknowledged that GIPSA's sampling procedures met their requirements, however did not reach an agreement on tolerances for quarantine weed seeds. At this time, the United States remains unable to export wheat to India.

APHIS is currently reviewing a risk assessment on quarantine weeds that India sent to GIPSA in June 2007. At this time, GIPSA also is working to overcome India's prohibition on bruchids and nematodes, which are blocking access of U.S. dry edible pea to India. GIPSA expects discussions with India about these issues to continue.

**Container Shipments.** Mr. Pitchford also addressed GIPSA's work with various industry stakeholders to remove obstacles to expanding grain exports in containers. The primary focus of the discussion is exporting soybeans to China. The Agency has learned that two of every three containers filled with Chinese imports that are shipped to the United States return to China empty. The grain industry believes the grain export business can capitalize on this opportunity.

At this time, obstacles to containerized grain shipments to China include:

- 1) Difficulty obtaining AQSIQ (China's plant health authority) import permits. The exact configuration of container shipments (the booking) typically is determined at the last minute and does not always match details of the import permit.)
- 2) U.S. exporters must ensure shipments match the Chinese Ministry of Agriculture's safety certificate (for GE approval). This causes container exporters to have to pay for multiple safety certificates on one shipment.
- 3) U.S. exporters must ensure that the carriers identified on the APHIS phytosanitary certificates and GIPSA inspection certificates match what actually is in the shipment

The Agency also learned that AQSIQ is developing new phytosanitary inspection procedures for clearing containers upon arrival. This may add risk to the market.

**LLRICE**. Mr. Pitchford updated the Committee on recent developments related to LLRICE. The USA Rice Federation (USARF) 2007 Action Plan for seed is in effect – producers will not plant the Cheniere and Clearfield 131 rice varieties this year. The USARF plan also encourages the testing of all seed before planting this year.

In terms of export markets, little has changed. Mexico requires rice to be tested, but there have been no disruptions. Korea requires multiple tests, including one upon arrival, but shipments have been successful. The Philippines, a sizeable PL-480 market, remains unresolved and closed. Japan, Iraq, and Canada continue to test and accept shipments. While Europe has received some small shipments, that market remains largely closed. The U.S. rice industry maintains their goal of extracting genetically engineered rice from the U.S. rice supply.

**GIPSA Collateral Duty Officer Program**. Finally, Mr. Pitchford briefed the Committee on GIPSA's collateral duty officer (CDO) program. In 2002, GIPSA placed a representative in Kuala Lumpur on a long-term (3.5-month) temporary duty assignment to develop a more proactive approach in working with overseas customers and their Governments in Southeast Asia. Following the successful completion of this initial assignment, GIPSA has continued to place representatives in Asia under this program.

With the exception of fiscal year 2003, when SARS concerns were high, GIPSA has continued to increase the length of its presence in the region. In fiscal years 2006 and 2007, two consecutive assignments (one in Kuala Lumpur and the other in Hong Kong) represented an 8-month presence in the region each year.

GIPSA's CDOs worked in 11 countries during the various tours in Southeast Asia. The Agency's presence in the region has drawn praise from our customers (buyers, millers, and processors), USDA Cooperators, and FAS representatives in the area.

Common activities for our CDO representatives include: participating in educational seminars; investigating quality and weight complaints for grain shipments that were inspected and weighed by FGIS at the time of loading; and participating in government-to-government discussions or negotiations about import restrictions or conditions/specifications that restrict U.S. trade.

In June 2007, the GIPSA CDO in Kuala Lumpur will return home and another will be stationed in Hong Kong for a 4-month assignment. The CDO has pending requests for grading seminars in Thailand and Taiwan and may travel to India to address U.S. wheat access issues.

## **SOYBEAN ANPR AND STANDARDS UPDATE**

Marianne Plaus, Chief, GIPSA, FGIS, Market and Program Analysis Staff, discussed standards-related activities, including soybean test weight (TW), reviews of the soybean and sorghum standards, post harvest quality surveys, and rice milling yield.

**Soybean Standards Review.** GIPSA announced a review of the soybean standards in an Advance Notice of Proposed Rulemaking (ANPR) in the Federal Register (Vol. 72, No. 83 dated May 1, 2007). Numerous changes have occurred in soybean breeding and production practices; in the technology used to harvest, process, and test soybeans; and in soybean marketing practices. As a result, soybean producer groups asked GIPSA to initiate a review of the standards. GIPSA's goal in conducting this review is to ensure that the standards and associated grading procedures remain applicable, responsive, and effectively facilitate the marketing of U.S. soybeans. In the ANPR, GIPSA poses questions about all aspects of the standards and associated grading procedures, including the definition, grade limits, and procedure for determining the factor "Foreign Material." GIPSA welcomes responses to the questions in the ANPR and any comments and suggestions on changes to the soybean standards and grading procedures.

Ms. Plaus encouraged all interested parties to submit comments by the July 2, 2007, comment period closing date.

**Sorghum Standards Review.** In the March 29, 2006, Federal Register (Vol. 71, No. 60 dated March 29, 2006), GIPSA invited comments on a proposed rule identifying changes to the U.S. Standards for Sorghum. Specifically, GIPSA proposed amending the sorghum standards by: 1) deleting references to tannin from the definitions of the sorghum classes and adding language referencing the presence or absence of a pigmented testa; 2) revising the definition of nongrain sorghum by deleting sorghum-sudangrass hybrids, sorgrass, and sweet sorghum (sorgo), and adding language referencing seeds of *Sorghum bicolor* (L.) Moench that appear atypical of grain sorghum; 3) amending the grade and grade requirements for sorghum by reducing the grading limits for broken kernels and foreign material (BNFM) and the subfactor foreign material (FM); 4) inserting a total count limit of 10 for other material used to determine sample grade factors; and 5) amending the grain standards to report the certification of sorghum test weight in tenths of a pound per bushel. GIPSA received 10 comments from sorghum market participants including producers, sorghum market development groups, and exporters. Based on comments received and other available information, the Agency intends to publish a final rule in the Federal Register in 2007.

**Post Harvest Quality Surveys.** In 2006, GIPSA initiated surveys of post harvest quality (i.e., farm gate/first-point-of-sale quality) for grain to gather extensive baseline data about the quality of grain as it enters the marketing chain. The process began with a survey of the 2006 sorghum harvest. GIPSA intends to expand the survey to include soybeans in 2007 and corn in 2008. The survey data, combined with the Agency's inspection data, will enhance GIPSA's ability to measure changes in quality as grain moves through marketing channels, and to assess the impact of potential changes in the standards on market participants. Results of the 2006 sorghum survey are posted on GIPSA's website at: <http://www.gipsa.usda.gov/GIPSA/webapp?area=home&subject=eo&topic=rs-farmgate>.

**Rice Milling Yield.** Ms. Plaus explained that GIPSA currently maintains two rice milling yield procedures: one used in the western rice production region (Western method) and the other used in the southern production region (Southern method). The Western and Southern methods differ in that different weights are placed on the rice milling equipment during the milling and brushing cycle. The Western method requires a 10-pound weight for the milling cycle and a 2-pound weight for the brushing cycle while milling Medium Grain Rough rice (MGRUF) and Medium Grain Brown Rice for Processing. The Southern method uses a 7-pound weight for the milling cycle, and no weight for the brushing cycle.

The USA Rice Federation (USARF), the California Rice Commission (CRC), and the California Warehouse Association (CWA) have asked GIPSA to change the weights used for inspection of western production MGRUF and MGBR to match the weights used for inspection of southern production MGRUF and MGBR. The change would apply only to rice inspected in California, and result in consistency between the Western and Southern methods. The CRC and USARF initially asked GIPSA to implement the change by August 15, 2007, but later requested a September 1, 2007, implementation date correspond with the beginning of the California rice harvest.

To support their request, the USARF and CRC referenced studies conducted jointly by USDA's Agricultural Research Service and the University of California-Davis in 2004 and 2005. The 2004 study found an average increase in total rice milling yield of approximately 1 percent, with a corresponding increase in whole kernels of slightly more than 2 percent. The actual change depends on the milling quality of the rough rice offered for evaluation. In their request, the USARF stated: "We recognize that by making this change, there will be a change in milling yields on medium grain rice in California and we are supportive of this outcome." The 2004 study also stated: "The current Western milling procedures including milling equipment need to be improved to match the advancement of the commercial milling technology."

GIPSA is reviewing this issue and intends to publish a notice in the Federal Register prior to September 1, 2007, if we go forward with a change.

## ETHANOL ANPR

Ms. Plaus also discussed the role of GIPSA in today's ethanol market. Ethanol production has increased by 300 percent over the past 6 years and according to some sources, such as the Renewable Fuels Association (RFA), is expected to double by 2009. Ethanol production consumed 17 percent of the 2006 U.S. corn crop and is expected to consume 32 percent by 2009. USDA's World Agricultural Supply and Demand Estimates (published June 11, 2007) projects that corn exports will decrease in the near term, and increase somewhat in the long-term. In 2006, ethanol also consumed 26 percent of the sorghum crop.

There were 120 operating ethanol facilities in the United States as of June 1, 2007. An additional 77 facilities are under construction, and 8 existing facilities are expected to expand their capacity. In calendar year 2006, the plants in operation used 1.8 billion bushels of corn to produce 4.9 billion gallons of ethanol and 12 million metric tons of distillers grains. Distillers grains are ethanol co-products that are typically marketed to feed formulators, primarily for the beef, dairy, pork, and poultry sectors. In the 2006/07 marketing year, 12.2 million metric tons of distillers grains are projected to be produced. In 2007/08, distillers grain production will top 17 million metric tons.

To date, demand for distillers grains has kept pace with supply. Nearly 90 percent of the distillers grains produced in 2006/07 were sold into domestic feed markets. Most domestic distillers grains consumption occurs near the production source within the Corn Belt. However, a significant amount of product is also shipped by rail to concentrated feeding operations outside of the Corn Belt, including to beef feedlots in the Texas Panhandle and dairies in California.

Demand for distillers grains in foreign feed markets is also increasing. In 2006, more than 1.25 million metric tons of distillers grains, or 10 percent of total production, were exported. By comparison, less than 800,000 metric tons were exported in 2004. The top five exports markets (2006), in descending order, are: Mexico, Ireland, Canada, Taiwan, and the United Kingdom (source: USDA Foreign Agricultural Service). Exports to North America (Mexico and Canada) and the Pacific Rim have shown the greatest growth in recent years.

While there are U.S. standards for the grains used for ethanol production, there is no requirement for those grains to be officially inspected unless they are exported. There are no Federal standards for distillers grains. The Association of American Feed Control Officials (AAFCO) has developed definitions for distillers grains. While some have indicated that the definitions may not be adequate, others believe that the market is working well. The current market prefers to let market participants set nutrient standards through contractual terms.

Many by-products of standardized grain are traded in well-developed markets without government participation, including soybean meal, soybean oil, and brewers spent grains. In the soybean meal and oil markets, the National Oilseed Processors Association (NOPA) established trading rules in 1933, which were last revised in February 2007. The rules serve as guides, and parties to trades are free to adopt,

modify, or disregard the rules that govern sampling, testing, and specifications for soybean meal and oil. Soybean meal and oil also trade on the Chicago Board of Trade. Brewers spent grains have been traded for years on the basis of contractual specifications.

While these markets trade processed products without Federal intervention, it is important to note that the quality of soybean oil and meal is more consistent than that of distillers grains. More than 99 percent of the soybean processing facilities in the United States use the same solvent extraction process. In the relatively young ethanol and distillers grains production process the technology is continuously being refined and improved. While some industry participants prefer the status quo, others aren't so satisfied. Some industry participants have expressed concerns that the AAFCO definitions are not specific and could result in significant variability in the appearance and quality of distillers grains from facility to facility and even from the same facility. We also understand that distillers grains are best suited for ruminant animals but that solubles, as well as additional lysine, must be added to provide amino acids and phosphorus needed for swine and poultry.

Until recently, there were no analytical testing guidelines or recommendations for distillers grains. As a result, many different methods and tests are used among laboratories and even within a single laboratory. The use of various methods for a single attribute, such as moisture, protein, fat, or fiber, leads to results that vary significantly from lab to lab, which can create confusion within the marketplace. As a result, the American Feed Industry Association, the Renewable Fuels Association, and the National Corn Growers Association collaboratively supported a study which led to recommendations on the most applicable test methods for distillers grains. At this time, it is too early to know if their recommendations will be widely adopted.

GIPSA is receiving mixed signals from the market, which is growing at a tremendous rate and in which the processing technology continues to improve. Based on current market conditions and recognizing the widespread interest in ethanol, GIPSA has prepared an Advance Notice of Proposed Rulemaking (ANPR) for publication in the Federal Register that will seek input on what GIPSA's role should be in standardizing the testing of inputs and outputs of ethanol co-product processing. We also anticipate that the ANPR will pose questions about factors and tests that are of interest for the bulk grains going into ethanol production and the co-products. For tests of interest, we will ask about their current standardization status (i.e., whether there are standard reference methods and rapid tests). Other questions might include: What should be GIPSA's role in standardizing the reference and rapid test methods? Should we conduct a proficiency program, such as we do for biotechnology testing providers? Should the official inspection system offer testing? Ms. Plaus concluded that GIPSA will welcome responses to questions posed in the ANPR and all comments related to GIPSA's role in differentiating grain inputs for ethanol production and standardizing the testing of the co-products.

## CONTRACTING STATUS AND RESULTS

John Giler, Acting Director, GIPSA, FGIS, Field Management Division, discussed the status of the export service contracting pilot program. The pilot program is currently operating in California, Milwaukee, Toledo, Chicago/Portage, Milwaukee/Chicago, and Corpus Christi. Through May of the 2006/07 season, California had not had any export activity; Milwaukee loaded 25 vessels, and Toledo loaded 10.

Mr. Giler shared cost comparisons for the Milwaukee pilot:

<b>Milwaukee Pilot Project</b>	<b>Scenario 1 Contractor</b>	<b>Scenario 2 FGIS Toledo</b>	<b>Scenario 3 FGIS Local</b>
<b>Service Labor</b>	<b>0.55</b>	<b>0.67</b>	<b>0.57</b>
<b>Oversight</b>	<b>0.14</b>	<b>0</b>	<b>0</b>
<b>Travel</b>	<b>0.04</b>	<b>0.29</b>	<b>0</b>
<b>Tonnage</b>	<b>0.184</b>	<b>0.184</b>	<b>0.184</b>
<b>Totals</b>	<b>\$ 0.92</b>	<b>\$ 1.14</b>	<b>\$ 0.75</b>
Scenario 1 – Contractor with direct FGIS oversight. Scenario 2 – FGIS services from Toledo on an as need basis. Scenario 3 – FGIS services with employees stationed in Milwaukee.			

Mr. Giler noted that contractors are having difficulty finding experienced inspectors and operating with limited staffing. This has resulted in contractors in the Toledo market working long hours, and elevators operating less efficiently. Some elevators have requested that FGIS employees provide services when service is not available from the contractor. Other facilities in the Great Lakes area are reluctant to use the contractors and prefer continued service from FGIS.

## FINANCIAL STATUS

Pat Donohue-Galvin, Director, Budget and Planning Staff, GIPSA, briefed the Committee on GIPSA's financial status.

Ms. Donohue-Galvin explained the difference between appropriated and user fee funding. She noted that unused appropriated funds are returned to Treasury at the end of the fiscal year. User-fee funds can roll over from one year to the next. GIPSA strives to maintain a 3-month operational reserve in its user fee accounts.

Ms. Donohue-Galvin reported that the USDA Office of Inspector General is reviewing GIPSA's 2004 fee schedule as part of their regular audits of USDA agencies' financial statements. In addition, the USDA Chief Financial Officer (CFO) is reviewing the Agency's fee structure and rice program.

Ms. Donohue-Galvin presented the following overview of the Agency finances (dollars in millions):

	Original Inspection & Weighing		Supervision of Official Agencies		Rice Inspection Program		Commodity Inspection Program	
	May 06	May 07	May 06	May 07	May 06	May 07	May 06	May 07
Beginning Reserve	\$ 0.6	\$ 2.3	\$ 0.8	\$ 1.4	\$ 0.4	\$ (0.1)	\$ 2.0	\$ 1.9
Revenue	20.4	20.4	1.3	1.3	2.8	2.1	1.4	1.2
Expenses	19.6	20.2	1.3	1.0	3.1	2.6	1.5	1.5
Margin	0.8	0.2	0.0	0.3	- 0.3	- 0.5	- 0.1	- 0.3
Prior Year Activity	0.0	0.3	0.0	0.0	0.0	0.1	0.0	0.3
Reserve-YTD	1.4	2.8	0.8	1.7	0.2	- 0.5	1.9	1.9

Ms. Donohue Galvin stated that the Agency is often working on 3 fiscal year budgets at once. Currently, GIPSA is obligating all fiscal year 2007 funds by the end of September 2007. The fiscal year 2008 budget is being debated on Capitol Hill. GIPSA's fiscal year 2009 budget request has been submitted to the Department for consideration.

## WHEAT FUNCTIONALITY RESEARCH (UPDATE)

David R. Funk, Associate Director, Technical Services Division, FGIS, GIPSA, briefed the Committee on wheat functionality research.

**Wheat Functionality Initiative.** Mr. Funk explained that GIPSA's Wheat Functionality Initiative is working to: 1) develop flour milling capability; 2) procure a broad instrumentation base for "reference" functionality assessments; 3) validate (and attempt to improve) reference methods; 4) develop, evaluate, and/or collaboratively study new reference methods; 5) use reference methods to calibrate NIRT-based or other "rapid" methods; 6) help improve industry standardization of wheat functionality methods; and 7) offer official wheat functionality services, as needed.

Mr. Funk reported that, to date, GIPSA has: 1) better defined "wheat functionality"; 2) established a Wheat Functionality Lab; 3) completed an Agricultural Research Service-GIPSA study relating wheat functionality properties and near infrared (NIR) measurements; 4) substantially improved wheat protein predictions by implementing the global ANN calibration; 5) developed and implemented NIRT-based official wet gluten service; 6) assessed variability in Farinograph testing; and 7) initiated a project to study gluten viscoelastic properties.

He reported that according to the U.S. Wheat Associates International Survey, the most market-significant functionality testing methods are: 1) farinograph; 2) glutomatic-wet gluten; 3) alveograph; and 4) the extensigraph. Based on these ratings, GIPSA is concentrating its efforts on farinograph and wet gluten tests.

Mr. Funk discussed the GIPSA/ARS joint study, "Rapid Quality Prediction Study." The objectives of the study were to: 1) identify quantitative and qualitative tests that predict end-use traits and functionality, 2) develop rapid tests to measure wheat quality attributes, and 3) evaluate the NIR as a rapid test technology to measure critical attributes. GIPSA's analysis of 100 samples each of Hard Red Spring (HRS) and Hard Red Winter (HRW) wheat indicated that: 1) protein was the whole-grain characteristic that correlated best with functional end-use traits; 2) correlations to both protein and NIR predictions were greatest for Mixograph water absorption, wet gluten, and loaf volume; 3) NIR rapid test applications also showed some promise for SDS sedimentation volume (for HRW), alveograph W, farinograph water absorption, and bake absorption; and 4) if protein correlation was broken, other correlations between NIR and functional properties were low.

Mr. Funk reviewed the process that GIPSA used to develop the official NIR-based wet gluten service. The Glutomatic was selected as the reference method for wet gluten. NIRT was the target multi-function instrumentation. Samples from the 2001–2005 crops (representing export, domestic, and pure varieties) were used for calibration. Calibration samples were taken from all wheat classes except Durum, with emphasis on HRW and HRS. GIPSA developed direct and indirect (NIRT protein-based) calibrations using the Infratec 1241 and GIPSA Glutomatic wet gluten reference results. GIPSA then selected the indirect protein-based calibration for implementation based on performance and operational considerations. Standardization was tied directly to official NIRT protein standardization with little additional cost or effort. This service was initiated on May 1, 2006, with low utilization to date.

Mr. Funk also discussed the Farinograph Standardization Study. The study strategies are: 1) to work with Brabender and other entities who have made progress in standardizing the Farinograph method; 2) to conduct definitive intra-laboratory and inter-laboratory studies; 3) to attempt to define standardization steps to significantly reduce variation within and among labs; 4) possibly, to initiate a proficiency program; and 5) possibly, to certify labs for official testing.

GIPSA is involved in a multi-year project to investigate the viscoelastic properties of wheat gluten. We are assessing (1) whether measuring the viscoelastic properties of gluten removes the “protein quantity” correlation and reveals actual protein quality; how gluten properties relate to traditional measures of wheat functionality such as Farinograph indices, and whether mixtures of wheat with different gluten properties are predictably linear; (3) if a gluten viscoelasticity test can be made practical for routinely assessing wheat functionality; and (4) whether gluten viscoelasticity can be predicted from NIR or other rapid method. To date, the Agency has collected 18 popular wheat cultivars representing U.S. production regions; completed milling all cultivars; made substantial progress on testing gluten viscoelastic properties of mixtures; and are currently considering various methods for practical measurements of viscoelastic properties.

Mr. Funk also discussed GIPSA’s development of a Variety Fingerprint Library that would use HPLC methods to record protein “fingerprints” of all major U.S. wheat varieties; include a way to search the fingerprint library; test whether pure varieties can be uniquely determined from their protein fingerprints; and attempt to relate gluten characteristics to protein fingerprints.

Mr. Funk concluded that researchers have been trying to understand “wheat functionality” for many years. It may not be possible to predict characteristics of hydrated dough (beyond protein information) from a wheat sample without first grinding or milling and adding water. This may limit the speed of “wheat functionality” tests for the foreseeable future.

A Committee member asked whether the seed varieties being used for the wheat gluten viscoelastic testing project were from public or private breeders, and whether the seed industry has been asked for funding. Mr. Funk responded that GIPSA tested three (3) pure varieties of each class of wheat selected based on widespread production and to achieve a range of “protein quality” for each class. GIPSA has not approached the seed industry regarding funding.

## **RESOLUTIONS**

Following discussions, the Committee resolved the following:

1. The Committee recommends that GIPSA continue the contracting pilot program and provide periodic reviews on the progress and clearly define the parameters of the program for full implementation.
2. The Committee recommends that GIPSA offer the ethanol industry and stakeholders their expertise in developing standardized methods for testing appropriate qualities in corn and the by-products produced.
3. The Committee recommends that GIPSA explore the possibilities of partnering with a university or other entities in offering a short course or internship in FGIS inspection, grading, and services preferably at Kansas State University, due to the school's proximity to the Technical Center.

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

Jerry Gibson was nominated and unanimously elected vice chair.

### **NEXT MEETING**

The next meeting of the Grain Inspection Advisory Committee will be scheduled for early November 2007, location to be determined.