United States Department of Agriculture
Grain Inspection, Packers & Stockyards Administration
Federal Grain Inspection Service

2014 Annual Report

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Federal Grain Inspection Service: 2014 Annual Report

Table of Contents

The Federal Grain Inspection Service

The U.S. Department of Agriculture's (USDA) Grain Inspection, Packers and Stockyards Administration's Federal Grain Inspection Service (FGIS) establishes quality standards for grains, oilseeds, pulses, and legumes; provides impartial inspection and weighing services through a network of Federal, State, and private entities; and monitors marketing practices to enforce compliance with the U.S. Grain Standards Act, as amended, (hereinafter, USGSA) and Agricultural Marketing Act of 1946, as amended (hereinafter, AMA). Through these activities, FGIS facilitates the marketing of grain, oilseeds, and related products.

FGIS administers uniform, national grain inspection and weighing programs established by the USGSA. Services under the USGSA are performed on a fee basis for both export and domestic grain shipments. The USGSA requires that export grain be inspected and weighed, prohibits deceptive practices with respect to the inspection and weighing of grain, and provides penalties for violations.

Agency Mission

FGIS' primary mission is twofold: promote the marketing of high-quality grain to domestic and international buyers and maintain objective standards for grain to certify its quality as accurately as practicable. These standards define uniform and descriptive terms to facilitate the grain trade, help determine grain storability, offer users the best possible information to determine end-product yield and quality, provide market incentive frameworks, reflect the economic value-based characteristics to end users, and accommodate scientific advances in testing.

Key Activities

In administering and enforcing the USGSA, FGIS:

- Establishes and maintains official U.S. grain standards for barley, canola, corn, flaxseed, oats, rye, sorghum, soybeans, sunflower seed, triticale, wheat, and mixed grain;
- Promotes the uniform application of official U.S. grain standards by official inspection personnel;
- Establishes methods and procedures and approves equipment for the official inspection and weighing of grain;
- Provides official inspection and weighing services at certain U.S. export port locations, and official inspection of U.S. grain at certain export port locations in eastern Canada along the St. Lawrence Seaway;
- Delegates qualified State agencies to inspect and weigh grain at certain U.S. export port locations;

- Designates qualified State and private agencies to inspect and weigh grain at interior locations;
- Licenses qualified State and private agency personnel to perform inspection and weighing services;
- Provides Federal oversight of the official inspection and weighing of grain by delegated States and designated agencies;
- Investigates, in cooperation with the USDA Office of Inspector General, alleged violations of the USGSA and initiates appropriate corrective action;
- Monitors the quality and weight of U.S. grain as received at destination ports, and investigates complaints or discrepancies reported by importers; and
- Helps U.S. trading partners develop and improve their grain inspection and weighing programs.

Services Provided Under USGSA and AMA

Under provisions of the USGSA, most grain exported from U.S. export port locations must be officially weighed. A similar requirement exists for inspection, except for grain that is not sold or described by grade. Intercompany barge grain received at export port locations also must be officially weighed. The USGSA also requires that all corn exported from the U.S. be tested for aflatoxin prior to shipment, unless the contract stipulates that testing is not required.

Mandatory inspection and weighing services are provided by FGIS on a fee basis at 45 export elevators (including 4 floating rigs). Five delegated States provide official services at an additional 13 export elevators under FGIS oversight.

Under the AMA, FGIS administers and enforces certain inspection and standardization activities related to rice, pulses, lentils, and processed grain products such as flour and corn meal, as well as other agricultural commodities. Services under the AMA are performed upon request on a fee basis for both domestic and export shipments by either FGIS employees or individual contractors, or through cooperative agreements with States and or other official agencies.

About This Report

Pursuant to section 87(f-2) of the USGSA, FGIS respectfully submits this report each year to the United States Congress. Activities described in this report cover fiscal year 2014 (October 1, 2013, to September 30, 2014).

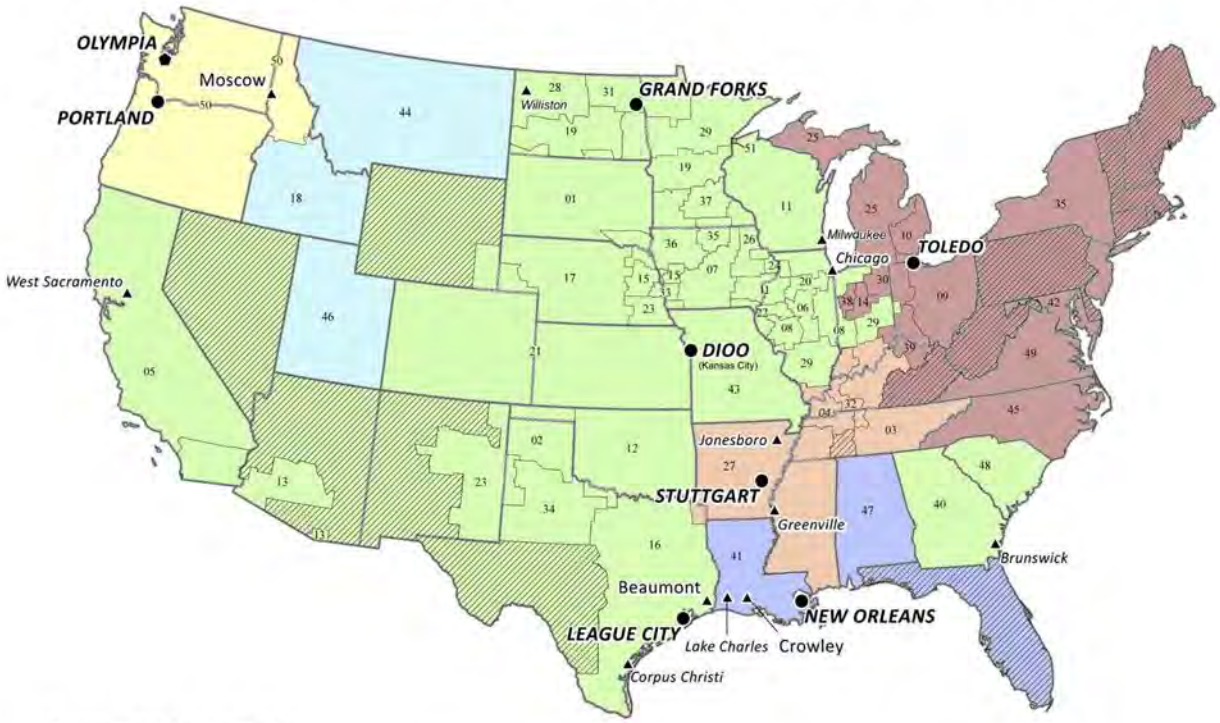
After the introduction, the report is divided into six sections. Sections 2 through 4 represent program goals, and the last two sections provide information regarding FGIS' management initiatives and financial position.

Any mention of firm names or trade products does not imply that they are endorsed or recommended directly or indirectly by the U.S. Department of Agriculture.

Employees & Locations

As of September 20, 2014, FGIS was comprised of 414 full-time permanent employees and 76 temporary employees located at headquarters unit in Washington, D.C.; the National Grain Center in Kansas City, Missouri; 7 field offices; and 1 Federal/State office. Field offices are located in Stuttgart, Arkansas; Kansas City, Missouri; Grand Forks, North Dakota; League City, Texas; New Orleans, Louisiana; Portland, Oregon; and Toledo, Ohio. FGIS also has a Federal/State office in Olympia, Washington. FGIS offers official inspection and weighing services in all areas of the U.S. and services for U.S. grain exported through Canadian ports.

OFFICIAL AGENCY GEOGRAPHIC AREAS AND FGIS FIELD OFFICES



Designated Private Agencies

01 Aberdeen	11 Eastern Iowa	21 Kansas	31 Northern Plains
02 Amarillo	12 Enid	22 Keokuk	32 Ohio Valley
03 Barton	13 Farwell Southwest	23 Lincoln	33 Omaha
04 Cairo	14 Frankfort	24 McCrea	34 Plainview
05 California Agri	15 Fremont	25 Michigan	35 Schaal
06 Central Illinois	16 Gulf Country	26 Mid-Iowa	36 Sioux City
07 Central Iowa	17 Hastings	27 Midsouth	37 State Grain
08 Champaign	18 Idaho	28 Minot	38 Titus
09 Columbus	19 Jamestown	29 North Dakota	39 Tri-State
10 Detroit	20 Kankakee	30 Northeast Indiana	

Designated States

40 Georgia
41 Louisiana
42 Maryland
43 Missouri
44 Montana
47 North Carolina
46 Utah

Designated and Delegated States

47 Alabama
48 South Carolina
49 Virginia
50 Washington

Delegated State

51 Wisconsin

Field Office Circuits

- DIOO (Grain/Processed Commodities); Grand Forks (Pulses); and Stuttgart (Rice)
- Grand Forks
- New Orleans
- Olympia
- Stuttgart
- Toledo

- FGIS Field Offices
- Federal/State Office
- FGIS Duty Points
- Official Agency Boundaries
- Unassigned Areas
- State Boundaries

Prepared by USDA, GIPSA, FGIS Quality Assurance and Compliance Division, November 2014

Section I: Outlook 2015

U.S. Standards for Grain

FGIS regularly reviews the official standards for grain to ensure that the standards remain relevant to the marketplace. In 2014, FGIS continued its review of the U.S. Standards for Barley by publishing a Notice of Proposed Rulemaking in the Federal Register amending the Barley standards. FGIS will prepare a final rule for publication in 2015.

Pesticide Residue Testing and Method Development

FGIS provides pesticide residue testing services for applicants and for domestic and export surveys. In addition, FGIS develops analytical methods to support these activities, which play a critical role in demonstrating the quality of U.S. grain as it relates to health, safety, and adherence to U.S. and international regulatory limits. In 2014, FGIS analyzed 100 export soybean samples for 95 pesticide residues and provided a final report as part of an agreement with the United States Soybean Export Council. In 2014, FGIS also analyzed 168 export wheat samples for 62 pesticide residues and provided reports as part of an agreement with the U.S. Wheat Associates.

GIPSA Employee Conducting Pesticide Residue Testing

Service Delivery Modernization

FGIS continues to improve its inspection and weighing program with enhancements to FGIS*online* (see page 22). In 2015 the FGIS*online* team will focus their efforts on improving the efficiency and effectiveness of service delivery by streamlining business practices through technology. The team is also focusing on identifying how FGIS*online* can support the objectives of the quality program and meet the needs of the future in light of opportunities with new technologies.

As part of this modernization work, in 2015 FGIS will enhance its services by allowing customers to request services online, track the services as they are performed, and provide information to customers via web portal

Section II: Providing the Market With Terms and Methods for Quality Assessment

Mycotoxin and Biotechnology Rapid Test Evaluations

The grain industry needs fast, reliable tests to detect and quantify the incidence of fungal-produced mycotoxins in grain as well as to detect the presence of genetically-engineered (GE) traits in grains. To ensure that commercially available tests provide reliable results, FGIS offers a performance evaluation and certification program.

In 2014, a total of 22 rapid test kits were evaluated for the analysis of mycotoxins (aflatoxin, deoxynivalenol, fumonisin, ochratoxin A, and zearalenone). Of the 22 test kits, 12 met the FGIS performance criteria and were certified. Three test kits were evaluated and certified for detection of genetically enginerred (GE) events (Alpha amylase, Vip3a, and Cry 34Ab1 proteins).

Water-Based Test Kits: A new technology has been developed that allows for the use of water for the extraction of aflatoxin and fumonisin instead of more hazardous organic solvents. The use of water instead of organic solvents would eliminate the need for special handling of this waste, thereby reducing overall costs. It also reduces possible exposure of operators to hazardous chemicals when performing these tests. As of FY 2014, four water-based test kits have been approved for aflatoxin and one water-based test kit has been approved for fumonisin.

Wheat

Wheat Functionality: The intrinsic qualities of wheat affect the quality of end products. To best determine the ability of wheat to meet specific end-use needs, accurate test methods are needed to differentiate functional qualities. These methods should also be practical, rapid, and reproducible among different laboratories to provide value transparency from the producer to the processor and provide information that better predicts appropriate end-uses, thereby enhancing the marketability of U.S. wheat.

Farinograph Test

Farinograph tests are widely used to determine certain quality factors. FGIS studies have shown significant differences in Farinograph test results among commercial laboratories, which can lead to confusion in wheat markets. In 2008, FGIS initiated a multiple laboratory collaboration that included the instrument manufacturer to identify ways to improve standardization of the Farinograph method among commercial laboratories. In 2009, collaborative studies identified the addition of water and data processing algorithms as additional sources of significant Farinograph method variation.

Wheat (continued)

FGIS has continued collaborative studies of the Farinograph method with the manufacturer. In 2012 the manufacturer introduced a new Farinograph model that incorporated automated water addition and a more flexible software platform. FGIS evaluated the new automated model, developed FGIS procedures for using the instrument, and successfully installed those procedures on another automated model instrument.

In 2013, FGIS evaluated the reproducibility of the new automated instrument by conducting a collaborative study among key commercial wheat testing labs in the United States. In 2014, FGIS analyzed this data and in 2015 will produce a final report documenting the improvements realized with the new Farinograph instrument.

Gluten strength: One of the most important aspects of wheat functionality is gluten strength because it affects bread dough's ability to rise; however, the market lacks a consistent definition of this characteristic. Since 2008, FGIS has worked with USDA's Agricultural Research Service, academia, and industry to develop new standardized methods for precisely and reproducibly describing the viscous and elastic properties of gluten. In 2009, the collaborative work led to private industry's development of a prototype. This gluten test successfully differentiated gluten strength among and within wheat classes. In 2010, FGIS evaluated the relationships between popular empirical dough rheological tests and the new prototype instrument. Clear relationships were identified that may pave the way for a single international test for wheat functionality based on gluten strength. In 2011, FGIS continued its collaboration to refine the gluten strength tests and assess the suitability, relevance, and value for its use in the wheat marketing system. The private industry collaborator in the project developed new near-commercial visco-elastic test prototypes with advanced technologies and delivered them to the FGIS laboratory for further evaluation. In 2012, FGIS evaluated the near-commercial prototypes and developed FGIS test procedures to assess gluten strength. In 2013, FGIS evaluated 48 key hard wheat cultivars using the new prototype instrument. In 2014, FGIS transferred leadership of this project to the manufacturer, Perten Instruments, who plans to conduct a collaborative effort to further refine the test and investigate commercialization of the instrument.

Gluten Strength

Wheat (continued)

The Falling Number test is an important measure of the effect of sprout damage on wheat and an indicator of the performance of wheat during the processing of flour for making various food products. In 2013, FGIS initiated a pilot monitoring program with several laboratories as a precursor to a new quality assurance program to assess and improve the consistency of results among official inspection and testing labs. In 2014, FGIS began both the monitoring and check sample components of the new quality assurance program with all official Falling Number testing labs. The purpose of this quality assurance program is to gather information on the current accuracy of official Falling Number testing and to make improvements as needed. The first biannual check sample program was conducted and the final report sent to participants at 22 locations. An official Falling Number inspection monitoring program was also implemented. Weekly feedback was provided for 21 instruments at 15 testing locations on the accuracy of their results. In 2015, FGIS will evaluate the data accumulated to date and decide whether to tighten the accuracy limits associated with the inspection monitoring program.

Falling Number Test

Reference Method Analyses

FGIS establishes and performs reference methods for protein, moisture, oil, fatty acid composition, and mycotoxins. These methods are used to maintain the accuracy of current testing in the official inspection system and to support development of new rapid field tests. The protein, moisture, oil, and fatty acid reference analyses support the near-infrared spectroscopic, dielectric, and nuclear magnetic resonance instruments used for rapid inspection at field locations that perform official testing. The mycotoxin reference analyses support the evaluation and standardization of rapid tests for official and commercial grain inspection, and support quality assurance programs to ensure consistent and reliable testing results. Analysis by the reference method is available upon applicant request for Board Appeals of mycotoxins – aflatoxin, deoxynivalenol, fumonisin, ochratoxin A, and zearalenone.

Biotechnology

Biotechnology Proficiency Program: The FGIS Biotechnology Proficiency Program now involves 160 organizations on five continents: Africa, Asia, Europe, and North and South America, with more than 80 percent of the participants from organizations outside the United States. FGIS disseminates bi-annually blind test samples to participants and compiles and disseminates the results of tests. This program, which FGIS initiated in 2002, enables organizations to assess and improve their accuracy and precision in identifying GE events in grains and oilseeds, and it gives grain buyers and sellers confidence in the results produced by GE testing laboratories.

Respond to Inadvertent Release of Unapproved Traits into the Marketplace: In recent years, there have been rare exceptions in which inadvertent releases of unapproved GE events entered into the U.S. grain handling system. When such an inadvertent release occurs, a rapid response is necessary to identify and validate methods to detect the trait and thereby protect the integrity of U.S. grain markets. The testing methods must be highly specific and sensitive to effectively maintain confidence in U.S. grain marketing systems. Current detection methods within FGIS' Biotechnology Laboratory focus on high-throughput DNA extraction methodologies which enables FGIS to more effectively respond to inadvertently released products. FGIS is in the initial stages of development of high throughput DNA extraction methods for corn, soybeans, and rice. FGIS assists government and private laboratories that use protein and DNA-based technologies by performing impartial third-party verification of their methods for both qualitative and quantitative detection of transgenic events in GE crops. FGIS involvement in responding to such incidents facilitates harmonization of sampling plans and of international testing for GE grains and oilseeds. FGIS provides expertise to USDA's Animal and Plant Health Inspection Service (APHIS) when responding to inadvertent releases of unapproved GE events.

Chemist Compositing Samples in Microbiology

Harmonizing Biotech Reference Methods: There is a need for highly specific and accurate tests for the various GE crops grown in the United States. FGIS has developed intra-laboratory-validated real-time polymerase chain reaction methods and has evaluated the accuracy, reliability, and proficiency of publicly available methods used to detect and identify GE grains and oilseeds. FGIS participated on a scientific panel of experts engaging U.S. stakeholders and influencing outcomes on issues related to testing of GE traits in grains with the goal of developing global scientific consensus regarding the analysis of transgenic events. FGIS continues to collaborate with international organizations such as Codex Alimentarius, International Organization for Standardization, American Association of Cereal Chemists, American Oil Chemists' Society, Institute for Reference Materials and Measurements, and the Canadian Grain Commission to harmonize testing technologies for GE grains and oilseeds.

Sensory Reference Materials

FGIS' Visual Reference Image (VRI): The VRI system serves as the primary tool to ensure standardization of FGIS' sensory (visual) grain inspection services. In 2014, FGIS created and produced new Smooth Yellow Dry Peas (Fair and Good Color) General Appearance Prints.

Smooth Yellow Dry Peas (Good Color) Smooth Yellow Dry Peas (Fair Color)

Standardizing Commercial Grain Inspection Equipment

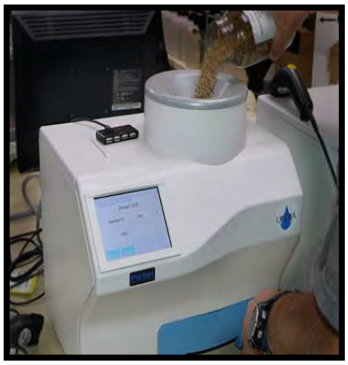
National Type Evaluation Program (NTEP): In 2014, FGIS continued the cooperative effort among FGIS, the National Conference on Weights and Measures (NCWM) and the National Institute for Standards and Technology to standardize commercial inspection equipment. The commercial inspection equipment includes moisture meters and any test weight modules contained within the meters as wll as, near-infrared analyzers (for protein, oil, and starch). FGIS served as the sole evaluation laboratory for grain inspection equipment under the NCWM's NTEP. FGIS collected grain moisture meter calibration data for seven instrument models as part of the NTEP on-going calibration program. Calibrations developed in this program provide traceability back to the official FGIS moisture program and air oven reference method and are used in the majority of moisture meters used in commercial grain transactions throughout the United States.

Standardizing Commercial Grain Inspection Equipment (continued)

In 2014, FGIS' NTEP laboratory coordinated its issuance of Certificates of Conformance with FGIS' implementation of calibrations for the official moisture meter models for use with the major grains. This close coordination ensured that state-regulated commercial moisture meter users could use the same meters and calibrations as those used in official inspection.

In 2014, the NTEP laboratory evaluated a grain moisture meter. In 2015, FGIS will collect grain moisture meter calibration data for six NTEP models and will conduct NTEP testing for new grain inspection equipment models upon request.

Approved Moisture Meters



Perten Instruments' AM-5200-A

Dickey-john Corporation's GAC 2500UGMA

Rice Inspection Methods

Rice Surface Lipids: Some segments of the rice industry believe that surface lipid (oil) measurements of milled rice have the potential to supplement or replace official degree of milling determinations. In FY 2013, FGIS conducted a pilot test of the preliminary near-infrared (NIR) rice surface lipid content (SLC) calibration to validate the calibration and assess its usefulness in describing the extent of bran removal for commercially milled rice. The pilot test included the FGIS Field Office in Stuttgart, Arkansas and four industry stakeholders. Participants collected samples and data to evaluate the performance of the calibration and the relationship between the NIR SLC, reference SLC, and degree of milling determinations.

In FY 2014, FGIS met with the Rice Industry stakeholders and presented the findings of the pilot test which showed a good agreement between the NIR SLC and the reference SLC. However, there was not a good agreement between the degree of milling determinations and either NIR or reference SLC. The stakeholders concluded that the NIR SLC could be of use for their purposes but not as a supplement or replacement of the official degree of milling determinations.

Computer Imagining of Broken Kernels of Rice: The number of broken kernels of rice substantially impacts the value of the rice and is a primary price determining factor. In FY 2013, FGIS began the development of a flatbed scanner system to determine the percent broken kernels in rice samples. The imaging instrument currently used in California to officially determine rice broken kernels is no longer manufactured or supported. The goals of this project are to create software that is compatible with a wide range of inexpensive commercially available scanners and to develop mathematical algorithms that are specifically applicable to all U.S. rice types and varieties for assessing the percentage of broken rice kernels.

Early Seeding Rice Plants

In FY 2014, FGIS conducted a test to solicit user feedback on the design and functionality of the rice broken system which is being packaged as the USDA Rice Studio. This test included the FGIS Field Office in Stuttgart, Arkansas, the FGIS Sub-office in Jonesboro, Arkansas, and the private inspection agency California Agri Inspection Co., Ltd. in West Sacramento, California. The test provided feedback to improve the program and prepare it for a pilot test starting in FY 2014.

In FY 2015, FGIS plans to complete the pilot test of the USDA Rice Studio to evaluate the performance of the program compared to the official total broken kernels and milling yield determinations. FGIS also plans to provide the USDA Rice Studio to interested rice industry participants to gather stakeholder input to decide whether to approve the USDA Rice Studio for official determinations of total broken kernels and milling yield determinations.

Test Weight per Bushel

Test weight measurement is a critical component for the marketing of grains and commodities in the United States. In FY 2012 and 2013, FGIS implemented new moisture meter technology for use in the official inspection system. These new instruments have the capability to determine test weight per bushel. The simultaneous measurement of official moisture and test weight could provide considerable operational efficiencies. Both of the FGIS-approved models have received Certificates of Conformance issued by the National Conference on Weights and Measures as legal for trade for test weight (as well as moisture). In FY 2013, FGIS conducted tests to assess the feasibility of allowing the use of these instruments for official test weight determinations.

In FY 2014, FGIS conducted additional feasibility tests on the performance of official moisture meter models test weight per bushel determinations compared to the official test weight per bushel determinations. The feasibility tests indicated that changes may have to be made to FGIS inspection policy, and to the quality control tolerances for official test weight per bushel determinations. In FY 2015, FGIS plans to meet with the Grain Inspection Advisory Committee to gather stakeholder input to decide whether to approve the instruments for official test weight per bushel determinations.

Technician Striking a Kettle of Grain Using an FGIS approved Test-Weight Apparatus

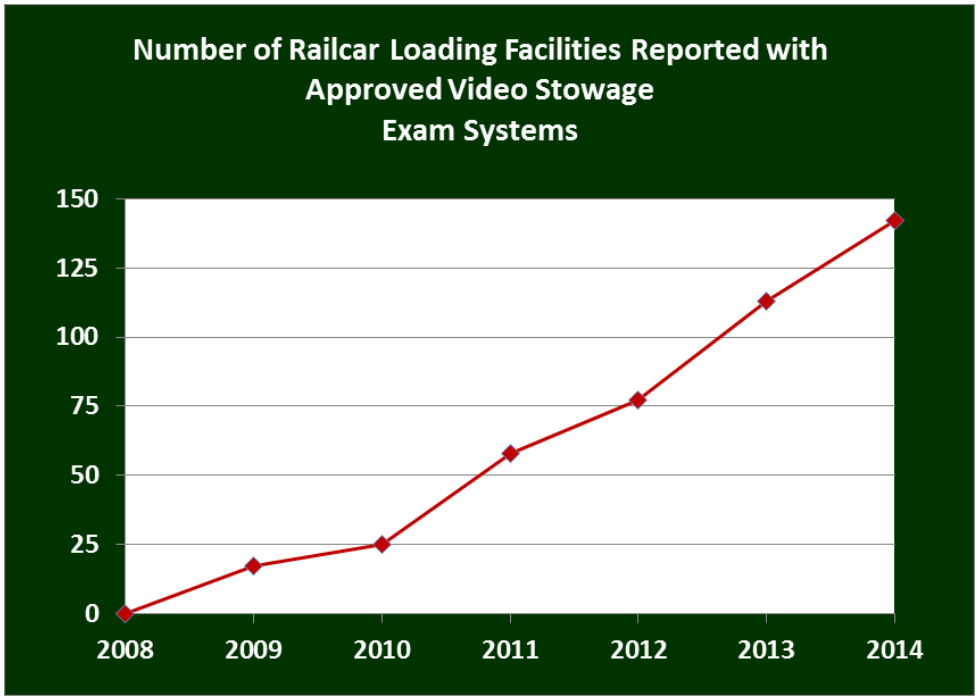
Improving Employee Safety for Railcar Stowage Exams

Managing and reducing the hazard of falling from railcars is a priority of both FGIS and loading facilities. In FY 2014, FGIS provided fall hazard training to all field employees who perform work on rail cars. In addition, FGIS, in conjunction with cooperating loading facilities, determined in many locations that it is feasible for an inspector to perform pre-loading stowage examinations from inside the inspection lab using video cameras mounted above the cars. This eliminates the need to climb on top of the railcars to perform the inspection. With this arrangement, the rail cars are examined a few minutes before they are loaded and the need to climb on top of railcars is eliminated.

Utilizing Video Technology

As of September 2014, 142 facilities have approved video stowage exam systems. Since the 2013 report, new video systems have been approved at 29 facilities.

The following chart shows the increase in rail car stowage exam systems since the start of the program in 2008:



Promoting U.S. Grain to International Customers

FGIS personnel frequently meet with delegations visiting from other countries to brief them on the U.S. grain marketing system, our national inspection and weighing system, U.S. grain standards, and FGIS' mission. Many of these delegations are sponsored by USDA Cooperator organizations like U.S. Wheat Associates and U.S. Grains Council, which arrange visits to grain production areas, FGIS field offices, onsite laboratories at export grain elevators, and the FGIS National Grain Center (NGC) in Kansas City, Missouri. At the NGC, delegations often receive technical training on analytical testing procedures and grain inspection methods and procedures.

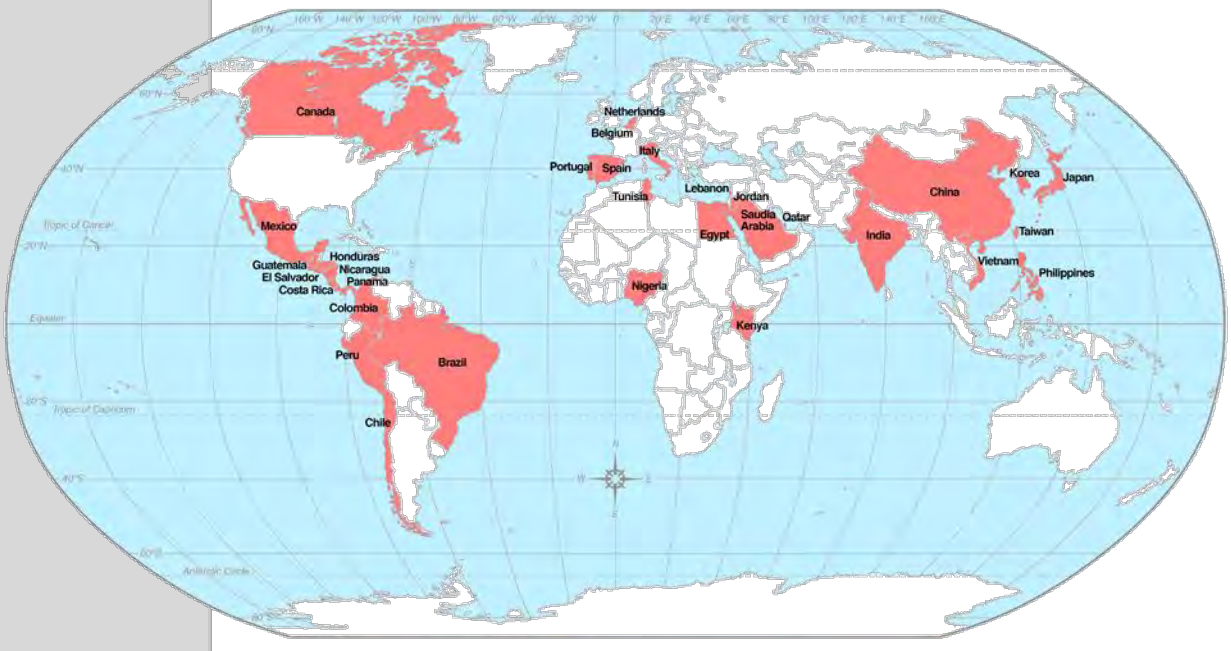
Briefings are tailored to address each group's interests and concerns. Presentations include explanations of the various services available from FGIS, the Agency's use of the latest technology to provide grain traders with accurate and reliable inspection and weighing information and, for importers or potential importers new to the U.S. grain market, information on contracting for the quality they desire.

These briefings foster a better understanding of the entire U.S. grain marketing system and serve to enhance purchasers' confidence in U.S. grain. Ultimately, these efforts help move the nation's harvest to end-users around the globe.

Visiting Trade and Governmental Teams

During 2014, FGIS personnel met with 49 teams from 32 countries.

Belgum	India	Panama
Brazil	Italy	Peru
Canada	Japan	Philippines
Chile	Jordan	Portugal
China	Kenya	Qatar
Colombia	Korea	Saudia Arabia
Costa Rica	Lebanon	Spain
Egypt	Mexico	Taiwan
El Salvador	Netherlands	Tunisia
Guatemala	Nicaragua	Vietnam
Honduras	Nigeria	



International Activities

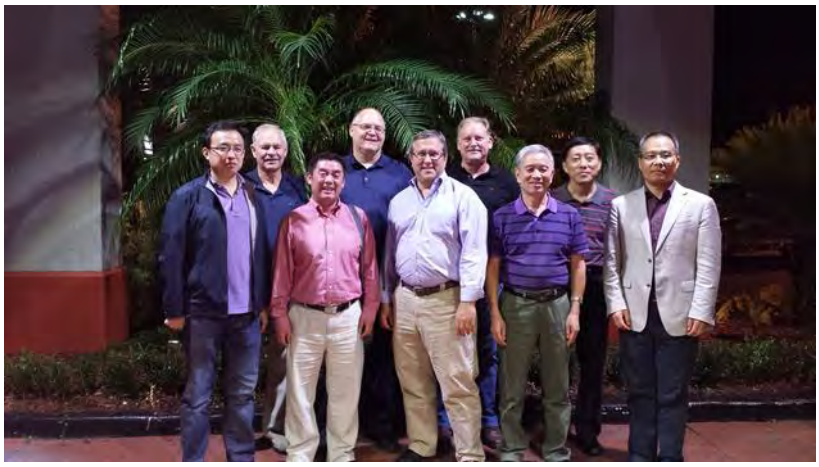
Technical Assistance: In FY 2014, FGIS responded to customers' needs for technical assistance in foreign markets. Exporters, importers, and end-users of U.S. grains and oilseeds, as well as other USDA agencies, USDA cooperator organizations, and other governments, ask for FGIS personnel to provide expertise. These activities include representing the Agency at grain marketing and grain grading seminars, meeting with foreign governments and grain industry representatives to resolve grain quality and weight discrepancies, helping other countries develop domestic grain and commodity standards and marketing infrastructures, assisting importers with quality specifications, and training local inspectors in U.S. inspection methods and procedures. In many instances such activities are conducted in conjunction with the USDA's Foreign Agricultural Service (FAS).

Corn and Wheat Quality Surveys: FGIS coordinated with U.S. Grains Council and U.S. Wheat Associates to conduct annual export corn and wheat quality surveys. FGIS assisted with the surveys by collecting, grading, and testing samples, and providing export inspection data.

Soybeans to China

U.S./China Soybean Comparison Study: The U.S./China Memorandum of Understanding (MOU), which addressed China's concerns over soybean quality, plant health, and food safety on soybeans was signed by Secretary Vilsack in December 2010. Stemming from the MOU, officials from China's Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) requested that the U.S. and China conduct a joint survey of four U.S. soybean vessels to address their concerns regarding treated soybean seeds and other quality factors. Representatives from FGIS, the Animal and Plant Health Inspection Service (APHIS), FAS, North American Export Grain Association (NAEGA), and U.S. Soybean Export Council participated. The first vessel in the study occurred in February 2013. The participants joined representatives from the Chinese Government to witness the sampling of the soybean vessel as it loaded, then reconvened in China to obtain samples during discharge. No treated soybeans were found. A second and third vessel are planned for FY 2015.

In May 2014, representatives of FGIS, APHIS, and FAS traveled to China to meet with AQSIQ and China's Inspection and Quarantine (CIQ) officials in Beijing and several Chinese ports to discuss grain trade issues and make arrangements for the next joint vessel comparison study in FY 2015. The discussions were productive and formed positive relationships with Chinese officials.



U.S/China Soybean Vessel Comparison Study team in New Orleans to witness the loading of two soybean ships destined for China

International Travel for 2014

Summary of International Travel for 2014

Country Visited	Purpose	No. of Travelers	Dates / Visits
Canada	Stowage and Grain Inspections	1-4 per trip	19 trips; various dates
Japan	United States-Japan Cooperative Program in Natural Resources Microorganism Panel Meeting	1	1/24 - 2/1/2014
Hungary	Codex Committee on Methods of Analysis and Sampling meeting	1	1/24-2/1/2014
China	Container Sampling	1	3/28-4/11/2014
China	Biotech Meeting and Joint Video Conferences	1	5/5-/2014

Section III: Protecting the Integrity of U.S. Grain and Related Markets

Alleged Violations

At the beginning of fiscal year 2014, nine cases involving alleged violations of the USGSA and the AMA were pending. During the year, FGIS opened four new cases stemming from engaging in prohibited or deceptive grain handling practices, and exporting grain without official personnel onsite to witness the loading. FGIS closed three cases from prior years during 2014. Seven of the cases are still ongoing.

Registrants to Export Grain

The USGSA requires that all persons who buy, handle, weigh, or transport 15,000 metric tons or more of U.S. grain for sale in foreign commerce during the current or previous calendar year must register with FGIS. During 2014, FGIS issued 106 Certificates of Registration to individuals and firms to export grain.

Domestic Grain Inspection

FGIS oversees 51 official State and private agencies that provide official services under the USGSA. FGIS supervises 39 official private agencies and 7 official State agencies that are designated to provide official inspection and/or weighing services in domestic markets; 4 official State agencies that are delegated to provide mandatory official export inspection and weighing services and designated to provide official domestic inspection and weighing services within the State; and 1 official State agency that is delegated to provide mandatory official export inspection and weighing services within the State.

The USGSA requires that designations be renewed every three years. In fiscal year 2014, FGIS renewed 11 official agencies. There were 7 private and 2 state agencies renewed for full three-year designations; and 2 private agencies were renewed for one-year designations. In addition, FGIS designated one official agency for weighing; approved one official private agency sale; and amended the geographic area for two official agencies.


UNITED STATES DEPARTMENT OF AGRICULTURE
GRAIN INSPECTION, PACKERS AND STOCKYARDS ADMINISTRATION
DESIGNATION OF OFFICIAL AGENCY

ABC & XYZ Grain Inspection, Inc.

United States Department of Agriculture

OFFICIAL AGENCY DESIGNATION
GRANTED TO

ABC & XYZ Grain Inspection, Inc.

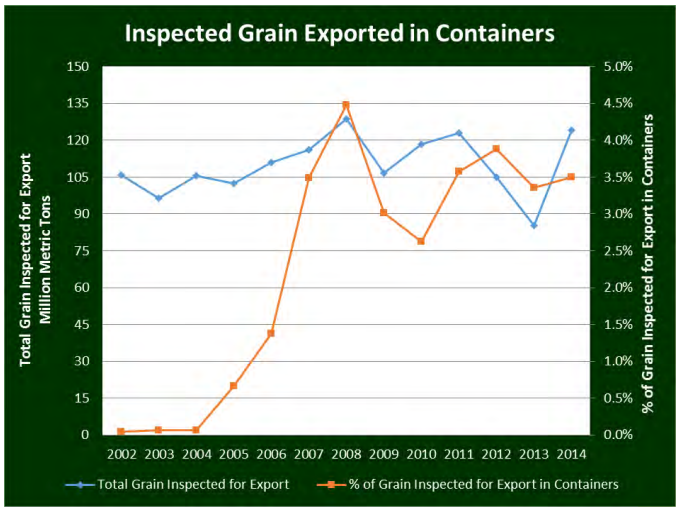
Grain Exports

The U.S. grain industry has experienced a significant increase in the demand for grain exported in containers. A surplus of empty containers allows grain exporters to capitalize on opportunities to ship grain at a lower freight rate and deliver grain to small business entities.

Expansion of the containerized grain export market has exceeded most forecasts. Inspection of containerized cargo has increased from 0.1 percent of total grain exported (metric tons) in 2002 to 3.5 percent of total grain exported (metric tons) in 2014 and represented 2.3 percent of total domestic and export grain officially inspected (metric tons) by FGIS and official service providers in 2014.

Container Activity in a Shipyard and Truck Scale

FGIS is challenged to keep up with a growing number of container loading facilities. In 2002, six standardized grain inspection/weighing service points exported grain by container. Currently, there are 160 standardized grain inspections/weighing service points, with the majority in proximity to the railroad hub in Chicago. Initially, most of the container loading operations were based in the Pacific Northwest where empty containers were abundant at export container terminals. However in the past 9 years, much of the activity shifted to the Midwest, due to the close proximity to the grain supply and the rail yards that handle containerized cargo.



Meeting the Needs of International Customers

Ensuring Grain Quality and Weights: FGIS administers a formal process for investigating grain quality and weight discrepancies. When an importer of U.S. grain submits a claim regarding quality or weight, FGIS analyzes samples retained on file from the original inspection and analyzes samples submitted from the complainant (if the buyer chooses to submit them) and evaluates the accuracy of the initial inspection. This process allows FGIS to verify whether the original inspection and weighing service provided at the time of loading was correct, based on all available information. FGIS then issues a report outlining its findings.

Occasionally, a particular buyer or importing country claims repeated discrepancies which cannot be resolved by a shipment-by-shipment review under this process. In such cases, FGIS may conduct collaborative sample studies or joint monitoring activities to address the discrepancy in a more comprehensive manner.

In FY 2014, FGIS received six quality complaints and no weight complaints from importers on grains inspected under the USGSA. The complaints involved 329,434 metric tons, or 0.3 percent by weight, of the total amount of grain exported during the year. In FY 2013, we received one quality complaint representing 0.1 percent by weight, of the total amount of grain exported.

Complaints Reported by Importers on Inspection and Weighing Fiscal Year 2014

Complainant	Country	Grain/ Commodity	Number of Complaints	Nature of Complaint
Asia	China	Soybeans Wheat	1 2	Treated soybeans Treated soybeans
Asia	China	Sorghum	1	Fumigated residue
Asia	Japan	Corn	1	Quality
Asia	Philippines	Corn	1	Broken corn and foreign material
Central America	Mexico	Wheat	1	Wheat of other classes protein
Central America	Peru	Wheat	1	Animal feces
TOTAL			**6**	

Section IV: Providing Official Grain Inspection and Weighing Services

Partnerships with States and Private Entities

FGIS manages the national inspection and weighing system through a unique network of approximately 2,000 staff members at Federal, State, and private laboratories that serve grain producers, handlers, processors, and exporters across the country. FGIS' State and private partners are authorized to provide official services on FGIS' behalf under the authority of the USGSA and the AMA. FGIS delegates States to provide official inspection and weighing of U.S. grain at export port locations and designates States and private agencies to provide official inspection and weighing services in the domestic market. FGIS has 40 agreements with States and private agencies to provide sampling or inspection services for miscellaneous processed commodities, graded commodities, or rice under the AMA.

Modernization of Service Delivery

FGISonline is a portfolio of online business applications that modernizes the delivery of FGIS official inspection and weighing services. The online applications provide customers with fast, accurate services and access to a wealth of official inspection and weighing data. More information about the FGISonline applications can be found on the FGIS website at www.gipsa.usda.gov.

Some accomplishments for 2014 were:

- Upgraded the distributed applications to Windows 7, 64-bit compatibility, which allows for continued service for customers during periods of loss internet activity.
- Improved billing to customers through the upgrading application for automated billing.
- Enhanced applications to allow more flexibility for customer service request.
- A project started in 2014 that will continue into 2015 will improve access of information and data for customers online, track the services as they are performed, and provide status and results information back from customers.

Educating Stakeholders

FGIS provides educational materials and grading aids to its customers through various outlets, at industry meetings and trade shows, and to the public through the FGIS website. In 2014, FGIS updated all of its eLearning courses and online trainers. The new versions have improved interactivity features and are now accessible on mobile devices. All FGIS educational materials can be accessed from the GIPSA website at www.gipsa.usda.gov.

Distillers Dried Grains

Distillers dried grains (DDGs), is a co-product of ethanol production resulting from the remaining fraction (protein, fat, and fiber) of grain (corn, sorghum, wheat, etc.) after the starch is converted to sugar and then ethanol during the fermentation process. Roughly 17 pounds of DDGs can be produced from one bushel of corn (1 bu corn = 56 lbs), which is approximately two-thirds starch. Because of the composition of DDGs (30 percent protein, 11 percent fat, and 7-9 percent fiber), it is a very nutritious source of energy for livestock and is used to replace traditional feed grains and meals in limited quantities.

The production of DDGs has soared in recent years as ethanol production has grown. The U.S. produced an estimated 43.64 million tons of DDGs in the 2013/14 crop year, nearly five and a half times the level in of 2003/04. Increasing supply, coupled with high prices for competing feeds (soybean meal and corn) and foreign market development efforts by USDA Cooperators, led to a surge in U.S. DDG exports beginning in 2008. Exports now constitute about 53 percent of domestic DDG production and reached a record $2.9 billion in calendar year 2013, more than $800 million above the previous record set in 2012.

FGIS facilitates the marketing of DDGs by providing phytosanitary inspections on behalf of APHIS. During FY 2014, FGIS sampled over 7.4 million metric tons of exported DDGs. Given the expected continued growth in foreign demand, FGIS expects this work to increase for FY 2015.

Distillers Dried Grains

Providing Scale Testing for the Railroad Industry

FGIS owns and operates five specially designed and built railroad track scale test cars for testing master scales, grain industry railroad track scales, and other commercial railroad track scales. The test cars are maintained and operated out of the FGIS Master Scale Depot in Chicago, Illinois.

FGIS Test Car used for Railroad Track Scale Testing

The Master Scale Depot in Chicago is a National Institute of Standards and Technology (NIST)-certified Echelon III Metrology Laboratory where FGIS annually calibrates three 100,000-pound test car units that are used to calibrate the FGIS Master Scale and 10 railroad and state owned master scales. In turn, the master scale is used to calibrate railroad test weight cars which are used to calibrate railroad track scales throughout the country. FGIS also has two other specialized test weight cars that are used primarily to test and calibrate commercial railroad track scales. The Master Scale Depot performs weight calibrations on test weights and test weight cars ranging from 25 to 112,000 pounds. Commercial test weights ranging from 25 to 1,000 pounds are calibrated on a cost recovery basis. Test weight cars are calibrated at the Master Scale Depot and costs are recovered through a funding arrangement with the Association of American Railroads (AAR).

Under an agreement with the AAR, FGIS annually tests all master scales and performs a number of field calibrations associated with the program. The AAR has an agreement with FGIS under which it provides annual funding that supports the Master Scale Calibration Program.

Inspection Program Data
Fiscal Years 2012-2014

Item	Fiscal Years		
	2012	2013	2014
Quantity of Grain Produced[1] (Mmt)[2]	462.1	540.0	545.1
Quantity of Standardized Grain Officially Inspected (Mmt)[3]			
Domestic	175.1	144.4	171.9
Export by FGIS	63.9	57.8	82.6
by Delegated States	27.6	19.4	26.1
by Designated Agencies	13.4	8.7	17.3
Total	280.0	230.3	297.9
Delegated States/Official Agencies			
Delegated and Designated States	4	4	4
Delegated States	1	1	1
Designated States	7	7	7
Designated Private Agencies	43	41	39
Total	55	53	51

(continued next page)

[1]Source: USDA-National Agricultural Statistics Service, Quick Stats. This figure includes production of wheat, corn, sorghum, barley, oats, and soybeans.
[2] Million metric tons.
[3] Includes grains for which FGIS maintains official standards: barley, canola, corn, flaxseed, oats, rye, sorghum, soybeans, sunflower seed, triticale, wheat, and mixed grain.

	Fiscal Years		
	2012	2013	2014
Number of Official Original Inspections[4]			
FGIS	104,758	105,994	107,670
Delegated States/Official Agencies	3,114,680	2,864,939	3,215,932
Total	3,219,438	2,970,933	3,323,602
Number of Grain Reinspections			
FGIS	411	453	377
Delegated States/Official Agencies	25,305	21,623	29,502
Total	25,716	22,076	29,879
Number of Grain Inspection Appeals			
Field Offices	1,855	2,845	5,928
Board of Appeals and Review	182	242	566
Total	2,037	3,087	6,494
Number of Official Commercial			
FGIS	10,953	9,276	10,453
Delegated States/Official Agencies	1,248,800	1,066,520	1,277,728
Total	1,259,753	1,075,796	1,288,181
Number of Barley Protein Inspections			
FGIS	3	5	0
Delegated States/Official Agencies	4,756	6,452	5,939
	4,759	6,457	5,939
Number of Corn Protein, Oil and Starch Inspections			
FGIS	0	175	0
Delegated States/Official Agencies	6,675	15,276	23,632
Total	6,675	15,451	23,632

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[5] Includes original inspections for grade, factor-only inspections, official criteria, and official commercial inspections.

Item	Fiscal Years		
	2012	2013	2014
Number of Wheat Protein Inspections			
FGIS	25,005	13,160	5,828
Delegated States/Official Agencies	414,104	392,458	385,037
Total	439,109	405,618	390,865
Number of Soybean Protein and Oil Inspections			
FGIS	15,767	13,256	7,852
Delegated States/Official Agencies	12,973	23,734	5,313
Total	28,740	36,990	13,165
Number of Sunflower Seed Oil Inspections			
FGIS	0	0	0
Delegated States/Official Agencies	22,608	26,431	17,151
Total	22,608	26,431	17,151
Number of Aflatoxin Inspections			
FGIS	19,850	7,282	2,136
Delegated States/Official Agencies	180,909	280,424	120,153
Total	200,759	287,706	122,289
Number of Deoxynivalenol Inspections			
FGIS	10,913	6,541	4,734
Delegated States/Official Agencies	94,271	67,272	104,898
Total	105,184	73,813	109,632
Number of Fumonisin Tests			
FGIS	59	51	100
Delegated States/Official Agencies	7,033	4,478	5,172
Total	7,092	4,529	5,272

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Item	Fiscal Years		
	2012	2013	2014
Quantity of Rice Produced (Mmt) (rough basis)[5]	9.1	8.6	10.1
Quantity of Rice Inspected (Mmt) (rough basis)			
FGIS	3.0	3.1	2.3
Cooperators	0.6	0.4	0.8
Total	3.6	3.5	3.1
Number of Rice Inspections			
FGIS	12,525	11,905	10,649
Cooperators	29,048	22,200	22,686
Total	41,573	34,105	33,335
Number of Rice Appeals	273	183	113
Number of Rice Board of Review Appeals	3	3	4
Quantity of Pulses Produced (Mmt)[6] (beans, peas, lentils)	2.0	2.1	2.2
Quantity of Pulses Inspected (Mmt)			
FGIS	0.5	0.5	0.5
Cooperators	0.2	0.3	0.5
Total	0.7	0.8	1.0
Number of Pulse Inspections			
FGIS	9,744	9,682	10,757
Cooperators	10,306	14,744	17,882
Total	20,050	24,426	28,639
Number of Pulse Appeals	343	318	349
Number of Pulse Board of Review Appeals	25	35	19

[6]Source: USDA-National Agricultural Statistics Service, Quick Stats

Weighing Program Data
Fiscal Years 2012-2014

Item	Fiscal Years		
	2012	2013	2014
Official Weight Certificates Issued			
FGIS			
Class X[1]	38,602	39,055	47,675
Class Y[2]	21,298	21,875	32,228
Total	59,900	60,930	79,903
Delegated States/Official Agencies			
Class X[1]	194,192	180,252	209,296
Class Y[2]	59,768	56,831	57,920
Total	253,960	237,083	267,216
Exported Grain Weighed (Mmt)			
FGIS	63.2	57.4	82.3
Delegated States	27.4	19.2	26.1
Total	90.6	76.6	108.4
Number of Certified Scales in Service			
Export Elevators	212	217	225
Number of Scales Tested			
Railroad Track Scales	140	150	109
Hopper Scales	718	475	366
Vehicle Scales	415	380	322

[1] Class X weighing involves 100 percent supervision of weighing.

[2] Class Y weighing involves a minimum of 25 percent supervision of weighing.

Volume of Export Grain Inspections by Port Areas October 2013-September 2014

Port Area	Million Metric Tons (MMT)	Percent of Total U.S. Exports
California	0.1	0.1%
Chicago	0.1	0.1%
Columbia River	24.6	19.5%
Duluth-Superior	0.7	0.6%
East Gulf	0.9	0.7%
Interior[1]	12.8	10.1%
Mississippi River	62.3	49.4%
North Atlantic	0.6	0.4%
North Texas	9.4	7.4%
Puget Sound	6.9	5.5%
South Atlantic	3.4	2.7%
South Texas	3.3	2.6%
Seaway	0.3	0.2%
Toledo	1.0	0.8%
Total	126.4	100.0%

[1] Figures include all rail and containers loaded in the continental United States destined for export. The primary destination for rail shipments is Mexico with containers shipped worldwide through established ports.

Section V: Management Initiatives

Mentoring Program and Succession Planning

Building for the Future: FY2013 was the first year for a FGIS wide mentoring program. The FGIS Mentoring Program paired 25 employees with more experienced employees for the purpose of sharing knowledge of practices, policies and organizational culture with the next generation of employees. The year-long program mirrored the components of the Departmental mentoring initiative, which focuses on transferring institutional knowledge and enhancing employees' skills. Mentors help their mentees identify methods and tools for focusing their skill development. For example, the mentor may suggest specific training or on-the-job tasks and assignments that could help the mentee to develop his or her skills. Through the mentoring relationship, mentors develop their leadership, feedback, and coaching skills. Mentoring also helps both mentors and mentees to enhance their communication and conflict resolution skills and develop an appreciation for different work styles.

For FY 2014, the FGIS Mentoring Program was expanded to a GIPSA-wide program with 40 mentor-mentee pairings, 32 of which were from FGIS staff. This 28 percent increase in FGIS participation is the result of strong program area support which recognizes that up to 80 percent of FGIS' supervisors and managers are retirement eligible. FGIS is keenly aware of the need to prepare staff to take on new responsibilities and assume larger roles within the program.

Next year GIPSA plans to integrate its program next year into the Departmental mentoring portal through the USDA's Virtual University.

Quality Management Program

Focus on Quality: FGIS continued its focus on quality assurance to ensure that the official system continues to provide high quality inspection results. In 2012, FGIS initiated a comprehensive review of the quality assurance program that included meetings with quality experts within the official system, consultation with private sector organizations, and identification of strategic quality initiatives.

Quality Management Program (continued)

In May 2013, FGIS initiated a quality pilot program at its New Orleans, Louisiana, field office and assessed factor and certificate accuracy at the inspector level. FGIS collected quality data on critical factors for each inspector on a weekly basis and evaluated inspector performance, which allows FGIS to dynamically identify and correct any quality deviations. FGIS concluded the pilot at the end of fiscal year 2013. Subsequently, FGIS evaluated the pilot program and determined that it provided invaluable quality data for assessing and ensuring the integrity of the official inspection program. In March 2014, FGIS launched an inspection performance program based on the pilot for all FGIS field offices. The program captured quality data at the inspector level on a weekly basis for grains/commodities and their critical interpretive factors. The quality data provided continuous feedback on system performance, improved FGIS's ability to make corrective actions, and provided quality assurance to the grain industry.

A key component of FGIS's quality program is the Quality Management Program (QMP). The QMP is part of GIPSA's Strategic Plan to enhance program delivery, better utilization of agency resources, and improve customer satisfaction. The QMP is an audit-based system that uses modern quality management principles to evaluate federal, state, and private agencies. The QMP requires all official federal, state, and private agencies to establish a program for providing official services based on the principles of quality control, quality assurance, and quality improvement. The QMP further enhances delivery of official services to the grain, feed, and processing industries while supporting FGIS efforts to manage costs and staff resources.

FGIS conducts QMP onsite reviews every three years. In fiscal year 2014, FGIS conducted onsite 16 QMP reviews including 1 designated state, 3 designated and delegated states, 2 field offices, and 10 private agencies. The QMP review evaluates legal and management responsibilities, document control, record control and accuracy, communication programs, training, licensing, and supervision programs, equipment, facility reviews, local quality plan, internal audits, customer focus, and continual improvements.

As part of the QMP, FGIS requires each official agency and field office to complete an annual internal audit. In fiscal year 2014, FGIS reviewed internal audits from 43 official agencies and 3 FGIS field offices. Internal audits are a comprehensive review of all QMP quality elements and address any problem areas.

Improving Work Environment

Improving Working Conditions. FGIS employees satisfaction, which includes; maintaining safety, improving operational efficiency and effectiveness of work processes, and fostering an environmentally friendly workplace. FGIS partnered with grain industry customers to ensure the location and condition of the grain weighing, inspection, laboratory, and office spaces fostered employee safety.

In 2010, FGIS developed a policy that strives to eliminate employee exposure to potentially hazardous working conditions and/or situations that are causing or likely to cause death or serious physical harm. A grain elevator or grain mill explosion is a serious concern for FGIS and its employees who perform official duties within the head house of the elevator, at the base of a head house, in or near any tall structures of these facilities. This concern also extends to areas in or near railcar dump pits, truck dump pits, and tunnels. The policy requires facility owners to relocate or improve existing equipment or handling equipment to an FGIS laboratory or other FGIS acceptable location that is a minimum of 100 feet from these areas of concern. Over the past several years, several facilities have been renovated to allow personnel to perform their official duties away from these areas of concern thereby eliminating their exposure to potentially hazardous working conditions and/or situations that could cause death or serious physical harm.

ADM Head House in Ama, Louisiana

In some cases, facility managers elected to totally relocate the on-site FGIS lab to accommodate the workload and testing requirements of the facility. To make the most of these opportunities, FGIS created a team to make design recommendations that improve service delivery and make grain laboratories more efficient and ergonomic. Recently, two grain elevators in the Louisiana Gulf underwent major renovations and opted to redesign the on-site FGIS lab spaces as well. As a part of these renovations, the companies conformed with FGIS safety and spatial requirements and also sought to improve the aesthetics of the labs which will allow the labs to be showcased to trade teams and foreign buyers of U.S. grain.

On October 1, 2013, FGIS introduced the new on-site inspection lab at Louis-Dreyfus Commodities in Port Allen, Louisiana. In July 2014, FGIS opened a new inspection lab at ADM Grain Co. Ama, Louisiana. Each of these new labs feature expanded spaces (to accommodate customer testing needs), updated environmental controls, and improved ergonomics.

FGIS Lab at ADM in Ama, Louisiana

FGIS Lab at Louis-Dreyfus in Port Allen, Louisiana

Focus on Safety

Keeping FGIS Staff Safe: GIPSA is revising all Emergency Evacuation and Emergency Action Plans for field office locations to ensure all employees are educated and trained to properly react to the rapidly increasing safety incidents. Workplace safety hazards, workplace violence, sexual harassment, active shooter scenarios, shelter in place procedures, and natural disasters are examples of training topics. Action plans go beyond touring around worksites and requiring employees to read handouts on safety tips for performing their job. All employees will be educated regarding the need to utilize safe procedures and practices in the workplace.

Employees should know the W's-what, why, where, when, in order to maintain and improve personal safety that was provided by the Employee SafetyTraining. More importantly, training focuses on the how—how to recognize hazards, how to control exposure to hazards that may be present in the work area and how to perform the job safely.

GIPSA is required by Federal regulations to develop and implement a Waste Minimization Strategy. Ways to help achieve this goal of reducing the volume of chemical waste generated at official locations include, but are not limited to:

- Practice the concept of Source Reduction by simply ordering the smallest quantity of chemical material required for testing.
- Keep an inventory of chemicals on hand. Do not over stock chemicals.
- Substitute hazardous chemicals with non-hazardous chemicals whenever possible.

FGIS Employee Displaying Fall Protection

Section VI: Financial Information

FGIS User Fee Accounts[1]				
	Revenue	**Obligations**	**Profit/Loss**	**Retained Earnings**
U.S. Grain Standards Act				
Inspection & Weighing	$43,480,554	$37,469,677	$6,010,878	$5,923,708
Official Agencies	$2,316,588	$1,215,430	$1,101,158	$7,030,566
Agricultural Marketing Act				
Rice	$5,162,801	$4,500,694	$662,107	$6,648,057
Processed Commodities	$2,789,335	$2,917,111	$(127,775)	$1,155,459
Total FY 2014	**$53,749,278**	**$46,102,911**	**$7,646,368**	**$20,757,790**
Less FY14 Sequestration				**$2,911,000**
				$17,846,790

Appropriations *Dollars in millions*							
	FY 2008	**FY 2009**	**FY 2010**	**FY 2011**	**FY 2012**	**FY2013**	**FY2014**
Discretionary Appropriations	$17.61	$17.93	$18.27	$17.79	$16.48	$16.47	$17.91

United States Department of Agriculture

Learn more about the
Federal Grain Inspection Service
www.gipsa.usda.gov