



United States
Department of
Agriculture

Federal Grain
Inspection
Service



Annual Report to Congress, 1986



AUTHORITY

The United States Grain Standards Act (Act), as amended, requires the Administrator of the Federal Grain Inspection Service (FGIS) to submit a report on December 1, of each year, to the House and Senate Committees on Agriculture on the effectiveness of the official inspection and weighing system for the prior fiscal year and make recommendations for legislative changes to accomplish the objectives of the Act.

The Act also requires the Administrator to submit a summary of valid complaints received and their resolution by the U.S. Department of Agriculture (USDA) during the prior fiscal year from foreign purchasers and prospective purchasers of United States grain. This summary is included as part of the annual report.

MISSION

The mission of FGIS is to provide for the establishment of official United States Standards for Grain; to promote the uniform application thereof by official inspection personnel, to provide for an official inspection system for grain, and to regulate the weighing and the certification of the weight of grain shipped in interstate or foreign commerce, as authorized by the U.S. Grain Standards Act, as amended, and the regulations thereof; and to carry out the delegated responsibilities under the Agricultural Marketing Act of 1946 (AMA).

(49 FR 28539)



United States
Department of
Agriculture

Federal Grain
Inspection
Service

Washington,
D.C.
20250

December 1, 1986

Honorable E (Kika) de la Garza
Chairman, Committee on Agriculture
House of Representatives
Washington, D.C. 20515

Honorable Jesse Helms
Chairman, Committee on Agriculture,
Nutrition, and Forestry
United States Senate
Washington, D.C. 20510

Dear Chairmen:

In compliance with the United States Grain Standards Act (Act), as amended, the Federal Grain Inspection Service (FGIS) submits its fiscal year 1986 Annual Report to Congress. This report includes a descriptive summary and an evaluation of FGIS' principal program activities with financial and statistical data, where appropriate. The report also evaluates the FGIS internal accounting control system and the compliance with applicable statutes and regulations. Conclusions are then drawn on the effectiveness of the national inspection and weighing system.

The increased public attention given to the problems with export grain quality and the 18 percent decline in U.S. grain exports led to enactment of legislation to improve the quality of U.S. grain. The Grain Quality Improvement Act of 1986, which becomes effective May 1, 1987, with exceptions for current trade practices, prohibits: (1) dockage or foreign material once removed from grain from being recombined with any grain; (2) dockage or foreign material from being added to grain; and (3) reintroduction of dust to grain once removed.

The Department is also directed to publish a final rule on levels of insect infestation in grain; conduct studies of premiums for high quality grain and uniform end-use value tests; and publish the optimal grain grading proposal, H.R. 5534.

Other legislative action affecting grain inspection was included in the 1985 Farm Bill. The amendments require: (1) FGIS and the Agricultural Research Service to cooperate in developing new means of establishing grain classifications and submit semiannual reports to Congress; (2) FGIS to include moisture content as a factor for grade designation if requested by a foreign government; and (3) Office of Technology Assessment, in consultation with the Secretary, to conduct a study of export quality standards and grain handling practices to assess the extent to which they have contributed to declining grain exports and submit a report to Congress by December 1, 1986.

FGIS' operating revenues during fiscal year 1986 were \$27.5 million, with obligations of \$29.6 million, yielding a negative net operating margin of \$2.1 million. The total revenues included interest of \$458,000 on investments of \$5.0 million of fee account funds. The revolving fund closed the fiscal year at \$6.7 million, which is slightly below the 3-month operating reserve (2.7-month)



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is an agency of the
United States Department of Agriculture

that we try to maintain. Total revolving fund program obligations (actual operations) of \$29.6 million for this fiscal year were \$1.9 million below last year's level of \$31.5 million. Administrative and supervision costs represented 32.8 percent of total program costs, which is below the statutory limit of 40 percent. The sharp shortfall in grain exports required economies of scale in FGIS' operating programs that resulted in total obligations falling below budget authorization limits. Appropriated obligations of approximately \$6.4 million plus revolving fund obligations of \$29.6 million totaled \$36.0 million, \$2.2 million under fiscal year 1985 total program obligations. The operating budget for fee-supported activities ended the fiscal year at 82 percent.

Because FGIS sustained \$2.1 million operating losses, the \$2.0 million balance of the \$6.0 million supplemental budget appropriation was not repaid this fiscal year. It will be repaid in fiscal year 1987, if operating balances permit.

During fiscal year 1986, FGIS considered an increase in fees under the Agricultural Marketing Act of 1946 (AMA) and the Act because declining grain exports sharply reduced its revenues. However, the AMA fee proposal was withdrawn because of an increase in AMA inspection activities in the closing months of the fiscal year. A proposal to increase fees under the Act was published. Comments on the proposal have been considered and current revenue data evaluated. Costs have exceeded revenues despite stringent cost-cutting measures. As a result, it will be necessary to increase fees in fiscal year 1987.

The FGIS National Technical Center, located in Kansas City, Missouri, is a specially designed building to provide an efficient and effective laboratory layout. It houses the FGIS Standardization Division and two branches of the Field Management Division, the Quality Control and Testing Branch, and the Board of Appeals and Review. Part of the Agricultural Marketing Service's Marketing Research and Development Division, Statistical Branch, is also located in the building. It provides statistical support services for FGIS.

The FGIS Advisory Committee continues to play a key role in providing relevant information on the programs and activities of FGIS. During the past year, the Committee met four times and made recommendations on a number of grain quality issues, including insect-related matters and certificating wheat dockage to the nearest 0.1 percent. The Committee also addressed foreign grain complaints, uniform shiploading plans, safety concerns, industry grain quality workshop recommendations, wheat classing, soybean damage interpretations, financial matters, and proposed grain quality legislation involving dust and foreign material. Membership of the Committee was reconstituted and a new Departmental Regulation was prepared to extend the Committee through fiscal year 1988.

In summary, FGIS continues to be perceived by its constituent groups as providing a needed government service in a cost-effective manner.

Sincerely,


David R. Galliard
Acting Administrator

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CONCERNS

(1) Equal Opportunity and Civil Rights

Civil rights assessments have received renewed attention with the Secretary's strong guidance stating that "Discrimination in any form will not be tolerated". FGIS has conducted surveys at the service delivery level and even though no evidence of discrimination in program delivery is occurring, we are continuing to reiterate strong civil rights policy statements, improve a civil rights monitoring and evaluation system, determine additional civil rights training needs, reevaluate civil rights performance standards, and attempt to resolve complaints at the earliest stage in the process.

(2) Wheat Classing

The only acceptable method in current commercial practice for classing wheat for grading purposes is by visually examining the physical kernel characteristics. Variations of this system are used by all major grain exporting nations. No objective test currently is available which accurately classes wheat according to the present standards; however, a number of tests are currently under study by USDA, university, and industry researchers. FGIS will continue to work with researchers in the field to find an acceptable solution to the wheat classing problem. Other actions by FGIS on the wheat classing issue are addressed on page 4 of this report.

(3) Insect Infestation

Insect infestation is a major concern to foreign and domestic buyers and processors which is enhanced by the loss of certain pesticides. The concern is shared by FGIS because it identifies insect-infested grain or grain damaged by insects and certifies the results. This is further addressed on page 2 of this report.

(4) Grain Exports and Revenue

The continued revenue short fall is directly related to declining grain exports. We are considering additional ways to reduce administrative support costs by consolidation of activities and eliminating duplication, where appropriate. As a last resort to recover costs, increases in fees will be considered. Additional costs for the new Federal Employee Retirement System, health benefits, and inflationary salary and related adjustments could increase FGIS' obligations by \$4.0 million. These financial realities present serious problems in the management of the FGIS program.

(5) Grain Quality Legislation

The Grain Quality Improvement Act of 1986 will become effective during the upcoming fiscal year. We are developing an action plan to implement the new law which will include cost-projections. To carry out the requirements of the new law, especially the enforcement of the prohibition against recombining or adding dockage or foreign material to grain, will involve additional costs, beyond the fiscal year 1987 budget.

FUNCTIONS PERFORMED

FGIS administers and enforces the United States Grain Standards Act (Act). U.S. grain standards for corn, wheat, rye, oats, barley, flaxseed, soybeans, sorghum, mixed grain, sunflower seed, and triticale have been established under the Act. The Act requires a national inspection and weighing system for grain; requires that export grain be inspected and weighed under the Act; 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, FGIS:

- establishes official grain standards based on grading factors and other official criteria for measuring and describing grain quality;
- establishes methods and procedures and approves equipment for the official inspection and weighing of grain; 1/

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; or other facts relating to grain under other criteria approved by the Administrator (the term "officially inspected" shall be construed accordingly).

Official Weighing. (Referred to as 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 "officially weigh" and "officially weighed" shall be construed accordingly.)

- delegates qualified State agencies to inspect and weigh grain under the Act at certain export port locations; 2/
- designates qualified State and private agencies to inspect and weigh grain under the Act at interior locations;
- provides official inspection and weighing services at certain export port locations in the Atlantic, Great Lakes, Gulf, and Pacific Coast States; and official inspection at certain port locations in Eastern Canada on U.S. grain;
- provides appeal inspection services in the United States and at certain export port locations in Eastern Canada on U.S. grain; 3/
- provides Federal oversight and monitors the official inspection and weighing of grain by delegated States and designated agencies under the Act; and
- investigates apparent violations of the Act in cooperation with the Office of Inspector General (OIG), and recommends appropriate action.

The Act requires, in some instances, that grain be officially inspected and weighed. In other instances, official inspection and weighing are not required but may be obtained by officially requesting such services. In both instances, official inspection and weighing services are performed on a fee basis.

2/ Export Port locations. Commonly recognized ports of export in the United States or Canada, as determined by the Administrator, 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 site in the United States which contains one or more export elevators, and is identified by FGIS as an export port location.

3/ Appeal Inspection Service. An official review by a field office of the results of an original inspection service or a reinspection service.

FGIS administers and enforces certain inspection and standardization activities related to grain products and other commodities under the Agricultural Marketing Act of 1946 (AMA), such as beans, lentils, peas, rice, and hops. Services provided under the AMA are performed upon request on a fee basis.

**Requested
Services**

Official inspection and weighing of U.S. grain destined for domestic consumption, with few exceptions, are performed on request and require payment of a fee by either the buyer or seller of the grain. These services are provided by designated agencies which employ approximately 2,700 agency personnel licensed by FGIS to provide such services in accordance with the regulations and instructions. FGIS' supervision and administration costs have been funded by user fees since October 1, 1981.

Inspection and weighing services provided under the AMA are performed on request for both domestic and export shipments. These services are provided either by FGIS employees, individual contractors, or through cooperative agreements with States.

**Mandatory
Services**

Under provisions of the Act, grain exported from export port locations must be officially weighed. A similar requirement exists for inspection except for grain which is not sold or described by grade. The Act also requires that intercompany barge grain received at export port locations be officially weighed. Grain facilities that notify FGIS of their plans to export less than 15,000 metric tons annually are exempt from mandatory inspection and weighing requirements of the Act. Mandatory official inspection and weighing services are provided at 61 export elevators by approximately 766 FGIS full and part-time employees. Eight delegated States with approximately 664 employees provide official services at an additional 30 export elevators under direct FGIS oversight. Grain exported by rail or truck to Canada or Mexico is exempt from official inspection and weighing requirements of the Act.

FGIS carries out its inspection and weighing services through a headquarters staff and a field staff comprised of 29 field offices, 2 Federal/State offices, and 8 suboffices. The offices are located in 25 States and Canada to serve the needs of the grain industry. The objectives of the field offices are to provide efficient and timely services, monitor the activities of delegated and designated agencies, and promote a cooperative working relationship with the grain industry.

The FGIS supervision function represents an integral part of the national inspection system. It is defined as the effective guidance of agencies, official personnel, and others who perform activities under the Act to assure the integrity and accuracy of the program activities. Supervision includes overseeing, directing, and coordinating the performance of activities under the Act, reviewing the performance of these activities, and effecting appropriate action. FGIS supervisory personnel supervise agencies, official personnel, and others who perform activities under the Act. Agency supervisors are responsible for the direct supervision of their own official personnel and employees. FGIS provides oversight, guidance, and assistance to agencies as they carry out their responsibilities.

FIELD MANAGEMENT DIVISION

The Field Management Division is comprised of the following management components and functions:

(1) Inspection

The grain inspection program includes: (a) providing reliable and accurate grading, sampling, and carrier condition examination services; (b) monitoring inspection accuracy; (c) identifying and responding to intermarket grain quality problems; (d) providing reinspection and appeal inspection services; and (e) overseeing delegated and designated agencies that provide official services.

An 18 percent reduction in the volume of exported grain inspected during FY 1986, combined with last year's reduction, represents a 28 percent overall decline in 2 years. This has had an adverse impact on the inspection and weighing operations. Despite every effort to contain operating costs by staff reductions, furloughs, and other program adjustments, operating losses were incurred in FY 1986.

As a continuing effort to provide data on actual export grain quality, FGIS published its second annual evaluation of export

wheat, soybeans, and corn quality. The evaluation covered calendar year 1985 and showed that U.S. exports met grade as follows:

| <u>Grain</u> | <u>Bushels</u> | <u>Percent</u> | <u>Grade</u> |
|--------------|----------------|----------------|--------------|
| Wheat | 868 million | 96 | U.S. No. 2 |
| Corn | 390 million | 23 | U.S. No. 2 |
| | 1,327 million | 77 | U.S. No. 3 |
| Soybeans | 531 million | 87 | U.S. No. 2 |
| | 72 million | 12 | U.S. No. 3 |

FGIS began developing an automated information system for the Commodity Testing Laboratory in Beltsville, Maryland. The system will increase the accuracy and timeliness of test results.

The discontinued use of liquid fumigants (fumigants containing any combination of carbon tetrachloride, carbon disulfide, or ethylene dichloride) to date, has had little apparent impact on controlling insect infestation. Producers and other representatives of the grain industry are turning to alternative means for controlling insect infestation. Grain fumigants such as phosphine, methyl bromide, and protectants such as malathion, reldan, and actellic are being used. The true impact of the changes in controlling insects may not be realized until the vast amount of stored grain begins to enter the marketplace. On July 7, 1986, FGIS published a request for public comments on suggested changes to tolerances and grading factors relating to insect infestation in grain. Based on the responses and other information available to FGIS, proposed amendments to the standards will be prepared.

Under the new Mexican purchasing procedures, a private Mexican grain firm may purchase U.S. grain without going through the Mexican Government's purchasing agency, CONASUPO. When the purchasing procedures first changed, FGIS received increased inspection requests for truck shipments sold directly to Mexican grain firms. These increased requests did not continue. Overall, the national inspection system experienced no measurable effect due to the changed purchasing procedures.

FGIS reviewed the California and Washington delegated agency agreements. The States and FGIS consider the modified

agreements highly successful. Grain supervision user fees assessed California and Washington have dramatically decreased as a result of the expanded delegation. California was assessed \$18,234 or 32 percent less and Washington \$245,342 or 79 percent less in FY 1985 under the agreement than had the States remained under the national fees. Similar savings did not occur in FY 1986 because of reduced grain exports and lower national supervision fees. In fact, California paid \$24,493 more under the agreement in FY 1986 and Washington only saved \$87,942. This situation may reverse to the States' benefit if exports increase. Other delegated States have expressed little interest in such an agreement. Added interest in the agreement may occur if exports increase on a national basis. States that may enter an agreement to establish a Federal/State operation include Alabama, Minnesota, Mississippi, South Carolina, Virginia, and Wisconsin.

The rice export enhancement program implemented on April 15, 1986, resulted in increased requests for rice inspection service. In fact, the increased workload changed the rice inspection program from financially marginal to positive; thus, the proposed fee increase was withdrawn.

Although the export quality reports showed U.S. exports as a quality product, concern over grain quality increased during FY 1986. Consequently, FGIS has been active in addressing the grain quality issue. Specific initiatives include:

- Participating in five industrywide grain quality workshops which resulted in the issuance of a consensus report entitled, "Commitment to Quality." The report recommends several changes to the U.S. grain standards and national inspection system which FGIS has been and will be addressing.
- Revising the U.S. wheat standards to require that wheat dockage be certificated to the nearest 0.1 percent and that wheat protein be certificated based on a constant 12.0 percent moisture. These changes were made to improve the precision and uniformity of inspection results and will be effective on May 1, 1987.
- Implementing new soybean damage interpretive lines on September 1, to better represent how damaged beans affect the free fatty acid (FFA) level of soybeans. Under the old line, FGIS received complaints about undesirable appearance and high levels of FFA in U.S. No. 2 soybeans.

- Conducting a study, through an outside contractor, to evaluate the scope and performance of the Uniform Shiplot and Combined Lot Inspection Plan, an online acceptance sampling plan using statistically based tolerances to monitor the overall quality of export grain shipments.

FGIS also issued an interim Hard Red Winter wheat classing procedure on June 19 to minimize a wheat classification problem that was affecting the marketplace. Traditionally, grain inspectors determine wheat classes according to visual kernel characteristics. However, some new wheat varieties, released as a particular class, exhibit atypical kernel characteristics. This constrains wheat marketing because such wheat varieties are often classed as Mixed wheat which is not their intended class. FGIS and the grain industry established a wheat classification working group to review the classing situation and develop a system which meets long-term marketing needs and replaces the interim procedure.

For FY 1987, FGIS will continue to devote a considerable amount of time on grain quality concerns. New wheat standards will be implemented, research conducted, and industry participation encouraged.

(2) Weighing

The weighing program includes: (a) providing reliable and accurate weighing services; (b) monitoring the accuracy and performance of approved weighers; (c) testing scales and related equipment used in the official weighing of grain; (d) responding to domestic and foreign complaints; and (e) supervising of official agencies.

Technological advances in the area of scales and grain handling, such as the use of a programmable controller and computers, require that FGIS constantly evaluate its program control and monitoring procedures.

The Office of Inspector General's "Survey of Automated Grain Weighing Systems", issued in August 1985, disclosed that FGIS was vulnerable at facilities where automated grain weighing and material handling systems are interfaced with computers and programmable controllers. As a result, we established the FGIS Vulnerability Reduction Program designed to determine the degree of vulnerability at selected export port facilities and the most cost-effective means to reduce the vulnerability. Fifteen facilities were selected for evaluation because of their degree of automation and possible vulnerability, and 12 evaluations have been completed. After the evaluations have been completed, we will notify industry of our findings and recommendations.

Inspection Program Data

| Item | Fiscal Years | | |
|--|------------------|------------------|------------------|
| | 1984 | 1985 | 1986 |
| Quantity of Grain Produced* (Mt) <u>1/</u> | 360.3 | 399.1 | 362.4 |
| Quantity of Grain Officially Inspected (Mt) | | | |
| Domestic | 179.2 | 168.0 | 164.8 |
| Export | <u>115.2</u> | <u>101.1</u> | <u>82.8</u> |
| Sub-total | <u>294.4</u> | <u>269.1</u> | <u>247.6</u> |
| Number of Delegated States/Official Agencies | 82 | 82 | 80 |
| Number of Federal Original Inspections and Reinspections | | | |
| FGIS | 216,219 | 198,685 | 205,275 |
| Delegated State/Official Agency | <u>2,739,553</u> | <u>2,761,192</u> | <u>2,817,161</u> |
| Sub-total | <u>2,955,772</u> | <u>2,959,877</u> | <u>3,022,436</u> |
| Number of Federal Inspection Supervisions | 42,201 | 42,715 | 42,674 |
| Number of Federal Protein Supervisions <u>2/</u> | 37,000 | 34,000 | 34,000 |
| Number of Appeals | 20,460 | 16,436 | 11,353 |
| Number of Appeals Carried to BAR <u>3/</u> | 1,327 | 1,359 | 1,950 |
| Number of BAR Inspection Supervisions | 7,443 | 6,107 | 3,663 |
| Number of Protein Inspections | | | |
| FGIS | 52,349 | 43,639 | 46,779 |
| Delegated States/Official Agencies | <u>567,644</u> | <u>527,706</u> | <u>573,581</u> |
| Sub-total | <u>619,993</u> | <u>571,345</u> | <u>620,360</u> |
| Number of Aflatoxin Inspections | 17,885 | 20,339 | 11,525 |
| Quantity of Rice Inspected (Mt) (milled basis) | 3.4 | 3.0 | 4.1 |
| Number of Foreign Quality Complaints | 22 | 71 | 42 |

* Calendar Year. Source: National Agricultural Statistics Service

1/ Million metric tons

2/ Estimate

3/ Board of Appeals and Review

Weighing Program Data

| Item | Fiscal Years | | |
|---|----------------|----------------|----------------|
| | 1984 | 1985 | 1986 |
| Official Weight Certificates Issued | | | |
| FGIS | | | |
| Class X* | 117,528 | 108,894 | 110,194 |
| Class Y** | 7,181 | 33,216 | 18,335 |
| Sub-total | <u>124,709</u> | <u>142,110</u> | <u>128,529</u> |
| Delegated States/Official Agencies | | | |
| Class X | 217,248 | 186,038 | 127,843 |
| Class Y | 112,102 | 88,698 | 97,334 |
| Sub-total | <u>329,350</u> | <u>274,736</u> | <u>225,177</u> |
| Export Grain Weighed (Mt) | | | |
| FGIS | 88.5 | 78.2 | 64.7 |
| Delegated States | 26.7 | 22.9 | 18.1 |
| Sub-total | <u>115.2</u> | <u>101.1</u> | <u>82.8</u> |
| Number of Certified Scales in Service - Export Elevators | 485 | 455 | 455 |
| Number of Railroad Track Scales Tested | 91 | 100 | 123 |
| Number of Foreign Weight Complaints | 2 | 3 | 3 |

* Class X is 100 percent supervision

** Class Y is a minimum of 25 percent supervision

Summary of Export Yellow Soybeans Quality, 1984 and 1985

| Factor | Grade | Grade Limit | 1984 <u>1/</u> Average | 1985 <u>2/</u> Average | 1985 Range |
|-----------------------------|------------|-------------|---------------------------|---------------------------|---------------|
| Test weight per bushel | U.S. No. 1 | 56.0 | 56.1 | 56.4 | 56.0 - 57.0 |
| | U.S. No. 2 | 54.0 | 55.7 | 55.4 | 54.0 - 57.9 |
| | U.S. No. 3 | 52.0 | 55.4 | 55.1 | 52.5 - 57.9 |
| | All Lots | | 55.6 | 55.4 | 52.0 - 57.9 |
| Moisture | U.S. No. 1 | 13.0 | 12.4 | 12.3 | 11.0 - 13.4 |
| | U.S. No. 2 | 14.0 | 12.6 | 13.0 | 11.2 - 14.0 |
| | U.S. No. 3 | 16.0 | 12.8 | 13.2 | 11.6 - 14.0 |
| | All Lots | | 12.6 | 13.0 | 11.0 - 14.0 |
| Splits | U.S. No. 1 | 10.0 | 5.3 | 3.7 | 0.0 - 9.0 |
| | U.S. No. 2 | 20.0 | 7.3 | 5.9 | 0.4 - 18.0 |
| | U.S. No. 3 | 30.0 | 7.8 | 6.7 | 0.5 - 16.0 |
| | All Lots | | 7.4 | 5.9 | 0.0 - 18.0 |
| Damaged kernels (total) | U.S. No. 1 | 2.0 | 0.6 | 0.5 | 0.1 - 0.9 |
| | U.S. No. 2 | 3.0 | 1.0 | 1.5 | 0.2 - 3.0 |
| | U.S. No. 3 | 5.0 | 1.1 | 1.7 | 0.4 - 4.0 |
| | All Lots | | 1.0 | 1.5 | 0.1 - 7.6 |
| Heat-damaged kernels | U.S. No. 1 | 0.2 | 0.0 | 0.0 | 0.0 - 0.0 |
| | U.S. No. 2 | 0.5 | 0.0 | 0.1 | 0.0 - 0.4 |
| | U.S. No. 3 | 1.0 | 0.0 | 0.0 | 0.0 - 0.5 |
| | All Lots | | 0.0 | 0.1 | 0.0 - 0.5 |
| Foreign material | U.S. No. 1 | 1.0 | 0.8 | 0.8 | 0.0 - 1.0 |
| | U.S. No. 2 | 2.0 | 1.8 | 1.8 | 0.7 - 2.0 |
| | U.S. No. 3 | 3.0 | 2.4 | 2.4 | 1.3 - 3.0 |
| | All Lots | | 1.9 | 1.9 | 0.0 - 3.5 |
| Soybeans of other colors | U.S. No. 1 | 1.0 | 0.0 | 0.0 | 0.0 - 0.0 |
| | U.S. No. 2 | 2.0 | 0.0 | 0.0 | 0.0 - 0.1 |
| | U.S. No. 3 | 5.0 | 0.0 | 0.0 | 0.0 - 0.1 |
| | All Lots | | 0.0 | 0.0 | 0.0 - 0.1 |

1/ 1984 statistics based on a total of 653 lots: 9 for U.S. No. 1, 574 for U.S. No. 2, 64 for U.S. No. 3, 4 for U.S. No. 4, and 2 for U.S. Sample grade.

2/ 1985 statistics based on a total of 580 lots: 16 for U.S. No. 1, 490 for U.S. No. 2, 68 for U.S. No. 3, 5 for U.S. No. 4, and 1 for U.S. Sample grade.

Conclusions:

1. Eighty-seven percent of the export shipments were graded U.S. No. 2 or better, and 12 percent were U.S. No. 3. In 1984, 89 percent of the shipments were graded U.S. No. 2 or better, and 10 percent were U.S. No. 3.

Export Yellow Soybeans

Conclusions: (continued)

2. Although 1985 quality in terms of splits improved over 1984 with a reduction on average (-1.5), test weight fell (-0.2 pound), moisture rose (+0.4 percent), total damaged kernels increased (+0.5 percent), and heat-damaged kernels went up (+0.1 percent).
3. There was little or no difference in a comparison between 1985 and 1984 average soybean foreign material and soybeans of other colors.
4. In 1985, the Gulf exhibited the largest increase in damaged kernels (total), whereas the Lakes demonstrated the largest decline in test weight per bushel and increase in moisture.

Summary of Export Corn Quality, 1984 and 1985

| Factor | Grade | Grade Limit | 1984 <u>1/</u> Average | 1985 <u>2/</u> Average | 1985 Range |
|-------------------------------------|------------|-------------|---------------------------|---------------------------|---------------|
| Test weight per bushel | U.S. No. 2 | 54.0 | 55.7 | 55.7 | 54.0 - 59.0 |
| | U.S. No. 3 | 52.0 | 55.7 | 55.9 | 52.0 - 58.7 |
| | All Lots | | 55.7 | 55.9 | 51.5 - 59.0 |
| Moisture | U.S. No. 2 | 15.5 | 14.0 | 14.4 | 11.7 - 15.5 |
| | U.S. No. 3 | 17.5 | 14.1 | 14.7 | 13.0 - 15.5 |
| | All Lots | | 14.1 | 14.7 | 11.7 - 15.5 |
| Broken corn and foreign material | U.S. No. 2 | 3.0 | 2.7 | 2.8 | 0.7 - 3.0 |
| | U.S. No. 3 | 4.0 | 3.7 | 3.6 | 0.7 - 4.0 |
| | All Lots | | 3.5 | 3.4 | 0.7 - 9.8 |
| Damaged kernels (total) | U.S. No. 2 | 5.0 | 3.6 | 2.9 | 0.3 - 4.7 |
| | U.S. No. 3 | 7.0 | 4.4 | 3.2 | 0.6 - 6.8 |
| | All Lots | | 4.2 | 3.1 | 0.3 - 7.6 |
| Heat-damaged kernels | U.S. No. 2 | 0.2 | 0.0 | 0.0 | 0.0 - 0.2 |
| | U.S. No. 3 | 0.5 | 0.0 | 0.0 | 0.0 - 0.2 |
| | All Lots | | 0.0 | 0.0 | 0.0 - 0.3 |

1/ The 1984 results are based on the grades of 3 lots of U.S. No. 1, 512 lots of U.S. No. 2, 1124 lots of U.S. No. 3, 8 lots of U.S. No. 4, 12 lots of U.S. No. 5, and 16 lots of U.S. Sample grade.

2/ The 1985 results are based on the grades of 1 lot of U.S. No. 1, 406 lots of U.S. No. 2, 1097 lots of U.S. No. 3, 5 lots of U.S. No. 4, 4 lots of U.S. No. 5, and 3 lots of U.S. Sample grade.

Conclusions:

1. Twenty-three percent of the corn inspected for 1985 export was U.S. No. 2 or better and 77 percent was U.S. No. 3. In 1984, 26 percent was U.S. No. 2 or better and 73 percent was U.S. No. 3.
2. A comparison of 1985 and 1984 grade factors showed that 1985 corn exports had improved test weight (+0.2 lbs.), had less broken corn and foreign material (-0.1 percent) and damage (-1.1 percent), but experienced greater moisture (+0.6 percent).
3. The factor improvements were the most significant in the Atlantic export area.

Summary of Export Hard Red Winter Wheat Quality, 1984 and 1985

| Factor | U.S. No. 2 Grade Limit | 1984 Average 1/ | 1985 Average 2/ | 1985 Range 2/ |
|--------------------------------------|---------------------------|--------------------|--------------------|------------------|
| Test weight per bushel | 58.0 | 61.7 | 61.3 | 58.1 - 64.4 |
| Heat-damaged kernels | 0.2 | 0.0 | 0.0 | 0.0 - 0.2 |
| Damaged kernels (Total) | 4.0 | 0.7 | 0.6 | 0.0 - 2.1 |
| Foreign material | 1.0 | 0.3 | 0.3 | 0.0 - 1.0 |
| Shrunken & broken kernels | 5.0 | 2.5 | 2.6 | 0.6 - 4.0 |
| Defects (Total) <u>3/</u> | 5.0 | 3.5 | 3.4 | 0.7 - 4.9 |
| Contrasting classes | 2.0 | 0.0 | 0.1 | 0.0 - 1.7 |
| Wheat of other classes | 5.0 | 2.2 | 1.6 | 0.0 - 1.8 |
| Dockage | N/A | 0.6 | 0.7 | 0.2 - 1.8 |
| Moisture | N/A | 11.6 | 11.5 | 8.6 - 12.9 |
| Defects (Total) + dockage <u>3/</u> | N/A | 4.2 | 4.1 | 1.2 - 5.8 |
| Foreign material + dockage <u>3/</u> | N/A | 0.9 | 1.0 | 0.5 - 2.0 |

N/A - Not Applicable.

- 1/ The 1984 results are based on 899 lots of U.S. No. 2 HRW and 1 lot of U.S. No. 3 HRW.
- 2/ The 1985 results are based on 4 lots of U.S. No. 1 HRW and 692 lots of U.S. No. 2 HRW.
- 3/ The sum of the component factor averages may not equal the average of this factor due to rounding.

Summary of Export Soft Red Winter Wheat Quality, 1984 and 1985

| Factor | U.S. No. 2 Grade Limit | 1984 Average 1/ | 1985 Average 2/ | 1985 Range 2/ |
|--------------------------------------|---------------------------|--------------------|--------------------|------------------|
| Test weight per bushel | 58.0 | 59.8 | 59.9 | 58.0 - 62.8 |
| Heat-damaged kernels | 0.2 | 0.0 | 0.0 | 0.0 - 0.1 |
| Damaged kernels (Total) | 4.0 | 0.9 | 0.9 | 0.0 - 3.0 |
| Foreign material | 1.0 | 0.2 | 0.2 | 0.0 - 0.8 |
| Shrunken & broken kernels | 5.0 | 0.9 | 1.0 | 0.4 - 2.6 |
| Defects (Total) <u>3/</u> | 5.0 | 2.0 | 2.0 | 0.7 - 4.4 |
| Contrasting classes | 2.0 | 0.0 | 0.1 | 0.0 - 1.2 |
| Wheat of other classes | 5.0 | 0.4 | 0.3 | 0.0 - 7.4 |
| Dockage | N/A | 0.7 | 0.8 | 0.0 - 2.6 |
| Moisture | N/A | 13.0 | 13.0 | 9.9 - 13.5 |
| Defects (Total) + Dockage <u>3/</u> | N/A | 2.7 | 2.8 | 1.3 - 5.4 |
| Foreign material + Dockage <u>3/</u> | N/A | 0.9 | 1.0 | 0.2 - 3.0 |

N/A - Not Applicable

- 1/ The 1984 results are based on 326 lots of U.S. No. 2 SRW and 3 lots of U.S. No. 3 SRW.
- 2/ The 1985 results are based on 1 lot of U.S. No. 1 SRW and 255 lots of U.S. No. 2 SRW and 1 lot of U.S. No. 3 SRW.
- 3/ The sum of the component factor averages may not equal the average of this factor due to rounding.

Summary of Export White Wheat Quality, 1984 and 1985

| Factor | U.S. No. 2 Grade Limit | 1984 Average 1/ | 1985 Average 2/ | 1985 Range 2/ |
|--------------------------------------|---------------------------|--------------------|--------------------|------------------|
| Test weight per bushel | 58.0 | 61.3 | 61.1 | 58.4 - 69.6 |
| Heat-damaged kernels | 0.2 | 0.0 | 0.0 | 0.0 - 0.2 |
| Damaged kernels (Total) | 4.0 | 0.5 | 0.5 | 0.0 - 2.1 |
| Foreign material | 1.0 | 0.3 | 0.3 | 0.0 - 0.8 |
| Shrunken & broken kernels | 5.0 | 1.0 | 1.2 | 0.4 - 2.1 |
| Defects (Total) <u>3/</u> | 5.0 | 1.8 | 2.0 | 0.7 - 3.6 |
| Contrasting classes | 2.0 | 0.2 | 0.2 | 0.0 - 1.6 |
| Wheat of other classes | 5.0 | 0.2 | 0.5 | 0.0 - 4.0 |
| Dockage | N/A | 0.6 | 0.7 | 0.2 - 1.4 |
| Moisture | N/A | 10.4 | 10.4 | 8.5 - 13.5 |
| Defects (Total) + dockage <u>3/</u> | N/A | 2.5 | 2.7 | 1.1 - 4.8 |
| Foreign material + dockage <u>3/</u> | N/A | 0.9 | 0.9 | 0.4 - 1.8 |

N/A - Not Applicable.

- 1/ The 1984 results are based on 7 lots of U.S. No. 1 WW and 410 lots of U.S. No. 2 WW.
- 2/ The 1985 results are based on 9 lots of U.S. No. 1 WW and 327 lots of U.S. No. 2 WW.
- 3/ The sum of the component factor averages may not equal the average of this factor due to rounding.

Summary of Export Hard Red Spring Wheat Quality, 1984 and 1985

| Factor | U.S. No. 2 Grade Limit | 1984 Average 1/ | 1985 Average 2/ | 1985 Range 2/ |
|--------------------------------------|---------------------------|--------------------|--------------------|------------------|
| Test weight per bushel | 57.0 | 60.8 | 60.8 | 57.0 - 63.4 |
| Heat-damaged kernels | 0.2 | 0.0 | 0.0 | 0.0 - 0.1 |
| Damaged kernels (Total) | 4.0 | 0.6 | 0.5 | 0.0 - 2.5 |
| Foreign material | 1.0 | 0.4 | 0.3 | 0.1 - 0.9 |
| Shrunken & broken kernels | 5.0 | 2.2 | 2.0 | 0.8 - 3.0 |
| Defects (Total) <u>3/</u> | 5.0 | 3.2 | 2.9 | 1.1 - 4.8 |
| Contrasting classes | 2.0 | 0.3 | 0.2 | 0.0 - 1.7 |
| Wheat of other classes | 5.0 | 1.4 | 1.3 | 0.0 - 4.8 |
| Dockage | N/A | 0.9 | 0.8 | 0.3 - 5.1 |
| Moisture | N/A | 11.5 | 11.5 | 9.4 - 13.4 |
| Defects (Total) + Dockage <u>3/</u> | N/A | 4.0 | 3.7 | 1.5 - 8.3 |
| Foreign material + Dockage <u>3/</u> | N/A | 1.3 | 1.2 | 0.5 - 5.5 |

N/A - Not Applicable

- 1/ The 1984 results are based on 551 lots of U.S. No. 2 HRS.
- 2/ The 1985 results are based on 5 lots of U.S. No. 1 HRS and 541 lots of U.S. No. 2 HRS.
- 3/ The sum of the component factor averages may not equal the average of this factor due to rounding.

Summary of Export Durum Wheat Quality, 1984 and 1985

| Factor | Grade | Grade Limit | 1984 Average 1/ | 1985 Average 2/ | 1985 Range |
|--------------------------------------|------------|-------------|-----------------|-----------------|-------------|
| Test weight per bushel | U.S. No. 2 | 58.0 | 61.3 | 61.3 | 59.7 - 62.3 |
| | U.S. No. 3 | 56.0 | 60.6 | 61.1 | 59.6 - 62.3 |
| | All Lots | N/A | 60.8 | 61.2 | 59.6 - 62.3 |
| Heat-damaged kernels | U.S. No. 2 | 0.2 | 0.0 | 0.0 | 0.0 - 0.2 |
| | U.S. No. 3 | 0.5 | 0.0 | 0.0 | 0.0 - 0.0 |
| | All Lots | N/A | 0.0 | 0.0 | 0.0 - 0.2 |
| Damaged kernels (Total) | U.S. No. 2 | 4.0 | 0.8 | 0.8 | 0.2 - 2.1 |
| | U.S. No. 3 | 7.0 | 1.7 | 1.6 | 0.3 - 5.4 |
| | All Lots | N/A | 1.5 | 1.3 | 0.0 - 5.4 |
| Foreign material | U.S. No. 2 | 1.0 | 0.3 | 0.4 | 0.0 - 0.8 |
| | U.S. No. 3 | 2.0 | 0.9 | 0.6 | 0.1 - 1.7 |
| | All Lots | N/A | 0.8 | 0.6 | 0.0 - 1.7 |
| Shrunken and broken kernels | U.S. No. 2 | 5.0 | 1.8 | 1.7 | 0.9 - 2.8 |
| | U.S. No. 3 | 8.0 | 2.4 | 1.8 | 0.9 - 3.6 |
| | All Lots | N/A | 2.3 | 1.8 | 0.5 - 3.6 |
| Defects (Total) <u>3/</u> | U.S. No. 2 | 5.0 | 2.9 | 2.9 | 1.3 - 4.7 |
| | U.S. No. 3 | 8.0 | 4.9 | 4.1 | 1.4 - 7.7 |
| | All Lots | N/A | 4.5 | 3.7 | 0.6 - 7.7 |
| Contrasting classes | U.S. No. 2 | 2.0 | 0.9 | 0.8 | 0.0 - 2.0 |
| | U.S. No. 3 | 3.0 | 1.6 | 1.4 | 0.1 - 2.8 |
| | All Lots | N/A | 1.4 | 1.2 | 0.0 - 2.8 |
| Dockage | All Lots | N/A | 1.1 | 0.9 | 0.5 - 1.5 |
| Moisture | All Lots | N/A | 11.4 | 11.5 | 7.4 - 14.1 |
| Defects (Total) + dockage <u>3/</u> | All Lots | N/A | 5.6 | 4.6 | 1.5 - 8.8 |
| Foreign material + dockage <u>3/</u> | All Lots | N/A | 1.8 | 1.5 | 0.6 - 3.0 |

N/A - Not Applicable.

1/ The 1984 results are based on 63 lots of U.S. No. 2 DU and 154 lots of U.S. No. 3 DU.

2/ The 1985 statistics are based on 3 lots of U.S. No. 1 DU, 69 lots of U.S. No. 2 DU, and 108 lots of U.S. No. 3 DU.

3/ The sum of the component factor averages may not equal the average for this factor due to rounding.

Conclusions:

1. Ninety-six percent of the wheat inspected for export in 1985 was graded U.S. No. 2 or better. Quality factor averages remained well below the maximum allowed percentages for U.S. No. 2 wheat for each wheat class.
2. The quality characteristics of 1985 exported wheat were similar to 1984 but with an improvement in Durum wheat. Specifically, the average total defects in Durum wheat were 0.8 percent less than the 1984 average.
3. The average 1985 total defects were well below the 5.0 percent maximum allowed for U.S. No. 2 wheat. Specifically, by class average defects were 3.4 percent for Hard Red Winter wheat (HRW), 2.9 percent for Hard Red Spring wheat (HRS), 3.7 percent for Durum wheat (DU), and 2.0 percent for Soft Red Winter wheat (SRW) and White wheat (WW).
4. The average dockage for each class of wheat was 0.9 percent or less. The average dockage for all classes combined was 0.7 percent.
5. The average foreign material plus dockage for all classes combined was 1.0 percent, equal to the maximum foreign material allowed for U.S. No. 2 wheat. By class, HRS and DU exceeded the 1 percent level.
6. In 1985, export dockage levels were lower than dockage levels reported by state harvest surveys for HRS, DU, WW, and domestic truckload inspections for HRW, HRS, and WW. However, DU and SRW export dockage levels exceeded reported domestic trucklot levels.

RESOURCES MANAGEMENT DIVISION

The Resources Management Division (RM) is responsible for the overall planning, coordinating, and monitoring of all financial management, manpower planning, and ceiling control necessary to carry out the functions of FGIS. Internal support services provided by RM include: budget and financial management; information resources management; program analysis; Automated Data Processing (ADP) services; technical and program training; safety and health, including Office of Workers' Compensation Program management; performance measurement systems for the national inspection system; maintenance of USDA's Explosion Reporting and Tracking System; coordinating management improvement initiatives; and providing, securing, or negotiating for all other resources or services needed to operate and manage the organization.

FGIS management, with RM assistance, continued improvements in its planning system. A management retreat was held at which agency long-range goals and objectives were identified; financial planning allocations for FY 1987 were developed and a long-term financial strategy was discussed. The FGIS Advisory Committee was apprised of the results of the long-range goals. In addition, the retreat laid the ground work for better coordination of the 3- to- 5-year planning required for governmentwide IRM, budgeting, staffing, and internal FGIS research priorities.

Under current law, FGIS is authorized to invest its retained earnings and any late payment penalties in interest-bearing accounts. FGIS invested in Treasury Bills and collected \$457,663 in interest on roughly \$5.0 million which was added to its revenue and retained earnings for fiscal year 1986.

FGIS continued the implementation and improvement of its ADP program. All field offices and major headquarters units were interconnected and can interface with the headquarters minicomputer; data is being generated through the system for market and quality information systems. We initiated a contract to assist us in automating the worksite and are laying the ground work for network interface with National Finance Center in our administrative systems. We have also responded to trade, official agency, and State interests in coordinating automation efforts.

FGIS has proposed a reduction of its paperwork burden by using standardized formats of dockets and modifying the regulatory review process. This will significantly reduce the need for reviews in our regulations. We also began the implementation of the President's Productivity Improvement Plan.

**Safety and
Health**

FGIS continues to emphasize the benefits of an effective safety and health program. The training program for collateral duty safety and health officials included classroom training provided by the OSHA, the National Institute of Occupational Safety and Health, Kansas State University, and other experts in grain handling facility safety and health. We included supervisory employees as well as the general work force in an educational program which covered hazard identification and avoidance.

Reported Explosion Incidents in Grain Handling
Facilities, Fiscal Year 1986

The following grain dust explosions were reported to FGIS during fiscal year 1986. The reports were received through the cooperation of universities, insurers, trade groups, FGIS personnel, and a news clipping service. FGIS does not investigate grain dust explosions, and the public sector is not required to report explosions to FGIS.

| <u>No.</u> | <u>Facility & Location</u> | <u>Date</u> | <u>Injuries</u> | <u>Deaths</u> |
|------------|--|-------------|-----------------|---------------|
| 1. | Buffalo Lake Farmers Company Buffalo Lake, MN | 10/15/85 | 1 | 0 |
| 2. | Carroll County Farm Bureau Flora, IN | 10/15/85 | 2 | 0 |
| 3. | Farmers Coop Grain Association Marion, SD | 11/02/85 | 4 | 3 |
| 4. | Mid-State Terminal Ottawa Lake, MI | 11/02/85 | 0 | 0 |
| 5. | Halford Feedlot Colby, KS | 11/03/85 | 1 | 0 |
| 6. | Central Soya Baltimore, MD | 11/09/85 | 1 | 1 |
| 7. | Producers Rice Mill Stuttgart, AR | 11/27/85 | 1 | 0 |
| 8. | Cargill Dayton, OH | 11/29/85 | 0 | 0 |
| 9. | DeKalb Company Farm Bureau Waterloo, IN | 12/09/85 | 0 | 0 |
| 10. | Hubinger Keokuk, IA | 12/31/85 | 0 | 0 |
| 11. | Snyder Elevator Elizabeth Town, IN | 01/03/86 | 0 | 0 |
| 12. | Ralston Purina Wichita, KS | 01/06/86 | 4 | 0 |
| 13. | Dudrey Feedlot St. John, KS | 01/10/86 | 0 | 0 |
| 14. | Ag-Land, Inc. Brookfield, MO | 01/30/86 | 0 | 0 |
| 15. | Southeast Nebraska Coop Beatrice, NE | 02/19/86 | 1 | 1 |
| 16. | Dudrey Feedlot St. John, KS | 02/25/86 | 1 | 0 |
| 17. | Farmers Coop Association Phillip, SD | 04/11/86 | 0 | 0 |
| 18. | Indiana Grain Goldproof Louisville, KY | 06/11/86 | 0 | 0 |
| 19. | Anheuser Busch Brewery Fairfield, CA | 06/18/86 | 4 | 0 |
| 20. | Randall County Feed Yd. Amarillo, TX | 07/28/86 | 1 | 1 |
| 21. | Peavey Company Elevator Henderson, KY | 08/05/86 | 0 | 0 |
| 22. | Garvey Elevator Wichita, KS | 08/25/86 | 0 | 0 |
| 23. | Gooch Mills (ADM) Lincoln, NE | 08/27/86 | <u>1</u> | <u>0</u> |
| | | TOTAL | 22 | 6 |

STANDARDIZATION DIVISION

Standardization is defined as the act, process, or result of standardizing methodology and measurement of quality and quantity.

Standardization functions include: compiling and evaluating data to develop and update grading standards, developing or evaluating new methodology for determining grain quality and quantity, and providing reference standards for official grading methods.

The Standardization Division administers programs for the development, promulgation, and uniform official application of new and revised U.S. grade standards for grain and other assigned commodity products. Standards are reviewed and updated to reflect changing inspection techniques, to attain uniformity, and to clarify existing technology and procedures. New standards are developed and existing ones revised to assure that the physical and biological characteristics of grains and related commodities are uniformly and accurately described during movement through the marketing system. The standards must reflect changes in production and marketing practices.

Revisions were published for wheat in FY 1986. Standards reviews were conducted for lentils, whole dry peas, split peas, barley, hay, straw, and sorghum. Also, a general provisions docket was published which proposed to revise the format and provide uniformity for the 11 grain standards. A docket was published in FY 1986, requesting public comment on suggested changes to tolerances and grading factors relating to insect infestation of grain.

The activities of the Research and Development Branch are directed at furthering the development of objective testing for use in the inspection system. This Branch also conducts research both in-house and on a contract basis with commercial firms and universities and on a reimbursable agreement basis with the Agricultural Research Service. Current contracts and/or agreements cover (1) detection of odor through the use of objective instrumentation, (2) detection of hidden infestation in grain, (3) single kernel moisture determination in corn, (4) evaluating objective procedures for the classing of wheat, and (5) the evaluation of instrumentation for determining the breakage potential in corn. In-house projects currently in progress include (1) oil and protein by Near Infrared Reflectance (NIR), (2) grinding effect on NIR results, (3) measuring free fatty acid in sunflower and soybean oil, (4) moisture reference method evaluation, (5) kernel hardness instrumentation evaluation, and (6) moisture meter evaluation. Other ongoing projects include the furnishing of aflatoxin standards and NIR instrument maintenance.

Standardization Program Data

| Item | Fiscal Years | | |
|---|--------------|------|------|
| | 1984 | 1985 | 1986 |
| U.S. Grade Standards in effect | 20 | 20 | 20 |
| Commodities covered by grade standards | 17 | 17 | 17 |
| New and revised standards issued during fiscal year | 5 | 4 | 1* |
| Revised or reissued standards being developed | 3 | 1 | 17** |
| Standards reviews in progress | 5 | 3 | 18 |
| Standards reviews completed | 4 | 4 | 0 |
| Inspection techniques developed | 6 | 8 | 8 |
| Equipment evaluated | 10 | 8 | 10 |

* Wheat

** Lentils, Barley, Hay, Straw, Sorghum, Insect Infestation, and Standard Format for the 11 grain standards

COMPLIANCE DIVISION

Compliance is the conformance with all requirements and procedures established by statute, regulation, instruction, or directive so that the managerial, administrative, and technical functions of FGIS are accomplished effectively. Compliance functions include: evaluating alleged violations and initiating preliminary investigations; initiating the implementation of all necessary corrective actions; conducting management and technical reviews; administering the designation of agencies and the delegation of State agencies to perform official functions; monitoring the performance of the delegated and designated agencies; identifying and, where appropriate, waiving and monitoring conflicts of interest; licensing agency personnel; responding to audits of FGIS programs; and reviewing and, when appropriate, approving fee schedules.

There are 80 State and private agencies designated to provide official services at interior points. Of these, eight are States that are also delegated to perform official inspection and weighing services at export points. Under triennial renewal procedures, 28 agency designations were automatically terminated in FY 1986; and 27 were renewed after a complete review of their performance. Two agencies voluntarily cancelled their designations, and FGIS did not renew the designation of one agency for repeated failures to meet its designation requirements. The geographic area serviced by these agencies was reassigned to other currently designated agencies following usual designation procedures.

One of the eight agencies granted discretionary conflict-of-interest waivers sold its assets to its chief inspector, and the remaining seven continue to operate without significant problems.

Twenty-one new licensee conflict-of-interest situations were evaluated. Sixteen waivers were issued, and one waiver was updated based on the licensee's agreement to comply with the conditions of the waiver. Three situations were determined not to be conflicts. One request for a waiver was denied.

At the beginning of FY 1986, nine cases involving alleged violations of the United States Grain Standards Act and the Agricultural Marketing Act of 1946 were under active investigation. During this fiscal year, 25 cases were opened and 28 cases were closed, leaving 6 cases under active investigation at the close of FY 1986. Violations in these cases included alleged deceptive loading, attempted bribery, improper performance

of duties, altering official certificates, intermarket grade differences, accepting gratuities, and adulteration of grain. Onsite investigations were conducted by Compliance Division personnel in 5 cases, 2 investigations were conducted by the Office of Inspector General, and 1 investigation was conducted by the Food and Drug Administration's compliance personnel. Of the 28 cases closed, 13 were closed after appropriate administrative actions were taken, and 15 cases were closed due to insufficient evidence to sustain corrective action.

Seventeen actions were handled involving the appearance of FGIS personnel as witnesses in judicial and administrative proceedings, giving written or oral depositions, or supplying official records. Ten actions involved grain quality disputes, three involved accidents, two concerned employee injuries, and two concerned official inspection records.

Compliance Division personnel conducted 13 onsite reviews of field offices and 32 official agencies to evaluate management effectiveness and program compliance. FGIS' field offices also conducted onsite management reviews of agencies performing official services. The problems identified during these reviews have been or are in the process of being corrected.

In response to the concerns throughout USDA about discrimination in the delivery of USDA services, FGIS conducted a survey of its organization to determine whether such a problem existed. Thirty-one FGIS field offices, the BAR, and Beltsville were surveyed. There were no indications of discrimination in the delivery of FGIS services. While we found no evidence of discrimination, the Compliance Division will include this subject in the scope of future field reviews.

The effectiveness of the national inspection and weighing system cannot be measured solely through the review process. Although problems were found, it is difficult to gauge their impact on the national system. For the most part, services, whether performed by FGIS or by the agencies, are timely, correct, and accurate. From a national standpoint, this meets the needs of the grain industry and facilitates the marketing of grain. In this respect, FGIS is carrying out an effective national inspection and weighing system. FGIS is identifying problems and concerns in its operations and in the inspection and weighing system effectively, and is initiating efforts to resolve these problems and improve the services.

Compliance program data is shown below:

| Item | Fiscal Years | | |
|---|--------------|------|------|
| | 1984 | 1985 | 1986 |
| Agency delegations and designations | 82 | 82 | 80 |
| Designations renewed | 26 | 27 | 27 |
| State delegations at export port locations | 8 | 8 | 8 |
| Registration certificates issued to grain firms | 119 | 128 | 110 |
| Licensees: | | | |
| Inspectors | 887 | 854 | 808 |
| Weighers | 238 | 205 | 152 |
| AMA Inspectors | 116 | 116 | 114 |
| Samplers/Technicians (Approximate) | 2000 | 1800 | 1650 |

INTERNATIONAL MONITORING

The International Monitoring program functions include: foreign travel to explain FGIS' inspection and weighing procedures; briefings with visiting foreign agricultural officials and others on our procedures and to obtain information on the quality of U.S. grain shipments; and written or onsite responses to formal and informal complaints received through the Foreign Agricultural Service and other sources.

FGIS received 42 formal and informal quality complaints and 3 informal quantity complaints in 1986, compared to 71 quality and 3 quantity complaints in 1985. In 1986, the tonnage involved in foreign complaints represented 1.84 percent by weight of the total tonnage exported, compared to 2.15 percent in 1985. None of the complaints were deemed valid in 1986; that is, no errors or incorrect procedures at the time of the original inspection could be identified.

Inclement weather in the southeastern United States adversely affected the quality and appearance of much of the 1985 soybean crop. Similar problems occurred the previous year with soybeans and corn.

Soybean merchandising problems developed again this year, which was of great concern to us. Nearly half of all foreign complaints received concerned soybean quality.

An informal study of this year's soybean shipments showed that damaged kernels on some shipments increased by an average of 0.4 percent every 10-day period. FGIS cannot predict such increases, if any, because weather, storage, and crop quality factors vary from one shipment to another.

We conducted a series of collaborative studies to exchange samples and interpretive lines for damage in soybeans with foreign buyers and inspectors. Our personnel visited European and Far Eastern inspection laboratories and met with foreign representatives in the United States. As a result, the FGIS interpretive line for damage in soybeans was tightened. We anticipate this will enhance buyer satisfaction in future years.

Summary of Foreign Monitoring
Team Activities by Country Visited
Fiscal Year 1986

| Purpose | Representatives | Country Visited | Dates |
|---|-----------------|----------------------------------|------------------------|
| 1. To respond to a complaint on infested rice, bulgur, and cornmeal in a series of PL-480 shipments. (Accompanied by a representative from ARS). | 1 | Dominican Republic | 10/31 - 11/08/85 |
| 2. To make a presentation at a rice marketing seminar sponsored by the U.S. Rice Council. | 1 | Iraq | 11/09 - 11/14/85 |
| 3. To discuss the feasibility of licensing CONASUPO inspectors to grade grain at the U.S./Mexican Border. | 1 | Mexico | 11/20 - 11/22/85 |
| 4.a. To participate in a U.S. delegation visiting grain handling facilities at the invitation of the Soviet Ministry of Agriculture. | 1 | USSR | 12/01 - 12/12/85 |
| b. To meet with the International Association of Seed Crushers to discuss soybean quality issues. | 1 | England | 12/13 - 12/14/85 |
| 5. To observe the discharging of a shipment of bulk milled rice at the request of the shipper. | 1 | Jordan | 12/26/85 - 01/12/86 |
| 6. To make a presentation at a marketing seminar sponsored by the grain and oilseed industries. | 1 | Mexico | 01/14 - 01/17/86 |
| 7.a. To make a presentation at a series of grain marketing seminars sponsored by the U.S. Wheat Associates. | 1 | Singapore, Bangladesh, and India | 01/16 - 01/29/86 |

Summary of Foreign Monitoring
Team Activities by Country Visited
Fiscal Year 1986

(continued)

| Purpose | Representatives | Country Visited | Dates |
|--|-----------------|--------------------------------------|---------------------|
| 7.b. To respond to a complaint on quality of U.S. soybean exports. | 1 | China | 01/29 - 01/31/86 |
| 8. To sample and observe the discharging of a shipment of soybeans in response to a series of foreign complaints. | 1 | Germany | 02/11 - 02/19/86 |
| 9. To participate in three marketing seminars sponsored by the U.S.A. Dry Pea and Lentil Council. | 1 | India and Pakistan | 02/10 - 02/21/86 |
| 10. To make a presentation at the Canadian Grain Commission's workshop on varietal identification and kernel distinguishability. | 1 | Canada | 02/19 - 02/21/86 |
| 11.a. To check scales and observe the discharging of a grain vessel in response to a weight shortage reported by the shipper. | 2 | Belgium | 03/26 - 04/10/86 |
| b. To meet with technical experts of soybean importing companies to compare U.S. and foreign damage interpretation in soybeans. | 1 | Belgium, Germany, Spain, and England | 04/10 - 04/16/86 |
| 12. To participate in a marketing seminar sponsored by the U.S. Feed Grains Council. | 1 | Egypt and Turkey | 04/10 - 04/19/86 |
| 13. To participate in a marketing seminar sponsored by the U.S. Wheat Associates. | 1 | Ecuador | 04/26 - 05/02/86 |

Summary of Foreign Monitoring
Team Activities by Country Visited
Fiscal Year 1986

(continued)

| Purpose | Representatives | Country Visited | Dates |
|---|-----------------|-------------------------------|---------------------|
| 14. To participate in a marketing seminar sponsored by the U.S. Wheat Associates and the U.S. Feed Grains Council. | 1 | Venezuela | 05/11 - 05/16/86 |
| 15. To respond to a complaint on a shipment of white corn. | 1 | Honduras | 06/03 - 06/05/86 |
| 16. To speak at the Twenty-First International Grain Industry Course sponsored by the Canadian International Grains Institute. | 1 | Canada | 06/22 - 06/25/86 |
| 17. To participate in two marketing seminars sponsored by the U.S. Wheat Associates. | 1 | Taiwan and Philippines | 07/25 - 08/02/86 |
| 18. To conduct three 2-day marketing seminars/demonstrations on wheat inspection procedures at the request of the U.S. Wheat Associates. | 1 | Algeria, Tunisia, and Morocco | 08/31 - 09/15/86 |
| 19. To speak at the Third International Flour Technical Course sponsored by the Canadian International Grains Institute. | 1 | Canada | 09/08 - 09/11/86 |
| 20. To attend the International Organization of Legal Metrology Seminar on Automatic Bulk Weighing Systems. | 1 | England | 09/13 - 09/19/86 |
| 21. To attend U.S./Israel Bi-National Agricultural Research and Development Foundation workshop on stored-product protection and the 4th International Working Conference on stored-product protection. | 1 | Israel | 09/14 - 09/29/86 |

Summary of Briefings with Foreign Trade
and Governmental Teams, Fiscal Year 1986
Listed by Area

| | <u>No. of Teams</u> |
|----------------------|---------------------|
| <u>Africa</u> | |
| 1. Algeria | 1 |
| 2. Morocco | 1 |
| 3. South Africa | 2 |
| 4. Tunisia | 1 |
| <u>Asia</u> | |
| 1. Bangladesh | 1 |
| 2. Japan | 5 |
| 3. Korea | 3 |
| 4. Pakistan | 1 |
| 5. Philippines | 2 |
| 6. Taiwan | 3 |
| <u>Europe</u> | |
| 1. Belgium | 1 |
| 2. France | 1 |
| 3. Netherlands | 1 |
| 4. Norway | 1 |
| 5. Portugal | 1 |
| 6. England | 2 |
| 7. USSR | 1 |
| <u>Latin America</u> | |
| 1. Argentina | 1 |
| 2. Brazil | 2 |
| 3. Chile | 1 |
| 4. Peru | 2 |
| 5. Venezuela | 1 |
| <u>Near East</u> | |
| 1. Cyprus | 1 |
| 2. Israel | 1 |
| 3. Syria | 1 |
| 4. Turkey | 2 |
| | <hr/> |
| TOTAL | 40 |

Summary of Inspection and Weighing
Foreign Complaints, Fiscal Year 1986

| Country | Grain | F* / I* | No. of Complaints | Nature of Complaint |
|------------------------------|----------|---------|----------------------|---|
| Africa | | | | |
| Morocco | Soybeans | 1 - | 1 | Moisture and foreign material |
| Mozambique | Corn | - 1 | 1 | Broken corn and foreign material |
| Nigeria | Wheat | - 1 | 1 | Foreign material, shrunken and broken kernels |
| Asia | | | | |
| Japan | Wheat | 2 1 | 3 | Heat damage |
| | Soybeans | - 1 | 1 | Moisture |
| | Soybeans | - 1 | 1 | Weight |
| Malaysia | Wheat | 1 1 | 2 | Protein |
| Peoples Republic of China | Soybeans | 1 - | 1 | Foreign material and damaged kernels |
| Philippines | Wheat | - 1 | 1 | Weight |
| Thailand | Wheat | - 1 | 1 | Protein |
| Caribbean | | | | |
| Jamaica | Soybeans | - 2 | 2 | Foreign material |
| Trinidad | Wheat | - 1 | 1 | Protein |
| Europe | | | | |
| Belgium | Soybeans | - 1 | 1 | Damaged kernels, free fatty acids, foreign material and splits |
| | Soybeans | 3 - | 3 | Damaged kernels and free fatty acids |
| Greece | Soybeans | - 1 | 1 | Foreign material |
| Netherlands | Soybeans | - 1 | 1 | Damaged kernels, free fatty acids, moisture, and foreign material |
| Portugal | Corn | 2 - | 2 | General quality |
| | Soybeans | 1 1 | 2 | Damaged kernels, free fatty acids and foreign material |
| Spain | Corn | 1 4 | 5 | Moisture and heating |
| West Germany | Soybeans | 1 - | 1 | Damaged kernels |

Summary of Inspection and Weighing
Foreign Complaints, Fiscal Year 1986

(continued)

| Country | Grain | F* / I* | No. of Complaints | Nature of Complaint |
|----------------------|----------|---------|----------------------|--|
| Latin America | | | | |
| Bolivia | Wheat | - 1 | 1 | Infestation |
| Ecuador | Wheat | - 1 | 1 | Protein and wet grain |
| | Wheat | 1 - | 1 | Protein, foreign material, contrasting classes and infestation |
| | Wheat | 1 - | 1 | Infestation |
| Honduras | Corn | 1 - | 1 | Damaged kernels |
| Mexico | Corn | 1 - | 1 | Broken corn and foreign material, damaged kernels and heat damage |
| | Sorghum | - 1 | 1 | Weight |
| Peru | Corn | 1 - | 1 | Broken corn and foreign material |
| Venezuela | Wheat | - 1 | 1 | Protein and infestation |
| Middle East | | | | |
| Iraq | Wheat | - 1 | 1 | Distinctly low quality |
| Israel | Soybeans | 2 - | 2 | Damaged kernels |
| Jordan | Wheat | - 1 | 1 | Dockage, shrunken and broken kernels, vitreous kernels, total defects, and infestation |
| TOTALS | | 20 | 25 | 45 |

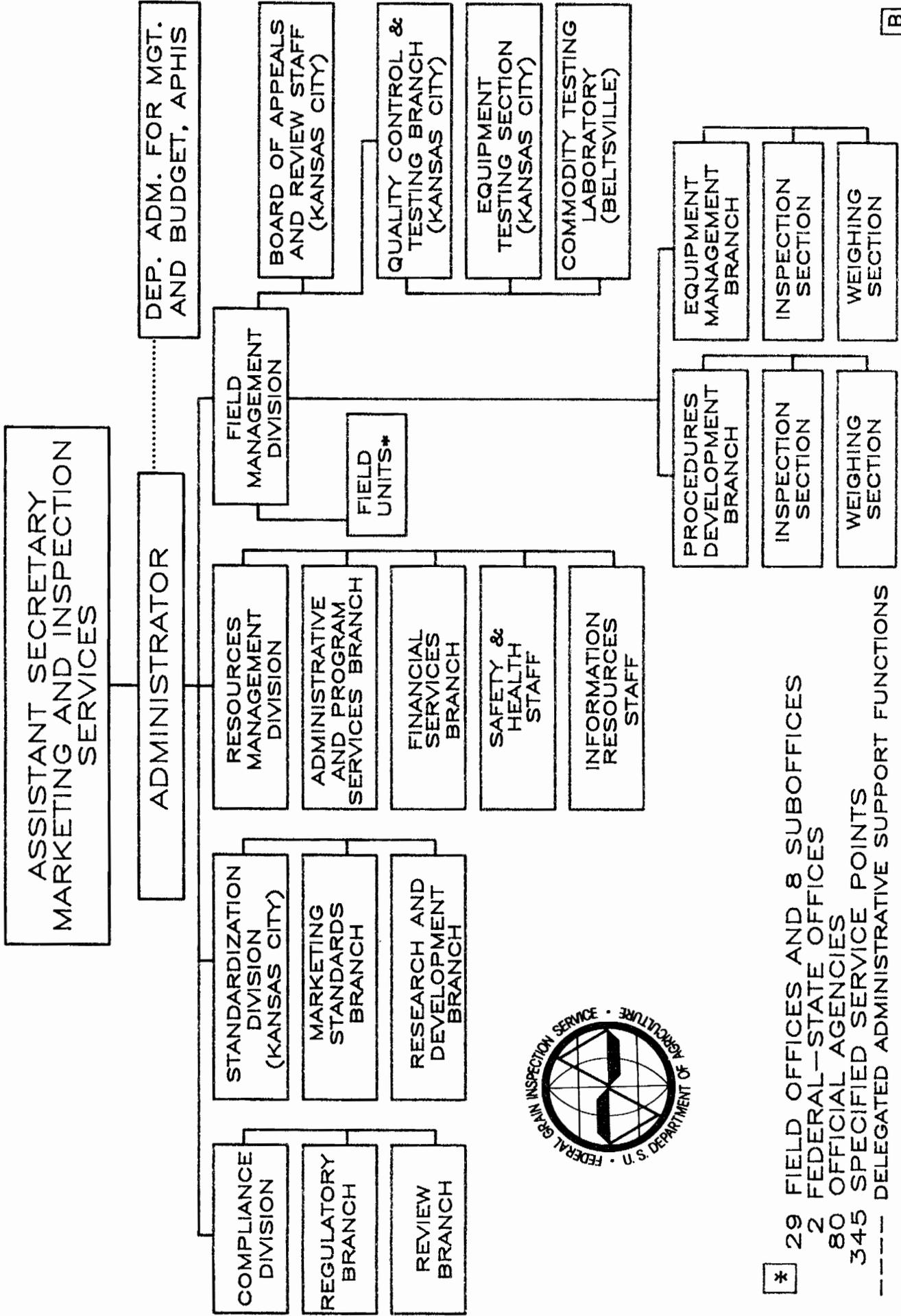
*F - A Formal Complaint is recorded when a Form FAS-802, "Foreign Agricultural Service (FAS) Foreign Trade Discrepancy Inquiry (Grain, oilseeds, and other commodities)" is received by FGIS.

*I - An Informal Complaint is recorded when an inquiry, either verbal or written, is submitted through the Attache or FAS to FGIS.

Three-Year Summary of Foreign Grain Complaints

| | <u>1984</u> | <u>1985</u> | <u>1986</u> |
|---|-----------------|-----------------|-----------------|
| Valid | 3 | 1 | 0 |
| Nonvalid | $\frac{21}{24}$ | $\frac{73}{74}$ | $\frac{45}{45}$ |
| TOTAL | | | |
| Formal | 13 | 39 | 20 |
| Informal | $\frac{11}{24}$ | $\frac{35}{74}$ | $\frac{25}{45}$ |
| TOTAL | | | |
| Quality | 22 | 71 | 42 |
| Quantity | $\frac{2}{24}$ | $\frac{3}{74}$ | $\frac{3}{45}$ |
| TOTAL | | | |
| Export Volume Inspected (Million metric tons) | 115.2 | 101.1 | 82.8 |
| Complaints Tonnage (Million metric tons) | 0.7 | 2.2 | 1.5 |
| Complaints Percentages (Basis tonnage shipped) | 0.57 | 2.15 | 1.84 |
| Valid Complaints Percentages (Basis tonnage shipped) | 0.008 | 0.010 | 0.000 |

APPENDIX



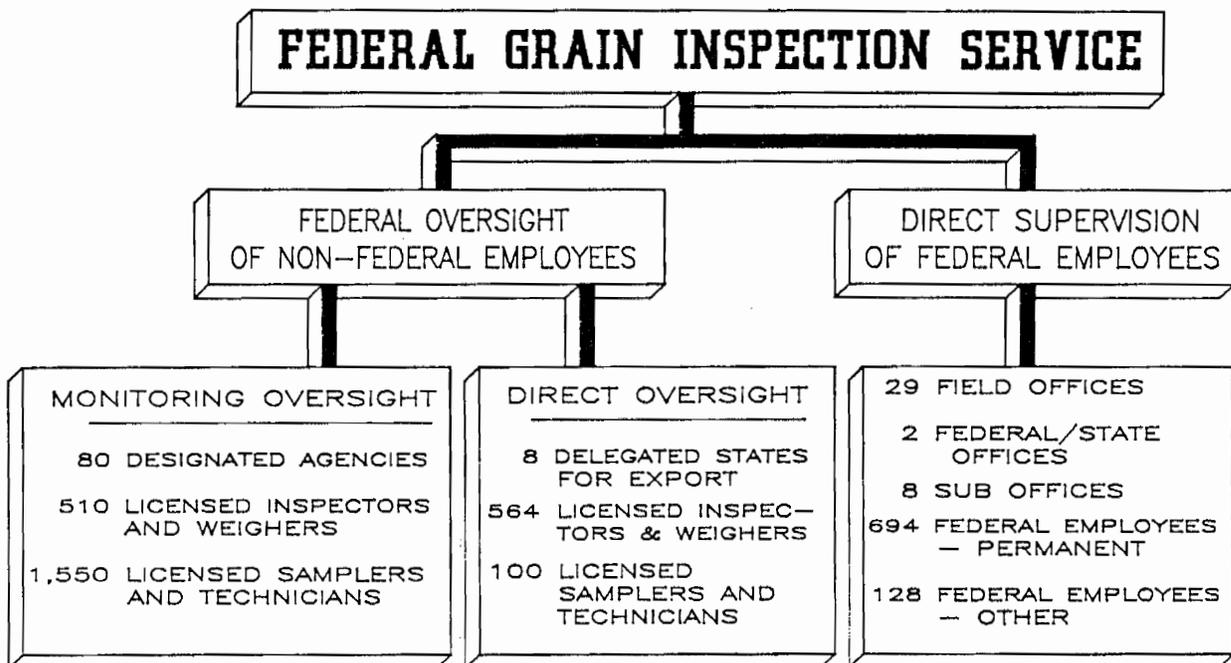
- * 29 FIELD OFFICES AND 8 SUBOFFICES
- 2 FEDERAL-STATE OFFICES
- 80 OFFICIAL AGENCIES
- 345 SPECIFIED SERVICE POINTS
- DELEGATED ADMINISTRATIVE SUPPORT FUNCTIONS

B

FGIS OFFICIAL INSPECTION AND WEIGHING SERVICES

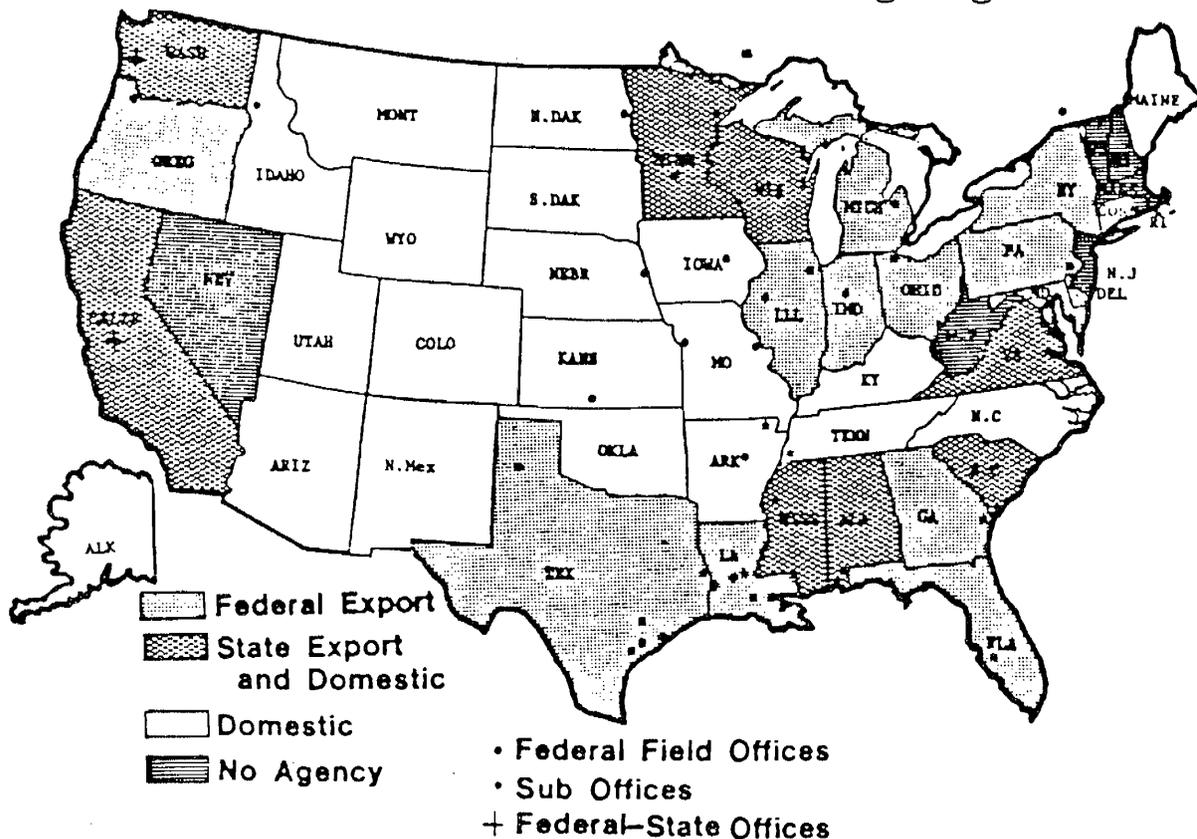
- Development of official standards and procedures
- Application of standards uniformly by official personnel
- Application of official inspection and weighing procedures
- Designation of official agencies
 - Exclusive geographical service area
 - Authorization to issue official certificates
- Monitoring of official agency performance.
- Enforcement of regulations

Official Inspection and Weighing Oversight

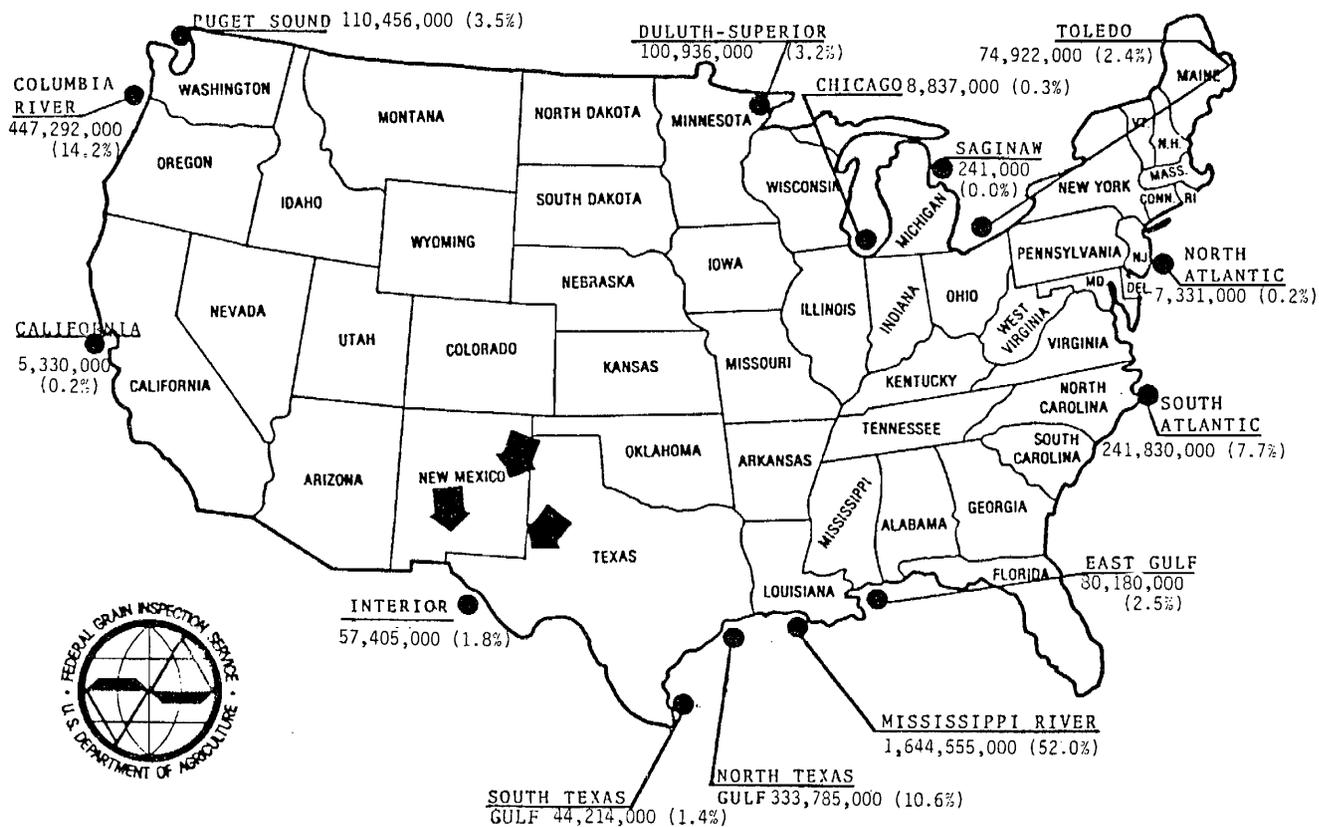


11/04/86

Federal Grain Inspection Service Performance of Inspection and Weighing Services



INSPECTIONS FOR EXPORT BY PORT AREA FOR FISCAL YEAR 1986 OCTOBER 1985 - SEPTEMBER 1986 3,157,314,000 Bushels



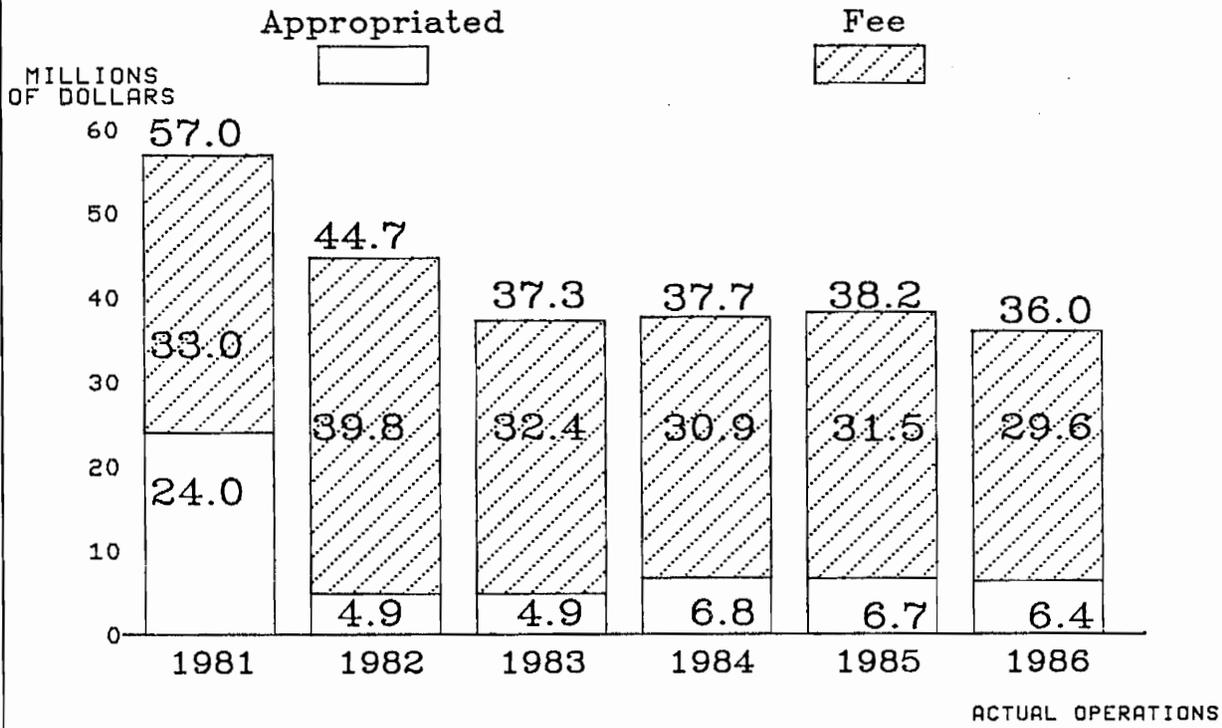
FEDERAL GRAIN INSPECTION SERVICE
 Status of Fee Supported Accounts
 Fiscal Year 1986
 (Dollars in Thousands)

| Program | Revenue 9/30/86 | Obliga- tions 9/30/86 | Profit/ (Loss) 9/30/86 | Unobligated Funds 9/30/86 |
|--|--------------------|-----------------------------|------------------------------|---------------------------------|
| <u>Grain Standards Act</u> | | | | |
| Original Inspection | \$10,273 | \$11,724 | \$(1,451) | \$(2,052) |
| Canadian Operations | 222 | 461 | (239) | (493) |
| U.S. Appeals | 666 | 950 | (284) | (939) |
| Original Weighing Supv. of Official Agencies | 5,227 | 5,875 | (648) | 1,300 |
| Registration | 2,071 | 2,333 | (262) | 4,414 |
| | 20 | 22 | (2) | 5 |
| GSA Subtotal | 18,479 | 21,365 | (2,886) | 2,235 |
| <u>Agricultural Marketing Act</u> | | | | |
| Rice Inspection | 3,631 | 3,429 | 202 | 511 |
| Misc. & Proc. Comm. | 5,303 | 4,663 | 640 | 3,945 |
| Misc. Agreements | 94 | 101 | (7) | 18 |
| AMA Subtotal | 9,028 | 8,193 | 835 | 4,474 |
| FGIS Total FY 86 | 27,507 | 29,558 | (2,051) | 6,719 |
| Prior Years Adjustments | 977 | 337 | 640 | |
| FGIS Fee Total | 28,484 | 29,895 | (1,411) | 6,709 ^{1/} |

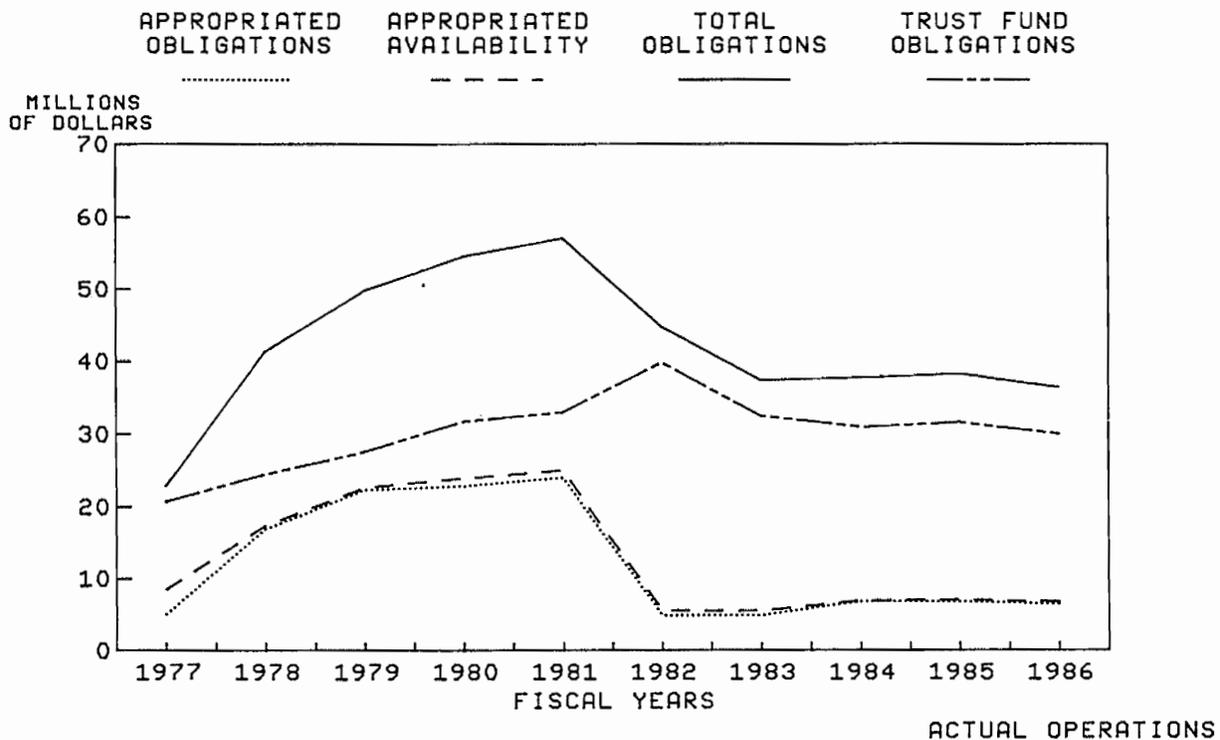
^{1/} Represents 2.7 months operating costs.

Financial Services Branch
 December 4, 1986

FGIS Appropriated and Fee-Supported Expenditures

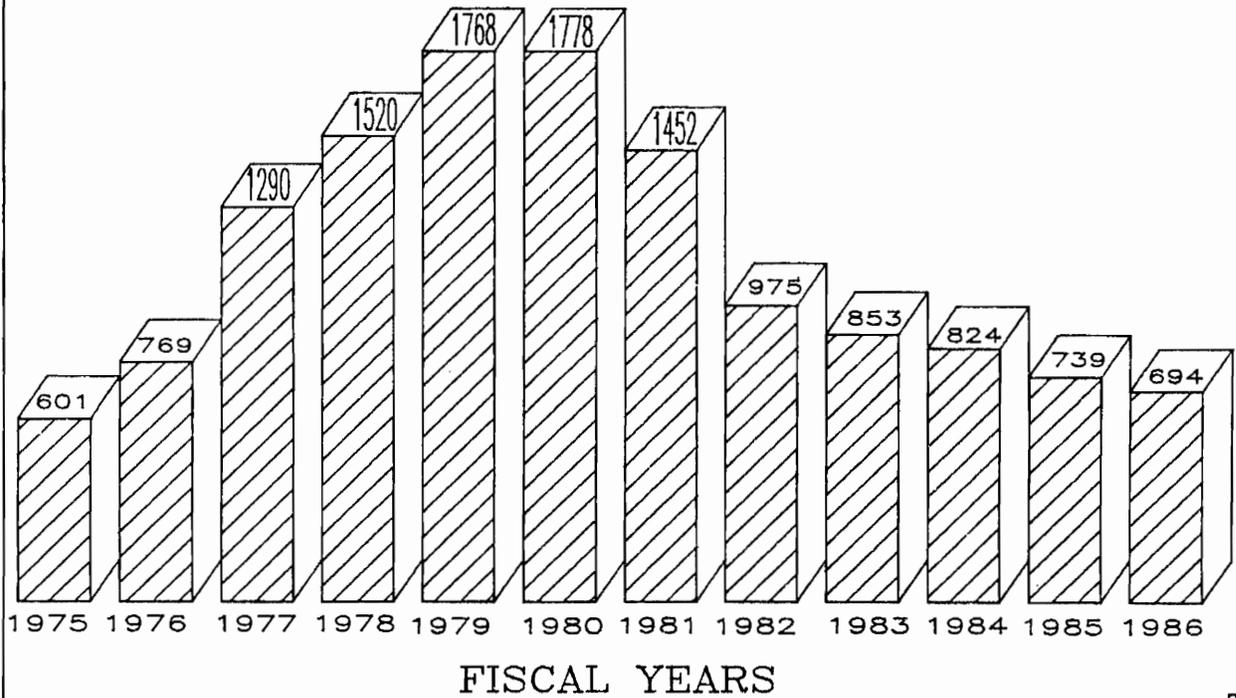


FGIS Appropriated Funds Availability and Obligations



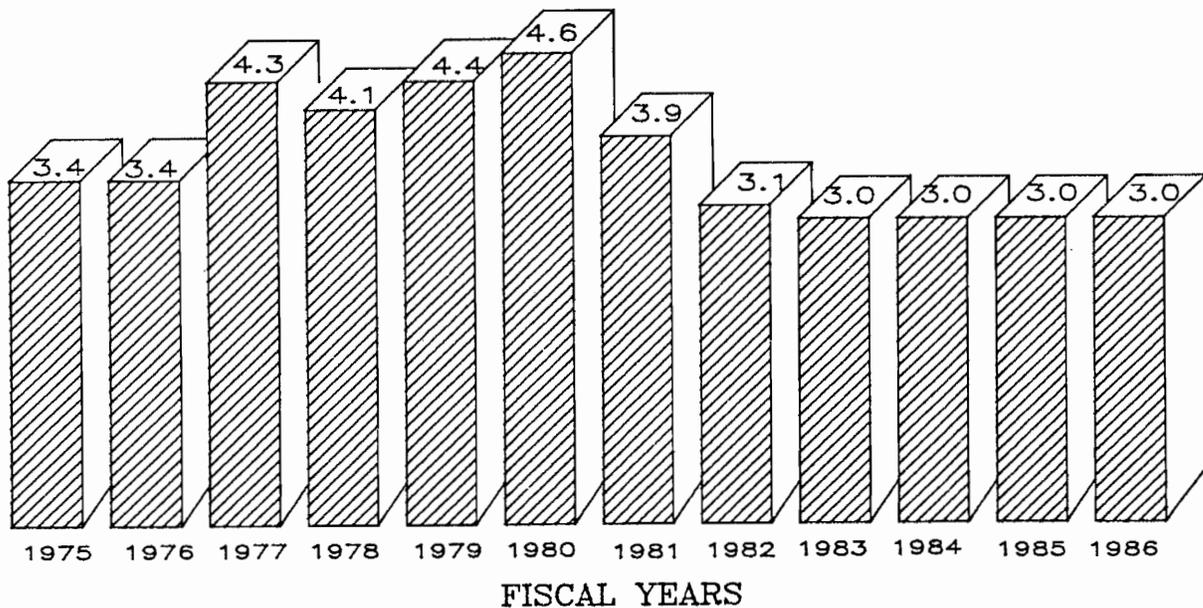
FEDERAL GRAIN INSPECTION SERVICE FULL-TIME PERMANENT EMPLOYMENT HISTORY

NUMBER OF EMPLOYEES

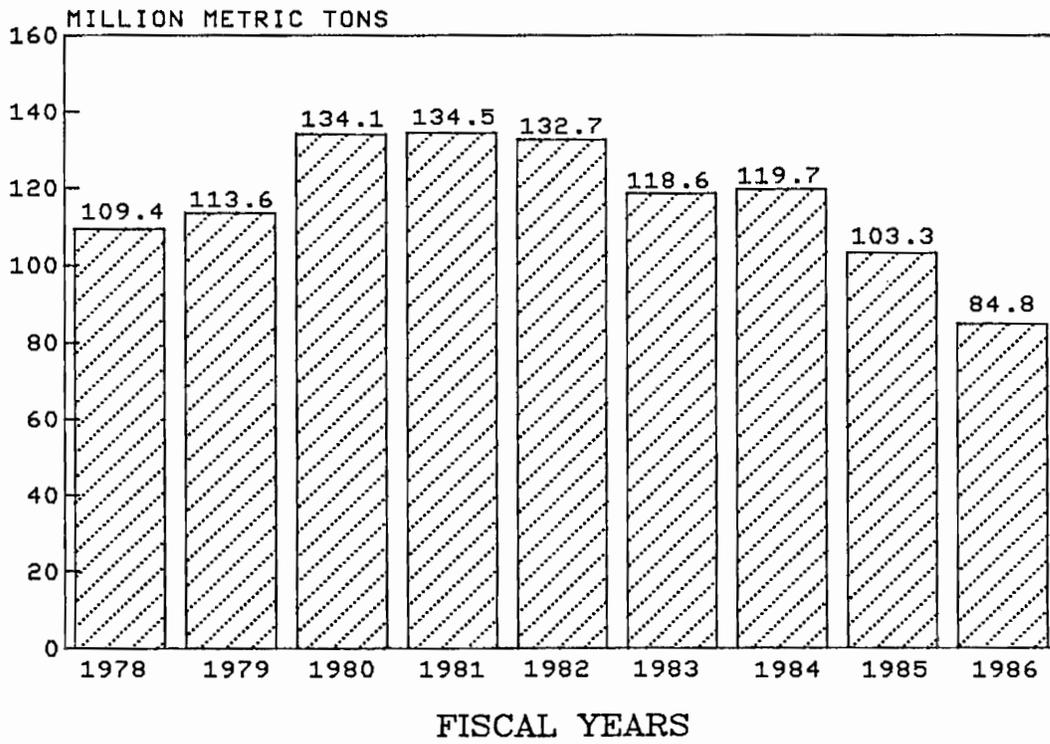


Federal Grain Inspection Service Number of Inspections

MILLIONS OF INSPECTIONS

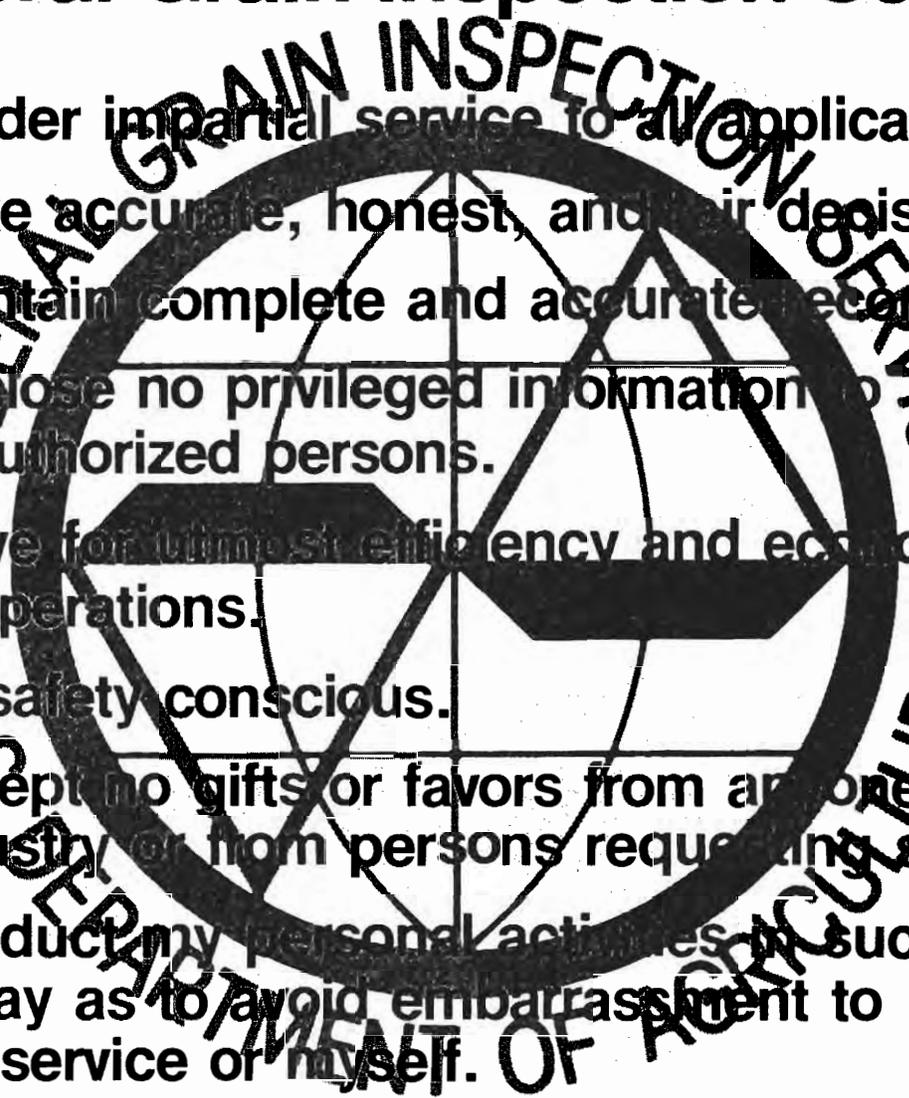


U S Agricultural Exports—Wheat, Coarse Grains, Soybeans, Rice and Sunflower



Code of Ethics

Federal Grain Inspection Service

- 
1. Render impartial service to all applicants.
 2. Make accurate, honest, and fair decisions.
 3. Maintain complete and accurate records.
 4. Disclose no privileged information to unauthorized persons.
 5. Strive for utmost efficiency and economy in operations.
 6. Be safety conscious.
 7. Accept no gifts or favors from anyone in the industry or from persons requesting services.
 8. Conduct my personal activities in such a way as to avoid embarrassment to the service or myself.
 9. Display a high sense of loyalty and pride in the service.
 10. Do my best . . . be a professional.
 11. Provide an honest day's work for an honest day's pay.