



United States
Department of
Agriculture

Grain Inspection,
Packers and Stockyards
Administration

Meeting Summary

Grain Inspection Advisory Committee

December 16-17, 2008
Kansas City, Missouri

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

**Airport Hilton – Kansas City, Missouri
December 16-17, 2008**

WELCOME

Jerry Gibson, Chairperson, opened the meeting with a welcome and introductions.

ACCEPTANCE OF MAY 13-14, 2008, MEETING MINUTES

The Committee approved the minutes of the May 13-14, 2008, meeting as presented.

REVIEW AND ACCEPTANCE OF DECEMBER 16-17, 2008, AGENDA

The Committee approved the agenda of the December 16-17, 2008, agenda as presented.

MEETING ATTENDEES

Committee Members

Chester Boruff, Chief Executive Officer, Association of Official Seed Certifying Agencies
William Dumoulin, Producer, Illinois
Mark Fulmer, Agency Manager, Lincoln Inspection Service
Nicholas Friant, Grain Handling Coordinator, Cargill
Jerry Gibson, Regional Manager, Bunge North America
Edgar Hicks, Grain Marketing Advisory, Hurley/FC Stone LLC
Curtis Engel, Vice President, The Scoular Company
Tim Paurus, AVP, Terminal Operations, CHS Inc.
Kenneth Dalenberg, Production Agriculture Farmer, Illinois
Thomas Bressner, General Manager, Assumption Cooperative Grain Company
Bennie Lackey, Jr., Management Director of Commodity Operations, Riceland Foods, Inc.
Marvin Paulsen, Professor Emeritus, University of Illinois
Jon Stoner, President, Stoner and Sons, Inc.

Alternate Members

Cassie Eigenmann, Marketing Product Manager, Dickey-john Corporation

GIPSA

Terry Van Doren, former Administrator, Grain Inspection, Packers and Stockyards Administration (GIPSA)
Randall Jones, Deputy Administrator, Federal Grain Inspection Service (FGIS), GIPSA
John Giler, Director, Field Management Division (FMD), FGIS, GIPSA
Bob Lijewski, Assistant Director, Policies and Procedures Branch, FMD, FGIS, GIPSA
John Sharpe, Director, Technical Services Division (TSD), FGIS, GIPSA
Sharon Lathrop, TSD, FGIS, GIPSA

David Funk, Associate Director, TSD, FGIS, GIPSA
Pat Donohue-Galvin, Director, Budget and Planning Staff, GIPSA
John Pitchford, Director, Office of International Affairs, FGIS, GIPSA
Terri Henry, Management Support Staff, GIPSA
Dan White, Union Representative
Tom O'Connor, Director, Compliance Division, FGIS, GIPSA
Marianne Plaus, Chief, Market and Program Analysis Staff (MPAS), FGIS, GIPSA
Patrick McCluskey, Agricultural Marketing Specialist, MPAS, FGIS, GIPSA
Edward Stallman, Assistant Field Office Manager, Grand Forks, 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 and Weighing Service Company
Jess McCluer, Director of Regulatory Affairs, National Grain and Feed Association
Kevin Schnieder, Lincoln Grain Inspection Service, Inc.
Dennis Rogers, Mid-Iowa Grain Inspection, Inc.
Tom Sloan, Mid-Iowa Grain Inspection, Inc.
Chuck Martin, Intertek
David Krejci, Grain Elevator and Processing Society
Mike Barrett, DeBruce Grain
Mike Vaupel, Archers Daniels Midland (ADM)
Pete Goetzmann, ADM
Tim Lust, National Sorghum Producers
Anthony Goodeman, InterContinental Grain Inspection
Todd Camatella, Zen-Noh Grain
John Shropshire
Chuck Martin, Intertek

**ADMINISTRATOR'S WELCOME AND
RESOLUTIONS FROM MAY 2008 MEETING**

Terry Van Doren, former Administrator, GIPSA, welcomed the Grain Inspection Advisory Committee (Advisory Committee) and attendees.

Mr. Van Doren stated that even though his tenure here at GIPSA will be brief, he is pleased to be part of the important work that GIPSA carries out for American agriculture. He gave a recap of the resolutions from the May 2008, Advisory Committee meeting held in Minneapolis.

Resolution 1 – The Advisory Committee recommends that GIPSA continue to develop new methods of training agency and GIPSA personnel, and to develop a proposed funding mechanism from user-fee based programs. This will be discussed by John Sharpe at this meeting.

Resolution 2 – The Advisory Committee recommends that GIPSA solicit industry and commodity organizations to provide support for appropriated funding that will be used to advance the wheat

functionality project, with the end goal of developing rapid and repeatable test(s) for determining wheat functionality.

Mr. Van Doren stated that as a government entity, we are prohibited from soliciting the industry to lobby for additional appropriated funding or any other support on our behalf. GIPSA remains committed to educating our diverse stakeholders about our priorities and programs through rulemakings, outreach, and forums such as this. They can use their knowledge of our program and of our financial status as they desire. John Sharpe will discuss our current research initiatives at this meeting.

Mr. Van Doren closed by thanking the attendees for taking part in the Advisory Committee meeting.

REVIEW OF 2008 DOMESTIC AND EXPORT OPERATIONS

Randall Jones, Deputy Administrator, FGIS, GIPSA, briefed the Advisory Committee on the Agency's Domestic and Export Operations as outlined.

Major Factors Affecting U.S. Exports

- The United States, which dominates the global corn export market, accounted for 58 percent of global corn exports during the 2006/07 crop year. The United States also originated 22 percent of global wheat exports and 43 percent of global soybean exports that same year. Because America is such a major and reliable exporter, its failure to produce ample quantities of exportable supplies forces, foreign buyers to purchase commodities from the world's other major exporters of that particular commodity. The same is also true – when large foreign exporters fail to produce, buyers shift some demand to the United States.
- Sanctions from the U.S. and foreign countries limit trade on agricultural commodities. The United States has several trade agreements, such as the North American Free Trade Agreement, that greatly reduce or eliminate tariffs on imported goods.
- Fluctuating transportation costs and exchange rates affect trade. A stronger U.S. dollar will make U.S. commodities more expensive for other countries, limiting their purchasing power and potentially causing them to shift to a different country for supply.

Crop Year 2007/2008 Exports

During the 2007/08 crop year, U.S. exports of grains and oilseeds were 19 percent greater than the previous crop year, and reached levels not seen for over two decades. Increased trade liberalization and adverse weather conditions in foreign countries contributed to this boost. The United States was able to capitalize on both the elevated world import demand and extremely high prices because it still had average levels of grain stocks on hand and no export restrictions.

As a result of increased exports, official inspections during the 2007/08 crop year were also much higher than in previous years. Inspections of corn, wheat, and sorghum increased; soybean inspections were roughly unchanged from the previous year. FGIS inspections made up 83 million metric tons

(mmt) of the crop year total which was 131.5 mmt. Delegated states inspected 31.5 mmt, contractors inspected 1.5 mmt, and official agencies inspected 15.0 mmt.

Field Office Inspection Activity

- New Orleans saw an increase in inspections last year, but not proportionately as large as the increase in U.S. inspections overall. Total inspections of corn, wheat, soybeans, and sorghum at New Orleans were up 2.7 percent, or 1.56 mmt. League City's inspections increased by 83 percent, from 10.4 mmt to 19.0 mmt, as the field office capitalized on the large increases in total U.S. wheat and sorghum exports last year. Toledo's inspection volumes of corn, soybeans, and wheat were down 4.56 percent, or 0.267 mmt.
- Portland was able to capitalize on last year's large increase in total U.S. wheat exports, as traditionally, nearly all of its inspection volume is from wheat. Wheat inspections were up over 13 percent at 6.11 mmt; total inspections barely surpassed pre-2006/07 levels, as inspections during 2006/07 were down 12 percent from 2005/06.

Containerized Exports

The increase in containerized shipments over recent years is largely due to the high cost of bulk ocean freight rates relative to freight for containerized shipments. Containerized exports peaked in February 2008. Over recent months, bulk freight rates have decreased roughly 80 percent from highs earlier in the year, and rates for containerized shipments have been relatively flat. This, coupled with a decrease in imported container due to the weakened U.S. economy, has resulted in a substantial drop in the profitability and volume of containerized grain exports.

Tonnage Forecast

- Inspection and Weighing Program (520)
 - Tonnage Forecast for FY 2009= **65.2 MMT**
 - Revenue Forecast for FY 2009= **\$34,265,579**
- Total Revenue for FY 2009 (all programs) = **\$43,397,548**

Ethanol's Impact on Inspections

The total corn use for ethanol during the 2007/08 crop year was 3 billion bushels. USDA is expecting an increase of an additional 1 billion bushels, for a total of 4 billion, for the 2008/09 crop year – an increase that equals 8 percent of the crop year's harvest.

Key Focus Areas

- The deployment of FGIS *online* business applications to bring inspection and weighing business functions and information access to the desktop.
- Renovation of our Technical Center in Kansas City to become the National Grain Center, which will house FGIS personnel from all divisions. We anticipate completing the new wing this spring and all renovation work by early FY 2010.

- We have effected centralization of oversight functions as attrition has depleted domestic field office staffs. Multiple agency knowledge management projects are underway to capture the critical technical and institutional knowledge of retiring employees.

For additional details, please see the attached presentation, **Review of 2008 Operations: Domestic and Export Operations.**

INTERNATIONAL TRADE AND OUTREACH ISSUES

John Pitchford, Director, Office of International Affairs, FGIS, GIPSA, discussed a variety of international trade and outreach issues.

StarLink Corn

- In an April 25, 2008, *Federal Register* notice, the U.S. Environmental Protection Agency and the U.S. Food and Drug Administration (FDA) recommended discontinuing testing for StarLink.
- The Japanese Ministry of Agriculture, Forestry and Fisheries (MAFF) continues to monitor for StarLink as well as Bt10 and E-32.
- The Japanese Ministry of Health, Labor and Welfare (MHLW) also continues to monitor for StarLink, Bt10, E-32, and LL Rice 601.

Japan Exit Strategy – Unapproved GE Events

- In June 2008, MAFF proposed an exit strategy for testing for unapproved events for thresholds of GE events. MHLW has not endorsed the proposal. This proposal applies only to feed imports and includes future events
- Representatives from the North American Export Grain Association (NAEGA), Japan Feed Trade Association, (JAFTA), MAFF, and USDA have reviewed the proposal and provided comments to Japan. USDA's reply is under review in Japan. If the exit strategy is accepted and implemented this will end testing U.S. feed corn for StarLink, but MHLW still will monitor food corn.

U.S./Japan Aflatoxin Testing

- In recent years, Japan has reported discrepancies in corn aflatoxin test results. The differences are likely due to different target levels of detection and sample sizes used for testing.
- In November 2008, FGIS participated in a USDA/Japan bilateral scientific exchange in New Orleans. FGIS addressed sampling, testing, and reconditioning procedures; USDA's Agricultural Research Service discussed statistical sampling principles and procedures that the US is hopeful that Japan will adopt.

EC/FVO Rice Audit

- In 2007, USDA negotiated a protocol with Europe to address their concerns about LibertyLink Rice.

- In June 2008, European auditors visited the United States to audit the U.S. industry's implementation of the protocol. They met with representatives from GIPSA, the Foreign Agricultural Service, the Animal and Plant Health Inspection Service, and FDA, and visited FGIS' offices in Kansas City, New Orleans, and Arkansas.
- The auditors were satisfied with the implementation of the protocol. They recommended that APHIS continue its regulatory revision, and that other rice producing States follow Arkansas' initiatives to eliminate LibertyLink rice from seed supplies.

U.S./China Soybean Study

China has repeatedly reported finding treated seeds in U.S. soybean shipments. In past instances, FGIS has found the beans were stained with pokeberry juice, not treated with a fungicide seed treatment. To strengthen relationships with and gain the confidence of Chinese authorities, GIPSA has proposed a joint monitoring project wherein China would observe loading of a vessel at a U.S. port, and GIPSA would observe discharge in China. The Chinese are considering our proposal.

Long-term Assignments to Asia

- GIPSA's collateral duty officer was last stationed in Asia from May through September 2008. He visited seven countries and held 14 grading seminars.
- The Foreign Agricultural Service, U.S. Wheat Associates, and U.S. Grains Council have voiced appreciation for GIPSA's presence in the region to quickly address short- and long-term issues and concerns. The continuation of this assignment will be driven by budget.

Wheat to Iraq

- In calendar year 2008, GIPSA contributed to the shipment of 2 mmt of U.S. wheat to Iraq by monitoring the discharge of vessels at destination.
- GIPSA continues to train Iraqi Grain Board inspectors.
- These services remain available, although there currently are no outstanding sales of wheat to Iraq.

Importer Discrepancies

To date in FY 2009, GIPSA has received eight grain quality discrepancies from five countries. The complaints have differed, and none have been substantiated to date.

In response to an inquiry, Mr. Pitchford reported that the United States uses a 10-pound subplot sample, and Japan uses a 1 kilo (just over 2 pounds) sample for aflatoxin testing in corn.

For additional details, please see the attached presentation, *International Trade and Outreach Issues*.

TECHNICAL TRAINING PROGRAMS

John Sharpe, Director, Technical Services Division, FGIS, GIPSA, briefed the Advisory Committee on GIPSA's technical training programs, as well as GIPSA's response to Resolution 1 from the May 2008 meeting, in which the Advisory Committee recommended that GIPSA continue to develop new methods of training GIPSA and official agency personnel, and to develop a proposed funding mechanism from user-fee based programs.

GIPSA's training programs continue to priorities, especially in light of projected GIPSA and official agency attrition; and oversight consolidation.

The National Grain Center, which is projected to open in Fiscal Year 2010, will include 1,905 square feet of training space and allow personnel from all divisions to provide a wide range of training.

Official Agency-GIPSA Training

GIPSA has asked the American Association of Grain Inspection and Weighing Agencies (AAGIWA) for input on training that the official agencies would find most beneficial.

Grain Inspection 101

The Grain Elevator and Processing Society (GEAPS)-Kansas State-GIPSA Distance Learning Project's (Project) is developing a distance learning course that provides an overview of the official inspection system. GEAPS will offer the distance learning courses to students for college credit. GIPSA will use the material for training and outreach to attract potential employees to the official inspection system and train new employees to address attrition.

The 12 lectures comprising the course are expected to be completed in March 2009. Mr. Sharpe noted that this has been a unique collaborative undertaking that will augment our educational outreach effort, and help develop the employees and future leaders of the grain industry and official inspection system.

For additional details, please see the attached presentation, *Technical Training Programs*.

VIDEO RAILCAR STOWAGE EXAMS

Bob Lijewski, Assistant Director, Policies and Procedures Branch, Field Management Division, FGIS, GIPSA, briefed the Advisory Committee on Video Railcar Stowage Exams.

Stowage exams are mandatory in accordance with CFR 800.75(f)(2), which states: "Approval of the stowage space is required for official sample-lot inspection services on all export lots of grain and all official sample-lot inspection services performed on outbound domestic lots of grain which are sampled and inspected at the time of loading. Also approval of the stowage space is required for any weighing services performed on all outbound land carriers."

During stowage exams, GIPSA looks for:

- foreign material;
- grain of another type;
- out-of-condition grain;
- rust or peeling paint; and
- leaks or damaged covers.

Stowage examinations require physical entry into ship holds and containers, and visual examination of hopper cards. The physical security of inspection personnel remains a priority.

To enhance the safety of inspection personnel, GIPSA is preparing a program notice that will provide guidelines for conducting stowage examinations, including the use of video cameras.

GIPSA has evaluated numerous video camera operations and found that stationary cameras offer the best and safest means of conducting stowage inspections by camera.

For additional details, please see the attached presentation, *Video Railcar Stowage Exams*.

SORGHUM ODOR LINE EVALUATION

Patrick McCluskey, Agricultural Marketing Specialist, Market and Program Analysis Staff, FGIS, GIPSA, discussed the evaluation that GIPSA is conducting to gather stakeholder input on GIPSA's sorghum odor line. GIPSA personnel have visited with 62 stakeholders in 5 States, representing 7 industries that use sorghum, to gather their opinions on a variety of prepared sorghum samples. The study found that GIPSA's odor line is neither too restrictive nor permissive. The data does indicate that storage odor was not acceptable to more than half of the users of sorghum questioned; which grain traders previously stated was completely acceptable to their customers. GIPSA also found that ethanol plants were the least discriminating regarding musty odor; animal feed discriminating; human use fairly discriminating; and pet food companies very discriminating.

There was further discussion of the data and the subjective analysis of odor. The discussion culminated in the following resolution being voted on and approved:

The Advisory Committee recommends that GIPSA embark on a review of how the sour/musty odor is determined for official grades of grain sorghum. Input from all stakeholders in the form of an industry group that has at its members a cross section of users, producers, and handlers.

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

FUTURE TECHNOLOGY FOR GRAIN ODOR ANALYSIS

David Funk, Associate Director, Methods Development, TSD, FGIS, GIPSA, briefed the Advisory Committee on the Future Technology for Grain Odor. He noted that odor detection is a subjective analysis. Musty, sour, and commercially objectionable foreign odors cover a wide range of odors caused by dozens of volatile chemicals in grain headspace.

Any instrumental odor assessment methods must yield consistent results. And, since classifications of musty, sour, and commercially objectionable foreign odor are defined in the U.S. Grain Standards, any approach to an instrumental method should yield these classifications. Since Commercially objectionable foreign odors, which is open-ended, presents a unique challenge, as instrument-based odor assessments are designed to detect a finite set of volatile compounds. Any odor detection methodology must also not significantly increase the cost or time for official inspections.

Prior to the current evaluation on grain odor GIPSA, supported the Agricultural Research Service's (ARS) research to identify volatile chemicals associated with odors. This work, conducted over a period of several years at a cost of hundreds of thousands of dollars, resulted in identification of several dozen volatile chemicals that were correlated to objectionable odors in corn, wheat, sorghum, and soybeans. GIPSA also collaborated with ARS in feasibility testing several "electronic noses" that were determined to be inadequate; an "odor sniffer" that was found to reduce the exposure to dust and spores but slowed the inspection process; and participated worked with ARS and Kansas State University's Sensory Panel to find new descriptors for grain odors.

In addition, GIPSA has determined that developing reference instrumentation for training and maintaining stability would require very expensive instrumentation that would have to be calibrated to human sensory evaluation; and developing chemical odor standards for training and maintaining stability is impractical because of the multitude of different volatile compounds and the different shades of odors.

GIPSA is monitoring new grain odor detection technologies, including gas Chromatography, ion mobility mass spectrometry, and "electronic nose" sensors comprised of conductive polymers, metal oxide semiconductors, or dye-labeled fluorescent DNA-based sensors.

Overall, GIPSA concludes that objective assessments of odors (other than commercially objectionable foreign odor) may be technically feasible IF odors are defined as the presence of certain volatiles rather than human perceptions of odor. Any objective odor measurement will cost more and take longer (perhaps much longer) than human sensory assessments, and developing semi-rapid field-compatible instruments would be very costly. Unless the market is large, official inspection would have to bear the cost of development alone. Any instrument-based method that is developed would have to be calibrated to match reference human sensory assessments. And, he added, an instrumental method would not eliminate arguments over whether an identifiable odor is "good" or "bad."

For additional details, please see the attached presentation, *Future Technology for Grain Odor Analysis*.

OVERVIEW OF GIPSA RESEARCH ACTIVITIES

John Sharpe, Director, Technical Services Division, FGIS, GIPSA, briefed the Committee on GIPSA's research strategies and activities. GIPSA research is mission- and application- driven, focused on developing methods that facilitating the marketing of grain (official and commercial inspection).

GIPSA partners with USDA/Agricultural Research Service (ARS) and maintains a MOU with ARS to provide basic research, and collaborative with universities and private companies on select research initiatives. GIPSA plans to recruit, develop, and maintain technical expertise in crucial research areas including chemistry, physics, biotechnology, mathematics and statistics, biochemistry, engineering, rheology, and economics.

Official or Commercial? Categories of Quality Factors

There are different factors that determine the category and whether official or commercial. The grade-determining factor would have a profoundly impact almost all users, the mandatory factor is broadly applicable to most users, the permissive factor is specialized for certain markets, and the segregation factor is used only for niche markets (non-commodity). The categorization determined from an Advanced Notice of Public Rulemaking.

Research: Instrumental Methods

There are different instrumental methods used in research, which are the Near-Infrared Spectroscopy, the Dielectric Moisture Measurement, and Physical Properties Measurements and Sampling Methods.

For the Near-Infrared Spectroscopy it will monitor official NIRT calibration accuracy and improve when necessary, which is being used for the 2009 soybean protein and oil update; evaluate feasibility of other NIRT applications including linolenic acid in soybeans and wheat functionality; and evaluate/support/standardize commercial NIR measurements thru the National Type Evaluation Program (NTEP).

The moisture measurements will evaluate and enhance accuracy of official calibrations (60+); evaluate/support/standardize commercial moisture measurements thru NTEP, currently there are five moisture meters in annual review; develop Unified Grain Moisture Algorithm and support commercialization; improve moisture measurement accuracy and consistency; permit multiple manufacturers to use common calibrations; and reduce costs of calibration support.

GIPSA is in the process of updating the standards for rice and beans.

For the physical properties and sampling, GIPSA completed the study to assess the effects of different bases of determination and will revise the bases of determination to facilitate automation and multifunctional instruments. GIPSA will also review and enhance the processes for evaluating mechanical sampling systems using the developed theoretical basis for evaluating DT sampler design and implement recommendations from the review.

The review is done before the foreign material is removed as well as after.

Research: Analytical and Chemical Methods

For research using analytical and chemical methods there are three methods discussed which are biotechnology costs of calibration support, trace analyses for pesticides, and wheat functionality.

GIPSA will respond as needed to inadvertent release of biotech events; serving as an objective third party to validate PCR methods and perform other crucial testing. GIPSA will also work to develop effective methods for extracting DNA from various plant sources; conduct biotech proficiency programs; and perform and publish scientific work related to harmonization of methods.

In the international area, GIPSA will promote international harmonization of biotech testing methods, participate in international scientific discussions, and participate in international ring studies of biotech methods

For trace analyses, GIPSA will develop chemical reference methods to detect and quantify pesticide residues which will include methods for assessing pesticides in rice and modify corn and soybean methods for effective corn and soybean surveys. For mycotoxins, GIPSA developed ochratoxin A reference method and developed high-sensitivity aflatoxins method based on UPLC with fluorescence detection; which will be applied to the new method to aflatoxins in DDGS.

GIPSA has an agreement with the Agricultural Marketing Service which is a three step process. We are seeing new pesticides which are more volatile.

For wheat functionality, GIPSA will improve Farinograph standardization, the Rapidly assess gluten strength, and identify wheat varieties by HPLC.

Farinograph Ring Study—2008

The study was a controlled design in four labs and using five instruments; five flour samples where used ranging from weak to strong; and Farionograph E with specified water addition. C.W. Brabender confirmed the instrument calibration. GIPSA's conclusion from the study showed mathematical (number) algorithms have the potential for improving consistency and objectivity; with GIPSA conducting additional data analysis.

Gluten Strength Project Approach

For the gluten strength project, GIPSA took the approach of separating wet gluten from the flour sample allowing the gluten to strengthen into a defined shape, applying a "strain" to a different shape, monitor its recovery towards original shape, than quantify one or more indices of recovery to correlate to protein quality.

The Implementation

Pictures of the wet gluten preparation with GM2200, the sample shaping device, and two of the Perten Viscoelastic Tester can be seen by viewing the attached presentation.

Separation of Strong and Weak Glutens

A picture of the graph is attached which shows the thickness (mm) and time (sec), which is a new prototype method.

Variety Identification

GIPSA's goal is to maintain confidence in official wheat classification through objective varietal identification, reversed-phase HPLC which was developed by USDA-ARS; GMPCRC (* Lookhart, G. L.; Bean, S. R.; Bietz, J. A. *Cereal Foods World*, **2003**, 48, 9).

For additional details, please see the attached presentation, *Overview of GIPSA Research Activities*.

USE OF CONTRACTORS FOR EXPORT SERVICES: PILOT PROJECT SUMMARY AND NEXT STEPS

John Giler, Director, Field Management Division, FGIS, GIPSA, briefed the Committee on GIPSA's pilot program to explore the use of contractors at export in response to discussions during the reauthorization of the United States Grain Standards Act in 2005. He summarized the export activity the contractors provided, and discussed the Agency's direct and indirect service cost analyses, and a summary of the findings. Overall, the pilot found:

- Qualified and experienced inspectors are not readily available for hire by contractors. Operational efficiency improvement opportunities are limited because GIPSA's specific procedural directives establish prescriptive procedures for sampling, weighing, and inspecting grain. Providing Federal onsite oversight adds additional staff to the inspection and weighing crew and, in turn, additional cost to the inspection and weighing process.
- The fees for direct service costs reflect pay, equipment, and profit margins for the contractors. Contractor fees were at or lower than GIPSA's only when the contractor "borrowed" GIPSA equipment for service provision; fees were higher for the contractor who invested into their own equipment.
- Contractors were not able to capture new inspection and weighing business from the exporters. Exporters contracted only for the same work activity as they had with GIPSA or State service providers.
- Although the contractor is providing service on GIPSA's behalf, the contractor is actually working for the exporter. The perception may erode confidence in the integrity and impartiality of the service.
- GIPSA's national program provides a strong and reliable service to the exporters. Uninterrupted service provision is assured by effectively deploying inspectors, weighers, and samplers across the program to address workload fluctuations.
- Projected attrition of GIPSA's mission critical agricultural commodity graders gave impetus to the contracting concept. In reality, the attrition process has proven to be slow and unpredictable. GIPSA employees are not retiring rapidly, and conversion to contractors would take years to achieve.

At the end of the 2008 shipping season in the Great Lakes area, GIPSA will prepare a final report and decide the best use of contractors in the official inspection system.

Following Mr. Giler's presentation, the Committee offered the following resolution:

The Advisory Committee recommends that GIPSA continue the private party inspection program with the goal of implementing the program across the country.

For additional details, please see the attached presentation, *Use of Contractors for Export Services: Pilot Project Summary and Next Steps*.

QUALITY MANAGEMENT PROGRAM FOR THE OFFICIAL SYSTEM

Tom O'Connor, Director, Compliance Division, FGIS, GIPSA, briefed the committee on the Quality Management Program for the official system. GIPSA is collaborating with official service providers to incorporate principles of modern quality management programs into the official system.

GIPSA manages a system of official service providers (OSPs) that includes field offices – interior and export port locations; delegated states – export port locations (authorized); and official agencies (OA) – designated agencies and states (private agencies). Delegated states (DL) provide official services at export port locations in five states. Their delegation status is permanent unless terminated, revoked, or otherwise cancelled.

OAs **are** located in the domestic market and provide official services at non-export port locations. Ten (10) designated states and 43 private agencies serving specified geographic areas serve 3-year terms in the official system.

Under the U.S. Grain Standards Act (USGSA), delegated states and official agencies must meet specific criteria which include: supervision, training, non-discriminatory and reasonable fees; personnel rotation; complete and accurate records; no conflict of interest; and adherence to GIPSA regulations, instructions, and other criteria.

To ensure that OSPs continue to meet statutory and regulatory requirements, GIPSA conducts comprehensive on-site reviews of approximately one-third of OAs at least once during a 3-year designation period. The reviews can result in a decision to grant full 3-year designation renewal; issue a letter of jeopardy; 1-year renewal; follow-up review; or terminate the designation. Field offices and DL-only normally reviewed every 3-5 years.

The Quality Management Program (QMP) began in September 2007 with a task force made up of staff from GIPSA and AAGIWA. GIPSA updated the internal directive regarding the QMP to include: specifying the minimum local QM plan criteria, adding the requirement that OSPs submit local QM plan/manual to GIPSA for review ("GIPSA desk audit"), stating that annual internal audits with GIPSA follow-up audits will be conducted, and audits will replace comprehensive review.

In August 2008, a draft to use as a template (directive) on how to implement the Quality Management Program was completed. At this time, the draft directive is going through the clearance process.

A pilot project is underway in one GIPSA field office, one delegated/designated state, one designated state, and four private designated agencies participating. The draft manuals are to be sent to the Compliance Division for a “desk audit”, evaluation, and implementation time table.

The final draft should be published at the end of January/beginning of February 2009 timeframe with an anticipated implementation at the end of calendar year 2009.

Conclusion

Mr. O’Connor concluded that GIPSA and AAGIWA are working to implement a Quality Management Program to promote positive change and enhanced performance within the official inspection system through adoption of modern quality management principles and audit procedures. He recognized and thanked AAGIWA for its work and continued commitment to excellence in the official inspection system.

For additional details, please see the attached presentation, *Quality Management Program for the Official System*.

FINANCIAL UPDATE

Pat Donohue-Galvin, Director, Budget and Planning Staff, GIPSA, addressed the Agency’s FY 2008 Year-End Financial Report and FY 2009 financial outlook.

GIPSA’s grain inspection program received an FY 2008 appropriation of \$17.6 million for the following activities:

- \$6.5M for USGSA Compliance
- \$6.7 for Methods Development
- \$4.4M for Standardization

GIPSA’s appropriated funds are available only for the fiscal year they are appropriated. The agency must turn back to Treasury any unspent year-end appropriated balances.

For FY 2009, Ms. Donohue-Galvin reported that revenues are estimated to decrease by 10 percent due to lower levels of U.S. exports. Overtime costs should also decrease, but a federal pay cost increase of 3.9 percent pay effective January 2009 will add to program costs. The government is operating under a continuing resolution, so no FY 2009 appropriations have been issued. GIPSA expects that FY 2009 appropriations will remain at FY 2008 levels, which means the Agency must absorb the 3.9 percent pay cost increase for appropriated activities.

For additional details, please see the attached presentation, *GIPSA Financial Update*.

ELECTION OF VICE-CHAIRPERSON

Nicholas Friant was nominated and unanimously elected vice chair, and will resume the role of Chairperson at the spring 2009 Grain Inspection Advisory Committee Meeting.

RESOLUTIONS

1. The Advisory Committee recommends that GIPSA continue the private party inspection program with the goal of implementing the program across the country.
2. The Advisory Committee recommends that GIPSA embark on a review of how the sour/musty odor is determined for official grades of grain sorghum. Input from all stakeholders in the form of an industry group that has at its members a cross section of users, producers, and handlers.
3. The Advisory Committee recommends that GIPSA's fees for the hourly export services reflect the actual cost of the hourly export services provided. Furthermore, the actual hourly cost should be a line item in the financial report given to the Advisory Committee.
4. GIPSA has forecast for a significant reduction in export inspections for FY 2009. The Advisory Committee recommends that GIPSA aggressively pursue cost containment for this current fiscal year and at the next Advisory Committee meeting report what steps were taken to contain costs.
5. The Advisory Committee commends GIPSA for their initial work and recommends continuation of efforts to develop GEAPS, Grain Inspection 101 and any subsequent course materials as needed for training of employees, contractors, and others interested in grain inspection procedures.
6. In FY 2008, USDA, NRCS, funded the Conservation Initiative Grant (CIG) on behalf of the Kansas Black Farmers Association (Nicodemus, Kansas) to field test TEFF as an alternative crop to address moisture utilization/drought tolerance and Celiac Sprue. The Advisory Committee is asking GIPSA to share the results with its Ethiopian contacts.

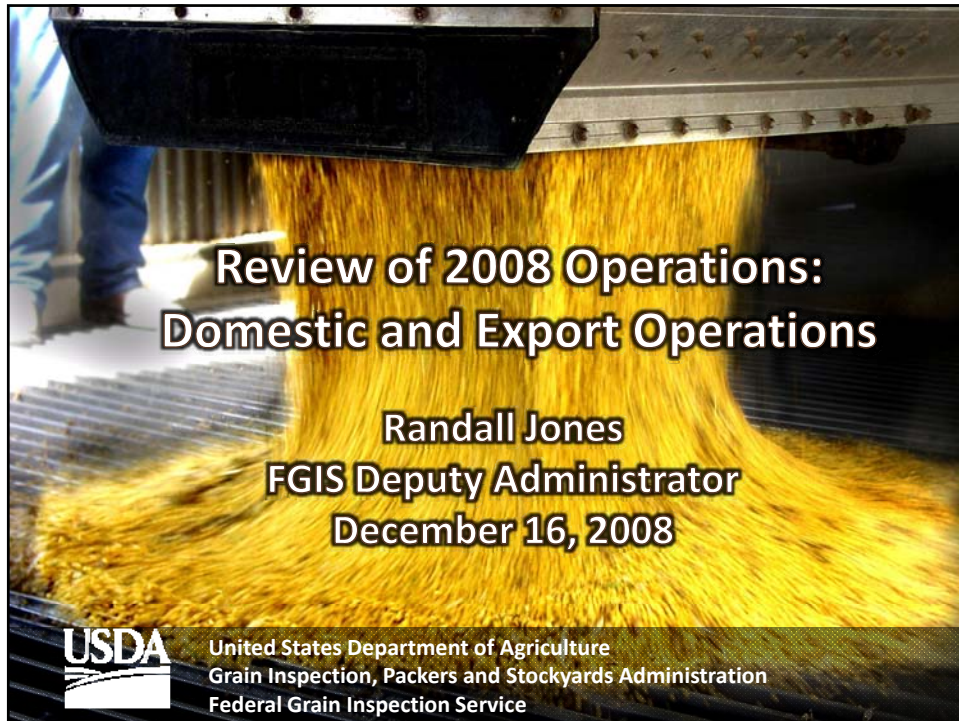
CERTIFICATES TO OUTGOING MEMBERS

GIPSA presented certificates to and thanked the following outgoing members for their 3 years of service to the Committee: Kenneth Dalenberg, Curtis Engel, and Mark Fulmer. Outgoing members not present were William Crockett and John Hewitt; and alternate members Joseph Allen, Lyle Riddle, Brent Turner, and Robert Smigelski.

NEXT MEETING

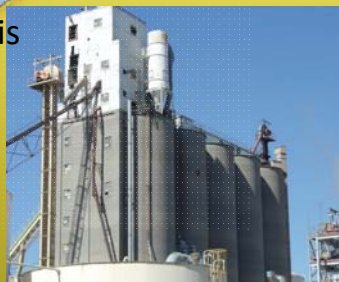
The next meeting of the Grain Inspection Advisory Committee is tentatively scheduled for late May or early June 2009 in St. Louis, Missouri.

#



Outline

- Major factors affecting U.S. exports
- U.S. grain exports and inspection relationships
- Exports during 2007/08 crop year
- Summary of field offices 2007/08 inspections
- Containerized exports
- Tonnage forecast
- Potential impact of financial crisis
- Ethanol's impact on inspections
- Key focus areas



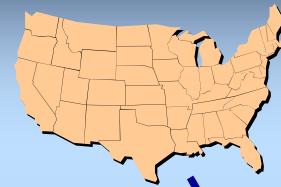
Major Factors Affecting U.S. Exports

- Commodity supply and demand fundamentals:
 - Global S&D
 - United States S&D
 - Significant trading partners S&D
- Trade policies
- Transportation costs
- Exchange rates



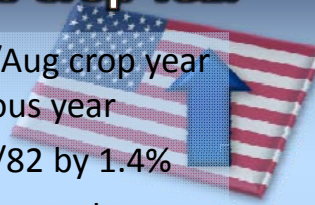
U.S. Grain Exports & Inspections

- Official inspection of exports
- Exports = Inspections



Exports during 2007/2008 Crop Year

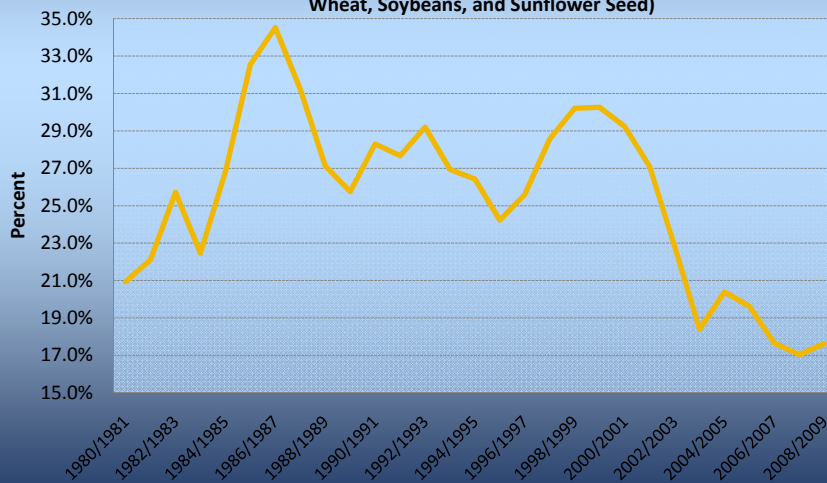
- U.S. exports during 2007/08 Sep/Aug crop year were 19% greater than the previous year
- Surpassed old record set in 1981/82 by 1.4%
- Several factors contributed to increased exports
 - Increased trade liberalization
 - Ever increasing global consumption
 - Global crop production shortfalls



Exports during 2007/2008 Crop Year

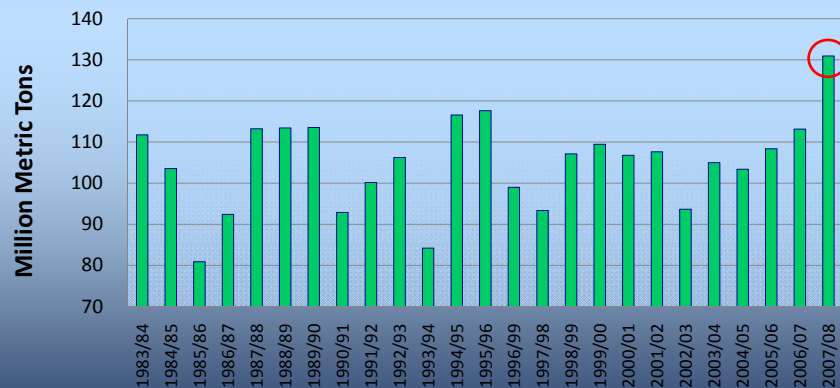
Global Stocks-to-Use Ratio

(Barley, Corn, Mixed Grain, Oats, Milled Rice, Rye, Sorghum, Wheat, Durum Wheat, Soybeans, and Sunflower Seed)



Export Inspections

Total U.S. Sep/Aug Crop Year Inspections
Corn, Wheat, Soybeans, and Sorghum

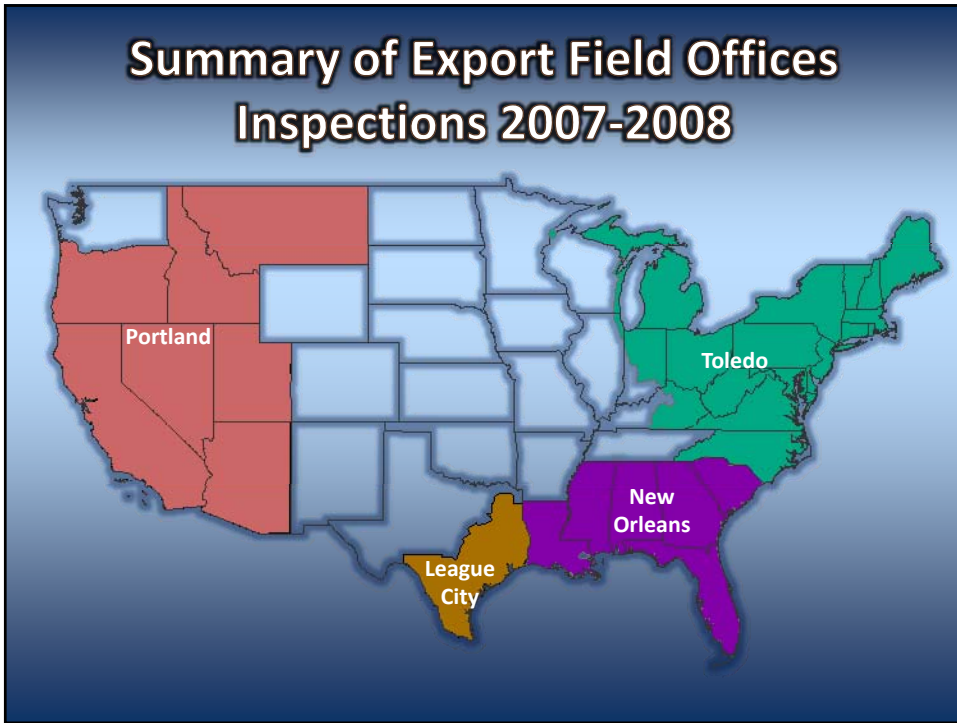


Other Factors Affecting U.S. Exports

- Financial Crisis
 - Indirect impact
 - Decreased investment in securities
 - Increased investment in commodities
- U.S. Dollar Value
 - Dollar index continually decreasing since 2002 (recent upswing)
 - Likely had little impact on 2007/08 exports

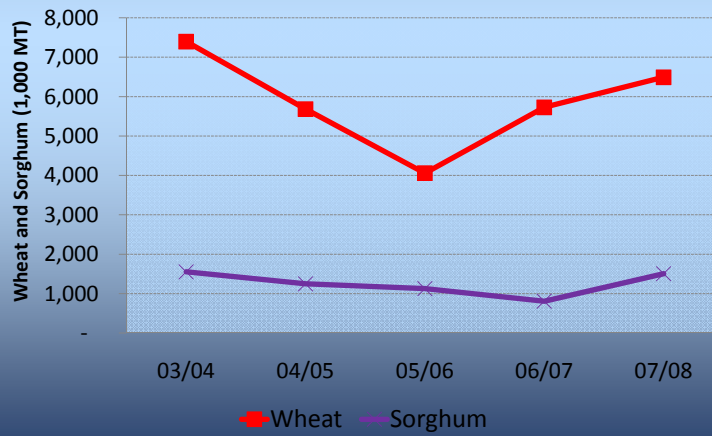


Summary of Export Field Offices Inspections 2007-2008



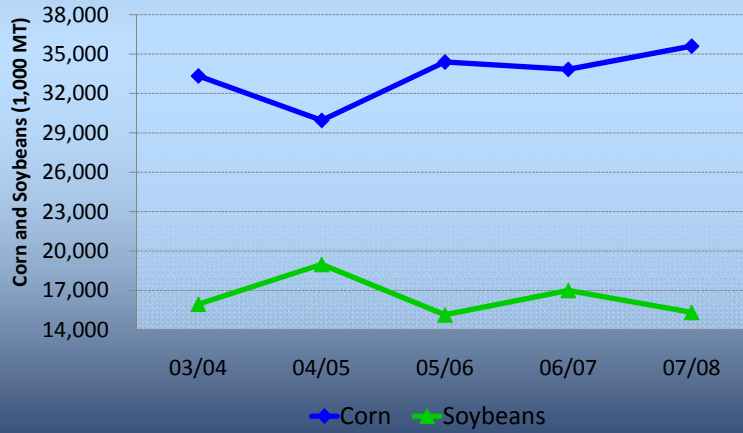
New Orleans 2007/08 Inspections

NEW ORLEANS Sep/Aug Crop Year Inspections of Wheat and Sorghum



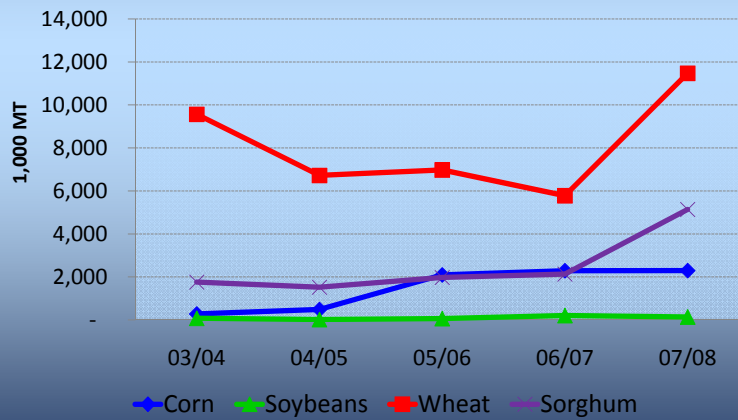
New Orleans 2007/08 Inspections

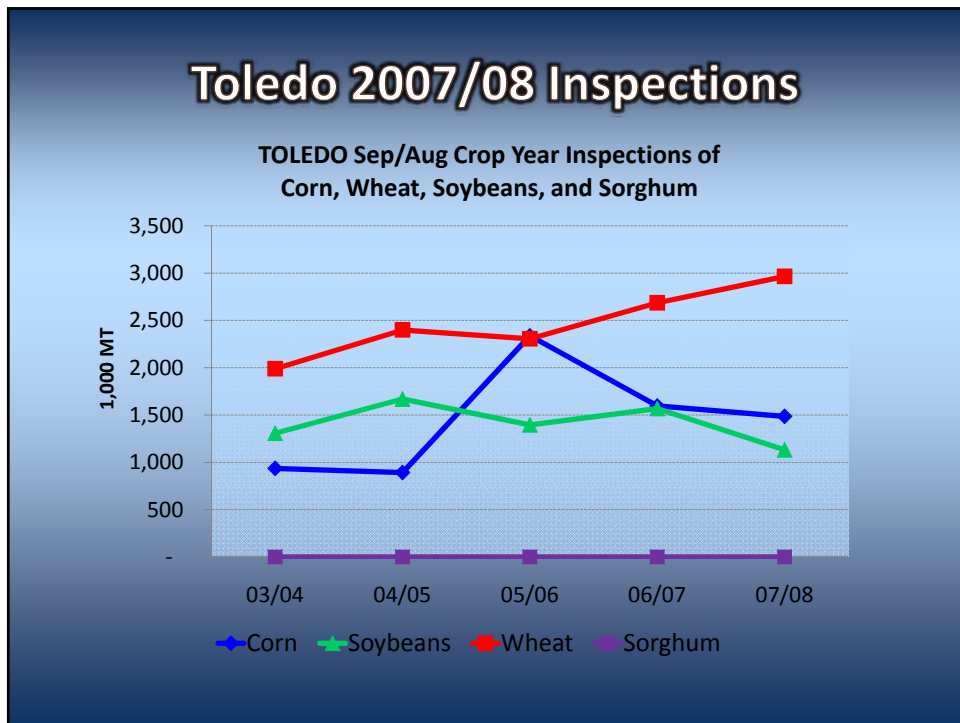
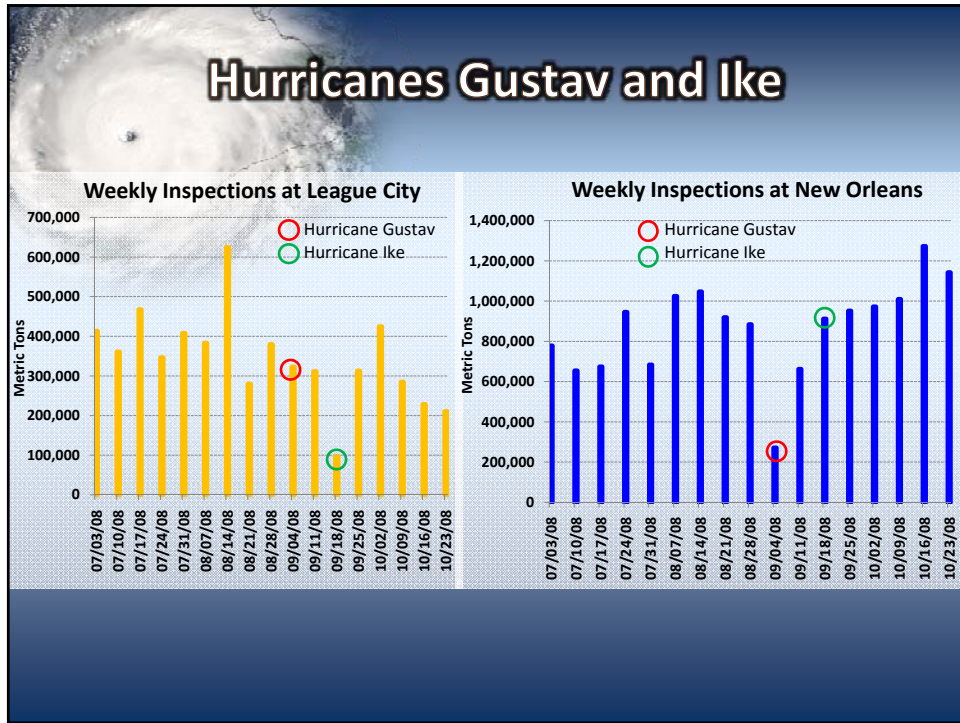
NEW ORLEANS Sep/Aug Crop Year Inspections of Corn and Soybeans

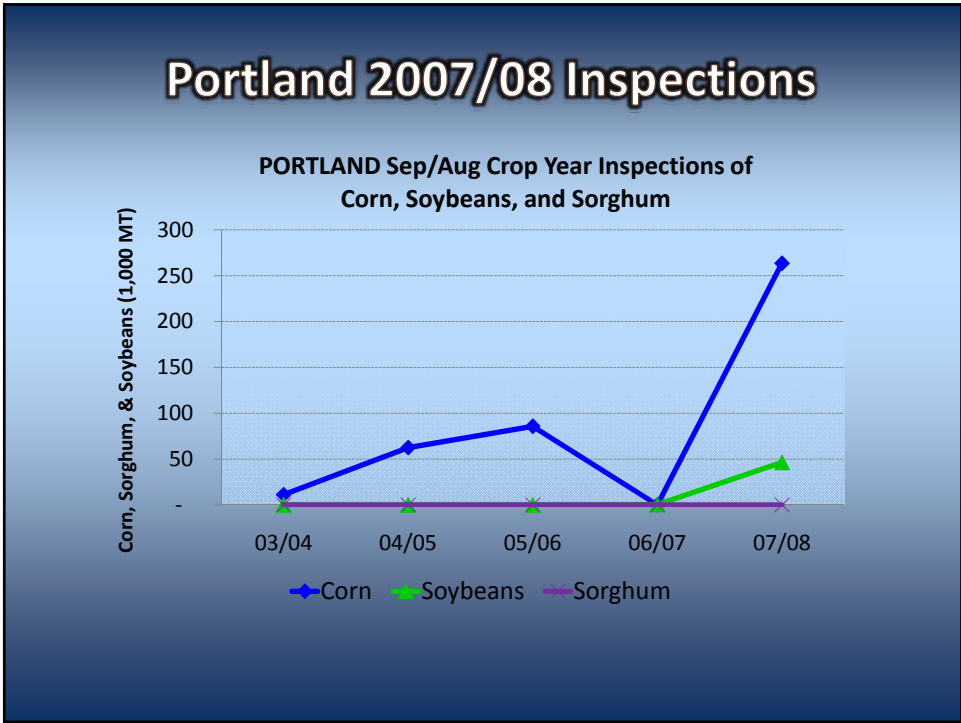
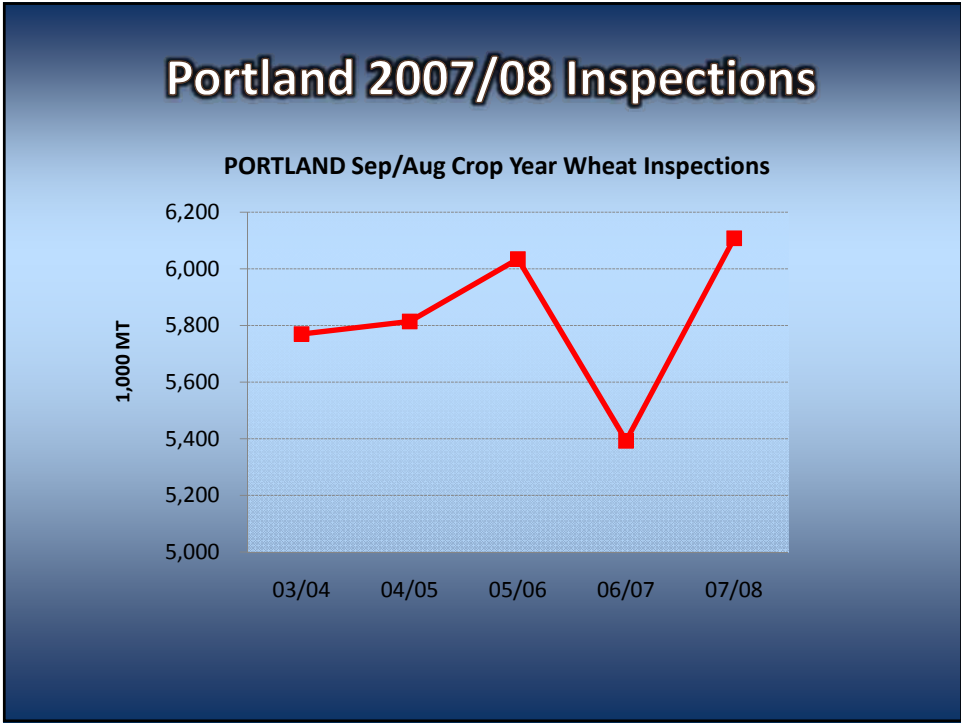


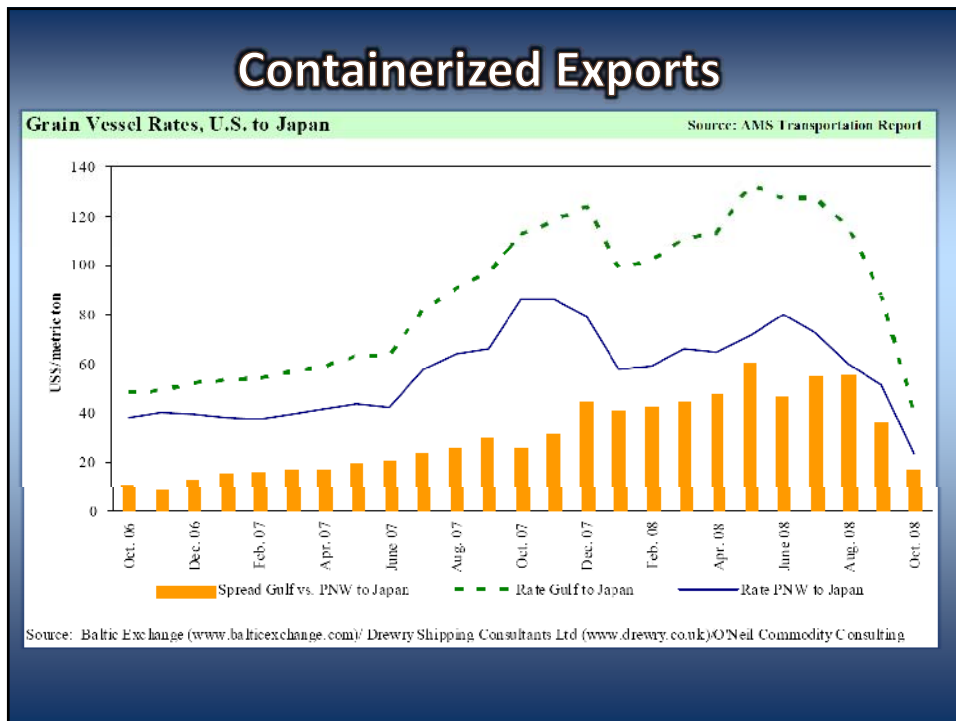
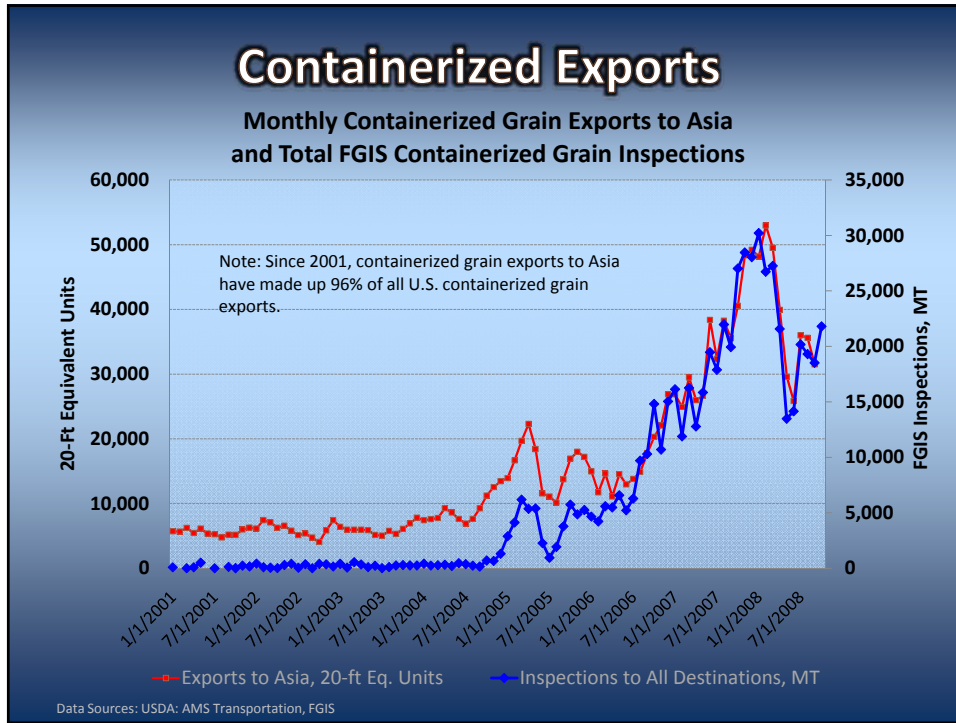
League City 2007/08 Inspections

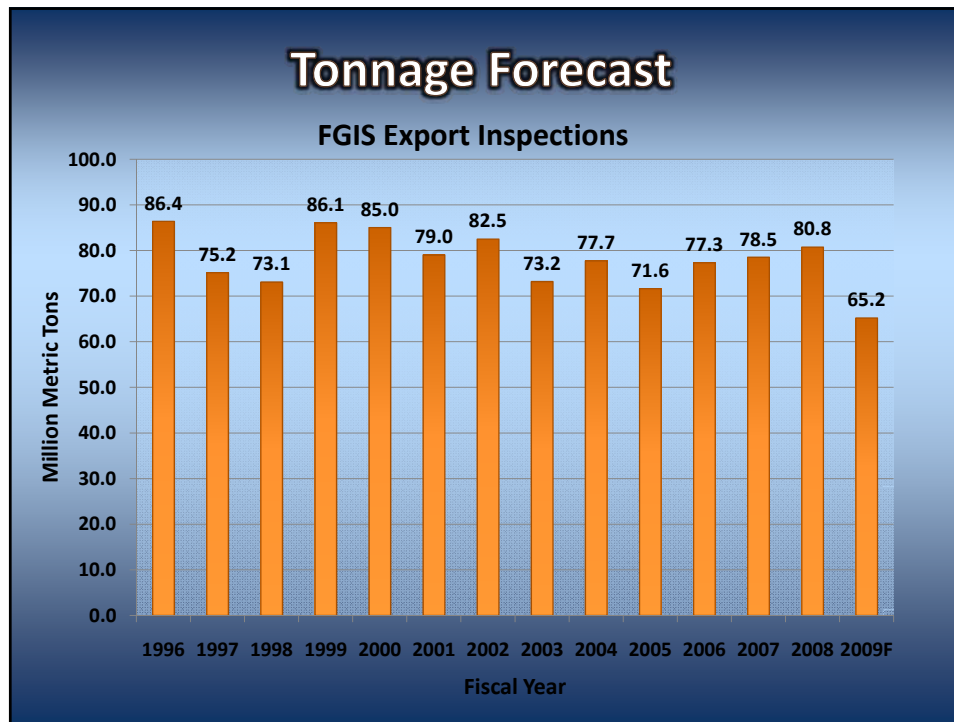
LEAGUE CITY Sep/Aug Crop Year Inspections of Corn, Wheat, Soybeans, and Sorghum











Potential Impact of Financial Crisis

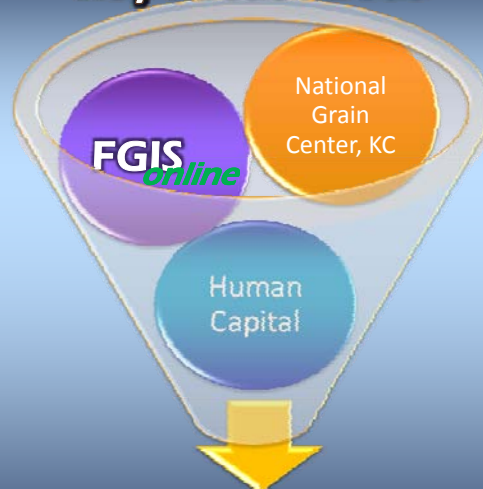
- U.S. farmers endured few negative effects over the past year
 - Receive credit from small, rural banks
 - These banks avoided investing in risky investments
- Crisis could have an impact in the future
 - Foreign importers may have difficulty securing lines of credit for imports
 - Merchandisers have had difficulty securing lines of credit for margin calls
 - Effect U.S. exchange rates

Ethanol's Impact on Inspections

- Corn exports unaffected in 2007/08
 - Reached record 2.4 billion bushels
 - Corn for ethanol reached 3.0 billion bushels
- Could affect exports in the future
 - Current RFS of 15 bil gal of grain based ethanol
 - Will require nearly 5.5 bil bu of corn
 - New pro-ethanol/renewable energy president
 - Current renewable fuel legislation could change



Key Focus Areas



Customer Service
 • high-quality • cost-effective

Key Focus Areas

- Centralization of Oversight Functions
- Quality Management Program
- Strengthening International Relationships
- Research Direction
- Technical Training Programs
- Focus on Human Capital



Agenda



Use of Contractors for Export Services

John Giler, Director, Field Management Division



Quality Management Program

Tom O'Connor, Director, Compliance Division



Keeping Export Grain Regulations & Procedures Relevant

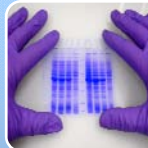
Bob Lijewski, Assistant Director, Policies & Procedures Branch

Agenda



Strengthen International Relationships

John Pitchford, Director, Office of International Affairs



Research Direction

John Sharpe, Director, Technical Services Division



Technical Training

John Sharpe, Director, Technical Services Division



Grain Inspection, Packers & Stockyards Administration

International Trade and Outreach Issues

***FGIS Advisory Committee
Kansas City, Missouri***

December 16, 2008




John B. Pitchford
Director of International Affairs

Current International Trade and Outreach Issues

- 
- Unapproved GE Events Update
 - Japan and Corn Aflatoxin
 - EC - FVO Rice Audit
 - China Soybean Project
 - Long-term Assignments to Asia
 - U.S. Wheat to Iraq

Japan Continues to Monitor Unapproved GE Events

- 
- April 25 *Federal Register* Notices
 - EPA & FDA recommend discontinuation of testing for StarLink
 - MAFF continues to monitor
 - StarLink, Bt10, E-32
 - MHLW continues to monitor
 - StarLink, Bt10, E-32, LL Rice 601

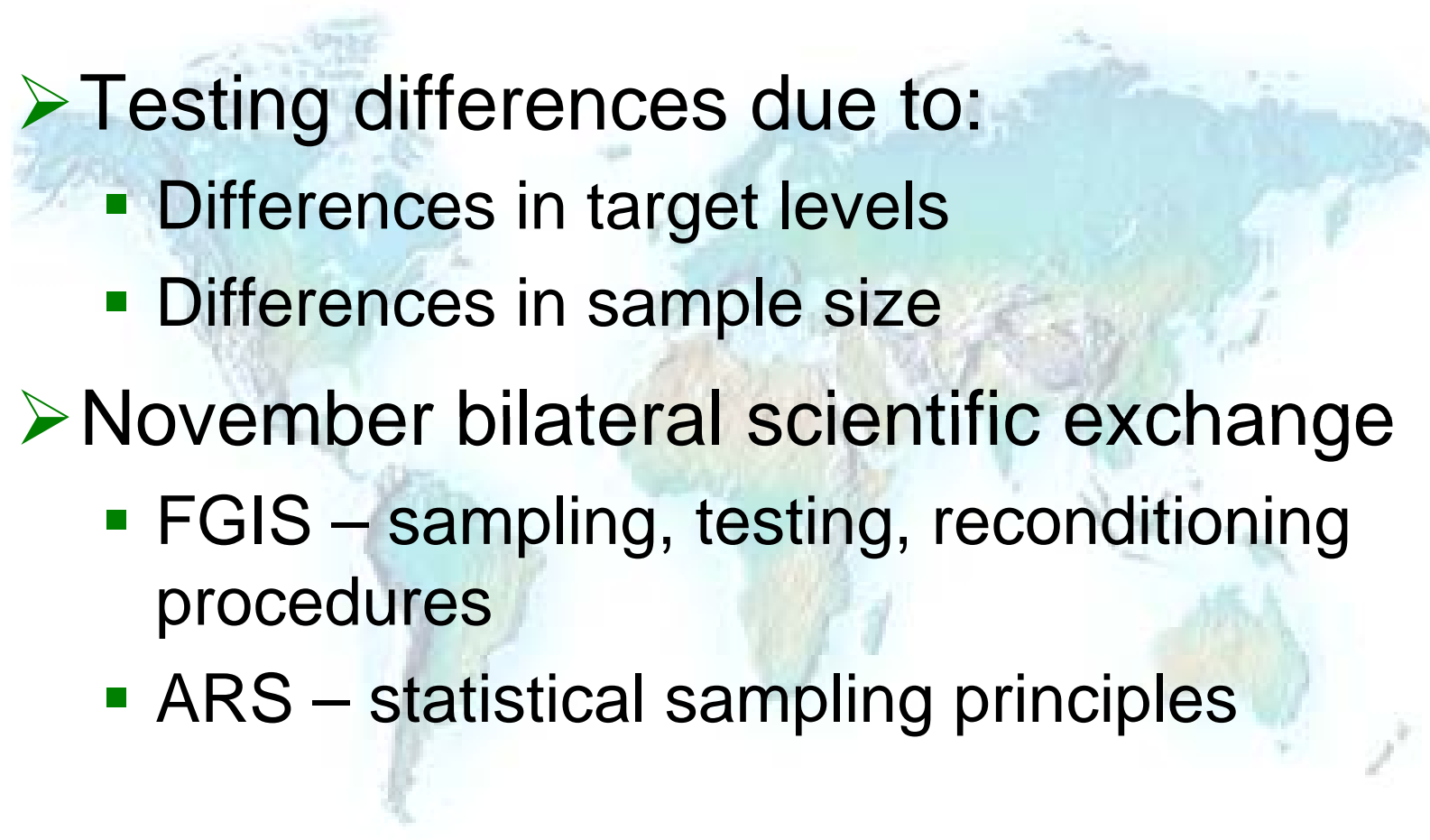
Japan Exit Strategy for Unapproved GE Events

- 
- June 2008, MAFF proposed exit strategy
 - MHLW has not endorsed proposal
 - Applies only to feed imports, not food
 - Proposal elements contrary to U.S. (LLP) policy
 - Risk-based vs. defined thresholds

Japan's Exit Strategy *(cont'd)*

- Execution involves
 - NAEGA/JAFTA, BIO, MAFF, USDA
- USDA's response
 - Will cooperate on communication
 - GIPSA will cooperate on
 - Sampling criteria, testing methods, laboratory proficiency
- *Status:* Under review in Japan

U.S./Japan Aflatoxin Testing

- 
- Testing differences due to:
 - Differences in target levels
 - Differences in sample size
 - November bilateral scientific exchange
 - FGIS – sampling, testing, reconditioning procedures
 - ARS – statistical sampling principles

EC-FVO Rice Audit

- June EC-FVO audit team visit
 - Met with GIPSA, FDA, FAS, APHIS
- Final report was positive
 - Acknowledged U.S. system of controls
 - Recommended
 - APHIS continue with regulatory revisions
 - All rice producing States follow Arkansas initiatives to eliminate LLRICE

U.S. – China Soybean Study

➤ U.S. – China Soybean Shipment Study

- Outgrowth of “treated” soybean issues
- AQSIQ and NAEGA, ASAIM, FAS, GIPSA as cooperators
- AQSIQ wants to include phytosanitary issues in study

Long-term Assignments to Asia

➤ Last assignment – May – Sep '08

- Based in Hong Kong
- 7 Countries visited
- 14 Grading seminars
- Containers
- Continued support for program

Wheat to Iraq

- CY '08 – over 2,000,000 MT of wheat shipped
- Finished FGIS destination monitoring
- Ready to respond to new exporter requests...*if needed*

Technical Training Programs

John Sharpe
December 16, 2008
GIPSA Advisory Committee
Kansas City, Missouri



Grain Inspection, Packers and Stockyards Administration

Resolution

The Grain Inspection Advisory Committee recommends that GIPSA continue to develop new methods of training Agency and GIPSA personnel and to develop a proposed funding mechanism from user fee based programs.

May 14, 2008



Initiatives

1. Official Agency and GIPSA Training
2. GEAPS – Kansas State – GIPSA
Distance Learning Project



Official Agency - GIPSA Training

- **Drivers**
 - Attrition
 - Closing Domestic Field Offices
 - Oversight Consolidation
- **Opportunity**
 - Oversight Consolidation
 - National Grain Center



National Grain Center

- Enhanced facility to provide training
- Centrally Located
- Representatives from all GIPSA Divisions



National Grain Center

- Scheduled completion in early Fiscal Year 2010
- 1,905 SF of training space (including 765 SF for grading)



Official Agency – GIPSA Training

Soliciting AAGIWA Input

- Training Items
 - Grading
 - Mycotoxin Testing
 - Equipment Checktesting
 - Certification
 - Weighing
- Training scheduling
 - Scheduled
 - On Demand



Official Agency – GIPSA Training

Official Agency Supervision Fees

- Staff time plus materials to prepare and provide training



Grain Inspection 101

GEAPS – Kansas State – GIPSA Distance Learning Project

- **DRIVERS**
 - Attrition
 - Increased Outreach
 - Advisory Committee Resolution
- **Objective**
 - Provide an overview of the official inspection system



Grain Inspection 101 Curriculum

12 Narrated Presentations

1. Grain Production and Marketing
2. Grain Marketing Legislation
3. The USGSA (In Plain English)
4. Industry Trading Rules
5. Overview of Grain Inspection
6. The USGSA Regulations (In Plain English)
7. Grain Quality Factors
8. Sampling
9. Grain Inspection Lab Tour
10. Official Inspection Services
11. Inspection Variability
12. Weighing Program



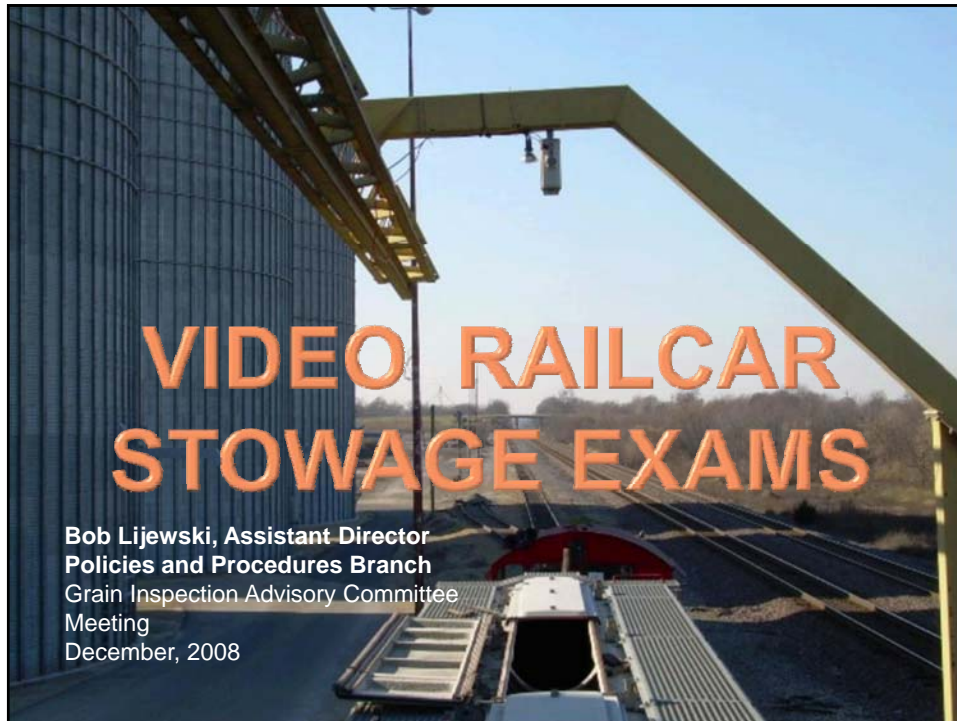
Grain Inspection 101

Status

Lectures in various stages of review
through narration

Expected to meet March delivery
deadline





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Stowage Exams are Mandatory

CFR 800.75(f)(2) states: "Approval of the stowage space is required for official sample-lot inspection services on all export lots of grain and all official sample-lot inspection services performed on outbound domestic lots of grain which are sampled and inspected at the time of loading. Also, approval of the stowage space is required for any weighing services performed on all outbound land carriers."

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What We Look For in a Stowage Exam

- Foreign material, grain of another type, and out of condition grain.
- Rust or peeling paint, leaks or damaged covers.



How It's Done Now

- Ship Holds and Containers require physical entry.
- Hopper Cars:
 - Walk on top of hoppers and look into compartments.
 - Not practical to enter the compartments

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Safety Issue: Falls **Alternative: Video Cameras**



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Program Notice for Using CCTV Systems **for Railcar Stowage Exams**

- Draft of the Program Notice is currently in clearance.
- Provides guidelines for FGIS and agency personnel.

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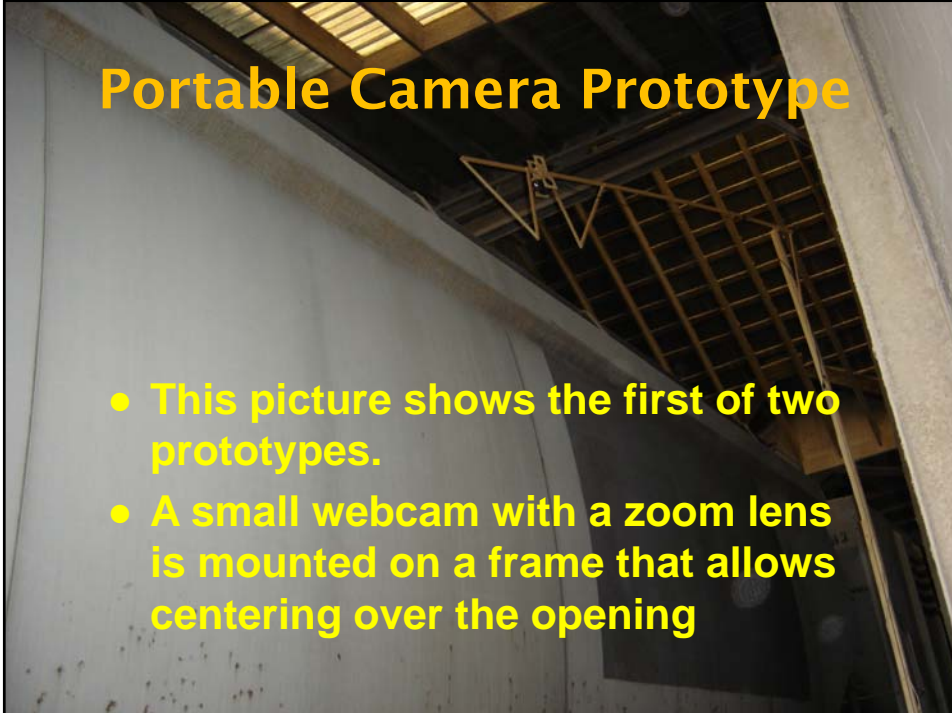


Possible Camera Positions

- Camera Above Car:
 - Someone must still open covers.
 - Camera can be portable or permanently mounted.
- Camera Below Car:
 - Too many problems with this option.
 - Someone must open bottom gates and remember to close them.
 - Supporting structure must lift camera through gate into car.

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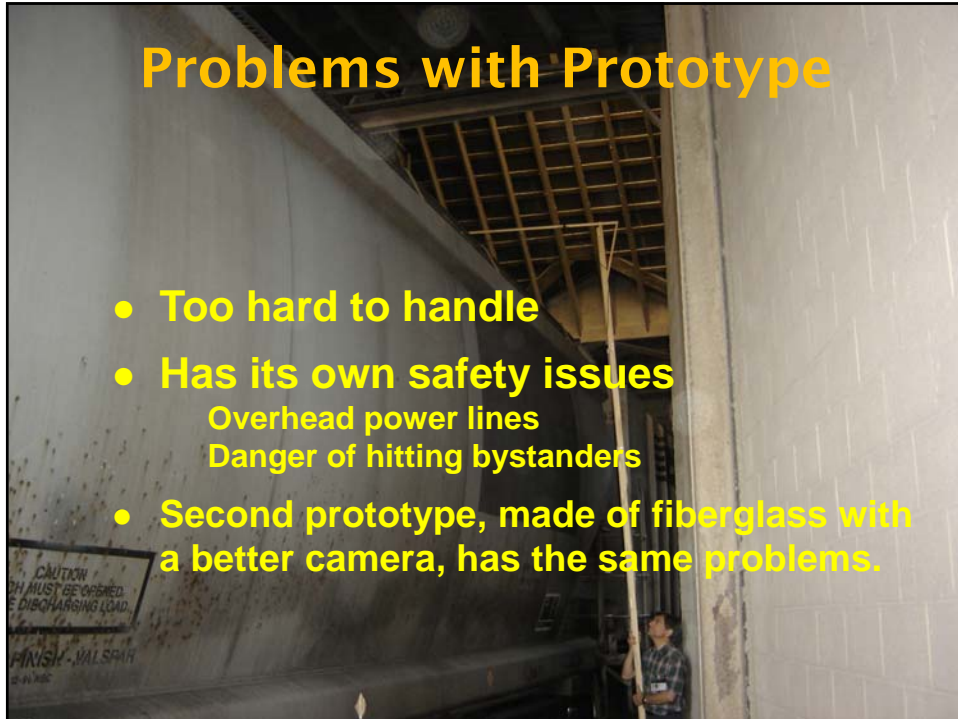
Portable Camera Prototype



- This picture shows the first of two prototypes.
- A small webcam with a zoom lens is mounted on a frame that allows centering over the opening

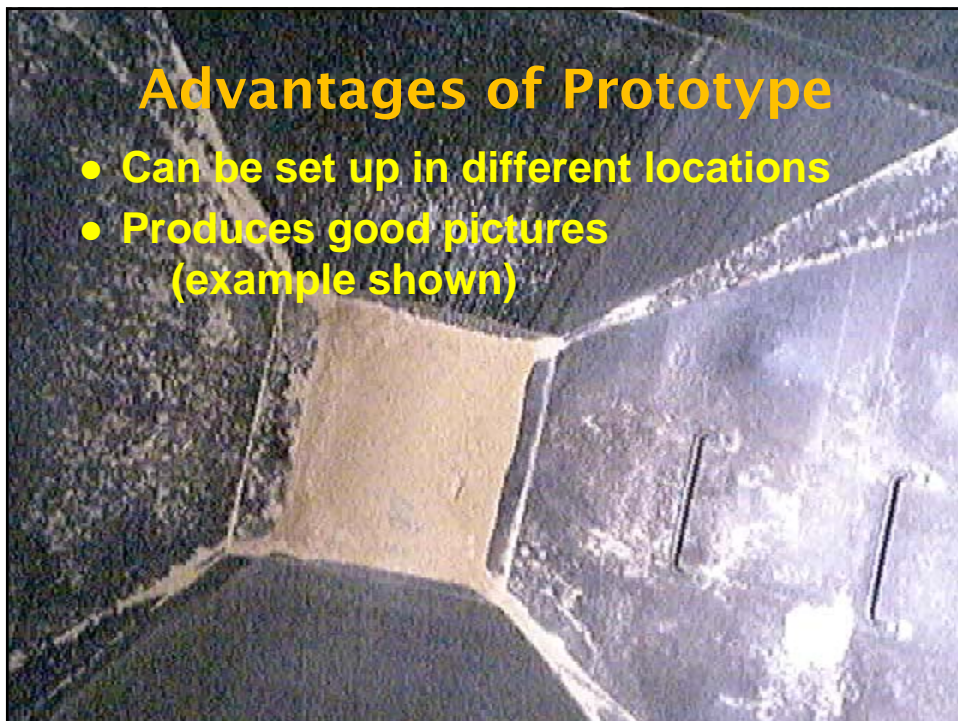
Problems with Prototype

- Too hard to handle
- Has its own safety issues
 - Overhead power lines
 - Danger of hitting bystanders
- Second prototype, made of fiberglass with a better camera, has the same problems.



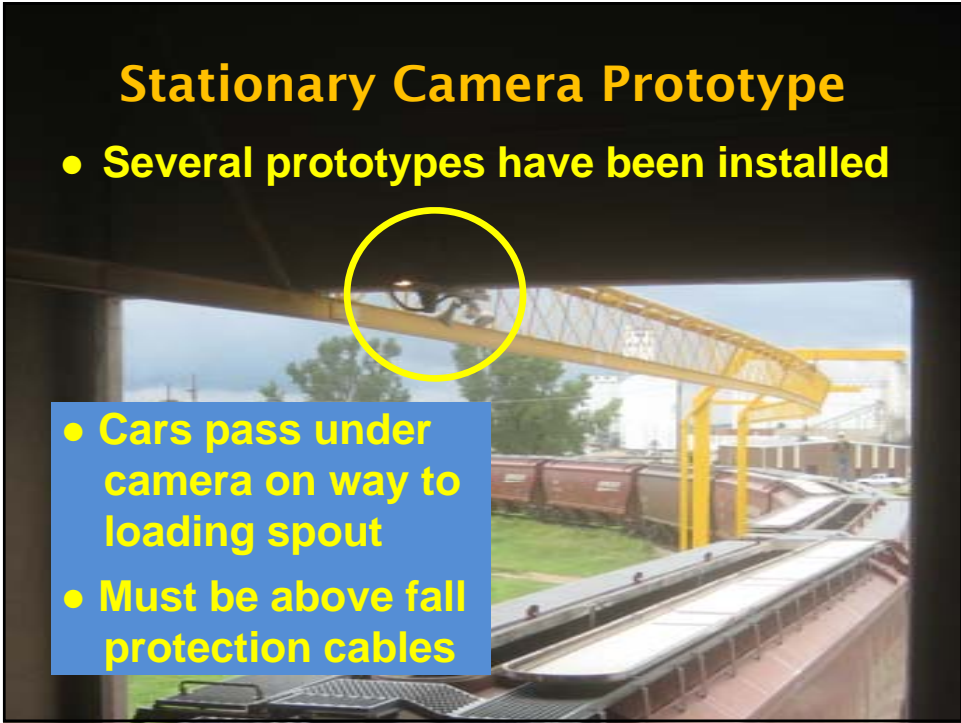
Advantages of Prototype

- Can be set up in different locations
- Produces good pictures (example shown)

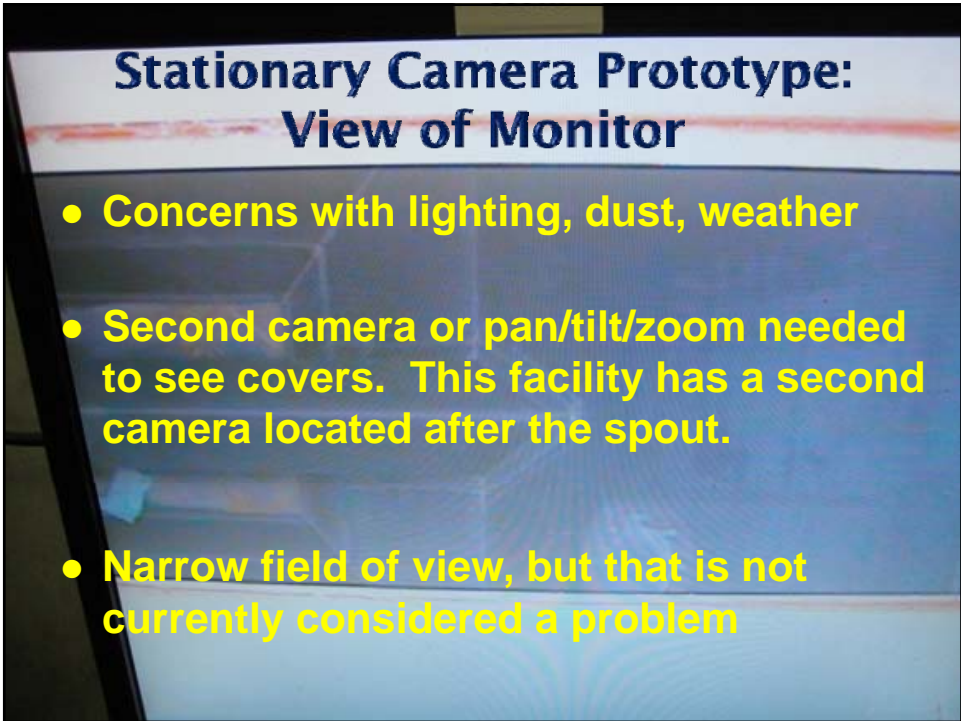


Stationary Camera Prototype

- Several prototypes have been installed

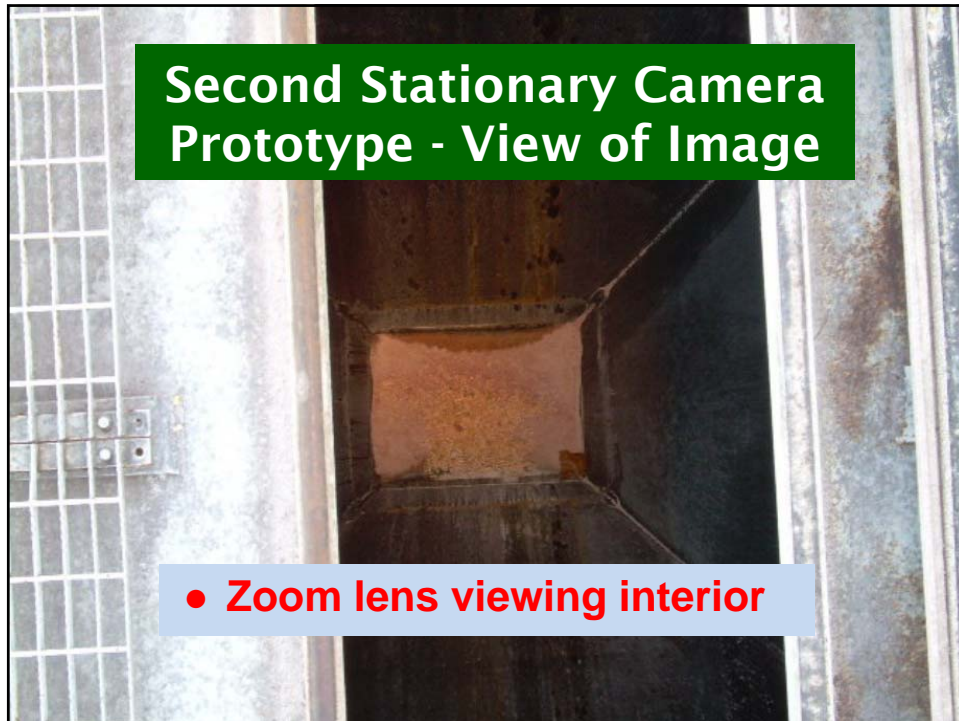
- 
- Cars pass under camera on way to loading spout
 - Must be above fall protection cables

Stationary Camera Prototype: View of Monitor

- 
- Concerns with lighting, dust, weather
 - Second camera or pan/tilt/zoom needed to see covers. This facility has a second camera located after the spout.
 - Narrow field of view, but that is not currently considered a problem









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THE END!

Questions?

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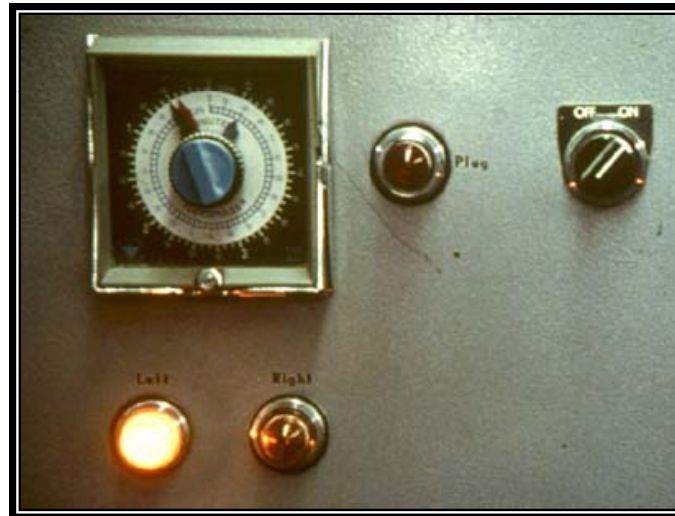
Plugged Spout Shutoff Controls for Mechanical Diverter Samplers



Bob Lijewski, Assistant Director
Policies and Procedures Branch
Grain Inspection Advisory Committee Meeting
December, 2008



- The D/T Sampler operates under official personnel control in order to maintain sample integrity and assure that samples are representative of the lot.



- In 2007 we found that numerous railcar loading facilities had installed auxiliary controls, without FGIS approval, to deal with plugged spouts.



Cause of Plugs

- Facilities load shuttle trains at high flow rates.
- Flow is not stopped when moving to a new compartment.
- If the compartment fills up, the grain plugs the spout instead of spilling.
- Plugs back up the spout quickly and can plug the sampler in less than one second.



Facilities have been installing plug sensors to protect the samplers. This is good; however-

- The sensors have been stopping the sampler but not the grain flow. Grain gets by without being sampled.
- Sampler timers have been resetting to zero. Even more grain gets by and the sampler gets synchronized to the grain handling system.



Corrective Actions

- FGIS issued Program Notice 08-05 to transmit requirements for the installation of auxiliary controls and plug sensors that affect the operation of an officially approved D/T sampler.
- Facilities were given until September 1, 2008 to bring their samplers into compliance.
- On September 1, facilities began asking for extensions.



Corrective Actions

- A facility has two ways to prevent damage to a sampler: stop the grain flow or stop the sampler.
- Program Notice 08-05 requires grain flow to be stopped any time a sampler is stopped, to minimize the amount of grain not sampled.
- In addition, the sampler timer cannot be reset.
- Official personnel must get an audible alarm.



Assistance Provided to Facilities

- The Policies and Procedures Branch performed an analysis of several grain loading systems to assist grain facilities to determine solutions for modify systems to comply with FGIS requirements.
- In many cases it was determined that major alterations were not needed. Repositioning the sensor or installing a shutoff switch to the grain flow solved the problem.



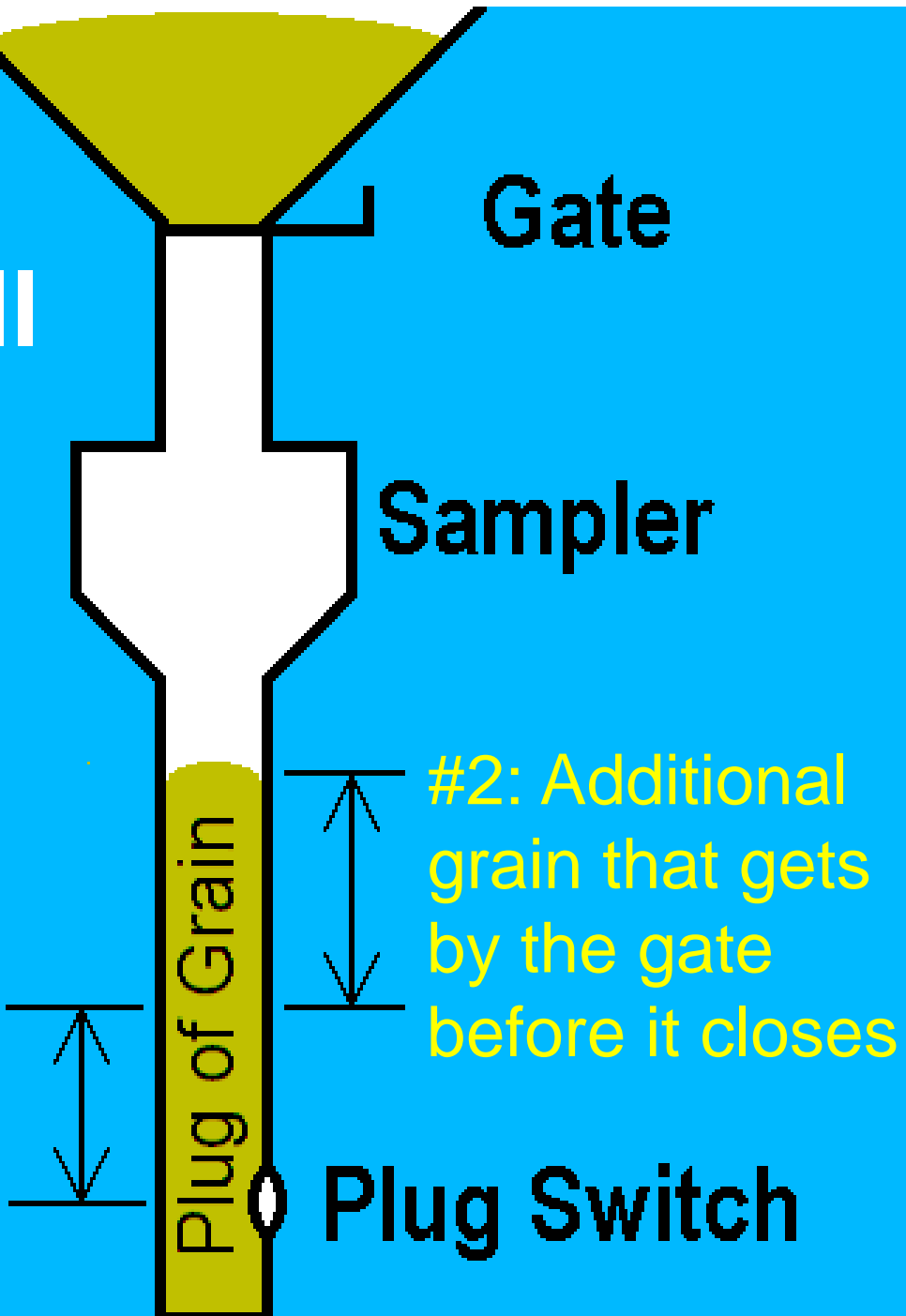
Best Way:
Stop the Grain, NOT the Sampler

- If stopping grain flow will keep a backup from reaching the sampler, there is no need to stop the sampler.
- No modifications to sampler controls needed.
- No FGIS approval needed.
- Samples remain representative.

Determining if Backup Will Reach the Sampler

Amount of grain in spout is the sum of two components:

#1: Grain already falling in spout when plug switch trips



Gate

Sampler

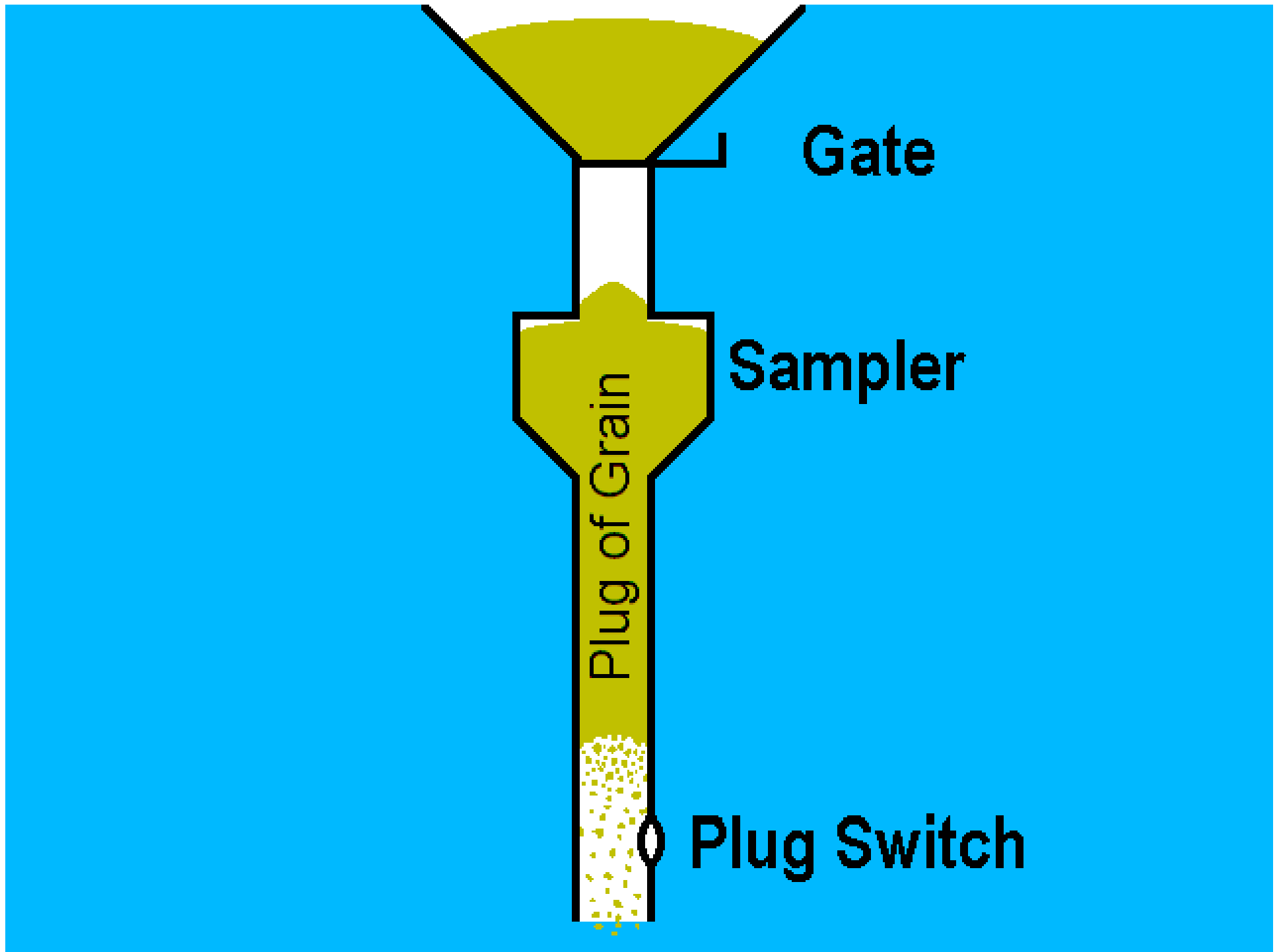
Plug of Grain

Plug Switch



What if the Sampler Plugs?

- If the pelican is moving, it must be allowed to complete its traverse. Otherwise a constant stream of grain will run into the sample box.
- Grain will usually back up to the sampler in less than one second, which is faster than a pelican can complete a traverse.
- In this case, the sampler cannot be stopped in time to prevent damage if the pelican is moving. The spout must be modified so the sampler is farther from the sensor or closer to the gate.





Implications of Stopping a Sampler

- In cases where stopping the sampler is both necessary and effective, some grain will get by the sampler when it is stopped.
- This means, for all practical purposes, the railcar will have to be probe sampled whenever the plug sensor stops the sampler.



Summary

- A plug sensor must stop the grain, not just the sampler.
- Most facilities fall into one of two categories:
 1. The plug will never reach the sampler, so the sampler should not be stopped.
 2. The sampler plugs before it can complete a traverse, so stopping the sampler is not effective. Either the sensor, sampler, or gate must be relocated.
- A sampler cannot be re-started until it is cleared of grain, some time after the sensor clears.



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SORGHUM ODOR LINE EVALUATION

Grain Inspection Advisory
Committee

16 December 2008

Patrick J. McCluskey



United States Department of Agriculture

Grain Inspection, Packers & Stockyards Administration



OUTLINE

- Background
- Method: Processor Visits & Samples
- Data
- Conclusions



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BACKGROUND

- 07/08 Sorghum Marketing Year:
 - Exports smash previous 5-year average!
- Spring 2008: sorghum sublots made musty during official inspection at vessel loading.
- Trade met with GIPSA to discuss odor line
- Trade said odor not musty-rather, it had storage odor, which is acceptable to users.



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BACKGROUND

Certification. Grade sorghum containing a "distinct" musty, sour, or commercially objectionable foreign odor as U.S. Sample Grade. Record the words "Musty," "Sour," or "Commercially Objectionable Foreign Odor" in the "Results" section of the certificate.



BACKGROUND

ODOR CLASSIFICATION EXAMPLES

SOUR		MUSTY
BOOT		GROUND
FERMENT		INSECT
INSECT (ACRID)		MOLDY
PIGPEN		



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BACKGROUND

- Based on interest in the issue, FGIS decided to evaluate odor line by presenting various sorghum samples to sorghum processors for opinion.





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METHOD: SAMPLES

- Official inspection agency provided >40 samples of sorghum from market
- GIPSA Board of Appeals and Review (BAR) cleaned/smelled samples; identified 10 for evaluation trips. BAR decision by consensus.





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METHOD: SAMPLES

- Samples had varying degrees of aroma from (OK) fresh/sweet to musty and sour;
- Included BAR split decision samples: “on the line”;
- BAR smelled samples several times over 3 months to insure they had not drifted.





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METHOD: SAMPLES

- Samples were stored in glass (Mason) jars with metal lids in cooler.
- Samples brought to room temperature prior to smelling.
- 3 identical sample sets were prepared.





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METHOD: PROCESSOR VISITS

- MPAS identified 7 industries using sorghum.
- Contacted managers of facilities to arrange for plant visit.
- Gathered 62 individual opinions from 26 companies in 5 states.
- Cooperators were promised anonymity.



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METHOD: PROCESSOR VISITS

- Ethanol
- Beef cattle feeding
- Dairy cattle feeding
- Hog feeding
- Pet food
- Human food
- General feed milling





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METHOD: PROCESSOR VISITS

- MPAS & BAR members on road trip.
- Presented samples in blue triangle pans
- Instructed panelists to mark whether each sample was Acceptable or Unacceptable for that operation, based on AROMA ONLY.
- No instruction given except to smell samples in numerical order.





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SAMPLE KEY

#1:OK (6-0)

#2:MUSTY (4-2)

#3:MUSTY (6-0)

#4:OK (3-3)

#5:SOUR (6-0)

#6:OK (6-0)

#7:OK (3-3)

#8:MUSTY **

#9:OK (3-3)

#10:OK (3-3)

** "Storage odor": 3 Musty, 2 Musty/Sour, 1 Sour



DATA

SAMPLE NUMBER	1	2	3	4	5	6	7	8	9	10
OVERALL										
ACCEPTABLE	52	49	13	40	7	60	54	28	50	54
UNACCEPTABLE	10	13	43	17	50	2	7	31	9	5
Accept @discount	0	0	5	4	5	0	0	2	2	2
TOTAL OBSERVATIONS	62	62	61	61	62	62	61	61	61	61

OK	MUSTY	MUSTY	OK	SOUR	OK	OK	MUSTY	OK	OK
6-0	4-2	6-0	3-3	6-0	6-0	3-3	ALL	3-3	3-3



DATA

SAMPLE NUMBER	1	2	3	4	5	6	7	8	9	10
BEEF										
ACCEPTABLE	10	11	2	8	1	13	11	6	11	11
UNACCEPTABLE	3	2	11	4	12	0	2	7	2	2
Accept @discount	0	0	0	1	0	0	0	0	0	0
TOTAL OBSERVATIONS	13	13	13	13	13	13	13	13	13	13
	OK 6-0	MUSTY 4-2	MUSTY 6-0	OK 3-3	SOUR 6-0	OK 6-0	OK 3-3	MUSTY ALL	OK 3-3	OK 3-3



DATA

SAMPLE NUMBER	1	2	3	4	5	6	7	8	9	10
DAIRY										
ACCEPTABLE	5	4	0	2	0	6	6	3	5	6
UNACCEPTABLE	1	2	4	2	3	0	0	1	0	0
Accept @discount	0	0	2	2	3	0	0	2	1	0
TOTAL OBSERVATIONS	6	6	6	6	6	6	6	6	6	6
	OK 6-0	MUSTY 4-2	MUSTY 6-0	OK 3-3	SOUR 6-0	OK 6-0	OK 3-3	MUSTY ALL	OK 3-3	OK 3-3



DATA

SAMPLE NUMBER	1	2	3	4	5	6	7	8	9	10
HOG										
ACCEPTABLE	10	9	5	9	3	11	10	7	10	9
UNACCEPTABLE	2	3	7	3	9	1	2	5	2	3
TOTAL OBSERVATIONS	12	12	12	12	12	12	12	12	12	12
	OK 6-0	MUSTY 4-2	MUSTY 6-0	OK 3-3	SOUR 6-0	OK 6-0	OK 3-3	MUSTY ALL	OK 3-3	OK 3-3



DATA

SAMPLE NUMBER	1	2	3	4	5	6	7	8	9	10
ETHANOL										
ACCEPTABLE	11	11	4	8	2	11	11	8	10	9
UNACCEPTABLE	1	1	5	2	8	1	0	3	1	0
Accept @discount	0	0	2	1	2	0	0	0	0	2
TOTAL OBSERVATIONS	12	12	11	11	12	12	11	11	11	11
	OK 6-0	MUSTY 4-2	MUSTY 6-0	OK 3-3	SOUR 6-0	OK 6-0	OK 3-3	MUSTY ALL	OK 3-3	OK 3-3



DATA

SAMPLE NUMBER	1	2	3	4	5	6	7	8	9	10
HUMAN FOOD										
ACCEPTABLE	3	4	1	4	0	5	4	2	5	5
UNACCEPTABLE	2	1	4	1	5	0	1	3	0	0
TOTAL OBSERVATIONS	5	5	5	5	5	5	5	5	5	5
	OK 6-0	MUSTY 4-2	MUSTY 6-0	OK 3-3	SOUR 6-0	OK 6-0	OK 3-3	MUSTY ALL	OK 3-3	OK 3-3



DATA

SAMPLE NUMBER	1	2	3	4	5	6	7	8	9	10
PET FOOD										
ACCEPTABLE	8	8	0	4	1	8	8	1	8	8
UNACCEPTABLE	0	0	8	4	7	0	0	7	0	0
TOTAL OBSERVATIONS	8	8	8	8	8	8	8	8	8	8
	OK 6-0	MUSTY 4-2	MUSTY 6-0	OK 3-3	SOUR 6-0	OK 6-0	OK 3-3	MUSTY ALL	OK 3-3	OK 3-3



DATA

SAMPLE NUMBER	1	2	3	4	5	6	7	8	9	10
FEEDMILL										
ACCEPTABLE	5	2	1	5	0	6	4	1	1	6
UNACCEPTABLE	1	4	4	1	6	0	2	5	4	0
Accept @discount	0	0	1	0	0	0	0	0	1	0
TOTAL OBSERVATIONS	6	6	6	6	6	6	6	6	6	6
	OK 6-0	MUSTY 4-2	MUSTY 6-0	OK 3-3	SOUR 6-0	OK 6-0	OK 3-3	MUSTY ALL	OK 3-3	OK 3-3



United States Department of Agriculture

Grain Inspection, Packers & Stockyards Administration



CONCLUSIONS

- Ethanol plants least discriminating regarding musty odor
- Agricultural animal feeding surprisingly discriminating
- Human use fairly discriminating
- Pet food companies very discriminating





United States Department of Agriculture

Grain Inspection, Packers & Stockyards Administration



CONCLUSIONS

- Data **DO NOT** indicate that:
 - odor line is too restrictive
 - odor line is too permissive
- Data **DO** indicate that storage odor is not acceptable to most users of sorghum



United States Department of Agriculture

Grain Inspection, Packers & Stockyards Administration



CONCLUSIONS

- These data **DO NOT** make a compelling case to relax odor line.



DATA

SAMPLE NUMBER	1	2	3	4	5	6	7	8	9	10
G I A C										
ACCEPTABLE										
UNACCEPTABLE										
Accept @discount	0	0	0	0	0	0	0	0	0	0
TOTAL OBSERVATIONS	15	15	15	15	15	15	15	15	15	15
	OK 6-0	MUSTY 4-2	MUSTY 6-0	OK 3-3	SOUR 6-0	OK 6-0	OK 3-3	MUSTY ALL	OK 3-3	OK 3-3

Future Technology for Grain Odor Analysis

David B. Funk, Ph.D.
Associate Director for Methods Development

Advisory Committee Meeting
December 16, 2008



Grain Odor—Problems

- Odor is subjective, not inherently traceable.
- Impossible to prove stability of assessments without objective standards.
- “Musty”, “sour”, and “commercially objectionable foreign odor” encompass wide ranges of odors—caused by dozens of volatile chemicals in grain headspace.
- Smelling grain may expose inspectors to dust.
- Definitions of “Good” and “Bad” odors are debatable.



Grain Odor—Constraints

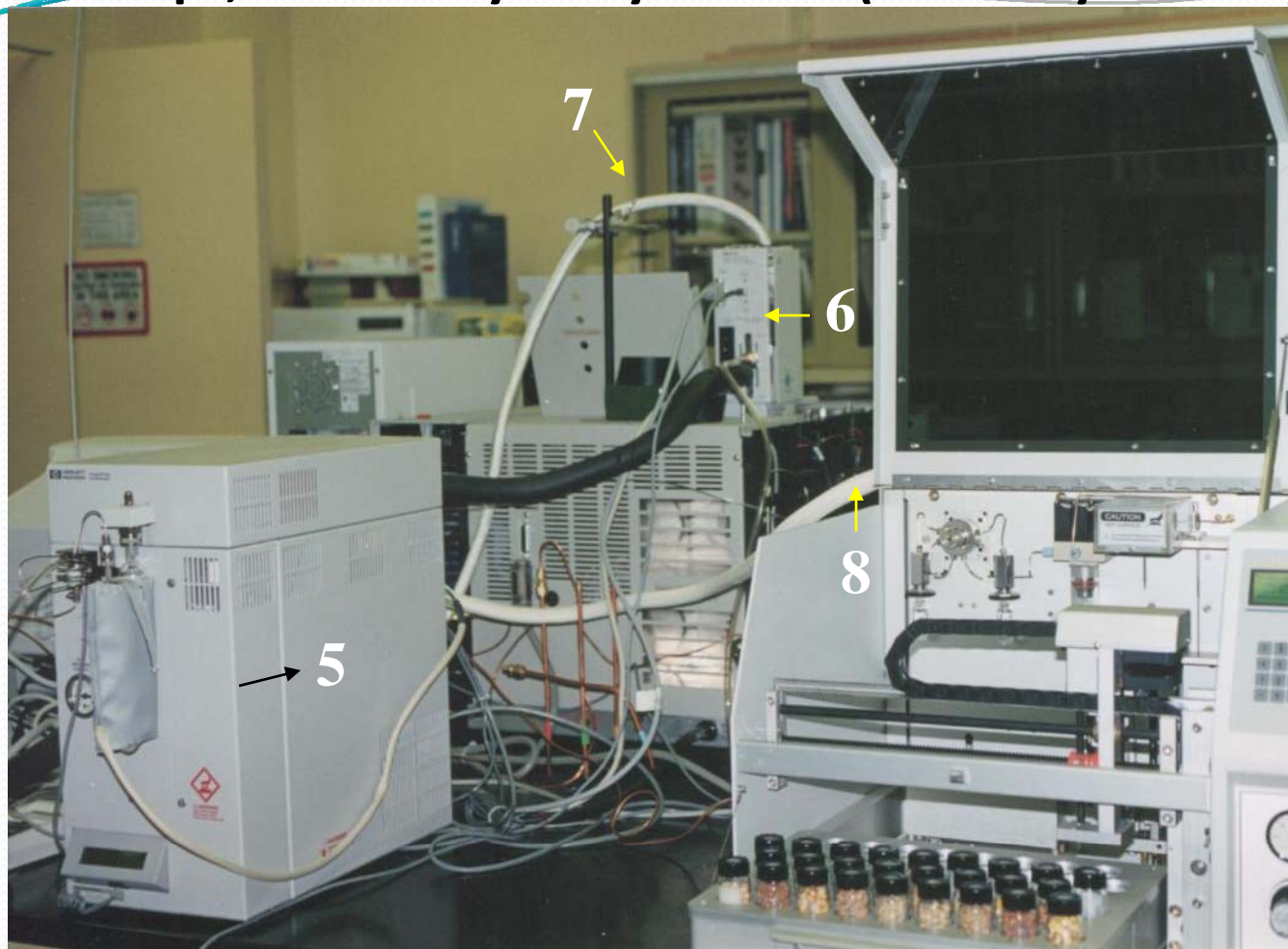
- Odor assessment should be consistent.
- Musty, sour, and COFO classifications are in the US Grain Standards.
- COFO is open-ended. Unlimited possibilities.
- Significantly increasing cost or time for official inspection is probably unacceptable.



Grain Odor—Prior GIPSA Work

- Supported ARS research to identify volatile chemicals associated with odors.
- Collaborated with ARS in feasibility test of several “electronic noses”.
- Collaborated with ARS to develop “odor sniffer” to reduce exposure to dust and mold.
- Collaborated with ARS and KSU Sensory Panel to find new descriptors for grain odors.

ARS Lab System for Sampling, Capturing Volatiles by “Purge and Trap”, and Analysis by GC-MS (Courtesy of Larry Seitz)



- 5 Purge and trap instrument
- 6 Cryofocuser on top of GC.
- 7 Heated fused silica transfer line from purge and trap to cryofocuser on top of GC.
- 8 Heated silcosteel transfer line from autosampler to purge and trap.



Set of 745 Samples – Grain Types and Odors

(Selected samples - not representative of grain in commerce)

Odor	Grain				Total
	Soybeans	Corn	Sorghum	Wheat	
OK	47	31	23	45	146
Musty	28	83	30	65	206
Sour	68	64	35	23	190
Insect	0	2	5	70	77
Smoke	46	22	4	5	77
COFO	9	8	0	16	33
Weed	4	0	0	12	16
Total	202	210	97	236	745

Provided by Larry M. Seitz, ARS-retired

Examples of Association of Volatiles to Off-odors in Grains

Methyl Butyrate

Grain	Odor	Amount ng / 20 g
Soybean	B 2.9	65
Soybean	B 2.7	41
Wheat	B 2.1	31
Wheat	B 2.0	20
Soybean	B 1.8	11
Soybean	B 2.1	3
Soybean	B 1.8	1.7
Wheat	I 2.9	1.6
Corn	M 1.4	1.3
Wheat	I 2.0	<u>1</u>

2-Pentanol

Grain	Odor	Amount ng / 20 g
Wheat	I 3.0	760
Wheat	I 2.7	617
Wheat	I 2.0	499
Wheat	I 3.0	307
Wheat	I 2.2	187
Wheat	I 1.7	159
Wheat	I 1.6	142
Sorghum	M 1.3	38
Soybean	O 0.0	18
Wheat	O 0.0	<u>13</u>

Provided by Larry M. Seitz, ARS-retired

 Odor threshold

Target Compounds for Detecting Off-Odors

Odor	Name	Threshold
Musty	Geosmin	0.3
Musty	Methoxybenzene (anisole)	1
Musty	1-Chloro-4-methoxybenzene	1
Musty	1,2-Dimethoxybenzene	1
Musty	2-Methoxy-3-(1-methylethyl)pyrazine *	1
Musty	1-Ethenyl-4-methoxybenzene	5
Musty	Nitromethane *	5
Musty	3-Octanone *	10
Musty	1-Octen-3-ol *	20
Musty	1-Ethyl-4-methoxybenzene	20
Musty	2-Methyl-1-propanol *	100
Musty	3-Methyl-1-butanol *	100

Provided by Larry M. Seitz, ARS-retired

Target Compounds for Detecting Off-Odors

Odor	Name	Threshold
Sour	Methyl butanoate	1
Sour	Ethyl Butanoate	2
Sour	Ethyl 3-methylbutanoate	2
Sour	Styrene *	2
Sour	Ethyl acetate *	3
Sour	Ethyl hexanoate	3
Sour	Methyl pentanoate	5
Sour	Ethyl pentanoate	5
Sour	Methyl hexanoate *	10

Provided by Larry M. Seitz, ARS-retired

Target Compounds for Detecting Off-Odors

Odor	Name	Threshold
Smoke	2-Ethylpyridine	1
Smoke	2-Ethyl-3,5-dimethylpyrazine	1
Smoke	2-methylbenzofuran *	2
Smoke	Pentylbenzene	2
Smoke	Hexylbenzene	2
Smoke	Benzofuran *	5
Smoke	1H-Indene *	15

Provided by Larry M. Seitz, ARS-retired

Target Compounds for Detecting Off-Odors

Odor	Name	Threshold
Insect (RFB)	1-Pentadecene	1
Insect (RFB)	Sequiterpene	1
Insect (RFB)	1,4-dimethoxybenzene	1
Insect	Linalool	5
Insect (LGB)	2-Pentanol	50
Insect (LGB)	2-Pentanone *	50

Provided by Larry M. Seitz, ARS-retired

Target Compounds for Detecting Off-Odors

Odor	Name	Threshold
COFO	O,O,S- trimethylphosphorodithioate	1
COFO	2-Butenedioic acid, diethyl ester	1
COFO	O,O,O- trimethylphosphorothoate	1
COFO	Alkylbenzenes, fuels, cellosolve acetate, naphthalene, solvents, halogenated compounds, carbon tetrachloride, carbon disulfide	

Provided by Larry M. Seitz, ARS-retired

Target Compounds for Detecting Off-Odors

Odor	Name
Weed (clover)	2-hydroxyacetophone, 2-hydroxybenzaldehyde
Weed (leafy-green)	2-penten-1-ol, 2-hexen-1-ol, 2-hexenal, other enals
Weed	2-methylpropanal, 2-methylbutanal, 3-methylbutanal
Weed	Terpenes: pinene, terpinene, limonene, longifolene, alpha-bergomatene, others
Weed ?	Trimethylamine, dimethylsulfide

Provided by Larry M. Seitz, ARS-retired



“Odor Sniffer” developed by GIPSA and ARS

- Shown to drastically reduce inspector exposure to dust and spores
- Less than 30 seconds per test
- Odor assessments consistent with “pan” tests
- Cost: <\$5000
- Abandoned after first round of prototypes
- “Too slow”





Grain Odor—Solutions

- Use existing “odor sniffer” to reduce exposure to dust and mold.
- Develop and implement “electronic noses” for all official odor assessments.
- Develop and use “electronic noses” as inspection aids for borderline samples.
- Develop reference instrumentation for training and maintaining stability.
- Develop chemical odor standards for training and maintaining stability.



Grain Odor—New Technologies

- Gas Chromatography
 - Miniaturized fast GC with Surface Acoustic Wave or Mass Spectrometry sensors
- Ion Mobility Mass Spectrometry
- “Electronic nose” sensors
 - Conductive polymers
 - Metal oxide semiconductors
 - Dye-labeled fluorescent DNA-based sensors

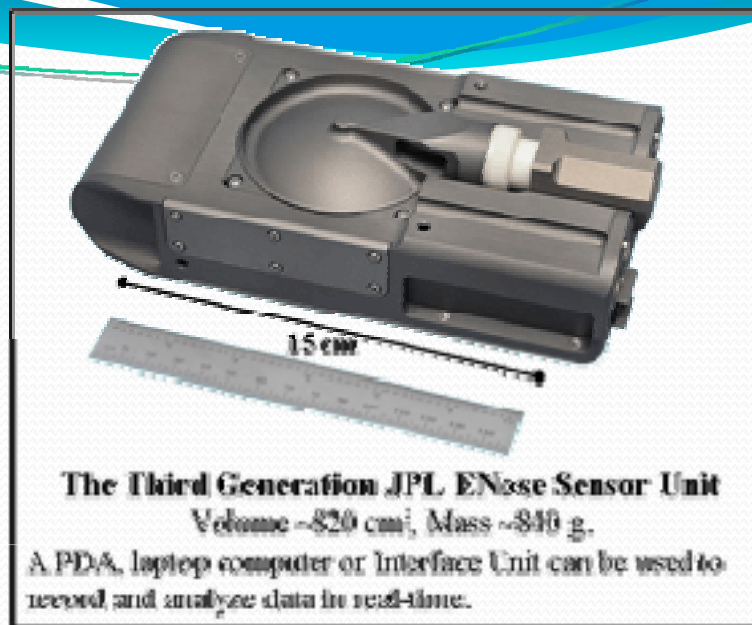
zNose¹ (fast GC with SAW)



SensorFreshQ



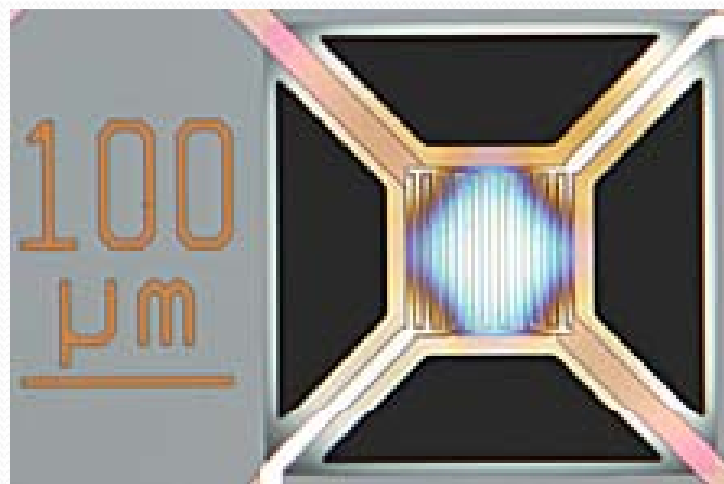
JPL (conductive polymers)



The Third Generation JPL ENose Sensor Unit
Volume ~820 cm³, Mass ~840 g.

A PDA, laptop computer or Interface Unit can be used to record and analyze data in real-time.

NIST (nanotechnology heated polymers)



¹The mention of firm names or trade products does not imply that they are endorsed or recommended by the USDA over other firms or similar products not mentioned.

Alpha-MOS FOX (conductive metal oxides)



Alpha-MOS Kronos (GC-MS)



MIT/CogniScent (dye-labeled fluorescent DNA)





Current State-of-the-Art

“The electronic nose, in use today, replaces neither complex analytical equipment nor odor panels but supplements both of them... Keeping its limitations in mind and adapted for a specific purpose, this will be the future for the electronic nose for as long as the ability to smell odors rather than detect volatiles is still far away over the rainbow.”

Röck, Barsan, and Weimar, “Electronic Nose: Current Status and Future Trends,” *Chem. Rev.*, 2008 **108** (2), 725



Conclusions

- Objective assessments of odors (other than COFO) are probably technically feasible IF odors are defined as the presence of certain volatiles.
- Any objective odor measurement will cost more and take longer (perhaps much longer) than sensory assessments.
- Developing semi-rapid field-compatible instruments will be very costly.
- Unless the market is large, official inspection will have to bear the cost of development alone.
- Any objective method would have to be calibrated to match reference sensory assessments.
- An objective method would not eliminate arguments over whether an identifiable odor is “good” or “bad.”

Overview of GIPSA Research Activities

John R. Sharpe
Director, Technical Services Division

Advisory Committee Meeting
December 16, 2008



Grain Inspection, Packers and Stockyards Administration

Outline

- GIPSA research strategy
- Research related to
 - Instruments
 - Analytical or chemical methods

Research Strategy

- Goals
 - Facilitate marketing of grain (official and commercial inspection)
 - Focus on applied rather than basic research
 - Successful market application versus “statistical significance”
- GIPSA research is “methods development”
- Prioritize short- and long-term market needs

Resources

- USDA/Agricultural Research Service (ARS)
 - GIPSA-ARS Memorandum of Understanding
 - ARS provides basic research
- Universities and private companies
- Recruit, develop, and maintain technical expertise in crucial research areas

Chemistry	Biochemistry
Physics	Engineering
Biotechnology	Rheology
Mathematics/Statistics	Economics

Official or Commercial? Categories of Quality Factors

- Grade-determining factors
 - Profoundly impact almost all users
- Mandatory factors
 - Broadly applicable to most users
- Permissive factors
 - Specialized for certain markets
- Segregation factors
 - Used only for niche markets (non-commodity)
- Categorization determined from ANPR

Research: Instrumental Methods

- Near-Infrared Spectroscopy
- Dielectric Moisture Measurement
- Physical Properties Measurements and Sampling Methods

Near-Infrared Spectroscopy

- Monitor official NIRT calibration accuracy and improve when necessary
 - 2009 soybean protein and oil update
- Evaluate feasibility of other NIRT applications
 - Linolenic acid in soybeans
 - Wheat functionality
- Evaluate/support/standardize commercial NIR measurements thru the National Type Evaluation Program (NTEP)

Moisture Measurements

- Evaluate and enhance accuracy of official calibrations (60+)
- Evaluate/support/standardize commercial moisture measurements thru NTEP
 - Currently 5 moisture meters in annual review
- Develop Unified Grain Moisture Algorithm and support commercialization
 - Improve moisture measurement accuracy and consistency
 - Permit multiple manufacturers to use common calibrations
 - Reduce costs of calibration support

Physical Properties and Sampling

- Revise bases of determination to facilitate automation and multifunctional instruments
 - Completed study to assess effects of different bases of determination
- Review and enhance processes for evaluating mechanical sampling systems
 - Developed theoretical basis for evaluating DT sampler design
 - Implement recommendations of review

Research: Analytical and Chemical Methods

- Biotechnology
- Trace Analyses
- Wheat Functionality

Biotechnology

- Respond as needed to inadvertent release of biotech events
 - Serve as objective third party to validate PCR methods and perform other crucial testing
 - Develop effective methods for extracting DNA from various plant sources
- Validate PCR methods to accurately quantify specific biotech events in the market
- Promote international harmonization of biotech testing methods
 - Participate in international scientific discussions
 - Perform and publish scientific work related to harmonization of methods
 - Participate in international ring studies of biotech methods
 - Conduct Biotech Proficiency Program

Trace Analyses

- Develop chemical reference methods to detect and quantify:
 - Pesticide Residues
 - Developed methods for assessing pesticides in rice
 - Modify corn and soybean methods for effective corn and soybean surveys
 - Mycotoxins
 - Developed ochratoxin A reference method
 - Developed high-sensitivity aflatoxins method based on UPLC with fluorescence detection
 - Apply the new method to aflatoxins in DDGS

Wheat Functionality

- Improve Farinograph standardization
- Rapidly assess gluten strength
- Identify wheat varieties by HPLC

Farinograph Ring Study – 2008

- Controlled Design
 - 4 labs and 5 instruments
 - 5 flour samples from weak to strong
 - Farinograph E with specified water addition
 - Instrument calibration confirmed by C.W. Brabender
- Conclusions
 - Mathematical algorithms have the potential for improving consistency and objectivity
 - Additional data analysis is being conducted

Gluten Strength Project Approach

- Separate wet gluten from flour sample
- Allow gluten to strengthen in defined shape
- Apply “strain” to a different shape
- Monitor its recovery towards original shape
- Quantify one or more indices of recovery to correlate to protein quality

The implementation: wet gluten preparation with GM2200¹



¹The mention of firm names or trade products does not imply that they are endorsed or recommended by the U.S. Dept. of Agriculture over other firms or similar products not mentioned.

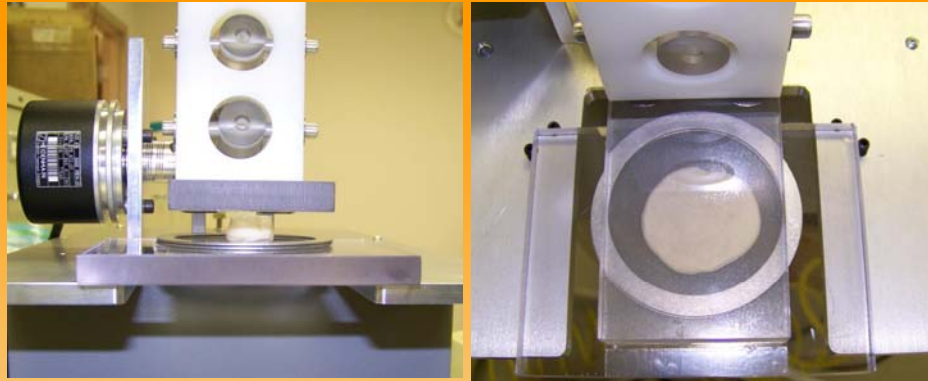
The implementation: sample shaping device



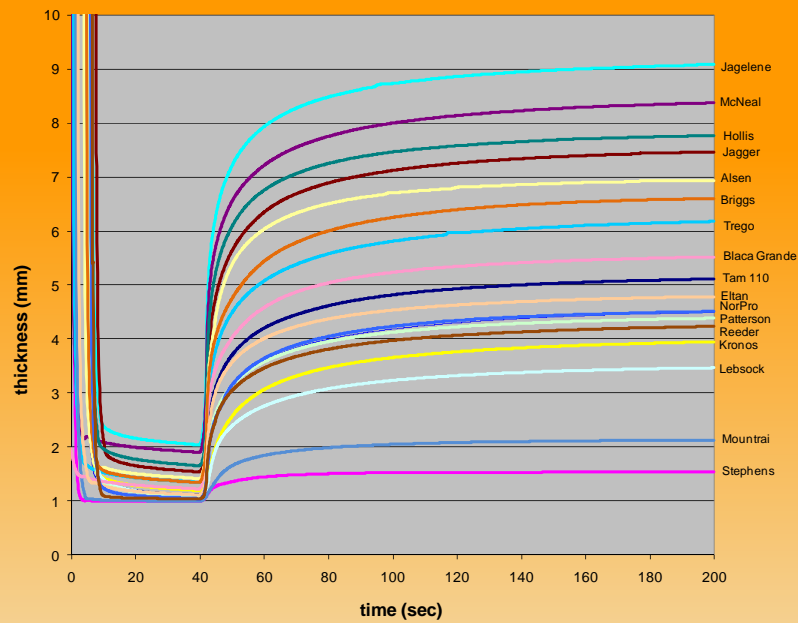
Perten Viscoelastic Tester



Perten Viscoelastic Tester



Separation of Strong and Weak Glutens



Variety Identification

- Goal: Maintain confidence in official wheat classification through objective varietal identification
- Reversed-phase HPLC*
 - Developed by USDA-ARS; GMPRC
 - Simple sample preparation

* Lookhart, G. L.; Bean, S. R.; Bietz, J. A. *Cereal Foods World*, **2003**, *48*, 9.

Develop Variety Fingerprint Library

- Apply our developed HPLC methods to record protein “fingerprints” of all major US wheat varieties
- Develop methods for searching the fingerprint library
- Test whether pure varieties can be uniquely determined from their protein fingerprints
- Attempt to relate gluten characteristics to protein fingerprints

Use of Contractors for Export Services: Pilot Project Summary And Next Steps

Grain Inspection Advisory Committee Meeting

Kansas City, MO

December 16, 2008

Discussion Topics

- **Pilot Project Background**
- **Labor Contract**
- **Service Delivery Contract**
- **RFI Response**
- **Indirect Cost Analysis**
- **Pilot Project Findings**

Pilot Project Background

- *May 2004 – Advisory Committee Resolution*
- *September 2005 – Reauthorization of USGSA*
 - *Congressional Record:*
 - *Improve competitiveness of U.S. grain*
 - *Maintain integrity of Federal system*
 - *Provide benefits to impacted employees*
- *2006 – FGIS initiates contract activities*

Pilot Project Background

- *FGIS Contract Activity*
 - *Labor Contract*
 - *Supplement Federal workforce*
 - *Service Delivery Contracts*
 - *FGIS approves multiple contract companies*
 - *Contract companies compete to gain service from exporter*
 - *Contractors negotiate fees/services with exporter*
 - *Contractor reimburses FGIS for export onsite oversight*

Pilot Project Background

- Locations for Pilot Projects
 - *Labor Contract*
 - *Corpus Christi – samplers, technicians, weighers*
 - *Service Delivery Contracts*
 - *California – replace delegated State*
 - *Milwaukee – replace delegated State*
 - *Toledo Field Office – small market, minimally staffed*
(Chicago, IL – Portage, IN – Toledo, OH – Albany, NY)

Corpus Christi Labor Contract

- *First Proposal*
 - *One company applied*
 - *Initial offer \$30/hour (FGIS declines)*
 - *Best offer \$18/hour (FGIS accepts)*
 - *Contractor withdraws offer – no contract signed*
- *Second Proposal*
 - *One company applied*
 - *\$18/hour (FGIS accepts)*
 - *Contractor indicates financial loss - drops contract*

Service Delivery Contracts

- Milwaukee
 - Active from 2006 to 2008 (*info to 10-1-2008*)

SHIPPING YEAR	NUMBER OF LOTS	VOLUME (METRIC TONS
2006	25	413,653
2007	23	335,849
2008	4	76,887
TOTAL	52	826,389

Service Delivery Contracts

- Milwaukee direct service costs
 - Contractor revenue = \$0.64/metric ton
 - *\$0.461/mton – Contractor*
 - *\$0.182/mton – FGIS oversight [time and travel]*
 - FGIS revenue (reconstructed)
 - *\$0.93/mton – FGIS travel from Chicago/Toledo*
 - *\$0.54/mton – FGIS duty point in Milwaukee*

Service Delivery Contracts

- Toledo
 - Active from 2007 to 2008 (*info to 10-1-2008*)

SHIPPING YEAR	NUMBER OF LOTS	VOLUME (METRIC TONS
2007	74	1,412,357
2008	20	296,860
TOTAL	94	1,709,217

Service Delivery Contracts

- Toledo direct service costs
 - Contractor revenue = \$0.38/metric ton
 - \$0.282/mton – Contractor
 - \$0.101/mton – FGIS oversight [time and travel]
 - FGIS revenue (reconstructed)
 - \$0.46/mton – FGIS local service

Export Port Contracts

Contractor Availability:

- GIPSA posts RFI (Request for Information) in April 2007 FBO (Federal Business Opportunities)
 - New Orleans, League City, and Portland
 - Full Service and Labor Assistance
 - Staffing Plans (time needed to source, train, license)
- RFI closed May 7, 2008

RFI Response

COMPANY	NEW ORLEANS	LEAGUE CITY	PORTLAND
California Agri Inspection Co			✓
Gulf Country Grain Inspection	✓	✓	✓
Intercontinental Grain Inspection	✓	✓	✓
Intertek USA	✓	✓	✓
National Quality Inspection			✓

Summary of RFI Responses

- Limited qualified staff available
- Partnership with FGIS for labor
- Gradual growth into service delivery

Indirect Costs & Contracting

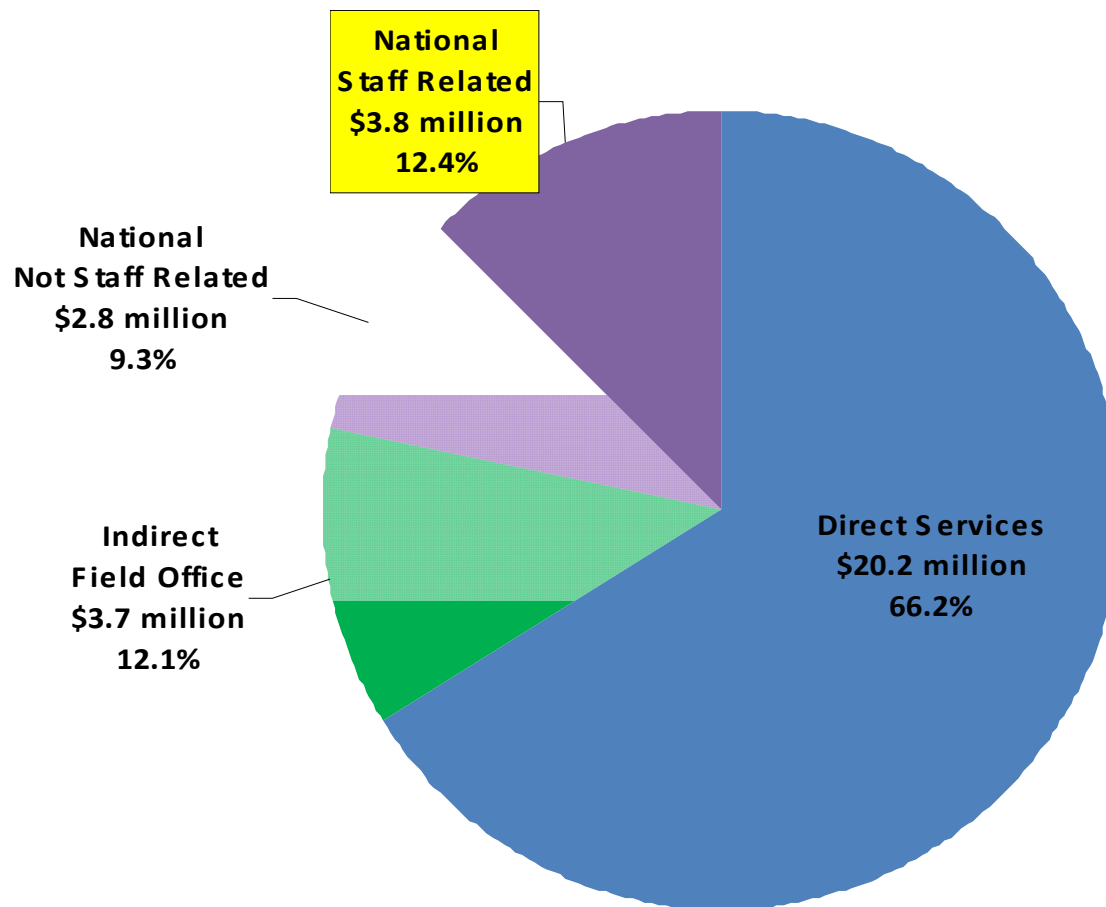
- GIPSA Indirect Costs:
 - **Headquarters Staff**
[Policy, Program, Administrative Support Staffs]
 - **Departmental Programs and Initiatives**
[~66 activities]
 - **Other Federal Administrative Support**
[HR, contracting, financial administrative support]
- Some indirect costs distributed on staff years

Indirect Costs & Contracting

- Analysis of indirect cost changes based on staff year adjustments.
- Assumptions-
 - *Total indirect costs to GIPSA will not change*
 - *Redistribute staff-related costs based on projected staff levels*

GIPSA Indirect Costs

GIPSA Cost Breakdown [Fiscal Year 2007]



Staffing Changes at Export

IF PILOT PROJECT MODEL IS IMPLEMENTED-

- **Staffing impact:**
 - Export field office staff reduction
 - ~302 to ~115 staff years
 - Total Insp./Weighing program staff reduction
 - ~338 to ~146 staff years
 - Total GIPSA staff reduction
 - ~693 to ~506 staff years
- **Financial impact:**
 - Insp./Weighing program reduced ~\$1.1 million
 - Other GIPSA programs increased (~\$5k to ~\$292k)

Pilot Project Findings

- *Qualified and experienced staff not readily available*
- *Prescriptive procedures limit efficiency improvements*
- *Federal onsite oversight adds additional staff to crew*
- *Direct service costs reflect pay, equipment, profit*
- *No new services established by contractors*
- *Service integrity, impartial, and confidence*
- *Strength of national support program*
- *GIPSA attrition process is unpredictable*

Quality Management Program for the Official System



**A VISION FOR CHANGE -- STRATEGY FOR
EXCELLENCE**

**THOMAS C. O'CONNOR
DIRECTOR, COMPLIANCE DIVISION**

Summary



GIPSA is collaborating with official service providers to incorporate principles of modern quality management programs into the official system

"Excellent firms don't believe in excellence -- only in constant improvement and constant change." -- **Tom Peters**

"You cannot expect to achieve new goals or move beyond your present circumstances unless you change." -- **Les Brown**

Agenda



- ❖ **Overview of official system**
 - Official service providers, delegated states, official agencies
 - Delegation and designation criteria
- ❖ **Compliance reviews**
- ❖ **Quality Management Program**
- ❖ **Status and Future Plans**
 - Pilot project
 - Implementation

Official Service Providers



- ❖ **GIPSA manages a system Of official service providers (OSPs):**
 - **Field offices – interior and export port locations**
 - **Delegated states – export port locations**
 - **Official agencies – designated agencies and states**

DL and OA



- ❖ **Delegated states (DL): provide official services at export port locations**
 - Five (5) states
 - Initial legal restrictions
 - Permanent unless terminated, revoked or otherwise cancelled
- ❖ **Official agencies (OA): provide official services at non-export port locations**
 - Ten (10) designated states and forty four (43) private agencies
 - Geographic areas
 - Expire triennially

USGSA Criteria



- ❖ **Delegated states and official agencies must meet specific USGSA criteria, e.g.,:**
 - **Supervision**
 - **Training**
 - **Nondiscriminatory and reasonable fees**
 - **Personnel rotation**
 - **Maintain complete and accurate records**
 - **Conflict of interest**
 - **Follow GIPSA regulations, instructions and other criteria**

Compliance Review Program



- ❖ **To ensure that OSPs continue to meet statutory and regulatory requirements, the Compliance Division:**
 - **Conducts comprehensive on-site reviews of OAs at least once during 3-year designation period (DL-OA as well)**
 - **Approximately one-third each year**
 - **Decision made to:**
 1. **Grant full three year renewal**
 2. **Issue a letter of jeopardy; one-year renewal; follow-up review**
 3. **Terminate**
 - **Field offices and DL-only normally reviewed every 3-5 years**

Quality Management Program



- ❖ **Initial startup in September 2007**
 - Suspended for several reasons
- ❖ **GIPSA-AAGIWA task force**
- ❖ **Draft GIPSA QMP**
 - Specify minimum local QM plan criteria
 - OSPs submit local QM plan/manual to GIPSA for review (“GIPSA desk audit”)
 - Annual internal audits -- GIPSA follow-up audits
 - Audits will replace comprehensive reviews

Status and Future Plans



- ❖ **Pilot project underway:**
 - **GIPSA field office (1)**
 - **Delegated/designated state (1)**
 - **Designated state (1)**
 - **Private designated agencies (4)**
- ❖ **Draft manuals to CP for “desk audit”**
- ❖ **Evaluation; implementation time table**
- ❖ **Why change?**

Conclusion



GIPSA and AAGIWA are working together to implement a Quality Management Program to promote positive change and enhanced performance within the official inspection system through adoption of modern quality management principles and audit procedures -- We thank AAGIWA for its work and continued commitment to excellence in the official inspection system.

GIPSA Financial Update

Pat Donohue-Galvin, Director
Budget and Planning Staff
December 2008





Agenda

- FY 2008 Year-End Financial Report
- FY 2009 Financial Outlook





GIPSA User Fee Programs

U.S. Grain Standards Act

- **Inspection and Weighing Program**
- **Supervision of Official Agencies Program**

Agricultural Marketing Act

- **Rice Inspection Program**
- **Commodity Inspection Program**

Funds available until expended; balances carry forward.





Inspection and Weighing Program (Dollars in Millions)

	<i>Sept 08</i>	<i>Sept 07</i>	Delta
Revenue	\$ 35.9	\$ 31.4	\$ 4.5
Expenses			
Agency Support	<i>\$ 3.0</i>	<i>\$ 2.9</i>	<i>\$ 0.1</i>
Central Charges	<i>\$ 2.3</i>	<i>\$ 2.3</i>	<i>\$ -</i>
Program Support	<i>\$ 1.4</i>	<i>\$ 1.4</i>	<i>\$ -</i>
Program Delivery	<i>\$ 26.7</i>	<i>\$ 23.9</i>	<i>\$ 2.8</i>
Total Expenses	\$ 33.4	\$ 30.5	\$ 2.9
Gain/Loss	\$ 2.5	\$ 0.9	\$ 1.6
Prior Year Transactions	<i>\$ 0.5</i>	<i>\$ 0.4</i>	<i>\$ 0.1</i>
Reserve Balance	\$ 6.3	\$ 3.3	\$ 3.0





Supervision of Official Agencies Program (Dollars in Millions)

	<i>Sept 08</i>	Sept 07	Delta
Revenue	\$ 2.5	\$ 2.3	\$ 0.2
Expenses			
Agency Support	\$ 0.2	\$ 0.2	\$ -
Central Charges	\$ 0.1	\$ 0.1	\$ -
Program Support	\$ 0.6	\$ 0.4	\$ 0.1
Program Delivery	\$ 0.9	\$ 1.0	\$ -
Total Expenses	\$ 1.8	\$ 1.7	\$ 0.1
Gain/Loss	\$ 0.6	\$ 0.6	\$ 0.1
Prior Year Activity	\$ -	\$ -	\$ -
Reserve - EOY	\$ 2.6	\$ 2.0	\$ 0.6





Rice Inspection Program (Dollars in Millions)

	<i>Sept 08</i>	<i>Sept 07</i>	<i>Delta</i>
Revenue	\$ 5.0	\$ 3.4	\$ 1.6
Expenses			
Agency Support	\$ 0.4	\$ 0.4	\$ -
Central Charges	\$ 0.3	\$ 0.3	\$ -
Program Support	\$ 0.1	\$ 0.1	\$ -
Program Delivery	\$ 3.2	\$ 3.2	\$ -
Total Expenses	\$ 4.0	\$ 4.0	\$ -
Gain/Loss	\$ 1.0	\$ (0.6)	\$ 1.6
Prior Year Transactions	\$ 0.2	\$ -	\$ 0.2
Reserve Balance	\$ 0.5	\$ (0.6)	\$ 1.1





Commodities Inspection Program (Dollars in Millions)

	<i>Sept 08</i>	Sept 07	Delta
Revenue	<i>\$ 2.3</i>	\$ 1.9	\$ 0.4
Expenses			
Agency Support	<i>\$ 0.3</i>	\$ 0.3	\$ -
Central Charges	<i>\$ 0.2</i>	\$ 0.2	\$ -
Program Support	<i>\$ 0.3</i>	\$ 0.2	\$ 0.1
Program Delivery	<i>\$ 1.8</i>	\$ 1.7	\$ 0.1
Total Expenses	<i>\$ 2.5</i>	\$ 2.4	\$ 0.1
Gain/Loss	<i>\$ (0.2)</i>	\$ (0.5)	\$ 0.3
Prior Year Transactions	<i>\$ 0.1</i>	\$ 0.4	\$ (0.3)
Reserve Balance	<i>\$ 1.7</i>	\$ 1.8	\$ (0.1)





GIPSA Grain Regulatory Program

Annual Appropriated Funding (\$17.6M) comprised of :

- \$6.5M for GSA Compliance Activities
- \$6.7M for Methods Development Activities
- \$4.4M for Standardization Activities

Funds available one year; “use or lose” balances.





Grain Appropriated Programs (Dollars in Millions)

	<i>Sept 08</i>	Sept 07	Delta
Appropriation	<i>\$ 17.6</i>	\$ 17.6	\$ -
Expenses			
Agency Support	<i>1.9</i>	1.9	\$ -
Central Charges	<i>0.9</i>	0.9	\$ -
Program Support	<i>9.9</i>	9.9	\$ -
Program Delivery	<i>4.8</i>	4.8	\$ -
Total Expenses	<i>17.5</i>	17.5	\$ -
Balance	<i>0.1</i>	0.1	\$ -





FY 2009 Financial Outlook

❑ User Fee Programs

- Revenues estimated to decrease 10%.
- Overtime reductions.
- 3.9 % pay cost increase effective Jan. 2009.

❑ Grain Regulatory Program

- Expect omnibus appropriation equal to FY 2008 funding level.
- No increase to cover 3.9 % pay cost increase effective Jan. 2009.

