



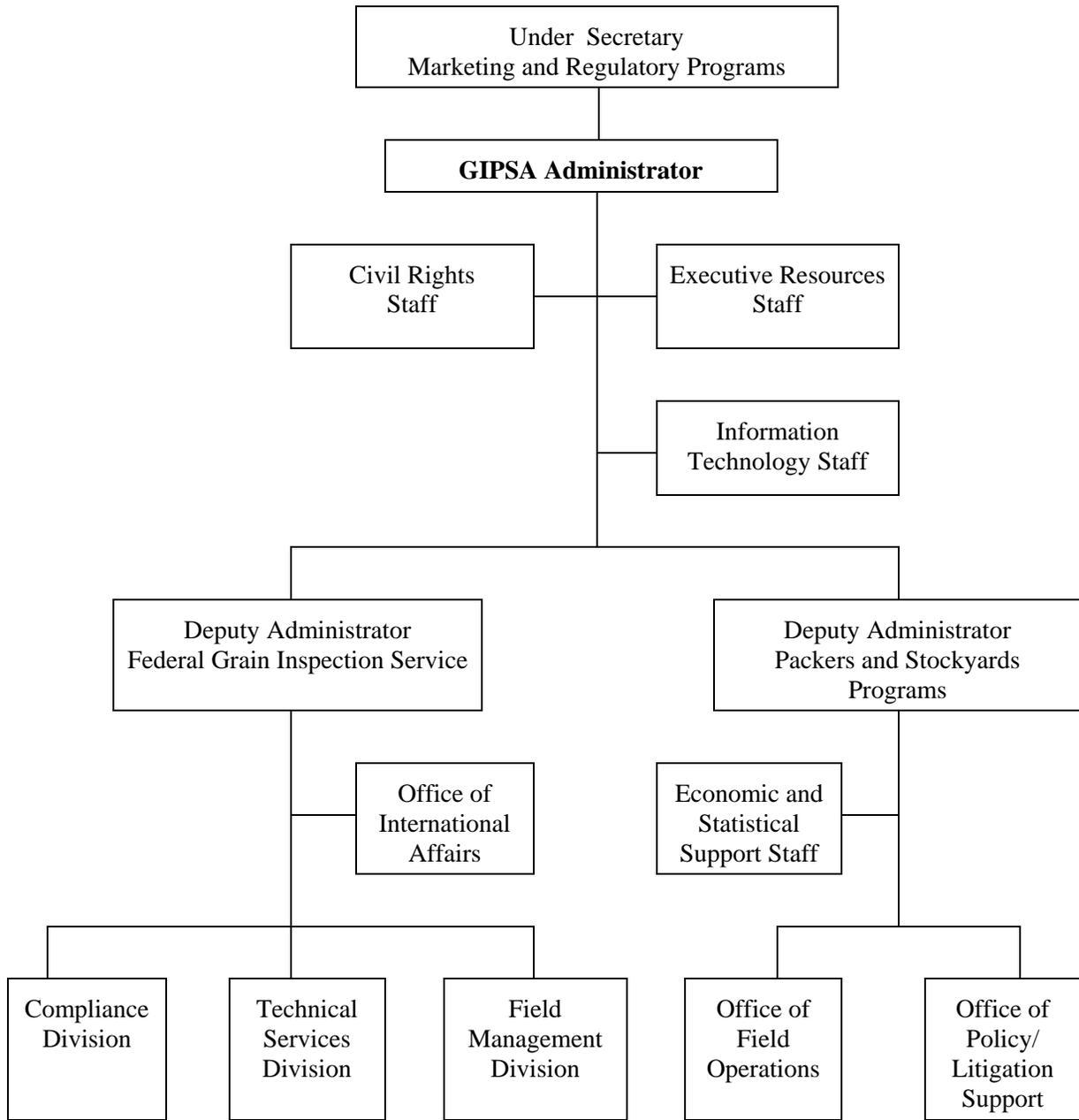
United States
Department of
Agriculture

Grain Inspection,
Packers and
Stockyards
Administration

2004 Annual Report to Congress of the Federal Grain Inspection Service

Organizational Structure and Functions

GIPSA's Organizational Structure



Federal Grain Inspection Service

A Federal grain inspection entity was instituted by Congress in 1976 to manage the national grain inspection system, which initially was established in 1916, and to institute a national grain weighing program. The goal of creating a single Federal grain inspection entity was to ensure development and maintenance of uniform U.S. standards, to develop inspection and weighing procedures for grain in domestic and export trade, and to facilitate grain marketing.

Activities Under the U.S. Grain Standards Act

GIPSA administers uniform, national grain inspection and weighing programs established by the U.S. Grain Standards Act, as amended (hereinafter, the Act). Services under the Act are performed on a fee basis for both export and domestic grain shipments. The Act requires generally that export grain be inspected and weighed; prohibits deceptive practices and criminal acts with respect to the inspection and weighing of grain; and provides penalties for violations.

In administering and enforcing the Act, GIPSA:

- 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 weighing¹ of grain;

¹ Official Inspection. The determination by original inspection, reinspection, and appeal inspection and the certification by official personnel of the kind, class, quality, or condition of grain under standards provided for in the Act; or, the condition of vessels and other carriers or receptacles for the transportation of grain insofar as it may affect the quality of such grain under other criteria approved by the Secretary. (The term "officially inspected" shall be construed accordingly.)

Official Weighing. (Class X Weighing). The determination and certification by official personnel of the quantity of a lot of grain under standards provided for in the Act, based on the actual performance of weighing or the physical supervision thereof, including the physical inspection and testing for accuracy of the weights and scales, the physical inspection of the premises at which weighing is performed, and the monitoring of the discharge of grain into the elevator or conveyance. (The terms "official weight" and "officially weighed" shall be construed accordingly.)

- provides official inspection and weighing services at certain U.S. export port locations,² 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;
- provides review inspection services³ of U.S. grain in the United States and at certain export port locations in eastern Canada;
- investigates, in cooperation with the USDA Office of Inspector General, alleged violations of the Act 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.

Mandatory Services

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

² Export Port Locations. Commonly recognized ports of export in the United States or Canada, as determined by the Secretary, from which grain produced in the United States is shipped to any place outside the United States. Such locations include any coastal or border location, or any site in the United States that contains one or more export elevators and is identified by FGIS as an export port location.

³ Review Inspection Service. A reinspection, appeal inspection, or Board appeal inspection service performed when discrepancies are alleged between the true quality of the grain and the inspection results.

Mandatory inspection and weighing services are provided by GIPSA on a fee basis at 36 export elevators (including 4 floating elevators). Under a cooperative agreement with GIPSA, the Canadian Grain Commission provides official services, with GIPSA oversight, at seven locations in Canada exporting U.S. grain. Seven delegated States provide official services at an additional 18 export elevators under GIPSA oversight.

Grain exporters shipping less than 15,000 metric tons of grain abroad annually are exempt from mandatory official inspection and weighing requirements. Grain exported by train or truck to Canada or Mexico also is exempt from official inspection and weighing requirements.

Permissive Services

Official inspection and weighing of U.S. grain in domestic commerce are performed upon request and require payment of a fee by the applicant for services. Domestic inspection and weighing services are provided by 56 designated agencies that employ personnel licensed by GIPSA to provide such services in accordance with regulations and instructions.

Activities under the Agricultural Marketing Act

Under the Agricultural Marketing Act of 1946 (hereinafter, the AMA), GIPSA 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 GIPSA employees or individual contractors, or through cooperative agreements with States.

FGIS Structure

FGIS is comprised of 515 full-time, permanent employees and 68 part-time, intermittent, or other employees located at 2 headquarters units, 10 field offices, 2 Federal/State offices, and 7 suboffices. FGIS has headquarters units in both Washington, DC, and Kansas City, MO. Field offices are located in Stuttgart, AR; Sacramento, CA; Cedar Rapids, IA; Wichita, KS; New Orleans, LA; Baltimore, MD; Minneapolis, MN; Kansas City, MO; Grand Forks, ND; Portland, OR; League City, TX; Toledo, OH; and Olympia, WA; thus ensuring the availability of official inspection and weighing services anywhere in the United States. FGIS personnel also are located in eastern Canada to provide inspection of U.S. grain at Canadian ports.

Official Inspection and Weighing Service Providers



Provision of Inspection and Weighing Services by State

State	Grain			Commodities		
	State Agencies		Private Designated Agencies	GIPSA Locations	State/Private Agencies	GIPSA Locations
	Delegated	Designated				
Alabama	.	.			.	
Alaska						
Arizona			.		.	
Arkansas			.			.
California	.	.		*	.	
Colorado			.			.
Connecticut						
Delaware						
Florida						
Georgia		.		.	.	
Hawaii						
Idaho		
Illinois			.	.	.	
Indiana			.			
Iowa			.	.		.
Kansas			.	.		.
Kentucky			.			
Louisiana	
Maine						
Maryland				.		.
Massachusetts						
Michigan			.			.
Minnesota
Mississippi	
Missouri	
Montana		.			.	.
Nebraska			.		.	.
Nevada						
New Hampshire						
New Jersey						
New Mexico			.			
New York						.
North Carolina		.			.	
North Dakota		
Ohio			.	.		.
Oklahoma			.			.
Oregon	
Pennsylvania						
Rhode Island						
South Carolina	.	.				
South Dakota			.			.
Tennessee			.			
Texas			.	.		.
Utah		.				.
Vermont						
Virginia	.	.				
Washington	.	.		*	.	.
West Virginia						
Wisconsin
Wyoming			.		.	.

* Federal/State office.

Outlook 2005

Grain Exported in Containers

The U.S. grain market is increasingly using containers to ship export grain overseas. This shipping mode, once reserved for specialty, high-value grain, is being used for bulk grain shipments due to a glut of available containers and high freight rates for bulk ocean vessels. This transportation mode shift has brought new market participants into the export business that may not be adhering to mandatory inspection and weighing requirements for export grain.

The United States Grain Standards Act (USGSA) requires, with few exceptions, the official inspection and weighing by authorized agents of the Department of Agriculture of all grain exported from the United States. Some industry participants have expressed interest in exempting container shipments from mandatory inspection requirements, citing the cost and time delays in obtaining official inspection and weighing services as impractical and unnecessary to achieve the congressional intent of the USGSA. They further state that the success of the small (40 metric ton) container shipments for specialty grain products resides solely on the development of sound business relationships, thus, nullifying the need for mandatory federal inspection services as deemed essential in 1976 when the USGSA was amended to require federal inspection.

In light of evolving grain marketing practices, GIPSA is assessing the feasibility of exempting high-value specialty products shipped in containers (when the buyer agrees to forego inspection and weighing) from mandatory inspection requirements while retaining the requirements for basic commodity grain being exported in containers due to the current freight rate advantage.

Industry concerns over the impact of mandatory inspection requirements on container shipments may result in an effort by the industry to seek amendments to the USGSA as Congress addresses reauthorization of the USGSA during 2005.

State Departments of Agriculture Struggle with Grain Inspection Programs

Under the authority of the USGSA, GIPSA authorizes several States to provide official grain inspection services. Although the States fund their inspection programs primarily through the assessment of fees for service, changing market practices and industry concerns over the cost of services have and continue to challenge the financial status of the programs. In 1997, the State of Kansas terminated its authorization with GIPSA, resulting in the establishment of a GIPSA-authorized private agency providing inspection services. In 2003 the State of Mississippi elected to terminate its delegation of authority with GIPSA to provide export grain inspection services. More recently, the State of California announced that it will terminate three agreements with GIPSA and discontinue providing rice inspection and both domestic and export grain inspection

services. Furthermore, the States of Minnesota and Wisconsin plan to establish a joint task force to examine the future viability of their GIPSA-authorized inspection programs.

During 2005, GIPSA will solicit applications from private inspection agencies to service the California rice and domestic grain industry and, very likely, will do the same for the domestic Wisconsin grain industry. Under current legislative authority, GIPSA personnel are responsible for export grain inspection services in the absence of a State program.

Outsourcing Rice Inspection Services

In accordance with the President's Management Initiative on Outsourcing, GIPSA has completed a feasibility study on the outsourcing of Federal rice inspection services. The study findings support proceeding with a competitive bidding process for rice inspection in accordance with OMB Circular A-76 to improve the efficiency and cost effectiveness of official rice inspection services. The competitive bidding process for rice inspection services will impact GIPSA operations in Texas, Louisiana, and Arkansas during 2005 and 2006.

USGSA Reauthorization

On September 30, 2005, several USGSA authorities sunset and require reauthorization for the Federal Grain Inspection Service to continue operating. These authorities are:

- Authorization to collect inspection fees (Section 7(j)(4)).
- Authorization to collect weighing fees (Section 7A(1)(3)).
- Limitation on administrative and supervisory costs (Section 7D).
- Authorization of appropriations (Section 19).
- Authorization of the Advisory Committee (Section 21(e)).

As the reauthorization process nears, several industry organizations (including the North American Export Grain Association and the National Grain and Feed Association) are supporting a change in the USGSA to permit private inspection agencies with direct Federal oversight to provide mandatory export inspection services rather than the current Federal workforce. Supporters of this amendment contend using independent private companies with Federal oversight would improve the competitive position of U.S. grain exports in today's price-competitive world market -- without harming the high level of confidence and respect U.S. trading partners have in the current system.

New Crop Attributes

More open international markets; increased global competition; scientific advances; greater consumer demand for diverse, convenient, and high-quality food products; and a better understanding of plant intrinsic attributes, and their interrelationship to food/feed manufacturing are fueling change in agriculture today -- change that is resulting in a transition from supply- to consumer-driven markets. The U.S. grain marketing system is using new and more complex production and marketing processes to better differentiate crop quality from the farm to final consumer. Being able to accurately identify specific quality attributes when farmers deliver grain to

market allows the market to better align grain quality with end use, thus extracting greater value from U.S. grains and strengthening the U.S. export market share.

Differentiating crop type and quality in the changing market environment requires new terms and methods. It may also require process-based methods that do not rely solely on measuring the compositional content of a grain sample. And, finally, it requires a concerted effort to harmonize quality assessment methods with major trading partners and key emerging markets to reduce trade disputes resulting from conflicting descriptions of crop quality and value.

During 2005, GIPSA will:

- Establish process-based verification assessment methods and services in cooperation with producer and trade associations to support the increased use of identity preservation and similar marketing mechanisms by the grain industry.
- Accelerate the development of quality assessment terms and methods for new and emerging crop qualities through increased cooperative efforts with academia and technology providers. GIPSA will concentrate resources on wheat end-use functional quality, high-fermentable corn starches, and linolenic acid levels in soybeans.
- Work with trading partners and key emerging markets to harmonize quality assessment terms and methods and elevate the knowledge and capacity for accurate and reliable application of quality assessments. GIPSA will concentrate resources on markets in Mexico and Asia.

Ethanol Co-Products

Ethanol production has grown more than 570 percent over the past 20 years, and today represents the third largest market for U.S. corn, constituting approximately 10 percent of the annual U.S. corn production. Parallel with the expansion of the ethanol industry is a concurrent projected increase in the production of ethanol co-products. The National Corn Growers Association estimated that the capacity for ethanol production will double by 2005, potentially creating 7 million tons of distillers dried grains with solubles (DDGS). DDGS is a high-protein, high-energy animal feed. Effective transportation, marketing, and certification of co-products, such as DDGS, are integral to maintaining the efficiency and profitability of ethanol facilities.

GIPSA will conduct market research and evaluate the market's needs to determine how the Agency can best facilitate the marketing of ethanol co-products. Some industry representatives, and the GIPSA Grain Inspection Advisory Committee, have cited a potential need for uniform terminology to describe the type and quality of co-products, and for nationally recognized tests for the bulk corn that ultimately becomes the co-products produced from the ethanol production process.

Provide the Market with Terms and Methods for Quality Assessments

Artificial Neural Network Technology for Wheat and Barley Protein

GIPSA has worked cooperatively for several years with groups from Canada, Australia, and several European countries to develop and evaluate a single global artificial neural network (ANN) near-infrared transmittance (NIRT) calibration for wheat and barley protein. ANN calibration technology offers several advantages over the partial least squares (PLS) calibrations currently used in official inspection. Advantages include improved accuracy compared to the combustion nitrogen analyzer reference method, less effort required to standardize field instruments, and the potential to use a single wheat protein calibration for all six wheat classes, rather than separate calibrations and standardization for each. To facilitate the transition to the ANN technology, GIPSA conducted several field studies to investigate sample-by-sample differences between current calibrations and the global ANN calibration, and assess the regional market impact of the new calibration. GIPSA also evaluated instrument standardization procedures to support implementation of ANN calibrations for wheat and barley protein.

In FY 2005, GIPSA will implement the new ANN calibrations for wheat and barley protein content testing. Official wheat and barley protein services using ANN technology will facilitate the marketing of these grains by providing a fair, accurate, and transparent third-party determination, backed by a national quality control process, and standardized instrumentation, reference samples, calibrations, and procedures.

Wheat Functional Quality Assessments

The wheat milling, baking, and processing industries currently use various time-consuming and expensive chemical, rheological, and baking tests to assess the end-use value of wheat. The U.S. wheat market needs rapid tools to more effectively and efficiently differentiate wheat quality at the first point of sale. Once diverse wheat qualities are commingled and specific attributes are lost, the market, including producers, loses the full value of U.S. wheat. And, in turn, the United States loses market share in a global market that demands wheat that meets specific end-use needs and is of consistent quality. The United States has lost market share in the international wheat market as a result of competition from non-traditional exporters who entered the market to supply wheat of general quality at a competitive price. Regaining market share relies heavily on improving the United States' capability to align specific functional wheat quality, and information about that quality, with the needs of international buyers. Rapid analytical measurement technology will permit the United States to enhance competitiveness by better differentiating its vast range of available wheat qualities and better meet the needs of buyers around the world.

GIPSA is working to provide tools that accurately and consistently measure wheat quality attributes, such as gluten strength and kernel conformity. In FY 2004, GIPSA began establishing a new physiochemical testing reference laboratory to validate the most important international reference methods, including the Farinograph, Glutomatic, and Alveograph.

GIPSA also has investigated the use of near-infrared transmittance (NIRT) measurements to provide a rapid way to predict reference methods values of wheat quality throughout marketing channels. Data used in these investigations were collected from export, domestic, and pure variety wheat samples; and from a near-infrared reflectance research instrument to help identify kernel characteristics affecting NIRT predictions of dough strength. Preliminary calibrations indicated some correlations but none consistent enough to support practical field application. In FY 2004, GIPSA and ARS, through a cooperative research agreement, developed and initiated an expanded study to include additional near-infrared instrument models and a wider range of laboratory end-use quality measurements. In FY 2005, GIPSA will perform more in-depth data analyses to identify and expand NIR research into those areas showing the greatest potential for success.

Biotechnology

Proficiency Program. In FY 2001, a GIPSA study found that the capabilities of government and private laboratories in the U.S. and Europe that tested for biotechnology-derived grains varied widely. In FY 2002, GIPSA initiated the USDA/GIPSA Proficiency Program to improve the performance and reliability of those laboratories. Participation in the program is voluntary; no methodologies are specified; and participants are evaluated on their testing of samples containing U.S. biotechnology-derived corn and soybean events. In FY 2003, the program expanded to assess both qualitative and quantitative analyses. In FY 2004, the Proficiency Program was expanded to include two new corn biotechnology events commercialized in FY 2003: Herculex™ produced by Dupont/AgroSciences and YieldGard™ Rootworm produced by Monsanto.

In FY 2004, more than 100 organizations participated in the program, compared to 22 in 2002. Over 70 percent of participants are from outside the United States, representing, among other countries, Argentina, Australia, Austria, Brazil, Canada, China, Estonia, France, Germany, Ireland, Italy, Japan, Malaysia, Netherlands, New Zealand, Portugal, Slovenia, Spain, Switzerland, Sweden, Taiwan, Thailand, United Kingdom, and Zimbabwe.

The program has found that organizations can correctly identify the presence or absence of biotechnology-derived grains and oilseeds, but cannot always determine the actual amount of a biotechnology-derived grain or oilseed in a sample. Lack of internationally recognized methods and reference materials for biotechnology-derived grains and oilseeds contributes to this difficulty. GIPSA is working with various organizations, including CODEX, AOAC International, the American Association of Cereal Chemists, the Institute for Reference Materials and

Measurements, and the National Institute for Standards and Technology (NIST), to develop official methods and reference materials that will be recognized on a global basis (see “Reference Materials” below).

In FY 2005, GIPSA will continue to offer the Proficiency Program to U.S. and international organizations that test for the presence of biotechnology-derived grains and oilseeds. The program will be expanded to include new biotechnology-derived events as they are introduced into commercial production in the United States.

Promoting the accuracy of testing for the presence of biotechnology-derived grains and oilseeds reduces market disruption as trading partners around the world struggle to implement new and evolving import requirements. Improving the capacity of such testing also serves as a foundation for the marketing of the next generation of biotechnology-derived grains, which will deliver improved quality attributes to processors and consumers.

Reference Materials. Since FY 2002, GIPSA has been collaborating with the National Institute of Standards and Technology (NIST) to investigate DNA-based testing for biotechnology-derived grains and oilseeds, and to investigate the development of reference materials and methods for DNA-based testing. GIPSA and NIST produced event-specific plasmids for evaluation as reference materials. GIPSA and NIST also developed primary methods to fully characterize plant-based materials for use in developing reference materials.

GIPSA will continue to collaborate with NIST to develop primary methods of quantitate DNA concentrations and develop plant-based reference materials in FY 2005. These reference materials will then be used to assess the accuracy and reliability of secondary methods to quantify the concentrations of DNA in samples to be tested using Polymerase Chain Reaction (PCR) technology. The results of this research will be published in a scientific peer-reviewed journal.

Rapid Test Performance Evaluation Program. The grain industry needs fast, reliable tests to detect the presence of biotechnology-derived grains and oilseeds. In FY 2004, GIPSA continued to verify the performance of rapid tests for biotechnology-derived grains and oilseeds. In FY 2004 several Certificates of Performance (COP) issued by GIPSA expired (COPs automatically expire three years from date of issue), and one COP was renewed based on data submitted by the manufacturer. In FY 2005, GIPSA will continue to evaluate the performance of rapid tests to detect biotechnology-derived grains and oilseeds and work with the test manufacturers and life science organizations to ensure that rapid tests are commercially available when new biotechnology-derived grain and oilseeds are introduced.

Soybean Projects

In FY 2004, GIPSA expanded its collaborative efforts with soybean producer associations to include several projects designed to enhance compositional traits of U.S. soybeans, meal, and oil to make them more attractive to the international market. GIPSA has several roles in these projects, including technical advisor, reference laboratory, and provider of samples and testing data.

Foreign Material Study. The American Soybean Association (ASA) and the United Soybean Board (USB) are studying whether exporting soybeans with lower foreign material levels would make the United States more competitive in world markets. The study includes evaluations of the level and composition of foreign material (FM) at various stages in the soybean market channel, from farm to export elevator. GIPSA is collecting export soybean samples for the 2003 and 2004 crops for the ASA/USB research team.

Select Yield and Quality Initiative (Protein and Oil Analysis). USB is reviewing the average oil and protein levels of soybeans grown in various regions of the United States. In FY 2004, GIPSA provided USB with export soybean protein and oil data. In FY 2005 through 2008, the project will expand to include domestic market data.

Analytical Measurements and Standards Working Group. USB, with ASA's assistance, established a working group to assess the market's ability to identify intrinsic soybean qualities, standards and measurements currently available to assess those qualities, and measures needed for the future. GIPSA is serving as technical advisor on this project.

At its first meeting in May 2004, the working group identified that standardized methods and tests are needed for fatty acids, saturated fats, amino acids, phytate, and soluble carbohydrates. In response to this identified market need, GIPSA is including the development of laboratory tests for these factors in its 2005 through 2008 research plans.

Soybean Quality Traits Analytical Standards Program (SQT). GIPSA is working with USB on the SQT to establish industry-accepted analytical methods to certify value-added soybean traits.

Short Voyage Ship Fumigation

GIPSA is improving the efficacy of fumigation of bulk grain cargoes on voyages of 5 days or less. Currently, the Environmental Protection Agency (EPA) requires the grain be exposed to the fumigant for a minimum of 72 hours at adequate concentration levels.

GIPSA, with grain industry representatives, developed an experimental protocol for a test ship in FY 2004. The experiment is designed to determine how long aluminum phosphide, the current industry solid fumigant standard, and Eco2Fume®, a new gaseous-state phosphine product, take to reach the required 400 parts per million concentration through the grain mass in a vessel's holds. If the protocol is successful, the procedure will be implemented to enhance fumigant efficacy while reducing additional vessel demurrage costs incurred waiting for the grain

to achieve its minimum exposure time. The test will be conducted on a suitable test vessel and cargo in FY 2005.

**Mycotoxin Methods
Development and Test Kit
Approvals**

In FY 2004, GIPSA performed two mycotoxin rapid test kit evaluations. One quantitative rapid test kit was evaluated and approved for fumonisins; one for deoxynivalenol was evaluated and failed to meet GIPSA performance criteria. One additional aflatoxin test kit was submitted and is in the process of data verification. Also in FY 2004, GIPSA released revised evaluation standards for commercial test kits for quantitative determination of aflatoxin to reduce potential biases between test kits by requiring the use of naturally contaminated grain in the evaluation procedure. In FY 2005, GIPSA will continue to evaluate all submitted qualitative and quantitative mycotoxin test kits for use in the official inspection system.

**Pesticide Residue Method
Development and Testing**

GIPSA continued to participate in the Pesticide Data Program, a cooperative effort of the U.S. Department of Agriculture, U.S. Environmental Protection Agency, and 10 participating States to monitor pesticide residue levels in fruits, vegetables, grain, and milk. GIPSA tests all grain and grain-related products, and develops new methods of analysis when necessary. In FY 2004, GIPSA developed and validated two new methods for soybeans and analyzed 150 barley, 460 wheat flour, and 500 soybean samples. In FY 2005, GIPSA will analyze 100 wheat flour, 500 wheat grain, and 600 soybean samples.

ISO Registration

The International Standards Organization (ISO) represents the national standards institutes and organizations of over 100 countries, including the American National Standards Institute (ANSI). The American Society of Quality, the European Standards Institute, and the Japanese Industrial Standards Committee are a few of the major quality organizations that have endorsed the ISO Standards, which are becoming the *de facto* standards across industries throughout the world.

In FY 2004, GIPSA converted the Pesticide Data Program from the ISO 9001:2000 Standards to the ISO 17025:1999 Standards, which are dedicated exclusively to increasing and maintaining overall laboratory quality. GIPSA's moisture, protein, oil, mycotoxin, and pesticide reference, and pesticide analysis laboratories are already certified.

**Standardizing Commercial
Grain Inspection Equipment**

In FY 2004, GIPSA continued to participate in an ongoing cooperative effort among GIPSA, NCWM, Inc., and the National Institute for Standards and Technology to standardize commercial inspection equipment by serving as the sole evaluation laboratory for grain inspection equipment under the NCWM, Inc.'s National Type Evaluation Program (NTEP). For the first time, the NTEP laboratory tested for moisture, test weight, and protein and oil applications; and GIPSA began evaluating the test weight feature available on many grain moisture meter models. In addition, GIPSA collected grain moisture meter calibration data for five instrument models as part of the NTEP ongoing calibration program.

In FY 2005, GIPSA will again collect grain moisture meter calibration data for five NTEP models, and will finalize NTEP testing for one near-infrared protein and oil analyzer model and the test weight feature on a current NTEP grain moisture meter model. Additional applications are expected for one grain moisture meter model and for the test weight feature on an additional NTEP moisture meter model.

Moisture Measurement Methods

GIPSA conducted basic grain moisture research in FY 1999 through 2001 to measure and characterize dielectric response over a 1 to 501 MHz frequency range for 15 major U.S. cereal grains and oilseeds. These data were used to develop a Unified Moisture Algorithm, a single calibration that can be used for all grain types, that provides prediction accuracy equal to that of individual grain calibrations available on current moisture meter designs. Data collection was extended to include forty-seven minor grains, beans, pulses, and oilseeds. GIPSA met with manufacturers to assess their interest in the development of prototype meter designs that will employ the moisture algorithm and identify how best to support and encourage manufacturer efforts.

In FY 2003 and 2004, GIPSA supported research to define test cell design and performance parameters needed for manufacturer development of prototype meters capable of using the moisture algorithm. GIPSA met with manufacturers to discuss and support their efforts to develop prototype meter designs. In FY 2005, GIPSA will continue to support research efforts and prototype meter development, and will continue to expand the calibration database as part of a long-term effort to develop and implement this new technology.

This new technology promises to improve moisture measurement over a broader range of moisture and reduce the overall cost of standardizing nationwide measurement, a critical component in assessing the value of grain.

Reference Method Analyses

In FY 2004, GIPSA maintained reference methods for protein, moisture, oil, fatty acid composition, and mycotoxins that are used to develop new rapid field methods and to maintain the accuracy of current official testing. The protein, moisture, oil, and fatty acid reference analyses support the NIRT (protein), moisture meter, and NMR (oil) instruments used for rapid inspection at field locations performing official testing. The mycotoxin reference analyses support the evaluation and standardization of test kits used at official testing locations. In FY 2005, GIPSA will continue to provide quality reference method analyses in support of the development of new testing methods and in the maintenance of accurate field testing for the official inspection system.

Rice Technology Research

In FY 2004, the University of Arkansas completed its research to evaluate the optional operational parameters of two alternative rice sheller technologies and to establish optimum settings with which to conduct performance evaluations against the official standard, the McGill Rice Sheller. Their findings and recommendations served as a basis for field testing one of the prospective shellers to obtain a more realistic assessment of the variability associated with processing assorted rice types/mixtures subjected to different pre- and post-harvesting conditions.

The field study found the prospective sheller was inconsistent and incompatible with the standard.

Also in FY 2004, in response to concerns about the service and product quality offered by the manufacturer of the only approved rice milling and shelling equipment, GIPSA evaluated substantially equivalent equipment manufactured by Grain Machinery Manufacturing Corporation (GRAINMAN). Comparison data showed that the GRAINMAN milling equipment was comparable and was approved for official use.

Finally, GIPSA began evaluating a technologically different type of rice milling equipment – one that hulls and mills the rice in a single pass. Evaluations of the instrument's design, mechanical operation, and standardization capabilities are complete. In FY 2005, GIPSA will conduct a comprehensive performance evaluation.

Official United States Standards

Beans. GIPSA prepared a notice proposing to change the U.S. Standards for Beans by removing the special grade "off-color" from the standards, and providing, upon request, an analysis to determine color uniformity. Bean color depends on environmental conditions, varietal differences, moisture, storage, and age. Beans of equal quality grown in one region may vary greatly in color compared to the same variety grown in a different region. GIPSA plans to publish the notice in the *Federal Register* during FY 2005 to foster uniformity and consistency in commercial practices.

Whole Dry Peas. At the request of the pea industry, GIPSA plans to establish grade standards and procedures for "feed peas" during FY 2005. GIPSA collected and analyzed samples during the 2004 crop year to gather quality information to use in establishing field pea quality standards.

Sorghum. On December 17, 2003, GIPSA published an advance notice of proposed rulemaking in the *Federal Register* (68 FR 70201) inviting comments on the sorghum standards. The 60-day comment period generated 39 comments expressing multiple and conflicting points of view. GIPSA is analyzing the comments, reviewing literature and inspection data, and gathering additional background information. GIPSA will prepare a proposed rule for publication in FY 2005.

Soybeans. Researchers have long questioned the relationship of test weight per bushel (a measurement of density) to end-use functionality in soybeans. Over the past several years, GIPSA's Grain Inspection Advisory Committee discussed the relevance of test weight in the marketplace and passed several resolutions advising GIPSA to study the importance of test weight and its appropriate place in the soybean standards. As a result of further evaluation, GIPSA intends to propose in FY 2005 that the minimum test weight per bushel be changed from a grade determining factor to an informational factor in the official U.S. Standards for Soybeans.

Wheat. On June 4, 2003, GIPSA published a proposed rule in the *Federal Register* (68 FR 33408) inviting comments on how GIPSA can further enhance and best facilitate the marketing of Hard White wheat. Specifically, GIPSA proposed creating two subclasses in the class Hard White wheat that would differ based on seed coat color. Seed coat color can be an important quality factor depending on the target flour product and the miller's flour extraction goal. Further, GIPSA proposed amending the definition of contrasting classes so that Hard White wheat was not a contrasting class in Hard Red Winter wheat or Hard Red Spring wheat. Finally, GIPSA proposed amending the standard to include the weight of the wheat used to determine sample grade. The 60-day public comment period generated four comments. GIPSA has prepared a final action based on the comments and intends to publish a final rule in FY 2005.

Visual Reference Material

GIPSA's interpretive line slide system had served as the primary tool to ensure standardization of GIPSA's subjective quality control program since 1976. In FY 2004, GIPSA completed the transition of the photographic slide system to digital printed visual reference images, which has improved the quality and availability of the quality control material.

Educational Material

GIPSA provides educational materials and grading aids to GIPSA customers through various outlets, at industry meetings/trade shows, and to the public through the GIPSA website. In FY 2004, GIPSA developed new CDs on flaxseed, canola, sunflower seed, oat, and rye grading, which completed the inspection tutorials. A new outreach DVD was prepared for distribution at trade shows and eLearning versions of all of the grading tutorials were developed for access via the GIPSA website. GIPSA also developed prototype inspector calibration content for corn damage to test the capability of using the Internet for training inspectors on the interpretive lines. These materials improve knowledge about quality standards, and minimize trade disputes caused by misunderstandings about terms and methods. In 2005, GIPSA will complete rice and edible bean grading tutorials and develop inspector calibration content for soybeans, wheat, and sorghum.

International Projects

Mexico. GIPSA has been working with Mexico's private and public grain sectors to promote the use of U.S. sampling and inspection methods to minimize differences in test results between GIPSA's export certificates and the receiver's. GIPSA provided technical assistance to the U.S. Grains Council (USGC) to set up five grain inspection laboratories mirrored after GIPSA's at major corn importing facilities in Mexico. GIPSA inspectors trained personnel from 17 local grain elevators in Mexico and several Mexican technical teams at the Technical Center in Kansas City. GIPSA is working with American Association of Grain Inspection and Weighing Agencies (AAGIWA) and USDA Cooperator organizations to conduct additional seminars in Mexico to promote the official inspection system and to educate Mexican grain inspectors in U.S. grain standards and inspection methods and procedures.

GIPSA and Mexico's Ministry of Agriculture plan to establish a Government-to-Government Grain Industry Group as a technical-level forum to address cross-border grain trade issues, and standardize Mexico's sampling and inspection methods to mirror GIPSA's. The Group is expected to convene in FY 2005. Mexican officials have asked GIPSA to continue holding grain marketing seminars throughout Mexico and to provide technical assistance in setting up a grain reference laboratory in Mexico mirrored after GIPSA's Technical Center.

Asia. On June 1, 2004, GIPSA placed a representative in Hong Kong on a long-term (4-month) temporary duty assignment to work proactively with overseas customers and their Governments in Asia. This in-country representation allows GIPSA to address immediate and long-term issues in the region, ranging from resolving quality discrepancies that arise during the representative's tenure in Asia and answering specific questions about GIPSA's certification and programs, to instituting longer-term educational and technical programs to address long-standing quality concerns. The GIPSA representative also promotes a better understanding and adoption of U.S. sampling and inspection methods to minimize differences in results, and develops valuable personal relationships with customers, USDA Cooperators, and government officials.

Biosafety Protocol. The Cartagena Protocol on Biosafety ("Biosafety Protocol") entered into force on September 11, 2003. It serves as an agreement to protect the environment from risks posed by the transboundary transport of living modified organisms (LMOs) created by modern biotechnology. It requires that bulk shipments of LMO commodities that are intended to be used as food, feed or for processing, be accompanied by documentation stating that such shipments "may contain" LMOs and are "not intended for intentional introduction into the environment." The Protocol does not cover food safety or labeling issues. GIPSA worked with U.S., Canadian, and Mexican officials to establish a North American trilateral agreement on implementation of the Biosafety Protocol. The trilateral arrangement clarifies the documentation requirements for living modified organisms intended for food, feed, or processing. GIPSA participated in several international meetings in other countries to foster implementation of the Biosafety Protocol without trade disruption.

Briefings with International Delegations

GIPSA 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 GIPSA's 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, GIPSA field offices, onsite laboratories at export grain elevators, and the Agency's Technical Center in Kansas City, Missouri. At the Technical Center, delegations sometimes receive technical training on analytical testing procedures and grain inspection methods and procedures.

These briefings foster a better understanding of the U.S. grain marketing system, the official U.S. grain standards, and the national inspection system, and enhance purchasers' confidence in U.S. grain.

**Summary of Briefings with
Visiting Trade and
Governmental Teams
In Fiscal Year 2004**

Albania	Kenya
Algeria	Korea
Bangladesh	Latvia
Belgium	Malaysia
Benin	Malta
Brazil	Mexico
Bulgaria	Montenegro
Canada	Morocco
Chile	Mozambique
China	Nigeria
Colombia	Oman
Croatia	Pakistan
Cyprus	Paraguay
Denmark	Philippines
Ecuador	Poland
Egypt	Romania
El Salvador	Senegal
England	Serbia
Germany	Singapore
Ghana	South Africa
Guatemala	Sweden
India	Taiwan
Indonesia	Thailand
Israel	The Netherlands
Italy	Trinidad and Tobago
Japan	Tunisia
Kazakhstan	Turkey
	Vietnam
	Yemen

International Outreach

In FY 2004, GIPSA responded to customers' needs for technical assistance overseas. Exporters, importers, and end users of U.S. grains and oilseeds, as well as other USDA agencies, USDA Cooperator organizations, and other governments, frequently ask for GIPSA personnel to travel overseas. 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. Such activities are funded either by various programs administered by the Foreign Agricultural Service, Farm Service Agency, directly by USDA Cooperators, by GIPSA, or by fees charged to customers requesting our consultative services.

During fiscal year 2004, for U.S. Agency for International Development (USAID), GIPSA helped conduct assessments in agricultural standards, harmonization, and transportation management in South Africa, Botswana, Namibia, and Mozambique, and set up grain inspection laboratories mirrored after GIPSA's in Kenya, Uganda, and Tanzania. We also helped set up five laboratories in Mexico; conducted an initial assessment to help the Government of Egypt set up a biotech testing laboratory; conducted several grain grading seminars in Mexico and at GIPSA's Technical Center; helped Iraq with wheat contract terms to import U.S. wheat; gave a grain marketing seminar to Iraqi officials (in Jordan); initiated a 4-month regional assignment in Asia to address immediate and long-term issues in the region relating to GIPSA; participated in several international biotech conferences and meetings on implementation of the Biosafety Protocol; worked with Canadian and Mexican officials to establish a trilateral agreement concerning the implementation of the Biosafety Protocol; continued to work with Chinese officials to address trade issues concerning the importation of U.S. soybeans; and helped the Foreign Agricultural Service and Animal and Plant Health Inspection Service resolve several grain quality issues in other countries that would have restricted U.S. grain exports.

**Summary of Activities
Involving International
Travel in Fiscal Year 2004**

<i>Purpose</i>	<i>Number of Travelers</i>	<i>Country Visited</i>	<i>Dates of Visit</i>
1. To discuss implementation of the Biosafety Protocol, StarLink corn "exit strategy" and new Japanese pesticide residue regulations.	1	Japan	10/01 – 10/04/03
2. To provide export services on shipments of U.S. grain.	1	Canada	10/08 – 12/03/03
3. To participate in the annual NAEGA and APPAMEX Grain Trade Forum.	1	Mexico	10/09 - 10/12/03
4. To work with U.S. Grains Council to set up five grain inspection laboratories.	1	Mexico	11/02 - 11/14/03
<i>Continued</i>			

<i>Purpose</i>	<i>Number of Travelers</i>	<i>Country Visited</i>	<i>Dates of Visit</i>
5. To participate in the second meeting of the North American Biotech Initiative (NABI).	1	Mexico	11/03 - 11/05/03
6. To provide information to American Soybean Association (ASA) customers on U.S. official soybean inspection system.	1	Malaysia, Philippines, Singapore, Thailand	11/28 – 12/06/03
7. To participate as a delegate in the U.S./China High-Level Biotech Joint Working Group.	1	China	12/09-12/16/03
8. To meet with the Canadian Grain Commission (CGC).	3	Canada	12/14-12/16/03
9. To provide export services on shipments of U.S. grain.	1	Canada	12/14-12/24/03
10. To provide export services on shipments of U.S. grain.	1	Canada	12/26-12/31/03
11. To participate in grain contracting seminars at the request of USGC.	1	Venezuela	1/13-1/16/04
12. To serve as a team member for the USDA Southern Africa Transportation Management and Harmonization of Standards Team.	1	Mozambique, South Africa	1/30-2/09/04
13. To conduct a seminar on the U.S. grain marketing system to a local grain cooperative, at their request.	2	Mexico	1/31-2/07/04
14. To participate in an outreach mission coordinated by USGC.	1	Japan	2/14 – 2/22/04
<i>Continued</i>			

<i>Purpose</i>	<i>Number of Travelers</i>	<i>Country Visited</i>	<i>Dates of Visit</i>
15. To participate in the first meeting of the Conference of the Parties serving as the Meeting of the Parties to the Cartagena Protocol on Biosafety (COP-MOP 1)	1	Malaysia	2/19 – 2/28/04
16. To give a presentation at a marketing seminar for Iraqi Grain Board members, to checktest inspection equipment, and to hold discussion regarding a proposed seminar for Iraqi inspection personnel.	1	Jordan, Egypt	2/20-3/05/04
17. To attend a Canadian Food Inspection Agency (CFIA) seminar on commercial plant molecular farming products at CFIA's request.	1	Canada	3/01 - 3/04/04
18. To attend the FAO/WHO CODEX Committee meetings on Methods of Analysis and Sampling.	1	Hungary	3/04 – 3/13/04
19. To give a presentation at a grain marketing seminar sponsored by ASERCA.	1	Mexico	3/04 – 3/06/04
20. To attend the annual meetings of the CGC.	1	Canada	4/05 – 4/07/04
21. To participate in the National Type Evaluation Laboratory Meetings.	1	Canada	4/22 - 4/28/04
22. To attend a U.S. – China Soybean Technical Meeting.	1	Hong Kong, China	4/23 - 5/04/04
<i>Continued</i>			

<i>Purpose</i>	<i>Number of Travelers</i>	<i>Country Visited</i>	<i>Dates of Visit</i>
23. To participate in the second GIPSA 4-month regional assignment to address immediate and long-term issues.	1	Hong Kong, Malaysia, Taiwan, Korea, Singapore, Japan, China, Vietnam, Philippines	6/01 - 9/28/04
24. To provide export services on shipments of U.S. grain.	1	Canada	6/09 - 6/24/04
25. To facilitate meetings with four African countries to harmonize grain standards.	1	Botswana	6/18 - 6/26/04
26. To give a presentation to the U.S. Wheat Associates Latin American Wheat Buyers Conference.	1	Aruba	6/23 - 6/24/04
27. To discuss Consultative Grain Industry Group Terms of Reference with SAGARPA officials.	1	Mexico	7/12 - 7/15/04
28. To attend the American Society of Agricultural Engineers Annual Meeting.	4	Canada	7/31 - 8/05/04
29. To conduct a fact-finding mission to learn about Brazilian and Argentinean grain quality measurement and certification systems in exporting countries without a Federalized system.	3	Brazil, Argentina	08/21 - 9/03/04
30. To participate in the National Type Evaluation Committee Weighing Sector Annual Meeting.	2	Canada	8/28 - 8/31/04
<i>Continued</i>			

Purpose	Number of Travelers	Country Visited	Dates of Visit
31. To discuss establishing a biotech laboratory with officials of the Central Laboratory for Inspection of Food and Feed (CLIFF).	1	Egypt	8/30 – 9/03/04
32. To participate in the fourth meeting of the North American Biotech Initiative (NABI).	1	Canada	9/20 – 9/22/04
33. To attend a CEN (Comite Europeen de Normalisation) meeting as a member of the U.S. delegation of ISO Technical Advisory Group.	1	France	9/25 – 9/30/04

Protect the Integrity of U.S. Grain and Related Markets

Alleged Violations

At the beginning of FY 2004, 10 cases involving alleged violations of the USGSA and the AMA were pending further action. During FY 2004, GIPSA personnel opened 7 cases relating to the following alleged violations: deceptive loading, violating export grain requirements, improper procedures, inter-market quality discrepancies (domestic), and employee misconduct. GIPSA referred one case to USDA's Office of Inspector General (OIG), which is conducting an investigation. GIPSA took administrative action in closing 5 cases during FY 2004, leaving 12 cases pending at the end of the fiscal year. The administrative actions included informational letters to OIG, a confidential informant, and a GIPSA employee. Moreover, GIPSA sent cautionary letters to 2-grain company officials.

During FY 2004, the courts completed criminal action stemming from a GIPSA investigation involving false grain weighing. The individual in this case pleaded guilty to charges of conspiracy to falsify grain weight certificates and was sentenced to 28 months' imprisonment and 3 years' supervised release; and ordered to pay \$214,501.15 in restitution. GIPSA did not take any administrative action in this matter and closed its case.

Registration

During calendar year 2004, GIPSA issued 98 Certificates of Registration to individuals and firms involved in foreign commerce grain business.

Compliance Reviews

Compliance reviews are independent third-party reviews of GIPSA's grain inspection and weighing field operations, which includes Federal field offices and suboffices, and State and private agencies (official agencies). Review teams evaluate customer satisfaction (including potential service delivery discrimination), management effectiveness and efficiency, and procedural compliance. During FY 2004, GIPSA personnel conducted onsite compliance reviews of a GIPSA field office and a suboffice, and 12 official agencies. The onsite reviews found no service delivery discrimination, or lessening of the overall integrity of GIPSA's mission or programs, or the national inspection system. The field office, suboffice, and 12 official agencies evaluated onsite are performing satisfactorily.

Delegation/Designation Programs

GIPSA currently oversees 56 official agencies that are designated under the USGSA, as amended, to provide permissive official inspection and/or weighing services at domestic locations. Of these, 7 are States that also are delegated to provide mandatory official inspection and weighing services at export locations. Delegations are permanent unless GIPSA or the State decides to terminate the agreement.

Under a triennial renewal process, 18 official agency designations automatically terminated in FY 2004. GIPSA renewed 17 of the 18 for full 3-year terms after reviewing their performance. One was renewed for 1 year because of an ongoing investigation.

Conflicts of Interest

At the beginning of FY 2004, three designated official agencies were operating with discretionary conflict-of-interest waivers. All three agencies remain designated and are operating properly under conflict waivers.

Drug-Free Workplace

As each designated official agency becomes eligible for designation renewal, it must certify to GIPSA that it provides a drug-free workplace. Each of the 18 agencies renewed in FY 2004 provided this certification.

Pilot and Exception Programs

During FY 2004, GIPSA continued to operate three exception programs to gather information on the effect of allowing more than one designated official agency to inspect or weigh grain in a single geographic area.

The timeliness-of-service exception program allows official agencies to provide service to facilities located outside of their assigned geographic area on a case-by-case basis when official service cannot be provided within established timeframes. During FY 2004, there were no reports of the timely service exception being used.

The nonuse of service exception program allows official agencies to offer service to facilities outside their assigned area if no official service has been provided during the previous 3 months. During FY 2004, 104 facilities received 135,532 inspections under this program. This included 609 inspections for barges, 67,289 for railcars, and 67,634 for others (e.g., trucks, containers, StarLink™, etc.).

The barge exception program allows customers shipping grain in barges to select any official agency to probe-sample and inspect the grain. During FY 2004, 2 facilities received 46 barge inspections under this program.

International Complaints

GIPSA administers a grain quality and weight discrepancy process. If an importer of U.S. grains reports a quality or weight discrepancy, GIPSA analyzes samples retained on file from the original inspection and samples submitted from destination (if the buyer chooses to submit them) to evaluate whether the discrepancy was due to differences in samples, procedures, or an actual change in quality from the time of the original inspection.

The process verifies whether the original inspection and weighing service provided at the time of loading was correct, based on all available information. GIPSA then issues a report outlining its findings and providing suggestions to avoid similar discrepancies in the future.

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

In FY 2004, GIPSA received 4 quality and 0 weight complaints from importers on grains inspected under the U.S. Grain Standards Act, as amended. These complaints involved 96,695 metric tons, or about 0.1 percent by weight, of the total amount of grain exported during the year. This compares to 13 quality and 0 weight complaints received in FY 2003, representing about 0.2 percent of grain exports by weight.

**Summary of Complaints
Reported by Importers on
Inspection and Weighing
Fiscal Year 2004**

<i>Complainant</i>	<i>Grain</i>	<i>Number of Complaints</i>	<i>Nature of Complaint</i>
Africa and Middle East			
Israel	Soybeans	1	Heat-damaged kernels, damaged kernels, foreign material
Mozambique	Corn	1	Broken corn and foreign material, damaged kernels, moisture
Asia			
Indonesia	Wheat	1	Falling Number
Malaysia	Soybeans	1	Heating, foreign material, moisture, damaged kernels, heat-damaged kernels
TOTAL		4	

Provide Official Grain Inspection and Weighing Services

Process Verified Program

GIPSA continues to develop a process verification program to support the market's move toward increased use of identity preservation and similar marketing mechanisms to meet changing consumer demands. Quality management systems will become increasingly important as customers seek more information about non-content factors, or as more value-enhanced grains enter the commercial market for which rapid tests are not available or cannot meet the full needs of buyer and seller. To complement these systems, GIPSA is developing a voluntary, fee-based "Process Verified Program" for grains and related commodities. Under the program, an organization would develop its own quality policies, objectives, and procedures to meet their customers' demands. Through audits and reviews, GIPSA would verify the organization's process. Successful completion of GIPSA's verification process will permit a company or organization to market its process or product as "*USDA Process Verified.*" The proposed service will be voluntary and modeled on the Agricultural Marketing Service's existing programs that are used for breed identification, branded products, and origin of livestock.

In FY 2004, GIPSA continued working with the Iowa, Illinois, and Missouri Corn Growers Associations to develop production protocols to market grain under GIPSA's voluntary process verification program. Protocols were designed to market specialty crops and to document processes employed to produce commodity corn to meet ever-increasing requirements of various outlets using quality management systems.

AMA Review Inspections

On October 28, 2003, GIPSA revised the regulations on reinspection and appeal inspections under the U.S. Grain Standards Act to better reflect market needs and to remove an inefficient, costly, and unnecessary regulatory requirement. The change allows interested parties to specify which official factor(s) should be redetermined during appeal and board appeal inspection service. To safeguard against inadvertent misgrading, official personnel may determine other factors, when deemed necessary. In response to positive comments about this change, GIPSA plans to propose a similar action for rice and pulses under the Agricultural Marketing Act of 1946 during FY 2005.

Official Criteria for Barley

Sprouting occurred in barley in the U.S. Northern Plains region during 2002/2003 which prevented malting barley production contracts from being honored. Further, barley producers' insurance claims, based on obtaining official grades, were sometimes denied because official procedures to assess barley sprout damage differed from those used by the malting industry. The methods used by the industry were as varied as the number of companies in the industry, while GIPSA's official methods are standardized and serve the industry as a whole.

Until 2004, official inspection procedures for evaluating sprout-damaged kernels in barley were based on visual examination to identify detectable sprouting. However, before visual evidence of sprouting is present, biochemical changes may commence that affect kernel viability and the malting process. Thus, any degree of "pregermination" is potentially of concern to the malting industry.

To better facilitate the marketing of malting barley, GIPSA coordinated industry efforts to establish a standardized procedure, and developed a new official criteria, available upon request, to determine the percentage of kernels "Injured-by-Sprout."

Supporting USDA Programs and Producers' Income

USDA farm programs for deficiency payments and crop insurance typically rely on the U.S. standards to determine eligibility and payment amount. GIPSA acted on one commodity this year—buckwheat—to help farmers in their eligibility requirements. Buckwheat producers wanted to receive Federal crop insurance coverage for their commodity this year, but it was not available because Federal inspection procedures were not established. To help producers obtain crop insurance coverage, GIPSA worked with the USDA Risk Management Agency to develop Federal inspection procedures for buckwheat. GIPSA implemented these procedures on February 13, 2004, as a service provided under the Agricultural Marketing Act of 1946, as amended.

In 1998, to help Kamut producers obtain crop insurance coverage, GIPSA developed inspection procedures for the factor analysis of this organically grown wheat-like grain. GIPSA used the name Kamut in the directive that established the inspection procedures. However, Kamut is not the name of the commodity, but is a registered trademark owned by Kamut International, Ltd (KI), used to market a grain that has certain guaranteed quality attributes as specified by KI. The common name of the grain is "Khorasan wheat" or *Triticum Turanicum*. In 2004, the Federal Crop Insurance Corporation modified its wheat crop insurance provisions to include the term "Khorasan" in the crop definition and create a separate definition of Khorasan: "the common name for a variety of wheat *Triticum Turanicum* that is marketed under trademarks such as Kamut. Khorasan is considered to be spring wheat for the purpose of this policy." To help Khorasan producers, GIPSA amended its directive to replace all reference of the name Kamut with the name Khorasan to match the Federal Crop Insurance Corporation's crop insurance policies.

Mechanical Sampling Systems

In January 2004, GIPSA announced a policy change for approval of certain mechanical sampling systems at domestic facilities at which high load-out rates interfere with their safe testing. Each qualified facility has a simple system installed at a location directly above the carrier. After a thorough visual examination, the system may be exempted from requirements to test using a comparison of grain samples. During FY 2004, we exempted 22 sampling systems from the grain testing requirement.

Grain Inspection Handbook GIPSA revised the Grain Inspection Handbook, Book II, Grain Grading Procedures, to incorporate 1997 through 2004 policy and procedural changes, reformat the complete handbook, and make minor editorial changes. Additionally, hyperlinks were created throughout the handbook to link the visual reference images (VRI) to pertinent grain grading factors. The VRI, a series of commodity-specific images that contain descriptive text, represent the foundation for the national inspection system's subjective quality control program and provide an effective management tool for aligning inspectors and helping them make proper and consistent subjective grading decisions.

**Inspection Program Data
Fiscal Years 2002-2004**

Item	Fiscal Years		
	2002	2003	2004
Quantity of Grain Produced ¹ (Mmt) ²	402.4	371.9	405.0 ³
Quantity of Grain Officially Inspected (Mmt)			
Domestic	131.0	125.8	124.6
Export by GIPSA	81.5	71.6	76.2
by Delegated States/Official	<u>24.4</u>	<u>24.9</u>	<u>29.5</u>
Total	236.9	222.3	230.3
Delegated States/Official Agencies			
Delegated and Designated States	8	7	7
Designated States	7	6	6
Private Agencies	<u>43</u>	<u>43</u>	<u>43</u>
Total	58	56	56
State/Private Agency AMA Agreements	19	20	18
Number of Official Original Inspections and Reinspections			
GIPSA	101,568	93,795	100,996
Delegated States/Official Agencies	<u>1,728,016</u>	<u>1,713,364</u>	<u>1,688,141</u>
Total	1,829,584	1,807,159	1,789,137
<i>(continued)</i>			

¹ Source: USDA Crop Production Reports.

² Million metric tons.

³ Source: USDA World Agricultural Supply and Demand Estimates, 2003/2004 marketing year. This figure includes production of wheat, corn, sorghum, barley, oats, and soybeans.

Item	Fiscal Years		
	2002	2003	2004
Number of Grain Inspection Appeals			
Field Offices	3,700	3,781	3,556
Board of Appeals and Review	530	528	602
Number of Commercial Inspections			
GIPSA	36	8	0
Delegated States/Official Agencies	<u>677,849</u>	<u>713,375</u>	<u>789,996</u>
Total	677,885	713,383	789,996
Number of Wheat Protein Inspections			
GIPSA	20,246	20,025	24,446
Delegated States/Official Agencies	<u>387,610</u>	<u>424,854</u>	<u>432,664</u>
Total	407,856	444,879	457,130
Number of Soybean Protein and Oil Inspections			
GIPSA	16,425	16,232	12,957
Delegated States/Official Agencies	<u>19,910</u>	<u>20,345</u>	<u>16,622</u>
Total	36,335	36,577	29,579
Number of Aflatoxin Inspections	66,062	111,055	102,197
Number of DON Inspections	50,017	47,500	44,661
Number of StarLink™ Tests	75,700	39,648	27,358
Quantity of Rice Inspected (Mmt) (milled basis)	2.8	3.7	2.5

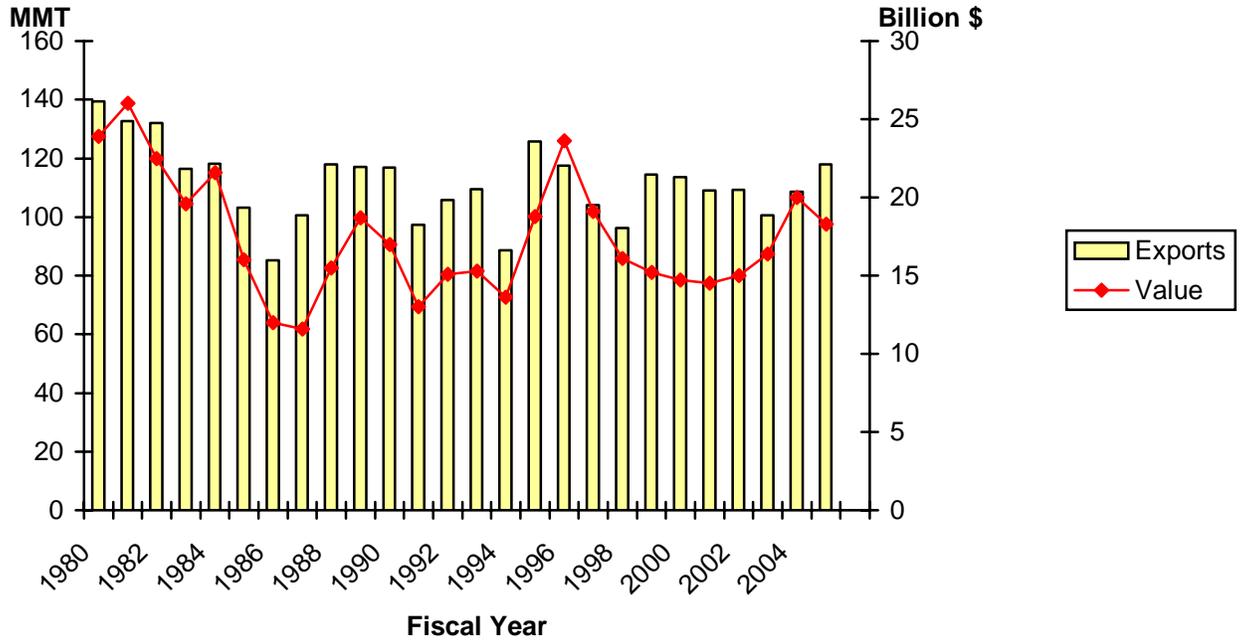
**Weighing Program Data
Fiscal Years 2002-2004**

Item	Fiscal Years		
	2002	2003	2004
Official Weight Certificates Issued			
GIPSA			
Class X ¹	72,131	79,061	81,923
Class Y ²	<u>5,974</u>	<u>5,153</u>	<u>3,562</u>
Total	78,105	84,214	85,485
Delegated States/Official Agencies			
Class X ¹	24,313	19,977	17,908
Class Y ²	<u>101,191</u>	<u>110,272</u>	<u>106,978</u>
Total	125,504	130,249	124,886
Exported Grain Weighed (Mmt)			
GIPSA	81.5	71.6	76.2
Delegated States	<u>19.1</u>	<u>19.9</u>	<u>24.4</u>
Total	100.6	91.5	100.6
Number of Certified Scales in Service			
Export Elevators	250	240	230
Number of Scales Tested			
Railroad Track Scales	250	240	240
Hopper Scales	729	763	730
Vehicle Scales	78	70	75

¹ Class X weighing involves 100 percent supervision.

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

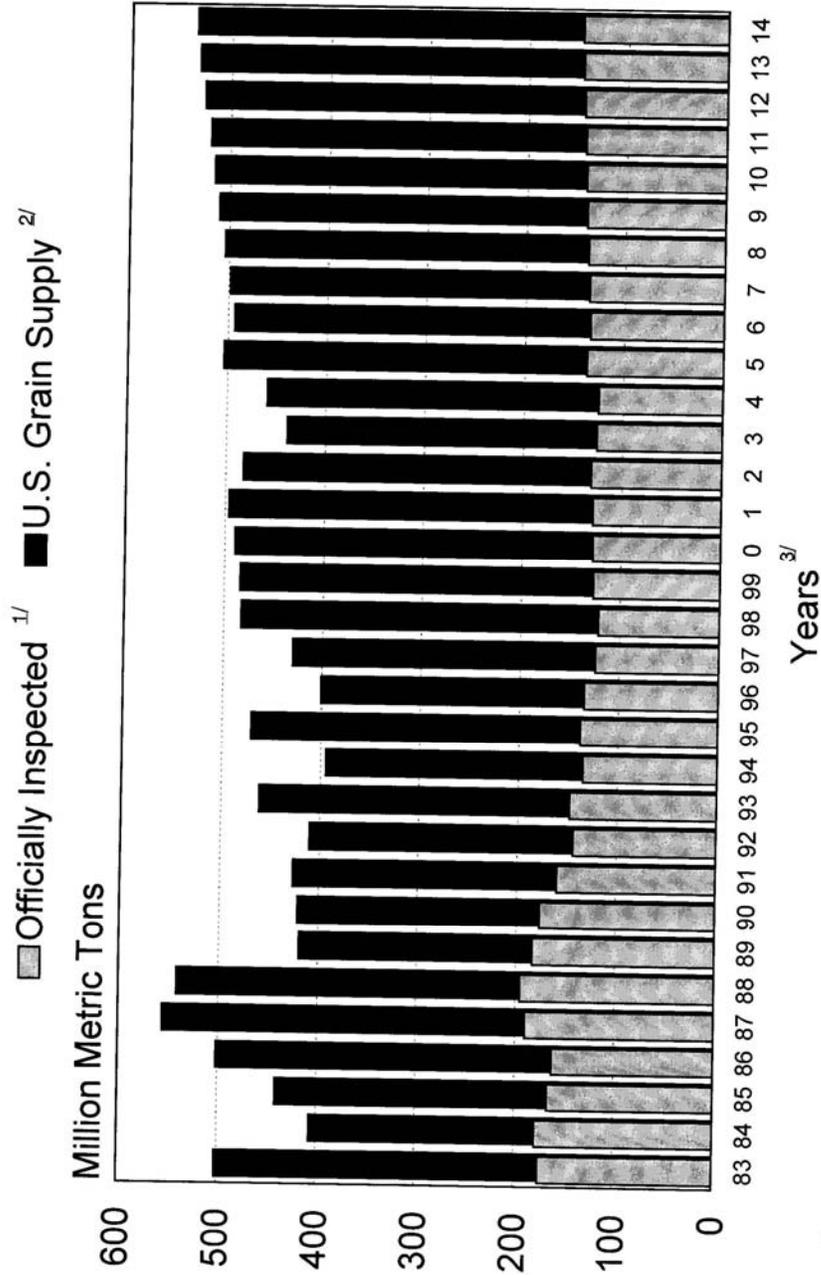
U.S. Grain, Oilseed, and Rice Exports: Volume and Value



Sources: FGIS Export Grain Inspection System and the USDA Economic Research Service

US Domestic Grain Inspections

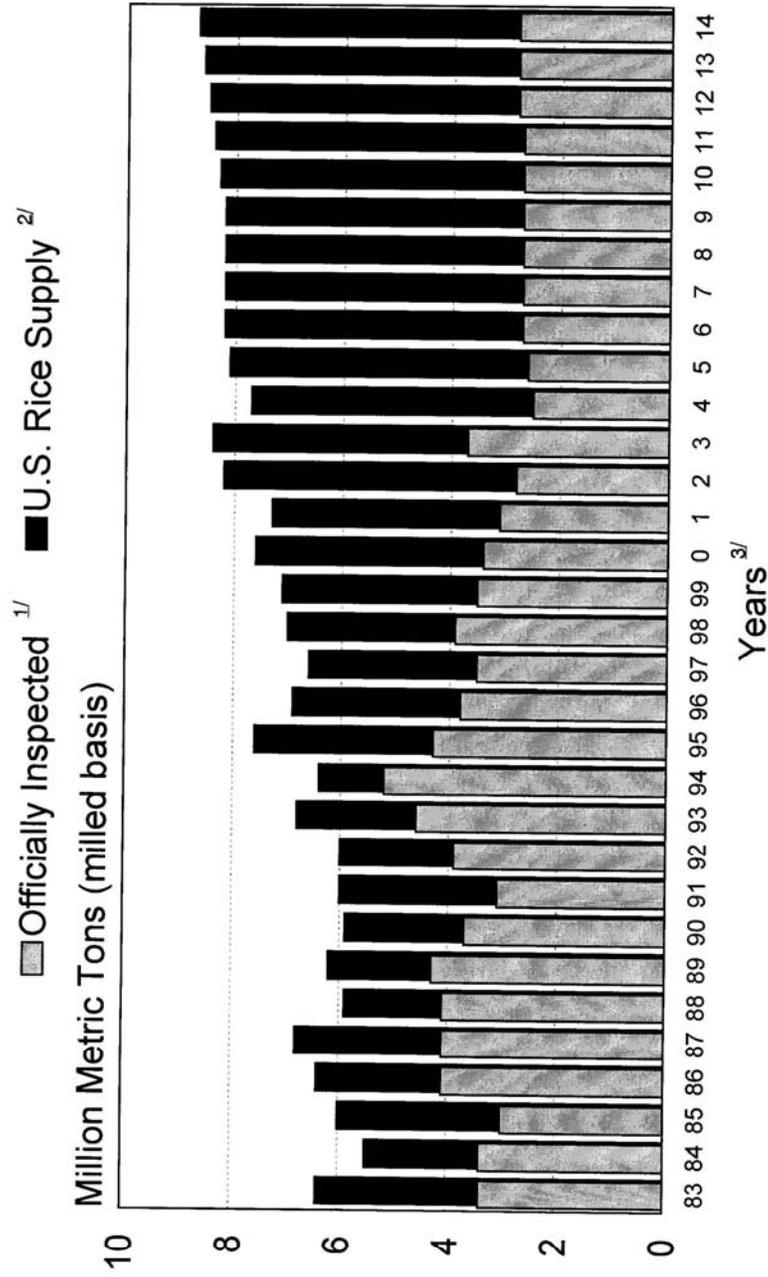
U.S. DOMESTIC GRAIN INSPECTIONS



Source:
 1/ GIPSA, GIWIS for 1983 - 04 and 2004 inspection rate (27.2%) applied to estimated supplies for 2005 - 2014.
 2/ USDA, ERS market year figures for 1983 -2002, WASDE (Oct. 12, 2004) for 2003-2005 and WAOB baseline projections for 2006-2014.
 3/ Domestic inspections are reported by fiscal years and U.S. grain supplies are by marketing years.

U.S. Rice Inspections

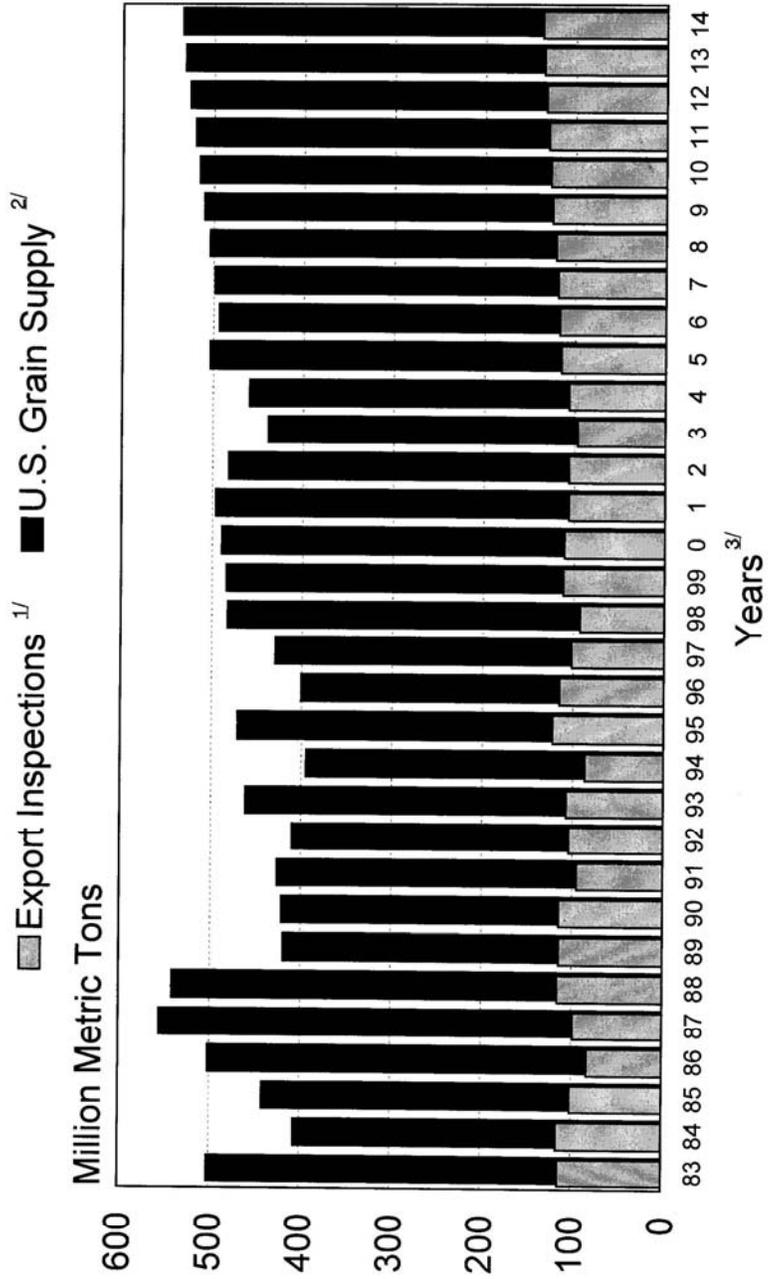
U.S. RICE INSPECTIONS



Source:
 1/ GIPSA, AMA Output Reports for 1983 - 04 and 2004 inspection rate (32.5%) applied to estimated supplies for 2005-2014.
 2/ USDA, ERS market year figures for 1983 - 2002, WASDE (Oct. 12, 2004) for 2003 - 2005, and WAOB baseline projections for 2006-2014.
 3/ Inspections are reported by fiscal years and U.S. rice supplies are by marketing years.

U.S. Export Grain Inspections

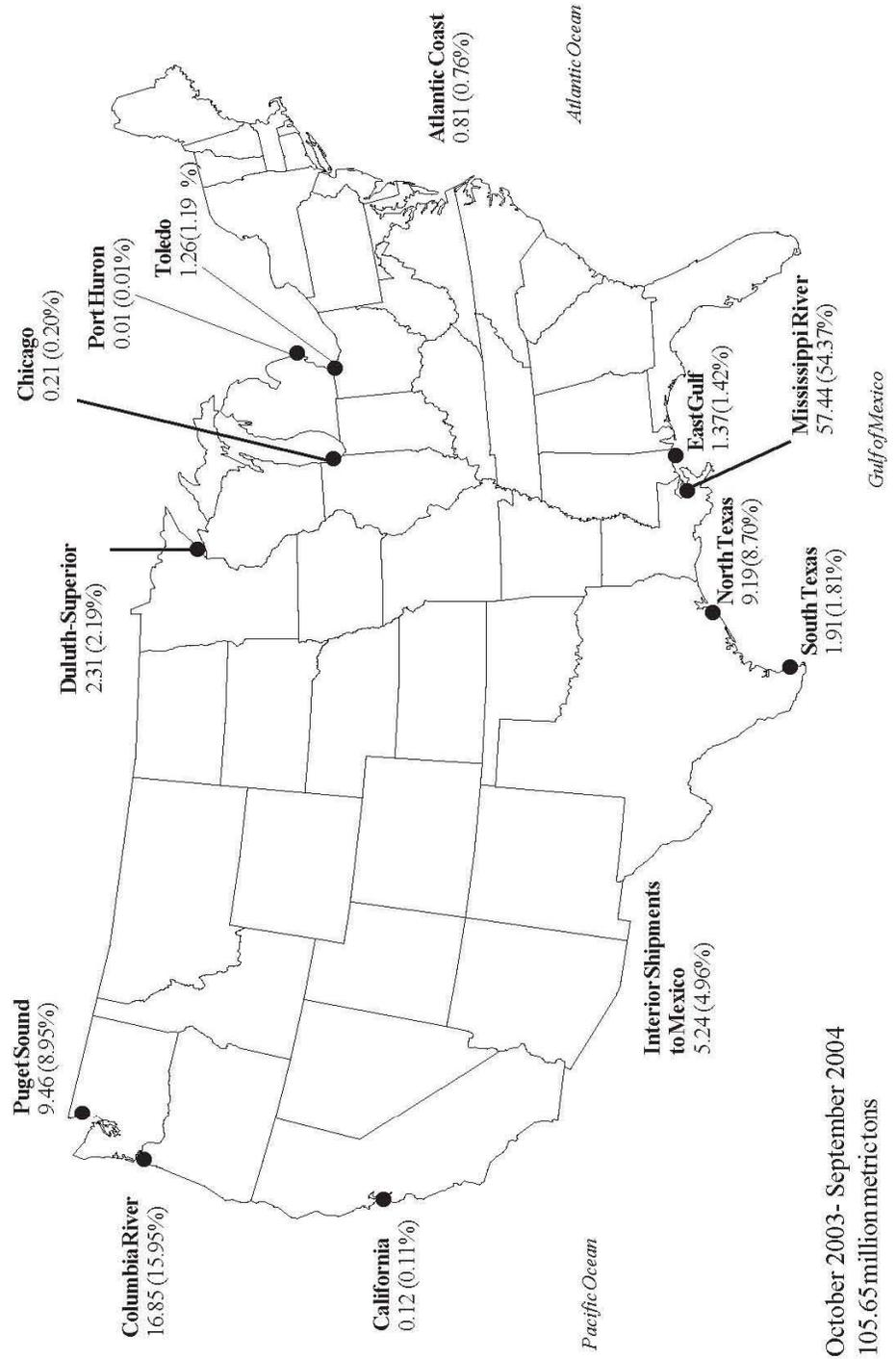
U.S. EXPORT GRAIN INSPECTIONS



Source:
 1/ GIPSA, EGIS for 1983 - 04, WASDE (Oct. 12, 2004), and WAOB baseline projections for 2005-2014.
 2/ USDA, ERS market year figures for 1983 - 02, WASDE (Oct. 12, 2004) for 2003-2005, and WAOB baseline projections for 2006-2014.
 3/ Export inspections are reported by fiscal years and U.S. grain supplies are by marketing years.

Volume of U.S. Grain Inspected for Export by Area Fiscal Year 2004

Million Metric Tons



Management Initiatives

Emergency Management

GIPSA continues to work closely with the USDA Office of Crisis Planning and Management (OCPM) to refine the Department's and the Agency's Continuity of Operations Plan (COOP), and to support and staff the Department's Crisis Action Team (CAT). Last year, GIPSA's COOP and CAT representatives participated in a number of USDA and mission area COOP exercises and training sessions. GIPSA also completed the Agency's Supplement to the USDA Headquarters COOP Plan.

To prepare for potential emergencies in the Washington, DC, area, GIPSA improved access, connectivity, and communications at GIPSA's Level 1 and 2 COOP Relocation Site -- the USDA Animal and Plant Health Inspection Service (APHIS) Emergency Operations Center in Riverdale, Maryland. The Agency also issued "grab-and-go" emergency kits to all Washington, DC, employees. The kits contain emergency rations and equipment for use during a shelter-in-place emergency.

GIPSA safety and health personnel conducted site visits at six field locations to review local emergency preparedness plans and physical security measures, and to participate in information sharing sessions with office supervisors and employees.

Homeland Security

GIPSA continued to contribute to USDA's homeland security efforts. The Agency provided technical assistance related to homeland security issues to the USDA Homeland Security Working Group; continued working with the National Food Laboratory Steering Committee to coordinate and integrate resources to support key components of the Food Emergency Response Network (FERN); and, in conjunction with USDA and the Animal and Plant Health Inspection Service, developed information for the USDA Sector Specific Plan that will be included in the National Infrastructure Protection Plan.

Enterprise Architecture

GIPSA is devoting considerable resources to modernize its entire enterprise architecture by developing and deploying a web-based inspection and weighing service system nationwide. This new enterprise architecture will enable GIPSA to improve the efficiency and effectiveness of service delivery by streamlining business practices and improving customer service. GIPSA's goal is to provide single data entry; online application of core business practices; and a national inspection data warehouse accessible to our customers for better, faster, more responsive service.

Work-Life Programs

GIPSA is concerned about the welfare of its employees and remains committed to helping them achieve a healthy balance between work and home life. In FY 2004, GIPSA developed and distributed to all employees a new publication, "Work-Life Programs," that provides information about the many available Office of Personnel Management, USDA, and GIPSA work-life programs. These programs are designed to enhance the health and well-being of GIPSA employees while increasing their productivity and morale, and decreasing absenteeism, workers' compensation expenses, turnover rate, deaths, and premature retirements.

Explosion Data

GIPSA receives information on agricultural dust explosions through the cooperation of Dr. Robert Schoeff, Professor Emeritus, Kansas State University, Mavis Rogers, GIPSA, and a news clipping service. GIPSA does not investigate agricultural dust explosions and the private sector is not required to report explosions to GIPSA. This data is subject to change as new information becomes available.

Summary of Reported Agricultural Dust Explosions Fiscal Years 2002 –2004

	2002	2003	2004
Number of Explosions	9	6	6
Number of Injuries	11	7	3
Number of Deaths	1	2	0

Reported Agricultural Dust Explosions FY 2004

Facility	Location	Date	Injuries	Fatality
Perdue Farm Incorporated	Cofield, NC	04/07/04	1	0
MGP Ingredients Incorporated	Atchison, KS	04/06/04	0	0
Wilmar Poultry Farms Incorporated	Wilmar, MN	04/02/04	1	0
North Central Grain Coop	Clarion, IA	02/24/04	1	0
Archer Daniels Midlands Corn Processing	Clinton, IA	01/12/04	0	0
Klemme Farmers Coop	Klemme, IA	12/09/03	0	0

Financial Information

Fee Amendments

In FY 2004, GIPSA implemented new fee rates and adjusted the fee schedule for official inspection and weighing services performed in the United States under the U.S. Grain Standards Act, as amended. The final rule was published in the *Federal Register* (69 FR 26476) on May 13, 2004, and became effective June 14, 2004. The fee changes included eliminating provisions for the 3-month and 6-month contracts; increasing the 1-year contract hourly rate by approximately 20 percent and the non-contract hourly rate by 47 percent; increasing hourly rates for services not performed at an applicant's facility by approximately 11.5 percent; increasing unit fees for additional tests provided by GIPSA; eliminating the 6-level administrative tonnage fee and replacing it with regional administrative tonnage fees; eliminating the unit fee charged to delegated States for export ships and replacing it with a tonnage fee; increasing hourly fees for special weighing services by approximately 30 percent above the non-contract hourly rate; and establishing a \$500 usage fee per facility when the GIPSA test car is used to test track scales. These changes were needed to replenish the retained earnings accounts and to maintain a 3-month operating reserve.

GIPSA reviewed the financial status of the user-fee funded official agency grain inspection and weighing program. GIPSA determined the official agency inspection and weighing program requires a fee adjustment to slightly increase the revenues to cover projected costs, and anticipates proposing a change to the fees during FY 2005. GIPSA will complete a review of the financial status of the rice program during FY 2005.

**Status of GIPSA Fee-Supported Accounts
Fiscal Year 2004**

Program	Revenue 09/30/04	Obligations 09/30/04	Profit/(Loss) 09/30/04	Trust Fund 09/30/04
US Grain Standards Act				
Canadian Operations	\$346,951	\$215,282	\$131,669	\$5,626
Inspection & Weighing	27,459,999	26,267,519	1,192,480	(678,724)
Official Agencies	1,528,046	2,606,826	(1,078,780)	913,685
Registration	<u>16,487</u>	<u>6,460</u>	<u>10,027</u>	<u>96,917</u>
USGSA Subtotal	29,351,483	29,096,087	255,396	337,504
Agricultural Marketing Act				
Rice Inspection	4,262,452	4,421,572	(159,120)	770,018
Commodity Inspection	<u>2,253,425</u>	<u>2,405,243</u>	<u>(151,818)</u>	<u>2,304,284</u>
AMA Subtotal	6,515,877	6,826,815	(310,938)	3,074,302
Total Fiscal Year 2000	<u>\$35,867,360</u>	<u>\$35,922,902</u>	<u>(\$55,542)</u>	<u>\$3,411,806</u>

**GIPSA's Appropriated Budget Authority
Fiscal Years 2000-2004**

Dollars in thousands

Appropriated Funds	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
Budget Authority						
Packers & Stockyards Programs	\$16,062	\$15,128 ⁴	\$17,355 ⁵	\$17,873	\$23,426	\$18,951
Federal Grain Inspection Service	10,725	11,505	14,195	15,244	15,244	16,939
Total Budget Authority	\$26,787	\$26,633	\$31,550	\$33,117⁶	\$39,950^{7/5}	\$35,890⁶

⁴ Includes a \$200,000 transfer from the Office of the Secretary for mandatory price reporting activities.

⁵ Includes a \$199,560 permanent supplemental appropriation for mandatory price reporting activities included in Public Law 106-554.

⁶ Reduced by a rescission of \$51,071.

⁷ Reduced by a rescission of \$259,675.

⁵ Includes \$2 million that was reprogrammed to the FGIS Inspection and Weighing user fee account.

⁶ Reduced by a rescission of \$212,000 under H.R. 2673.

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