



**United States
Department of
Agriculture**

**Marketing and
Regulatory
Programs**

**Agricultural
Marketing
Service**

**Federal Grain
Inspection
Service**

Washington, D.C.

October 2022

Processed Commodities Handbook

Program Handbook

October 2022

Processed Commodities Handbook

Foreword

The Processed Commodities Handbook sets forth the policies and procedures for sampling, inspecting, and certifying processed commodities in accordance with [Part 868 General Regulations](#) under the [Agricultural Marketing Act of 1946](#), as amended.

The information contained in this handbook is applicable to Federal Grain Inspection Service (FGIS), a program under the Agricultural Marketing Service (AMS), an agency or department of the Federal Government which has an interagency agreement, a State Agency or other entity which has an agreement with FGIS to conduct commodity inspection services under the AMA and should be used in conjunction with the [Certification Handbook](#); [Weighing Handbook](#); [Sanitation and Food Defense Handbook](#) for Beans, Peas, Lentils, and Processed Commodities; FGIS Program [Directive 9180.48, "Stowage Examination Services;"](#) [Directive 9180.50, "Checkcounting, Observation of Loading, and Checkloading Services;"](#) [Directive 9100.3, "Withholding and Withdrawal of AMA Inspection Services;"](#) and other applicable instructions.

Trade names are used solely to provide specific information. The mention of trade names does not constitute a guarantee or warranty of the product by the U.S. Department of Agriculture or an endorsement by the Department over other products not mentioned.

In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language) should contact the responsible agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at [How to File a Program Discrimination Complaint](#) and at any USDA office, or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

USDA is an equal opportunity provider, employer, and lender.

TABLE OF CONTENTS

CHAPTER 1:	GENERAL INFORMATION
CHAPTER 2:	SAMPLING
CHAPTER 3:	COMMODITY PROCUREMENT INSPECTIONS
CHAPTER 4:	REVISION HISTORY

**CHAPTER 1:
GENERAL INFORMATION**

CONTENTS

1.1	INTRODUCTION.....	1-1
1.2	DEFINITIONS	1-2
1.3	COMMODITY INSPECTION	1-3
1.4	REQUEST FOR SERVICE	1-4
1.5	LEVELS OF INSPECTION SERVICE.....	1-4
1.6	KINDS OF INSPECTION SERVICE	1-5
1.7	CONDITION OF FOOD CONTAINER INSPECTION PROCEDURES.....	1-7
1.8	WITHHOLDING AND WITHDRAWAL OF AMA INSPECTION SERVICES	1-9

1.1 INTRODUCTION

The Federal Grain Inspection Service (FGIS) provides a wide range of processed commodity inspections under the authority of the [Agricultural Marketing Act of 1946 \(AMA\)](#) and [Title 7 Code of Federal Regulations Part 868 General Regulations](#). This handbook provides the procedures for sampling, testing, and certifying processed grain products.

Processed commodities are not required by law or regulation to be inspected. Inspections are performed only upon request. Inspections are performed if a purchasing contract requires FGIS to inspect and certify that a product meets the terms in the contract. FGIS performs physical, chemical, and microbiological tests requested by the applicant.

Applicants may request and receive certification that a product meets contractual requirements by providing the certifying office and the Commodity Testing and Reference Laboratory (CTL) with the requirements. When requested, the inspecting office will:

- a. Determine that a product meets the terms of a contract as specified in the contract. The sampler's evaluation of the labeling, condition of containers, etc., are just as important as the checkweighing and laboratory analysis. Individual specifications and contracts should be studied carefully.
- b. Record on the [FGIS-992, "Service Performed Report,"](#) all instances where the commodity or the containers vary from the contract requirements.

When inspecting commodities for compliance with a purchasing contract, the inspection usually consists of the following steps performed repeatedly throughout the duration of the contract.

- a. Sanitation inspection of:
 - (1) Premises.
 - (2) Equipment.
 - (3) Personnel.
 - (4) Empty containers.
- b. Sampling.
- c. Condition of container inspection on:
 - (1) Primary containers.
 - (2) Secondary containers.

- d. Checkweighing.
- e. Checkloading (when required).
- f. Verifying contract requirements.
- g. Certifying results.

Applicants may request that a particular commodity be tested for specific quality factors (e.g., ash, moisture, protein) or be inspected for other services (e.g., checkweighing, checkloading, condition of container examination) without reference to a contract.

In these instances, the field office will perform the services requested and certify the results without reference to any contract. If the applicant requests testing, the field office must clearly indicate to laboratory the tests required on the [FGIS-992, "Service Performed Report."](#)

Applicants may request that products be tested to meet all or part(s) of a published specification requirement(s). In these instances, the field office will perform the inspections required by the document and certify that the product does or does not meet the appropriate requirement.

Applicants may request that a quality inspection be performed on a submitted sample. When this occurs, the field office will either perform the requested tests or inform the applicant to submit the sample directly to CTL and include, with the sample, an application clearly stating what tests to perform. The laboratory will certify and report the results to the applicant.

1.2 DEFINITIONS

Applicant. Any interested person who requests any inspection service with respect to a commodity.

Carrier. A truck, trailer, truck/trailer combination, railcar, barge, ship, or other container used to transport bulk, sacked, or packaged commodity.

Commodity. Agricultural commodities and products assigned to FGIS by the Secretary of Agriculture for inspection purposes listed in [Directive 1020.2, "Listing of Agricultural and Food Commodities Assigned to FGIS."](#)

Composite Sample. A single sample composed of small portions (component samples) taken throughout the lot.

Contractor. A person or business having a contract to provide processed commodities to a purchasing agency or entity.

Cooperator. An agency or department of the Federal Government which has an interagency agreement, a State Agency which has a reimbursable agreement with the service, or a private agency with a cooperative service agreement.

Deleterious Substance. Any substance considered an actionable defect by the Food and Drug Administration.

Factor. A physical or chemical property identified in specifications, abstracts, contracts, or other documents whose measurement describes a specific quality of the commodity.

Inspection Certificate. A written or printed official document approved by FGIS that shows the results of the inspection service.

Licensee. Any person licensed by FGIS to perform services under the AMA.

Lot. Any identified amount of a particular commodity offered for inspection.

Lot (Quality) Inspection. The process of obtaining a representative sample(s) of an identifiable lot, examining or testing the sample(s), examining relevant records of the lot, and certifying the results.

Official Personnel. Any authorized Department employee or person licensed by FGIS to perform all or specified functions under the Act.

Official Sample. A representative sample drawn by official personnel licensed or authorized by FGIS.

Online Inspection. The inspection of a commodity while it is being packaged.

Primary Container. The immediate container in which the product is packaged.

Sample Portion. A randomly selected portion of the lot which will be composited with other portions to represent the lot.

Sampling. The process of drawing a representative sample from a lot.

Secondary Container. The shipping container or the container in which one or more primary containers are placed (i.e., shipping boxes, paper and plastic bailers).

Specification. A document that describes the technical requirements for items, materials, or services, including inspection procedures.

Submitted Sample Inspection. The process of grading or testing a sample (other than an official sample) submitted by an applicant and certifying the results.

1.3 COMMODITY INSPECTION

Official inspection and sampling are performed only by FGIS employees or persons licensed under the AMA. Contract samplers and cooperators must be licensed for official sampling. [Directive 9230.1, "Licensing Program,"](#) provides the procedures for issuing licenses. Samplers cannot perform services until licensed, except during orientation while under direct supervision of an authorized or licensed person.

1.4 REQUEST FOR SERVICE

Applicants may request services orally or in writing to the appropriate field office.

- a. If made orally, the field office may require that the request be confirmed by the applicant in writing.
- b. The request should specify the identity of the commodity, the services desired, and the specifications or conditions for which the product is to be inspected.
- c. The inspection request may be made on the [FGIS-907, "Application for Inspection and Weighing Services."](#) If the services requested cannot be performed, the field office manager should notify the applicant immediately.

1.5 LEVELS OF INSPECTION SERVICE

- a. Original Inspection Service. The initial inspection of a lot or a submitted sample.
- b. Retest Inspection Service. A retest inspection service is the subsequent inspection performed on any or all of the quality factors tested in the original quality inspection service using the same laboratory procedures.
 - (1) Retest services cannot be performed on other services, such as checkweighing.
 - (2) Only one retest inspection service can be performed on any original quality inspection service. Retest inspections are limited to analysis of the file sample.
 - (3) Quality factors included in the original inspection, but not included in the retest request, may not be retested at a later date. Moisture will also be included if needed to conduct the retest requested factor(s).
- c. Appeal Inspection Service. A review of the original or retest inspection service and may be performed on any kind of original or retest service.
 - (1) When performing an appeal inspection for quality determinations, the testing facility will analyze the sample for all the quality factors included in the original inspection.
 - (2) An appeal inspection may be based on the file sample or a new sample as long as the original results do not indicate that the lot contains a deleterious substance (other than insect fragments).
 - (3) When, as a result of a previous inspection, a commodity lot contains filth (other than insect fragments) or a deleterious substance, an appeal inspection for quality determinations must be limited to an analysis of the file sample.

- (4) When, as a result of a previous inspection, a commodity lot does not contain filth (other than insect fragments) or a deleterious substance, the applicant may request that an appeal inspection for quality determination be based on a file sample or a new sample. An appeal inspection is based on a new sample only if (1) the lot can be positively identified as the one that was previously inspected and (2) the entire lot is available and accessible for sampling and inspection.

Note: For more information, refer to [Directive 9170.15, "Review Inspections of Grains and Commodities."](#)

- d. New Original Inspection Service. A new original inspection must be based on a new sample and its scope (kind of inspection service) may be different from any previous inspections.
 - (1) New original inspections must not be performed on identifiable lots that have previously been found to contain filth (other than insect fragments) or a deleterious substance.
 - (2) Applicants may request a new original inspection when (1) the lot's identity is lost, or (2) the applicant is not entitled to a retest or appeal inspection, or (3) the applicant has obtained an appeal inspection for the lot.
 - (3) New original inspections will not be performed on lots that contain any previously rejected product. However, applicants may:
 - (a) Empty, remix, and repackage the rejected product and resubmit the newly created lot for a new original inspection.
 - (b) Resubmit the previously rejected lot in total for a new original inspection, or
 - (c) Rework the lot by removing any suspect portion of the lot and submitting the remaining portion of the lot for a new original inspection.
 - (4) An applicant who is dissatisfied with the result(s) of a new original inspection may request retest and appeal inspection services.

1.6 KINDS OF INSPECTION SERVICE

- a. Quality Inspection Service. This service consists of official personnel:
 - (1) Obtaining representative sample(s) of an identified commodity lot.
 - (2) Examining or testing the sample to determine specific quality factors, e.g., protein, moisture, fat.
 - (3) Examining relevant records for the lot; and
 - (4) Certifying the results.

- b. Stowage Examination Service. A stowage examination will be performed, when requested, in accordance with [Directive 9180.48, "Stowage Examination Services."](#) This service consists of official personnel visually determining if an identified carrier or container is clean; dry; free of infestation, rodents, toxic substances, and foreign odor; and suitable to store or carry commodities and certifying the results.
- c. Checkweighing Service (Container). A checkweighing service will be performed, when requested, in accordance with the [Weighing Handbook](#). This service consists of official personnel:
 - (1) Weighing a randomly selected number of containers from a commodity lot.
 - (2) Determining the estimated total gross, tare, and net weight, or the estimated average gross or net weight per filled container; and
 - (3) Certifying the results.
- d. Checkcounting Service. Checkcounting service will be performed, when requested, in accordance with [Directive 9180.50, "Checkcounting, Observation of Loading, and Checkloading Services."](#) This service consists of official personnel determining the total number of filled outer containers in a lot to determine the total number and certifying the results.
- e. Condition Inspection Service. This service consists of official personnel determining the physical condition of the commodity by determining whether an identifiable commodity lot is damaged, contaminated, infested, or has any other deteriorating condition and certifying the results. When inspecting commodities for condition, it is important that a detailed description be given on the [FGIS-992, "Service Performed Report,"](#) as to how the commodity was examined and all conditions observed.
- f. Observation of Loading Service. Observation of loading will be performed, when requested, in accordance with [Directive 9180.50, "Checkcounting, Observation of Loading, and Checkloading Services."](#) This service consists of official personnel determining that an identified lot has been moved from a warehouse or carrier and loaded into another warehouse or carrier and certifying the results.
- g. Checkloading Service. A checkloading service will be performed, when requested, in accordance with [Directive 9180.50, "Checkcounting, Observation of Loading, and Checkloading Services."](#) This service consists of official personnel:
 - (1) Performing a stowage examination of the empty carrier.
 - (2) Observing the condition and computing the number of filled commodity containers loaded aboard the carrier.
 - (3) If practicable, sealing or observing the sealing of the carrier; and
 - (4) Certifying the results. If containers from more than one lot are checkloaded into a carrier, record the number of containers from each lot on the certificate.

- h. Sanitation Inspection Service. The regulations require that, as a condition for obtaining a quality inspection service, commodities be produced in a plant that has passed a sanitation inspection as outlined by the [Sanitation and Food Defense Handbook](#). A sanitation inspection may also be performed, upon request, by an applicant as a separate service.
- i. Condition of Food Container Service. Applicants may request that the food containers be examined for condition, construction, sealing, or markings. This service will be provided using the [U.S. Standards for Condition of Food Containers](#), [Manual - Condition of Food Containers](#), and below in Section 1.7, “Condition of Food Container Inspection Procedures.”
- j. Any other requested services that can be performed under AMA.

1.7 CONDITION OF FOOD CONTAINER INSPECTION PROCEDURES

- a. General. It is essential that before performing condition of food container inspections that official personnel read and understand:
 - (1) [U.S. Standards for Condition of Food Containers](#),
 - (2) [Manual - Condition of Food Containers](#), and
 - (3) [Visual Aids](#) for Inspection of Containers, as appropriate.
- b. Container Examination Worksheets
 - (1) Complete an applicable [Container Examination Worksheet](#) for each lot inspected. Examples of completed Worksheets are found in the [Manual - Condition of Food Containers](#).
 - (2) Depending on the type of packaging used, two separate condition of container inspections may be necessary -- one on the primary container and one on the secondary container.
 - (3) Upon request, furnish the applicant a signed copy of each worksheet immediately after the condition of container inspection is completed.
 - (4) Attach one copy of the worksheet(s) to the original [FGIS-992](#), [“Service Performed Report,”](#) and retain in the field office.
- c. Performing the Inspection (Online).
 - (1) Examine the specified number of primary containers for the presence of defects and determine whether the lot is accepted or rejected. Perform a similar inspection when secondary containers are used to ascertain acceptance or rejection of the lot. The examination of the primary and secondary containers should be made concurrently, when feasible, or separately depending on the physical layout of the plant.

- (2) The [U.S. Standards for Condition of Food Containers 7 CFR 42](#) allows for two sampling plans -- double and single. The double sampling plan will apply unless the applicant requests the single plan be used.
 - (a) The manner in which samples (first and second) are selected depends on how the commodity is being loaded for shipment.
 - (b) If the commodity is being packaged and loaded directly into a carrier, select both the first and second samples at the same time. Set aside the second sample until it is determined if it is needed.
- (3) When primary containers are inspected during the filling operation, select containers from the conveyer after they have been inspected by plant employees just before they are placed into the secondary containers.
- (4) When primary containers are to be packed in secondary containers, select the primary containers just before they are placed in the secondary containers.
 - (a) Several times during the shift, temporarily move the inspection point to a point beyond where the secondary containers are filled so that several samples are examined from the sealed secondary containers.
 - (b) If there is a reason to believe that the secondary container filling operation is damaging containers or labels in any way, permanently move the inspection point beyond the secondary container filling operation.
- (5) If there is good reason to believe that the condition of the containers may have changed prior to checkloading, perform a new container examination.
- (6) Occasionally, the number of primary containers actually packed differs substantially from the number estimated to be packed; this will require the examination of greater or fewer numbers than planned. In that case, randomly draw the additional primary containers needed for inspection from throughout the finished pack.
- (7) Record a history of results on [AD-749, "Cumulative Original Inspections of Condition of Containers,"](#) for each type of container examined so that tightened or reduced plans may be employed as required.

- d. Performing the Inspection (Lot Inspection).
 - (1) The inspection of the primary containers is made at the same time as the inspection of the secondary containers.
 - (2) The applicant must make all containers in the lot accessible for sampling.
 - (a) Select the required number of containers at random and examine for condition.
 - (b) If secondary containers are used, select the number of primary containers necessary for examination from the secondary containers.
 - (3) The sampler must decide, before opening the cases, which primary containers are going to be examined and stick to this decision to prevent bias.
- e. Documenting Results. When applying the [U.S. Standards for Condition of Food Containers](#), examine the containers and record the results of the examination on the score sheets designed for this purpose.
 - (1) Attach the score sheets to the [FGIS-992, "Service Performed Report,"](#) covering the particular lot.
 - (2) If requested by the applicant or required by the contract, perform a formal inspection using the U.S. Standards for Condition of Food Containers on each lot of packaged product.

1.8 WITHHOLDING AND WITHDRAWAL OF AMA INSPECTION SERVICES

Section [868.24](#) of the regulations under the AMA, provides for the conditional withholding of inspection service for correctable causes, which can be found in section [868.21](#), such as (1) failure to pay bills for inspection services, (2) unsanitary plant conditions, or (3) plant conditions which would subject the inspector to unusual hazard or discomfort.

Section [868.25](#) of the regulations provides for the denial or withdrawal of service due to (1) a willful violation of the AMA, regulations, or directives; or (2) intimidation, threat, assault, or other improper action that interferes with or obstructs official personnel in the performance of their duties. When circumstances warrant denial or withdrawal of service, the field office manager or cooperator manager must report the circumstances in accordance with [Directive 9070.6, "Reporting Violations of the U.S. Grain Standards Act, and The Agricultural Marketing Act of 1946."](#)

**CHAPTER 2:
SAMPLING**

CONTENTS

2.1	SAFETY	2-1
2.2	GENERAL INFORMATION	2-4
2.3	LOT SIZE	2-7
2.4	SAMPLE RATES.....	2-8
2.5	SAMPLE SIZE.....	2-9
2.6	ONLINE INSPECTION	2-10
2.7	STATIONARY-LOT INSPECTION	2-13
2.8	SAMPLING DEVICES	2-16
2.9	CLEANING SAMPLING EQUIPMENT.....	2-20
2.10	EXAMINING AND COMPOSITING SAMPLE PORTIONS.....	2-21
2.11	SAMPLE CONTAINERS	2-23
2.12	PREPARING AND DISTRIBUTING SUBSAMPLES.....	2-24
2.13	SAMPLE AND EQUIPMENT SECURITY CABINETS (STORAGE AREAS)	2-27
2.14	RESERVE SAMPLES	2-27
2.15	FILE SAMPLES.....	2-28
2.16	REPLACING CONTAINERS AFTER SAMPLING	2-28
2.17	FGIS-992, "SERVICE PERFORMED REPORT"	2-29
2.18	CONTACT INFORMATION	2-35

TABLES

TABLE 2.1 – MAXIMUM LOT SIZES	2-7
TABLE 2.2 – SAMPLING RATES	2-8
TABLE 2.3 – SOLID SAMPLE SIZE.....	2-9
TABLE 2.4 – LIQUID AND SEMISOLID SAMPLE SIZE	2-10
TABLE 2.5 – BAG TRIERS	2-16

FIGURES

FIGURE 2.1 – SIDE VIEW - AREAS AND SECTIONS OF A BOXCAR.....	2-14
FIGURE 2.2 – SIDE VIEW OF A BOXCAR WITH THREE WELLS, SELECTED BAGS INDICATED BY X MARKS.....	2-15
FIGURE 2.3 – SEMISOLID PRODUCT JAR.....	2-25

ATTACHMENTS

FGIS-992 “SERVICE PERFORMED REPORT”	2-30
---	------

2.1 SAFETY

The requirements referenced in this section are mandatory for FGIS employees. All other are strongly encouraged to follow these guidelines:

- a. General. Comply with all FGIS safety requirements and the [AMS Safety Handbook](#), as well as all pertinent Occupational Safety and Health Administration (OSHA) requirements (e.g., [29 CFR 1910-1918](#)). For more information, refer to the [Grain Inspection Handbook 1, Sampling](#).
 - (1) Obey all posted warning signs and wear appropriate protective equipment when conditions warrant (e.g., hard hats and dust masks).
 - (2) When necessary and practical, carry a communication device (i.e., two-way radio for communication).
 - (3) Before sampling railcars, check to see if a fall protection assessment is required, in accordance with [Directive 9170.14, "FGIS Rolling Stock Fall Protection."](#) FGIS employees must complete Fall Hazard Awareness Training in accordance with the directive. The requirements of this directive apply to FGIS employees only. Official Agencies may adopt this policy or use it as a guideline to establish their own policy to comply with local and national safety requirements.
- b. Life Vests. Wear U.S. Coast Guard approved Type I, II, III, or V PFD life vests when aboard barges, launch boats, or other vessels (midstream and dockside). Before putting on the life vest, inspect it for any potential defects and to ensure proper fit.

Note: Life vests must be international orange in color, contain retro-reflective panels, and must not be of an inflatable type. If used at night, the vest must be equipped with a light and a whistle.

- c. Clothing.
 - (1) Wear hard hats that meet the American National Standards Institutes (ANSI) Z89.1 or Z89.2 criteria.
 - (2) Wear shoes or boots that have nonslip soles and definite heels for good footing on ladders.
 - (3) Wear clothes that are reasonably close fitting to reduce the possibility of becoming snagged on ladders or other structural elements.
 - (4) Wear gloves when climbing ladders and opening or closing hatches and doors.

Note: FGIS personnel must follow the clothing requirements found in [Directive 4735.2, "Uniform and Identity Apparel and Dress Code Policy."](#)

- d. Gangways and Ladders. Check the gangway before boarding or disembarking barges and other vessels. Do not use defective gangways. Exercise extreme care when using ladders that are permanently affixed to the carrier wall. Do not hand carry sampling equipment, radios, or other equipment while climbing ladders.
- e. Chemical Treatments. Remain alert to your physical condition, especially when drawing samples inside carriers. Beans are sometimes treated with chemicals, usually for the purpose of controlling insect infestation. Contact with toxic fumes or sprays from these chemicals can cause serious injury or death. The following symptoms can be indicative of a dangerous atmosphere:
 - (1) Shortness of breath.
 - (2) Light-headedness.
 - (3) Drowsiness.
 - (4) Headache.

When these symptoms are experienced, leave the area immediately and seek medical attention.

- f. Transportation.
 - (1) Travel to and from barges at midstream and other vessels at anchor via U.S. Coast Guard-approved launch, tugboat, licensed water taxi; or by Federal Aviation Administration-approved helicopter or air taxi.
 - (2) Do not jump on or off a barge or other vessel. You must be able to step easily from the launch to the vessel (or vessel to launch) without stretching or straining over water; expect slippery or obstructed deck conditions when boarding a vessel.
- g. Dock Areas.
 - (1) While walking on a dock or wharf, be alert for loose or rotting boards that may not support your weight.
 - (2) Learn the locations of life rings, emergency ladders, and telephones.
 - (3) Stay clear of cables whether slack or under tension.
- h. Boats, Barges, and Ships.
 - (1) FGIS employees must not board any launch boat service to board any ships, barges, or floating rigs unless a licensed boat captain and deckhand are present on board the launch vessel. Before boarding, ensure that the deckhand is nearby and ready to provide aid in an emergency.

- (2) If the launch boat is not staffed with at least one captain and one deckhand, inform the driver that you are unable to board for safety reasons and contact your supervisor for further assistance. Upon boarding the launch boat, familiarize yourself with the location of any lifesaving devices and request instruction from the captain or deckhand as to the proper use of such equipment.
- (3) Do not probe sample barges at night unless the barge is docked and sufficient artificial light is provided. Use caution when walking on decks and barge tops since they are uneven, slippery when wet, and have protruding cleats and latches. Do not remain on barges while they are being moved and be aware of nearby barges, docks, or vessels which could collide with the barge you are working on. Do not permit hatches to be opened or closed while you are inside the barge.

i. Trucks.

- (1) Do not walk through a break in a string of trucks separated by only a few feet.
- (2) Be alert to such hazards as moving trucks, cables, debris, metal strapping, or broken ladders.
- (3) Avoid breathing diesel exhaust fumes.

j. Railcars.

- (1) Before entering a rail yard, notify your immediate supervisor, the yardmaster, or switch-crew foreman, and any other essential persons of your presence. Do not sample railcars in a rail yard alone unless you are being monitored by someone who is in a position to render aid if needed (i.e., one of the two persons that must be present may be an elevator employee). Inquire about possible switching activities, cars carrying hazardous cargo, and any other unusual activity.
- (2) Require that all activity cease on the track where you are working. Require the track to be locked out, or derails installed at both ends of the string of cars, or other appropriate, locally approved precautions (e.g., using blue flags with radio communication between you and the switch engine driver, using one or more additional employees as a safety observer to warn off approaching railcars, or using blue flags and a lockout switch on an elevator hold-track where no railcar or switch engine movement takes place during the performance of official functions).
- (3) Do not probe sample railcars at night unless adequate artificial light is provided. Do not walk on the rails; walk parallel to the set of tracks and never between the two rails. Ensure that no power lines are close enough to present a hazard (minimum safe distance - 25 feet vertically and horizontally).

- (4) Check for placarded railcars. If a car is or is not placarded and a fumigant odor is detected, withhold the inspection (do not enter the car or sample the commodity) and notify your supervisor immediately.
 - (5) Never crawl under railcars. Avoid climbing through railcars and over couplings and never walk through a break in a string of railcars separated by only a few feet (minimum safe distance - 20 feet). Be alert to such hazards as moving railcars, cables, debris along tracks, metal strapping, or broken ladders hanging from railcars.
 - (6) Be alert to seasonal conditions, such as icy walking surfaces in the winter, and rodents, snakes, scorpions, wasps, and hornets in the warmer months.
 - (7) Exercise caution when opening or closing car hatches or doors. If a hatch or door is stuck, request assistance from the applicant. Use a cutting tool or pry bar to break seals; do not use your hands.
 - (8) Do not ride on an engine or car being moved or switched. If a car starts to move while you are inside, assume a sitting or kneeling position on top of or in the car to avoid losing your balance, and hold on. Do not attempt to descend a ladder or jump to the ground until the car has stopped and you can do so safely. Report all incidents of car movement to the yardmaster and your supervisor. (Supervisors should also report such movement to either OSHA or the Federal Railroad Administration).
 - (9) Notify the yardmaster (or foreman) when you leave the work area and report all "bad order cars" (e.g., missing ladder rungs or broken doors) to the car owner, the railroad, or the applicant for inspection.
- k. Warehouses. Watch out for forklifts and tow motors. Also, be alert for sacks slipping (falling) from improperly stacked pallets and overhead conveyor belts.

2.2 GENERAL INFORMATION

- a. Representative Sampling.
- (1) Obtaining a representative sample from a commodity lot is one of the most important parts of inspection.
 - (2) A careful analysis of the sample sent to a testing laboratory will not reflect the true quality of the commodity unless a representative sample is taken. It is the responsibility of the sampler to be sure the sample obtained reflects the true quality of the entire lot.
- b. Types of Sampling Services. Applicants may select online or stationary-lot inspection service. Online inspection is the inspection of a lot as the lot is being produced. Stationary-lot inspection is the inspection of a finished lot when all the containers are stacked in a stationary place (warehouse floor) or loaded into a carrier.

c. Alternative Procedures.

- (1) When inspecting a product for compliance with a contract and the contract specifies sampling procedures other than those provided in this chapter, the sampler must perform the sampling in accordance with the contractual requirements. For example, some Defense Personnel Support Center (DLA) contracts require sampling using [Military Standard 105, "Sampling Procedures and Tables for Inspection by Attributes,"](#) rather than the procedures outlined in this chapter.
- (2) Some processed products require bacteriological testing which requires detailed sampling procedures. For more information, refer to [Chapter 3, Commodity Procurement Inspections.](#)

d. Lot Accessibility.

- (1) Each lot for which an inspection service is requested should be placed, by the applicant, in such a manner as to permit the safe and proper performance of the service requested.
- (2) If the entire lot is not accessible to perform the service requested or the lot is stacked in a manner that does not provide a safe area to perform the service and is not corrected, the sampler must advise the applicant that the requested inspection cannot be performed or that a partial inspection will be performed.

e. Plant Examination. Sanitation inspections performed for applicants requesting quality inspections are performed before a plant begins producing a product and on a periodic basis as outlined in the [Sanitation and Food Defense Handbook](#). Sanitation inspections are requested by the applicant or required by the contract.

- (1) In addition to these inspections, samplers must be constantly alert to make sure that the commodity is packaged under sanitary conditions during the entire day.
- (2) Any condition that is not sanitary must be pointed out to the plant supervisor for immediate correction and a notation made on the [FGIS-992, "Service Performed Report."](#) For more information, refer to [Section 2.17, "FGIS-992 Service Performed Report."](#)
- (3) If the insanitary condition is not corrected, the sampler will contact the field office manager or cooperator manager.
- (4) The manager, in turn, will determine if conditional withholding of service is warranted and, if so, is responsible for notifying the applicant in accordance with [Directive 9100.3, "Withholding and Withdrawal of AMA Inspection Services."](#)

f. General Sampling Principles. The following is a partial list of general sampling principles to remember when sampling.

- (1) Use equipment approved for the product being sampled stated in the [Equipment Handbook](#).
- (2) Use sampling equipment that is clean and free of any material that might affect the sample.
- (3) Open each container with a minimum of tearing and cutting, but the opening must be large enough to allow the drawing of a representative sample.
- (4) Draw each sample in such a way as to prevent contamination or adulteration of the sample by threads, pieces of paper, or any other materials from the container that are not part of the contents.
- (5) Ensure that an equal amount of sample is obtained from each container selected for sampling or time interval so that each subsample obtained is proportional to the portion of the lot represented by the container selected or time interval.
- (6) Transfer the sample from the sampling device to a moisture-proof container as rapidly as possible with a minimum of exposure to the air.
- (7) Follow all safety and sanitation rules in effect at the plant or warehouse.

g. Reportable Incidents/Conditions.

- (1) During sampling, notify the field office manager or cooperater manager of any unusual incidents or conditions occurring at the plant or when confronted with a problem or situation for which there are no instructions.
- (2) A partial list of incidents or conditions that may develop while performing inspection services which must be reported are:
 - (a) Applicant suggests ways to sample other than the official method.
 - (b) Applicant will not make selected containers accessible for sampling or examination.
 - (c) Applicant offers special favors or gratuities either directly or indirectly.
 - (d) Applicant wants to add containers to the lot after sampling is completed.
 - (e) Sampler suspects, for any reason, that a substitution of commodities has occurred or that the commodity shipped was not the commodity sampled.
 - (f) Product was contaminated or adulterated in any manner.

- (g) Plant is insanitary or product is maintained in an insanitary manner, and applicant refuses to correct the conditions in accordance with requests.
 - (h) Conditions exist that would prevent sampling in a safe manner.
- (3) Incidents involving violations of the Agricultural Marketing Act (AMA), bribery, or other violation, must be reported by following the instructions in [Directive 9070.6, "Reporting Violations of the U.S. Grain Standards Act and the Agricultural Marketing Act of 1946."](#)
 - (4) In accordance with [Directive 9060.2, "Implementation of the FGIS-FDA Memorandum of Understanding,"](#) official personnel will report lots that exceed action levels for officially sampled domestic and export lots and auxiliary sample results for officially sampled carriers. Submitted samples are not reported.
- h. Conserving Time and Effort.
- (1) When applicants request that more than one kind of service (sampling, checkweighing, condition of container examination, etc.) be performed at the same time, use the same containers for all services whenever possible.
 - (2) Make the first selection for the kind of service having the largest sample size using the specified selection procedures and use these containers for the other services. For example, individual containers selected for the condition of container examination can be used for checkweighing and for obtaining sample portions for analysis.

2.3 LOT SIZE

a. Maximum Lot Sizes.

- (1) The following maximum lot sizes have been established for processed commodities:

TABLE 2.1 – MAXIMUM LOT SIZES

PRODUCT	MAXIMUM LOT SIZE
Dry Corn, Oat, Rice, Soybean, Sorghum, and Wheat Products	500,000 lbs. (225,000 kg.)
Vegetable Oil, Shortening, and Syrup	80,000 primary containers or one truck or railcar for bulk product
Pasta and Margarine	150,000 lbs. (67,500 kg.)
Products Containing Milk	180,000 lbs. (81,000 kg.)

- (2) If the lot exceeds the maximum lot size, inform the applicant that the lot will have to be divided into smaller lots that do not exceed the maximum lot size.

b. Establishing Lot Sizes.

- (1) The applicant, together with official personnel, must establish, for each lot, the total weight in pounds/kilograms, the total number of containers, and the estimated production time as applicable. Do this before:
- (a) Production begins when the applicant requests online inspection.
- (b) Sampling begins when the applicant requests stationary-lot inspection.
- (2) Inform applicants that, if the lot size changes after sampling begins, additional sample portions and inspection data might have to be obtained from the lot due to changes in sampling rates based on the lot size.

2.4 SAMPLE RATES

Table 2.2 shows, by product, the number of individual containers or the time intervals to use for obtaining sample portions.

TABLE 2.2 – SAMPLING RATES

PRODUCT	LOT SIZE IN POUNDS	LOT SIZE IN KILOGRAMS	NUMBER OF CONTAINERS OR TIME INTERVALS PER LOT
Dry Corn, Oats, Rice, Soybeans, Sorghum & Wheat Products	45,000 or less	20,250 or less	12
	45,001 - 180,000	20,251 - 81,000	20
	180,001 - 500,000	81,001 - 225,000	35
Pasta Products	45,000 or less	20,250 or less	18
	45,001 - 80,000	20,251 - 36,000	36
	80,001 - 150,000	36,001 - 67,500	54
LOT SIZE BY PRIMARY CONTAINER			
Vegetable Oil, Shortening, and Margarine in Other than 55-gallon (208.20 liter) Containers	6,000 or less		9
	6,001 - 12,000		10
	12,001 - 36,000		14
	36,001 - 80,000		19
Vegetable Oil, Shortening, and Margarine in 55-gallon (208.20 liter) Containers	6,000 or less		18
	6,001 - 12,000		20
	12,001 - 36,000		28
	36,001 - 80,000		38
Syrup	80,000 or less		18

When sampling products not included in Table 2.2, use the square root of the number of containers in the lot as the sampling rate.

2.5 SAMPLE SIZE

Tables 2.3 and 2.4 show, by product, the minimum composite sample size and the subsample distribution in pounds/kilograms and quarts/liters.

TABLE 2.3 – SOLID SAMPLE SIZE

Product	Minimum Composite Sample Size		Subsamples Per Lot ¹	
	Pounds	Kilograms	Pounds	Kilograms
Bakers Soft Wheat Flour	9	4.05	3	1.35
Bakery Mix	9	4.05	3	1.35
Bulgur	5 ¼	2.36	1 ¾	0.79
Corn Grits	3	1.35	1	0.45
Cornmeal	3	1.35	1	0.45
Corn Soy Blend	5 ¼	2.36	1 ¾	0.79
Corn-Soya Milk	3	1.35	1	0.45
Farina	3	1.35	1	0.45
Instant Corn Masa Flour	3	1.35	1	0.45
Instant Corn-Soya Masa Flour	9	4.05	3	1.35
Instant Corn-Soya Milk	3	1.35	1	0.45
Instant Rice Cereal	3	1.35	1	0.45
Pasta	9	4.05	3	1.35
Rolled Oats	5 ¼	2.36	1 ¾	0.79
Rolled Wheat	5 ¼	2.36	1 ¾	0.79
Soy-Fortified Cornmeal	3	1.35	1	0.45
Soy Flour, Defatted	3	1.35	1	0.45
Soy Flour, Full Fat	3	1.35	1	0.45
Soy-Fortified Bread Flour	30	13.5	10	4.5
Soy Fortified Bulgur	3	1.35	1	0.45
Soy-Fortified Rolled Oats	5 ¼	2.36	1 ¾	0.79
Soy-Fortified Sorghum Grits	3	1.35	1	0.45
Wheat-Soy Blend	3	1.35	1	0.45
Wheat-Soy Milk	3	1.35	1	0.45
Other Flour and Dry Products	3	1.35	1	0.45
¹ 1 subsample to TSD, Kansas City, MO. 1 subsample for plant or field office as a reserve sample 1 subsample for the applicant if requested				

TABLE 2.4 – LIQUID AND SEMISOLID SAMPLE SIZE

Product	Minimum Composite Sample Size		Subsamples Per Lot ¹	
	Quarts	Liters	Quarts	Liters
Margarine	3	2.85	1	0.95
Shortening	3	2.85	1	0.95
Syrup	3	2.85	1	0.95
Vegetable Oil	3	2.85	1	0.95
¹ 1 subsample to TSD, Kansas City, MO. 1 subsample for plant or field office as a reserve sample. 1 subsample for the applicant if requested.				

For liquid and semisolid products, in the absence of specific instructions in Table 2.4, obtain approximately 3 quarts (2.85 liters) of a fully refined liquid product and approximately 3 gallons (11.4 liters) of an unrefined liquid product for the composite sample. Mix the liquid composite sample well and divide into three equal portions, one for the testing laboratory, one for the reserve sample, and one for the applicant.

2.6 ONLINE INSPECTION

a. Packaged Commodities.

- (1) During online inspection of packaged products, check empty containers for cleanliness throughout the shift.
 - (a) Visually check interiors of containers for rust, dust, and other foreign material. Containers that are not clean must not be filled and included in the lot.
 - (b) If unclean containers are not removed from the lot, note this fact on the [FGIS-992, "Service Performed Report,"](#) and issue a noncompliance certificate.
- (2) Select the individual containers to use for obtaining sample portions as follows:
 - (a) Determine the number of containers to be produced and the lot weight if necessary.

- (b) Determine the sample rate by dividing the number of containers in the lot by the appropriate sample size in [Table 2.2 – Sampling Rates](#).

Example:

Lot size = 120,000 lbs. (54,000 kg.) of wheat flour packaged in 2,400, 50-lb. (22.5-kg.) bags

Required sample size = 20 containers
2,400 ÷ 20 = 120 container groups

This means that the lot contains 20, 120 container groups and that the sample rate is 1 container for approximately every 120 containers.

- (3) Deliberately vary the containers selected within the groups; do not select, for example, every 120th container.
- (a) To do this, preselect the containers ahead of time using a reference point.
- (b) For example, select ahead of time the sixth filled container after the one that the machine operator is filling at the time of selection.
- (c) Use a different preselection number for each container.
- (d) A sample may be taken near the end of one interval and near the beginning or middle of the next. In other words, vary the time of drawing each sample portion within the time interval so that it is impossible for the applicant to determine when the next sample portion will be drawn. Take the same amount of sample at each time interval.
- (4) Sampling Dry Products. When sampling dry products, make the first selection from the first five containers filled at the start of the day's production and from the first five containers filled when production resumes after any production stoppage exceeding 30 consecutive minutes.
- (5) Sampling Liquid Products.
- (a) When sampling liquid products, such as oil and syrup, and the sample is taken from a filled container, agitate the container so that sediment or foreign material (if present) will be included in the composite sample. This may be accomplished by vigorously shaking the filled container immediately prior to pouring the sample from the container.

- (b) If liquid products are poured from one container to another, thoroughly clean the pouring spout or the lip over which it is poured before pouring.
- (c) Examine the first container filled when filling operations start at the beginning of the day and after line stoppages, such as for lunch, coffee breaks, or mechanical breakdowns.
- (d) If water, sediment, or other undesirable material is found, the plant supervisor must remove all containers from the line which are similarly affected and dispose of the commodity, so it is not included in the lot.

Note: During online inspection, sample oil, shortening, or margarine immediately prior to or immediately after the filling of containers.

b. Bulk Commodities. Perform a stowage examination on the bulk carrier before loading.

- (1) Determine the time periods (in minutes) to use for obtaining sample portions as follows:
 - (a) Determine the lot size and sample rate shown in [Table 2.2 – Sampling Rates](#).
 - (b) Obtain the estimated loading time in minutes.
 - (c) Divide the estimated loading time by the number of time intervals. This gives the duration of each period in minutes. Take a sample portion during each time period.

Example:

**Weight of flour to be loaded in hopper car = 100,000 lbs.
(45,000 kg.)**

Estimated loading time = 240 minutes

Number of time intervals = 20

240 ÷ 20 = 12-minute periods

- (2) Cut the running commodity stream at least once, at random, during each of the 20, 12-consecutive minute periods, using the appropriate sampling device to provide 20 sample portions.

c. 88-Hour Rule. When inspection is online and the applicant stops production for more than 88 consecutive hours, sampling cannot resume on the lot. If production stops during online inspection for more than 88 consecutive hours, the applicant has two options:

- (1) The lot size may be changed to reflect the amount produced, and all subsequent containers produced will be considered another lot and inspected separately. If this option is selected, determine if the proper amount of sample has been taken to represent the lot. If not, randomly sample additional containers to obtain sufficient sample and complete the inspection.
- (2) The applicant may elect to withdraw the request for online inspection on the portion of the lot that has been produced and request that this lot be combined with an additional portion produced after the production stoppage. If this option is requested, discard the sample from the initial portion of the lot and resample as a warehouse lot after the additional portion is added.

2.7 STATIONARY-LOT INSPECTION

- a. Packaged Commodities In Plants and Warehouses. Select the individual containers to use for obtaining sample portions as follows:
 - (1) Determine the number of containers in the lot and the lot weight.
 - (2) Determine the sample rate shown in [Table 2.2 – Sampling Rates](#).
 - (3) For a nonpalletized lot, select the containers.
 - (4) For a palletized lot, select the pallets first. The number selected must equal the required sample size for the lot. Then select one container from each pallet.

Example:

Lot size = 120,000 lbs. (54,000 kg.) of cereal consisting of 10,000 cases; 12, 1-lb. (0.45 kg.) boxes per shipping case 250 pallets; 40 cases per pallet

Sample size = 20 boxes. Select 20 pallets.

Select 20 shipping cases, one from each pallet.

Select 20 boxes, one from each shipping case.

Take a sample portion from each box.

If the number of pallets in the lot is less than the sample size, obtain the containers from all of the pallets.

Example: To obtain 20 containers from 15 pallets:

Select 10 pallets and draw 1 container from each pallet.

Draw 2 containers from each of the other 5 pallets.

b. Packaged Commodities In Carriers.

- (1) Sampling in railcars and trucks presents specific safety concerns. All necessary precautions must be taken when sampling under these conditions. Report all unsafe conditions to the field office manager for resolution.
- (2) Containers that are already loaded into a railcar, truck or other carrier are considered accessible for inspection when “wells” are dug at the location and depth selected by the sampler.

Note: Labor and equipment for digging the necessary “wells” must be furnished by the applicant.

Select the containers for sampling as follows:

- (a) Mentally divide the carrier into areas (A1, A2, D, B1, and B2) and section (three sections for all but D: Two sections for D). (Figure 2.1)

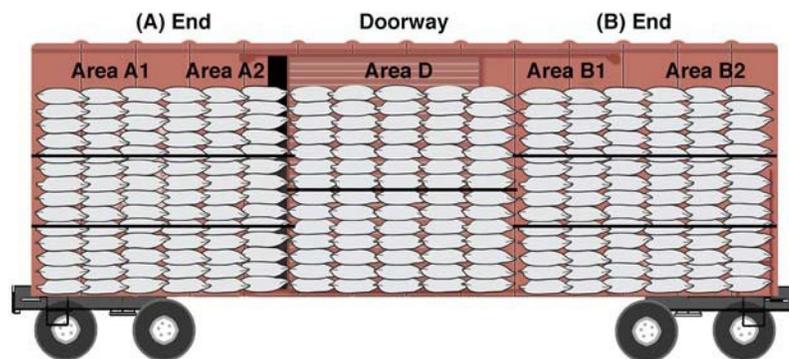


FIGURE 2.1 – SIDE VIEW - AREAS AND SECTIONS OF A BOXCAR

- (b) Randomly select six bags from each of the areas identified as A1, A2, B1, and B2. Select ten bags from area D. If the car is not loaded uniformly (i.e., area D is loaded six bags high, while areas A and B are loaded twelve bags high), select more bags from the areas containing more bags and less from those containing less, but always select at least 34 bags, total.
- (c) Determine the locations where the wells must be dug so that the proper number of bags may be sampled from each section. (Whenever possible, limit the number of wells that must be dug to three, but dig the wells as deep as possible.) (Figure 2.2)

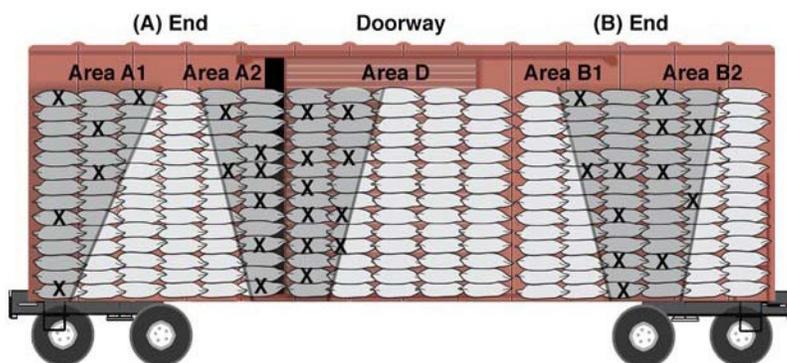


FIGURE 2.2 – SIDE VIEW OF A BOXCAR WITH THREE WELLS, SELECTED BAGS INDICATED BY X MARKS

- (d) Randomly select the sacks to be sampled from the sacks removed when making a well and from the exposed bags forming the well sides. (Use of random number cards/tables is optional.)
 - (e) Draw the sample portions. It is very important that approximately the same amount of sample be taken from each sack.
 - (f) Examine the condition of the containers as they are sampled to determine if the containers are clean or dirty, stained, torn, or contain live or dead insects. The kind and condition of the containers should be noted on the [FGIS-992, "Service Performed Report."](#)
- c. Bulk Commodities in Hopper Cars, Trucks, Vessels, and Land Tanks.
- (1) Obtain sample portions from each compartment using the appropriate sampling device.
 - (2) Obtain approximately the same amount of sample from each compartment and in quantities that will total the amount required in [Table 2.3, "Solid Sample Size"](#) or [Table 2.4, "Liquid and Semisolid Sample Size."](#)
 - (3) When sampling is requested after the carrier has been loaded and the carrier has not been examined for condition prior to loading, a statement to this effect must be made on the [FGIS-992, "Service Performed Report"](#) and the certificate for quality.

Note: At the discretion of the official agency or field office manager, nonlicensed personnel may assist official personnel in obtaining samples, provided that: (1) all nonlicensed personnel are under the direct, physical supervision of official personnel at all times; (2) the ratio of official personnel to nonlicensed personnel is reasonable and practical; and (3) official personnel determine the general condition of the grain and whether additional samples are needed due to quality differences.

2.8 SAMPLING DEVICES

a. Dry Products.

(1) Ladles.

- (a) Polyethylene or stainless-steel ladles may be used to obtain sample portions from containers before the containers are closed and from a running commodity stream when plants do not have diverter-type (D/T) mechanical samplers.
- (b) Obtain ladlefuls from and below the product's surface by dipping immediately after the containers are full (after they pass the dribbler if there is one) and before closing.
- (c) Use a 2-oz. ladle for containers weighing 5 lbs. (2.25 kg.) or less. Use a 4-oz. ladle for containers weighing over 5 lbs.

Note: Ladles must not be used to sample soy-fortified bulgur or soy-fortified sorghum grits. These products must be sampled using a bag trier as explained below.

- (d) Use only stainless-steel ladles for sampling FSA products with bacteriological requirements. For more information on these products, refer to [Chapter 3, Commodity Procurement Inspections](#).

(2) Bag Triers.

- (a) Use the type of bag triers listed in Table 2.5 to obtain samples from filled and closed 25-pound and greater capacity primary containers made from paper, woven polypropylene, burlap, and cotton.

TABLE 2.5 – BAG TRIERS

Product	Trier Type
Powdery Products ¹	Double-Tube Noncompartmented Single-Tube Open-Ended
Nonpowdery Products ²	Double-Tube Noncompartmented
Soy-Fortified Bulgur Soy-Fortified Sorghum Grits	Double-Tube Compartmented
¹ Products, such as flour. ² Products, such as bulgur, grits, and rolled oats.	

(b) Use only stainless-steel triers for sampling products with bacteriological requirements. For more information on these products, refer to [Chapter 3, Commodity Procurement Inspections](#).

(c) Use triers that can reach the opposite corner of the containers when inserted on a diagonal, starting from one corner. Obtain sample portions as follows:

- 1 Lay containers flat (or up on end, if using a double-tube, compartmented trier).
- 2 Insert the trier in the corner of the container with the slots closed, if a double-tube trier.
- 3 Move the trier diagonally through the middle of the container until it touches the opposite corner. Avoid puncturing the opposite side or bottom of the container. Then, if it is a single-tube trier, withdraw it.

If it is a double-tube trier:

- a Open it with the slots facing upward.
- b Move the trier in and out two or three times to fill the slots.
- c Close the trier and withdraw it.

(3) PVC Flour Triers.

(a) Use 10-foot (300-cm) PVC flour triers for sampling flour and similar powdered commodities in hopper cars and trucks.

(b) Obtain sample portions from the center of each hopper car and truck compartment as follows:

- 1 Insert the unstoppered trier straight down into the commodity.
- 2 Insert the stopper in the cap after the trier is filled.
- 3 Withdraw the filled trier.
- 4 Remove the stopper to allow the commodity to flow out of the trier.
- 5 Record the statement "Top (depth reached) feet sampled, Bottom Not Sampled (BNS)." on the [FGIS-992, "Service Performed Report,"](#) when the bottom is not reached by all probes. The number of feet shown in the statement must correspond to the estimated average depth of all probes that did not reach the bottom of the carrier.

(4) D/T Mechanical Samplers.

- (a) Use D/T mechanical samplers to obtain sample portions from running commodity streams.
- (b) Follow the approval and operating procedures for D/T mechanical samplers provided in the [Mechanical Sampling Systems Handbook](#).
- (c) Set D/T mechanical samplers so that at least the minimum number of portions required in [Table 2.2, "Sampling Rates,"](#) is obtained and the weight of the sample portions, when combined, is equal to the applicable composite sample weight shown in [Table 2.3, "Solid Sample Size."](#)
- (d) Secure all diversion points between the sampling location and the carrier before sampling starts.
 - 1 Check all seals and locks just before sampling starts and immediately after sampling ends.
 - 2 Report any seal and lock irregularities to the field office as soon as possible.

Note: Some dry products, such as pasta products and cereals, cannot be sampled with the above devices due to their size. For these types of products, pour the entire contents from one primary container into a clean, shallow container. It is a good practice to examine the interior of the emptied primary containers for any abnormalities such as insect webbing or foreign material. Mix macaroni type pasta products gently using an official polyethylene ladle and remove a representative sample portion. Remove a representative portion of spaghetti and noodle products with your gloved hands so as not to break the product.

b. Liquid and Semisolid Products.

(1) Ladles/Spatulas.

- (a) Use ladles or spatulas made of stainless steel, aluminum, or nickel. Avoid using ladles or spatulas made of copper, bronze, or brass because these metals will contaminate liquid and semisolid products such as oil and shortening.
- (b) Use ladles only while the product is being agitated or thoroughly mixed. For example, oil that is coming from a filling machine is considered well mixed, and the sample taken from the container should be representative.
- (c) Ladles can be used for online sampling of 1-gal. (3.8-L) cans, 5-gal. (19-L) cans, and for drums if the sample is taken as soon as the containers are filled.

- (d) Loading or unloading serves to physically mix bulk oils. Therefore, dip samples taken at irregular time intervals, during loading or unloading, provide a representative sample of the lot.
 - (e) Use spatulas for sampling semisolid products, such as shortening and margarine.
- (2) Thief Sampler.
- (a) This type sampler is usually used on containers that can be agitated or mixed before inserting the thief.
 - (b) When possible, draw the sample from along the entire length of the container.
 - (c) As soon as the thief sampler is fully inserted, close the upper constriction with a finger and transfer the oil to a suitable container.
- (3) Core or Trier Sampler.
- (a) The core or trier sampler can be used for sampling drums, tankcars, or ships depending on the length of the sampler.
 - (b) Lower the trier vertically through the oil at a uniform rate with the bottom valve completely open.
 - (c) The rate of lowering should be about 1 ft. (30 cm) per second.
 - (d) After the bottom of the container is reached, close the bottom valve and withdraw the sampler.
- (4) Bacon Bomb Sampler.
- (a) This is a stainless-steel cylinder with openings at the lower and upper ends. A plunger extends through the cylinder from top to bottom and serves as a valve for both openings.
 - (b) Raising the plunger allows the oil to flow in through the lower opening and releases the trapped air through the upper opening.
 - (c) The lower end of the plunger protrudes through the bottom of the sampler about 1/2 in, (1.25 cm). There are two common sizes of Bacon bombs, 1-pt. (0.47-l) capacity and 1-qt. (0.95-L) capacity.
 - (d) A graduated steel tape is attached to the upper end of the bomb to measure the oil depth and stop the bomb at any desired level. A chain or heavy cord is attached to the plunger and is pulled to lift the plunger and fill the bomb with oil. A tripod device, with a winch, has been developed for lowering and raising the bomb sampler. If required, the temperature of the oil can be obtained by attaching a minimum-maximum thermometer to the sampler.

- (5) Curtis-Tompkins Zone Sampler.
- (a) This is a 12-in. (30-cm) tapered cylinder that has flutter valves on each end. The sampler has a weighted bottom so it will pass easily through the oil.
 - (b) The flutter valves automatically open as the sampler is lowered into the oil and are closed by the upward movement of the sampler.
 - (c) This sampler will take a sample of approximately 1 qt. (0.95 L) of oil.
 - (d) A graduated steel tape is attached to the upper end of the cylinder to measure the oil depth and stop the sampler at any desired level. The tripod mentioned for use with the Bacon bomb sampler can also be used with this sampling device.
- (6) Bleeder-Line Sampler. The bleeder-line method of sampling oil can also be used while the oil is being loaded or unloaded. When using this method, remain present for the entire period of loading or unloading.

2.9 CLEANING SAMPLING EQUIPMENT

- a. Clean ladles, bag triers (outside and inside of inner and outer tubes), sample pails and lids, and spoons before sampling each lot and as often after that as necessary.
 - (1) Clean by wiping with clean, dry paper toweling or, when necessary, by washing with soapy water, rinsing with clean water, and thoroughly drying with clean, dry paper towels.
 - (2) Place ladles and spoons in new, clear polyethylene bags immediately after cleaning and keep them there when you are not obtaining sample portions or dividing samples.
- b. PVC Flour Triers. Clean the inside of PVC flour triers as soon as practical after sampling by passing clean, dry, rag toweling through the bore and stoppering both ends. Clean the outside of these triers, if necessary, before and after sampling each lot by wiping with clean, dry toweling.

Note: Products which require bacteriological testing necessitate additional cleaning. For these procedures, refer to [Chapter 3, Commodity Procurement Inspections](#).

2.10 EXAMINING AND COMPOSITING SAMPLE PORTIONS

- a. General. A sample portion is the amount of sample obtained from a selected container or during a specified time period.
- (1) Obtain the same amount of sample (sample portion) from each container or during each time period so that each sample obtained is proportional to the portion of the lot represented by the container or time interval.
 - (2) Immediately after obtaining a sample portion, visually examine it for uniformity in quality before adding it to the composite sample. A sample portion is not uniform when its quality is distinctly different from the quality of the other sample portions obtained for the lot. For example, it contains live or dead insects, foreign material (glass, metal shavings, water, sediment, etc.), color, particle size, or lumps that do not disintegrate easily or is otherwise distinctly different from other sample portions.
 - (a) For D/T mechanical samplers, if you cannot examine a sample portion while it is in the collection box, empty it into a bag and then examine it.
 - (b) For liquid products, pour the sample into a clean, clear container for examination to determine if it should be included in the composite sample.
- b. Distinctly Different Sample Portions. When a sample portion is not uniform, immediately:
- (1) Draw enough additional sample from the same container(s), compartment(s), or time period, as applicable, of the distinctly different commodity to form a “Distinctly Different Sample.” The size of the distinctly different sample should equal or exceed that shown in [Table 2.3, “Solid Sample Size”](#) or [Table 2.4, “Liquid and Semisolid Sample Size”](#) for the composite sample. Place the distinctly different sample portions in a separate sample container from the other sample portions taken from the lot.

If the lot contains more than one type of nonuniform portion, obtain a distinctly different sample from each portion.

For Example: A lot of yellow corn meal contains one portion that is infested with insects, another portion does not have insects but is white in color, and the remainder of the lot appears normal. Obtain three samples, one distinctly different sample from the portion that contains insects, one distinctly different sample from the portion that appears white, and finally a sample from the normal appearing portion.

- (2) Obtain an estimate of the product amount represented by the nonuniform sample portion to be used for certification if necessary.
- (a) When performing online inspections, a nonuniform sample portion represents:
- 1 For packaged commodities, all of the commodity packaged since the last good sample portion was obtained unless examination shows otherwise (for example: 120, 50-lb. (2.25-kg) containers).
 - 2 For bulk commodities all of the commodity loaded into the carrier since the last good sample portion was obtained (for example: one time period = 1/20th of the 100,000-lb. (45,000-kg) lot (20 time periods for the lot) = 5,000 lbs. (2,250 kg).
- (b) When performing stationary-lot inspections, a nonuniform sample portion represents:
- 1 For packaged commodities, the sampled container and all surrounding containers that probably contain nonuniform product. Determine the approximate number of containers holding nonuniform product by sampling containers at intervals in northerly, westerly, southerly, easterly, and in-between directions.
 - 2 For bulk commodities in hopper cars and trucks, all the commodity in the sampled compartment or truck.
 - 3 Inform the plant management and the field office manager that you obtained a nonuniform sample portion.
 - a The field office manager informs the plant management that the field office will certify the entire lot as not being in compliance if the portion represented by the nonuniform sample portion is commingled with the remainder of the lot and the “Distinctly Different Sample” does not meet contract requirements.
 - b If the laboratory analysis indicates that the distinctly different sample and the sample representing the rest of the lot meet contract requirements, issue one certificate showing entire lot to be in compliance.

- c. Compositing Sample Portions. For each lot, immediately after examining sample portions for uniformity, place uniform sample portions in the same sample container to form the “composite sample” and each nonuniform sample portion in a separate sample container.
 - (1) For liquid products, when pouring from one container to the composite container, thoroughly clean the pouring spout before pouring.
 - (2) Once solid portions of shortening or margarine have been taken for a composite, they must not be melted prior to submission to the laboratory.

2.11 SAMPLE CONTAINERS

- a. General. Samples must always be placed in new, clean containers. Under no circumstances are the samples to be placed in containers which have been used before or which contain any rust, dust, or other foreign matter.
- b. Dry Products.
 - (1) Polyethylene Bags. Place sample portions and subsamples in new, clear polyethylene bags.
 - (a) Keep bags tightly closed except when adding sample portions or dividing samples to prevent outside contamination.
 - (b) Squeeze all air out from above the sample portions and subsamples before twisting the bags closed and applying ties.
 - (2) Sample Pails With Lids. During sampling, keep the bag holding the composite sample in a sample pail and keep the sample pail tightly closed with a lid when you are not adding sample portions and mixing and dividing samples.
- c. Semisolid Products. Place sample portions and subsamples in new, clear polyethylene bags.
 - (1) Keep bags tightly closed with twist ties except when adding sample portions or dividing samples.
 - (2) Squeeze all air out from above the sample portions and subsamples before twisting the bags closed and applying ties.
- d. Liquid Products. Place sample portions in new clean, containers.
 - (1) Containers used to package the product are acceptable if they can be verified as clean.
 - (2) Keep the containers closed except when adding samples to prevent exposure to the air and possible contamination.

2.12 PREPARING AND DISTRIBUTING SUBSAMPLES

a. Dry Products.

- (1) For dry products except rolled oats, rolled wheat, and pasta, mix the composite sample thoroughly by inverting, shaking, and kneading the composite sample bag for at least 2 minutes or thoroughly mixing with a spoon or ladle.
- (2) Gently mix rolled oats, rolled wheat, and pasta composite samples with a spoon or sampling ladle to thoroughly mix the sample without crushing the product. For items such as lasagna noodles or spaghetti, gently mix the sample with your gloved hands to prevent breakage.
- (3) Immediately after mixing, divide the sample into subsamples with a long-handled plastic or metal spoon. Place the subsample amount shown in [Table 2.3, "Solid Sample Size,"](#) in each of two or three containers as applicable.
- (4) Place the subsample of dry products sent to TSD in new polyethylene bags. The polyethylene bags must be airtight and the tie applied just above the product after the air has been squeezed out to prevent any change in the moisture content.
- (5) For dry products with a laboratory subsample size of less than 2 lbs. (0.9 kg), place the polyethylene bag in the standard cardboard mailing box.
 - (a) To ensure that as much sample as possible is sent to the laboratory, fill the bag so that it completely fills the mailing box.
 - (b) Placing the bag in the box before filling the bag will generally accommodate more sample in the box.
 - (c) If the commodity is pasta, rolled wheat, or rolled oats, fill the containers to capacity to protect particle size and prevent any other change in the product. Do not crush the product during filling.
 - (d) Fasten two mailing boxes end to end for mailing spaghetti and lasagna type noodles so that the products can be mailed without breaking. Other mailing containers may be used for these products as long as they accommodate the minimum amount of product and prevent breakage.
- (6) For dry products with a subsample size of 2 lbs. (0.9 kg) or more, place the polyethylene bag in a mailing bag or box that will protect the sample in shipment.

b. Semisolid Products (Margarine and Shortening).

- (1) Place shortening sample portions in a polyethylene bag similar to that used for lining 50-lb. cans or fiberboard boxes of shortening.
- (2) Mix the composite sample thoroughly by kneading the bag for at least 2 minutes.
- (3) Immediately after mixing, divide the sample into subsamples with stainless steel spoon.
- (4) Place the subsample amount shown in [Table 2.4, "Liquid and Semisolid Sample Size,"](#) in each of two or three containers as applicable.
- (5) Place semisolid products in new quart jars and fill to capacity to minimize contact of the product with entrapped air. Flip circular insert lid so rubber seal faces up to prevent contact with product (Figure 2.3). The sample container should be purged with nitrogen, if available, to remove the oxygen from the container prior to filling.



FIGURE 2.3 – SEMISOLID PRODUCT JAR

- (6) Place the quart jar in a styrofoam mailer for shipment to the laboratory. Semisolid products may be sent to the testing laboratory in alternative containers at the applicant's request if the request is made in writing.

c. Liquid Products.

- (1) For liquid products, the composite sample must be well mixed by shaking the composite sample.

- (2) Immediately after mixing, divide the sample into subsamples in the amount shown in [Table 2.4, "Liquid and Semisolid Sample Size."](#) and place in each of two or three containers as applicable. When transferring liquid products from the composite container to the subsample container, thoroughly clean the pouring spout before pouring. Samples should be protected from contact with heat and air as much as possible so that the quality of the product is protected.
 - (3) Place liquid products in new quart jars and fill to capacity to minimize contact of the product with entrapped air. The sample container should be purged with nitrogen, if available, to remove the oxygen from the container prior to filling.
 - (4) Place the quart jars in a styrofoam mailer for shipment to the laboratory. Liquid products may be sent to the testing laboratory in alternative containers at the applicant's request if the request is made in writing.
- d. Work Records. For all products, place the laboratory copy of the [FGIS-992, "Service Performed Report,"](#) in the mailing container along with the sample. Do not place the FGIS-992 inside the sample container.
- e. Mailing.
- (1) Fill in the appropriate information on the standard mailing box. If the standard mailing box is not used, place the following information on each sample container (place the information on bags with a permanent marker or on "stick-on" labels and attach the labels to the bags):
 - (a) Contract number.
 - (b) Lot number.
 - (c) Plant location (city and State).
 - (d) Date sampled.
 - (2) It is important to mail commodity samples to the testing laboratory as soon as possible after a lot is completed in order to expedite the testing analyses. The field office manager or cooperator is responsible for establishing the best possible mailing procedures.
 - (3) If applicants request a delivery service other than the U.S. mail, field office managers may arrange for such service at the applicant's expense.
 - (4) Distribute the subsamples as follows:
 - (a) Send one to TSD. TSD will divide the subsample into an original and a file sample.
 - (b) Maintain one in reserve at the plant or field office.

- (c) Give one to the applicant if the applicant requests one.
- (5) Samples should be kept in the custody of official personnel or protected from manipulation by other persons until they are mailed.
- f. Distinctly Different Samples. For each distinctly different sample, prepare and distribute the subsamples in the same manner as described above except label each subsample "Distinctly Different."

2.13 SAMPLE AND EQUIPMENT SECURITY CABINETS (STORAGE AREAS)

- a. Cabinets must be placed at plants where inspection service is provided on a regular basis. Their use will prevent any possible tampering with official samples and supplies.
- b. Store all samples not in the custody of licensed or authorized personnel in the cabinets. For instance, when the sampler leaves the point of sampling for meals, to perform checkloading and related duties, or for any other reason, official samples must be placed in the cabinet. Store equipment and supplies, when not in use, in the same manner.
- c. Cabinets must be:
 - (1) Of sufficient size to contain samples, sampling supplies and equipment, and checkweighing scales.
 - (2) Placed in the immediate work area. Cabinets in basements and other remote areas are not acceptable. If it is impossible or impracticable to locate the cabinet in the immediate work area, use a portable locked can, such as a galvanized, aluminum or plastic pail, for maintaining samples.
 - (3) Preferably metal for sanitary reasons, but other materials may be used.
 - (4) Equipped with padlocks with keys issued only to official personnel. Under no circumstances will keys to cabinets or locked cans be accessible to unauthorized persons. A key accountability record must be maintained to ensure that the assignment of keys is to official personnel only.
- d. The cabinets may be supplied by the applicant provided the four criteria above apply.

2.14 RESERVE SAMPLES

- a. Reserve samples are to be kept at the plant or field office for each sample sent to the testing laboratory until laboratory results are received.
- b. Reserve samples are only used for testing purposes when the sample sent to the testing laboratory is lost or damaged in the mail or the laboratory requests the sample.

2.15 FILE SAMPLES

To accomplish the mission of the agency, FGIS has established the policy of maintaining an effective record management program. Part of the official record system is the maintenance of file samples retained for reference or review purposes. For detailed procedures, refer to [Directive 9170.13, "Uniform File Sample Retention System."](#)

- a. File samples are obtained from the subsample sent to the laboratory and used for retest inspections and file sample appeal inspections.
- b. All file samples, except noncomposite DLA file samples, will be retained by the testing laboratory.
- c. Do not use the reserve sample as a file sample unless approved by the laboratory.

2.16 REPLACING CONTAINERS AFTER SAMPLING

- a. FGIS is not obligated to purchase samples of products taken for inspection purposes.
 - (1) After samples have been taken from a lot offered for inspection, the applicant must replace the package or unit of quantity in the lot.
 - (2) If the applicant does not replace the quantity of the commodity removed by the sample, certify only the amount actually present in the lot after sampling.
- b. When an applicant produces extra containers for replacing containers damaged by sampling or handling and the extra containers are not needed, the applicant may ship the unused containers in any subsequent lot. The applicant must make the extra containers accessible for inspection with the subsequent lot.

2.17 FGIS-992, “SERVICE PERFORMED REPORT”

- a. The [FGIS-992, “Service Performed Report,”](#) is to be completed by the sampler when sampling, checkweighing, checkcounting, or checkloading commodities.
 - (1) The form is designed so that all pertinent information may be recorded.
 - (2) Field offices may require additional information on this form.
 - (3) All information placed on the form must be factual.
 - (4) A warning statement is included to indicate the penalty for reporting or recording false information. For instructions, refer to for completing the FGIS-992, “Service Performed Report” below.

- b. The sampler must distribute copies of the form as follows:
 - (1) Submit the original to the field office.
 - (2) A copy to the sample sent to the testing laboratory.
 - (3) Retain a copy.
 - (4) A copy may be provided to the applicant at their request and expense.

FSA Commodity Codes		
<p>WBUE20 Bulgur, Soy Fortified- Exp WBUD10 Bulgur-Dom WBUE10 Bulgur-Exp RCED10 Cereal, Rice, Instant-Dom WCED10 Cereal, Whole Wheatmeal-Dom WPAD10 Lasagna-Dom CBLE10 Corn Soy Blend-Dom CMKE20 Corn Soy Milk, Instant-Exp CMKE10 Corn Soy Milk-Exp CCME20 Cornmeal, Soy Fortified-Exp CCMD10 Cornmeal-Dom CCME10 Cornmeal-Exp CCMD20 Cornmeal Regular-Dom WFAD20 Farina-Dom WFLD10 Flour, All Purpose-Dom WFLE10 Flour, All Purpose-Exp WFLD20 Flour, Bakers, Hd Wht Hearth Style-Dom WFLD25 Flour, Bakers Soft Wht BI-Dom WFLD30 Flour, Bakers Soft Wht Unbl-Dom WFLD15 Flour, Bred Bakers Hd Wht-dom WFLD40 Flour, Bread, Hearth Style-Dom WFLE30 Flour, Bread, Wheat, Soyfort 12%-Exp WFLD35 Flour, Bread-Dom</p>	<p>WFLE20 Flour, Bread-Exp WFLD45 Flour, Cake-Dom CFLE10 Flour, Corn Soya Masa Instant-Exp CFLD10 Flour, Corn Masa Instant-Dom WFLD50 Flour, Durum-Dom WFLD55 Flour, Pastry-Dom SFLE10 Flour, Soy, Defatted-Exp WFLD60 Flour, Whole Wheat-Dom CCED20 Fortified Corn Cereal-Dom RCED20 Fortified Rice Cereal-Dom WCED20 Fortified Wheat Cereal-Dom CGRD10 Grits, Corn, Coarse-Dom CGRD20 Grits, Corn, fine-Dom GGRE10 Grits-sorghum, Soy fortified-Exp WPAD10 Lasagna-Dom WPAE10 Macaroni, Wheat Soy-Exp WPAD20 Macaroni-Dom WPAD24 Macaroni, Enr, Rotelle, Reg. Cook WPAD25 Macaroni, Rotini, Reg. cook TRGE30 Oats, Rolled, Soy Fortified-Exp TRGD20 Oats, Rolled, Instant-Dom TRGE20 Oats, Rolled, Instant-Exp TRGD30 Oats, Rolled, Quick-Dom</p>	<p>SSHD10 Shortening-I-Dom SSHD20 Shortening-II-Dom SSHD30 Shortening-III-Dom, Liquid SOLE40 Soybean Oil, Crude Degummed-Exp WPAD30 Spaghetti-Dom CYS10 Syrup, Corn Blend-Dom OLD10 Vegetable Oil-A-Dom SOLE10 Vegetable Oil-A-Exp SOLD20 Vegetable Oil-B-Dom SOLE20 Vegetable Oil-B-Exp SOLD30 Vegetable Oil-C-Dom SOLE30 Vegetable Oil-C-Exp WPAD40 Vermicelli-Dom WBLE10 Wheat Protein Concentrate Blend-Exp WBLE20 Wheat Soy Blend-Exp WMKE10 Wheat Soy Milk-Exp WRGD10 Wheat Rolled-Dom SOLE30 Vegetable Oil-C-Exp WPAD40 Vermicelli-Dom WBLE10 Wheat Protein Concentrate Blend-Exp WBLE20 Wheat Soy Blend-Exp WMKE10 Wheat Soy Milk-Exp WRGD10 Wheat Rolled-Dom</p>
VA Commodity Codes		
<p>CCMD90 Cornmeal, Degummed, Enriched WEGD90 Egg Noodles, Ribbon Shaped WEGD95 Egg Noodles, Ribbon, Shaped, Yolk WFAD90 Farina Enriched Malt Low Sodium WFAD95 Farina wheat Enriched, Quick-Dom WFLD90 General Purpose Wheat Flour</p>	<p>CRGD90 Hominy Grits, Enriched, Quick-Cook WPAD95 Macaroni, Enriched, Elbow, Regular NCMD90 Noodles Chow Mein TRGD90 Rolled Oats, Quick Cooking SOLD90 Salad Oil, Type A SSHD90 Shortening Type I</p>	<p>SSHD95 Shortening Type III WPAD90 Spaghetti, Enriched, Long Form, Regular CSYD90 Syrup, Type III, Blended and Ref. MSYD90 Syrup, Type VIII, Class 2, Thick WCED90 Whole Wheat Cereal, Malt Quick-Cook</p>
DLA Commodity Codes		
<p>MMXU63 Mix, Cheesecake (Unbaked) MSHU95 Bakery Mix Shortening, Emulsified MBRU20 Bread, White, Enriched, Canned MBRU25 Bread, Shelf Stable, I MBRU10 Brownies, Type I MCCU10 Cake, Canned, Apple Coffee, Type II MCCU40 Cake, Canned, Blueberry, Type II MCCU50 Cake, Canned, Cherrynut, Type II MCCU35 Cake, Canned, Chocolate, Type II MCCU25 Cake, Canned, Fruit, Type I MCCU15 Cake, Canned, Marble, Type II MCCU45 Cake, Canned, Orange Nut, Type I MCCU20 Cake, Canned, Pound, Type II MCCU30 Cake, Canned, Spice, Type II MCBU10 Cereal Bars I, Cornflake MCBU15 Cereal Bars II, Rice-Cornflake MCBU20 Cereal Bars III, Fruit-Fiv Cornflake MCBU25 Cereal Bars IV, Granola TCOU10 Cookies, Oatmeal, Type II CSTU10 Corn Starch, Type I CSTU20 Corn Starch, Type II CSTU30 Corn Starch, Type III CCMU10 Cornmeal, Type I, Coarse CCMU15 Cornmeal, Type I, Fine CCMU20 Cornmeal, Type II, Coarse CCMU25 Cornmeal, Type II, Fine WCRU30 Crackers, Class II WCRU10 Crackers, Soda, Plain, Type I, Class A WCRU20 Crackers, Soda, Salted, Type I, Class B UDUP10 Dessert, Pwdr, Inst, Starch, Class 1-Choc UDUP20 Dessert, Pwdr, Inst, Starch Class 2-Van</p>	<p>UDUP30 Dessert, Pwdr, Inst, Starch, Class 3-Btsc WFAU10 Farina, Type I WFLU20 Flour, Bread, Type I, Hd Wht WFLU30 Flour, Pastry, Type IV WFLU40 Flour, Type II, Cake WFLU10 Flour, Type III, General Purpose MCBU35 Granola Bar Type II CGRU20 Grits, Hominy UICU10 Icing Mix Powder, Flavor 1 (Vanilla) UICU30 Icing Mix Powder, Flavor 3 (Other) UICU20 Icing Mix Powder, flavor 2 (Chocolate) WPAU10 Lasagna, Group IV WPAU20 Macaroni, Group I UMAU10 Margarine, Canned UMAU20 Margarine, Type I UMAU30 Margarine, Type II MMXU45 Mix, Angel Food, Class 1, Style F MMXU48 Mix, Devil's Food, Class I, Style C MMXU21 Mix, Doughnut, Class 3 MMXU51 Mix, Gingerbread, Class 1, Style D MMXU30 Mix, Pancake & Waffle, Class 2, Style G MMXU39 Mix, Pancake & Waffle, Class 2 MMXU09 Mix, Pancake & Waffle, Buckwheat, Class 2, Style F MMUX54 Mix, Pound Cake, Class 1, Style E MMUX06 Mix, Roll, Class 4, Style A MMUX36 Mix, Sweetdough, Class 4, Style B MMUX57 Mix, White Cake, Class 1, Style A MMUX60 Mix, Yellow cake, Class 1, Style B MMUX42 Mix, Yellow Cornbread, Class 2, Style A MMUX12 Mix, Brownie, Butterscotch, Class 5, Style B MMUX15 Mix, Brownie, Chocolate, Class 5, Style A</p>	<p>NCMU10 Noodles, Chow Mein WEGU10 Noodles, Egg, Type I WEGU20 Noodles, Egg, Type I, Egg yolk MCBU30 Oatmeal Cookie Bar, Type I MCBU90 Oatmeal Cookie and Granola Bar TRGU40 Oats, Instan, Flavored TRGU50 Oats, Instant, Flavored, Tray - Pack TRGU30 Oats, Rolled, Instant, Type I I I TRGU20 Oats, Rolled, Quick, Type I I TRGU10 Oats, Rolled, Regular, Type I CGNU20 Popcorn, Type I, Fancy CGNU30 Popcorn, Type I, No. 1 CGNU40 Popcorn, Type I I, Fancy CGNU50 Popcorn, Type I I, No. 1 MSOU10 Salad Oil, Type A MSOU20 Salad Oil, Type B MSOU30 Salad Oil, Type C MSHU10 Shortening-I MSHU20 Shortening- I I MSHU45 Shortening- I I I WPAU30 Spaghetti, Group I I USYU10 Syrup, Type I USYU20 Syrup, Type I I USYU30 Syrup, Type I I I USYU40 Syrup, Type V USYU50 Syrup, Type V I USYU80 Syrup, Type V I I USYU60 Syrup, Type V I I I, Class 1, Thin USYU70 Syrup, Type V I I I, Class 2, Thick WPAU40 Vermicelli, Group I I I MMXU03 Mix, Biscuit, Class 2, Style B</p>

Instructions for completing the FGIS-992, "Service Performed Report"

- a. Action by person performing inspection. Complete items 1 through 37.
 1. Field office performing the service.
 2. Type of sample, check one; or specify if you check "other".
 3. Contract number assigned by the contracting party when applicable. Include prefix characters as part of the contract number.
 4. Sample or lot number assigned. Field offices must specify one range of lot numbers for each commodity location (mill point). This range shall be large enough to accommodate the maximum number of lots inspected at that commodity location under any one contract. Each range must begin with a number which ends with the digit 1 (e.g., 501-1000; 2501-3000; 1-350). Lot numbers must be numeric and cannot exceed 4 digits in length. Each lot will have its own number (e.g., 501; 502; 503; etc.). To identify new original inspections, either reserve the first digit of the four digit lot code number for this purpose or use the next available lot number for each contract. Julian date codes may be used for DSCP.
 5. Date sampled (MM/DD/YY).
 6. Commodity code (for codes, or contact the testing laboratory for codes not listed, refer to reverse side of form).
 7. Location code from the list of numbers provided to the field office.
 8. Applicant number derived by using the last six numbers of the NFC applicant number.
 9. Name and address of applicant.
 10. Type of commodity and whether domestic or export.
 11. Location of commodity if other than the applicant's address. If the location is the same as block 9, show "Same".
 12. Car number, license number, or other identification of the carrier.
 13. Record the seal numbers applied and/or broken. If space is not adequate, show "See Below" and place in blocks 16 or 36.
 14. Inspection point code. Field offices view the Grain and Weighing Information System (GIWIS) under "Reports -- Active Specified Service Points" for identifying codes, agencies and contractors must contact area field office for codes.

15. Destination if known. When submitting ethylene dibromide residue testing and aflatoxin survey samples, use the destination codes provided in [Grain Inspection Handbook, Book IV, "Forms and Certificates," FGIS-938, "Report of Grain Inspected and Weighed for Export."](#)
16. Number of containers and complete description of kind of containers (the descriptive terms should be those used in the announcements and specifications). Record checkloading information, such as tally or description, of how the count was made. When submitting supervision samples, include the type of test performed and the original results obtained. Also, include any necessary laboratory instructions.
17. The gross weight of each container weighed. To determine the number of containers to weigh, refer to the checkweighing instructions in the [Weighing Handbook](#). When not recording in pounds, indicate the unit of weight used. Weights should be entered as exactly displayed on the scale used. E.G., if the scale's smallest division size is 0.1, then 110.1, not 110.10.
18. Record the total gross weight of the containers weighed by totaling the results in the columns following block 17.
19. The weight of the empty outer containers weighed. For the number of containers to weigh, refer to the checkweighing instructions in the [Weighing Handbook, Checkweighing, "Tare Weight."](#) Place a "1" here if the tare is not known and using a tare value from Table, "Special Tare Weights" of the Weighing Handbook in block 20.
20. The total weight of the empty outer containers weighed by totaling the results in block 19 above (The tare containers are weighed together in one weighing). Outer containers weighed individually must be handwritten by on the back of the form and the total of all entered in block 20.
21. The weight of empty inner containers weighed, if present. For the number of containers to weigh, refer to the checkweighing instructions in the [Weighing Handbook, Checkweighing, "Tare Weight."](#) When not recording in pounds, indicate the unit of weight used (The tare containers are weighed together in one weighing). Inner containers weighed individually must be handwritten by on the back of the form and the total of all entered in block 22.
22. The total weight of the empty inner containers selected, if present from block 21.
23. Record the average gross weight of the filled containers, by dividing the results in block 18 by the number of containers weighed. This field is automatically calculated if completed electronically.

24. Record the average tare weight of the empty containers. This field is automatically calculated if completed electronically. If the empty containers are not available for determining tare weight and the lot was previously checkweighed (e.g., at origin), use the previously determined tare weight. If it is not known whether the tare was previously determined use [Weighing Handbook, Checkweighing, Tare Weight, Table, "Special Tare Weights."](#)
25. Record the average net weight of containers by subtracting the result in block 24 from that in block 23. This field is automatically calculated if completed electronically.
26. Record the estimated gross weight of the lot by multiplying the number of containers in the lot block 16 by the result in block 23. This field is automatically calculated if completed electronically.
27. Record the estimated tare weight of the lot by multiplying the number of containers in the lot block 16 by the result in block 24. This field is automatically calculated if completed electronically.
28. Record the estimated net weight of the lot by subtracting the result in block 27 from that in block 26. Some commodity instructions say to certify using the labeled or intended amount for certification if the lot complies, but for the purposes of this worksheet use the sampled calculations for block 28. This field is automatically calculated if completed electronically.
29. The name of the sampler(s).
30. Date service was performed.
31. Starting time to the nearest ¼ hour. For the automatic calculating feature to work column 33 the time must be entered in military time and with a ":" (colon) separating the hours from minutes. Shifts exceeding a calendar day 24-hour period (00:15-24:00) must be split between two entries.
32. Stopping time to the nearest ¼ hour. For the automatic calculating feature to work column 33 the time must be entered in military time and with a ":" (colon) separating the hours from minutes. Shifts exceeding a calendar day 24-hour period (00:15-24:00) must be split between two entries.
33. The total hours for each period of time recorded. If more than one lot is worked simultaneously, prepare an [FGIS-992, "Service Performed Report,"](#) for each. Record the time worked on each form; however, do not attempt to prorate and divide the time between different lots. This field is automatically calculated if completed electronically.

Place asterisks by the hours worked and under the “comments of sampler,” identify the other lots worked simultaneously. When billing, field office personnel must divide the time equally between the lots worked simultaneously or use the following method to prorate the time worked on each lot.

- a. Total the hours worked on each lot individually during a 1-day (24 hour) period.
 - b. Total the hours worked on all lots during the 1-day (24 hour) period.
 - c. Divide the hours worked on each individual lot by the total hours worked on all lots.
 - d. Multiply this amount by the actual clock hours worked for the day (24 hours) and round to the nearest $\frac{1}{4}$ hour.
34. The type of service performed (abbreviations are acceptable, i.e., S-sampling, C-condition, CW-checkweighing, CC-checkcount, SB-stand by).
 35. The total hours worked. This field is automatically calculated if completed electronically.
 36. Special services, unusual conditions, events, or observations concerning the lot. When necessary, give an explanation of the time recorded when other lots are worked simultaneously or condition of the carrier when found to be unfit to maintain the quality of the product.
 37. Name(s) of person(s) performing services.
- b. Action by person(s) in the field office confirming information. Complete items 38 through 41.
 38. Date sample was mailed.
 39. Date the field office received the results from the testing laboratory.
 40. Date the results were called to the vendor.
 41. The date the certificate was mailed.

2.18 CONTACT INFORMATION

Contact the field office responsible for the geographic area in which the service will be provided. Details for these locations can be found on the [FGIS Website](#). The completed form should also be mailed to this location.

**CHAPTER 3:
COMMODITY PROCUREMENT INSPECTIONS**

CONTENTS

3.1	GENERAL INFORMATION	3-1
3.2	DEFINITIONS	3-1
3.3	RESPONSIBILITIES	3-2
3.4	LOT CODING/IDENTIFICATION.....	3-2
3.5	CHECKLOADING	3-4
3.6	NET WEIGHT AND UNDER-FILL LIMITS	3-5
3.7	SAMPLING PRODUCTS WITH BACTERIOLOGICAL REQUIREMENTS.....	3-7
3.8	SAMPLING PRODUCTS WITH SALMONELLA REQUIREMENTS.....	3-8
3.9	TESTING SALMONELLA SAMPLES	3-10
3.10	RETEST INSPECTION SERVICE FOR SALMONELLA POSITIVE LOTS.....	3-12
3.11	HEAT-TREATED SALMONELLA POSITIVE LOTS.....	3-12
3.12	SALMONELLA PLANT SANITATION INSPECTIONS.....	3-13

3.1 GENERAL INFORMATION

[USDA's Agricultural Marketing Service \(AMS\)](#) purchases a variety of domestically produced and processed commodity food products, through a competitive process among approved vendors. These purchases made by the [AMS Commodity Procurement Program \(CP\)](#) support American agriculture by encouraging the consumption of domestic foods.

The [International Commodity Procurement Division](#), of the AMS Commodity Procurement Program, purchases and delivers US-produced food aid commodities to foreign countries, assisting vulnerable populations around the world.

AMS-CP manages the [Web-Based Supply Chain Management \(WBSCM\)](#), the fully integrated, web-based ordering and procurement system used for the purchase of USDA Foods. AMS issues solicitations on an ongoing basis for over 200 different USDA Foods. These solicitations include or reference all requirements contractors must meet. Approved USDA Vendors are invited to submit offers via WBSCM.

USDA Foods must meet high standards for quality, wholesomeness, and be produced and processed according to detailed [Product Specifications and Requirements](#). Services performed by USDA personnel are coded per [Directive 9180.74, "Service Fees and Billing Codes."](#)

3.2 DEFINITIONS

End Item. The finished product after packing and packaging.

Nonfood Components. Items used in packaging, packing, and marking, such as ink, glue, fiberboard boxes, bags, wire strapping, plywood, etc.

Packaging. The container (primary) that is used to protect, preserve, or maintain the quality of the commodity.

Packing. A shipping container (secondary) used to enclose one or more "primary" containers.

Solicitation to Purchase. A document that references the various Federal and military specifications, CID's, clauses, articles, and forms that apply to a particular contract. It also cites the specific packaging, packing, and marking requirements for each item listed in the contract.

Unit Load. A palletized group of shipping containers, including the pallet and any materials used to affix the shipping containers to the pallet.

3.3 RESPONSIBILITIES

a. Contractor Responsibilities.

- (1) Notify the appropriate FGIS field office in sufficient time prior to production and shipment to allow arrangements to be made for a sanitation and product inspection.
- (2) Furnish the inspector with all requested specifications, CID's, amendments, military standards, and copies of the contract and solicitation needed to perform the inspection.
- (3) Mark the lot with a code so the lot can be identified at a future date.
- (4) Make the lots of components and/or end items available and accessible for sampling.
- (5) Provide equipment necessary to perform the inspection.

b. FGIS Responsibilities.

- (1) Study contract provisions and prepare inspection checklists to include all inspection requirements to be used by official personnel to perform the inspection.
- (2) Discuss contract provisions and components, end item, and sanitation inspection procedures with the contractor prior to start of production.
- (3) Inspect the product for compliance with the other provisions of the contract. When required, obtain samples of nonfood and food components and end items. Obtain samples independently of the contractor to preserve the random selection process.
- (4) Complete all required worksheets on unit loads and condition of container inspections and others associated with the inspection and [FGIS-992, "Service Performed Report."](#)

3.4 LOT CODING/IDENTIFICATION

- a. CP export purchase announcements require that the contractor place a unique lot code/id for every lot offered for inspection on the following export containers:

50-kilogram capacity textile (polyweave) bags
25-kilogram capacity multiwall paper bags
208-liter capacity drums
20-liter capacity pails
4-liter capacity cans
Shipping containers for 4-liter capacity cans

- b. CP domestic purchase announcements require that the contractor place a unique lot code/id for every lot offered for inspection on all primary and secondary containers except plastic for bailers.
- c. The contractor may use any type of codes/ids desired and may place the codes/ids anywhere on the outside of the containers. Specific codes/ids can only be used one time for each contract. Lots that are not uniquely marked will be treated as any other lot with marking deficiencies and rejected.
- d. When a new original inspection is performed on a rejected lot that was previously inspected and coded/id, the contractor may offer the lot for inspection without revising the lot code/id.
- e. If the contractor elects to rework a rejected lot, they may:
 - (1) Completely reprocess the lot by emptying the containers, reprocessing the commodity, and repacking the lot. In this situation, the contractor must place a different lot code/id on the containers from the original code/id.
 - (2) Remove a portion of the lot that they suspect is inferior and causing the lot to fail to meet specifications. In this instance, the contractor has an option. They may obliterate the original lot code/id and place a new lot code/id on all the bags now offered for inspection; or they may keep the original lot code/id on the bags that remain in the lot and obliterate the lot code/id on the bags that are removed from the lot and allow official personnel to verify that the codes/ids are obliterated.

For Example: Contractor elects to rework a lot coded/id as lot 203 containing 5,000 containers by removing 1,000 containers suspected of causing the lot to fail and replacing them with 1,000 new containers.

- (a) Option 1; Contractor recodes/ids the 4,000 good containers as lot 204 and codes/ids the 1,000 replacement containers as lot 204.
- (b) Option 2; Contractor leaves lot code/id 203 on the 4,000 good containers, places lot code/id 203 on the 1,000 new containers added to the lot, obliterates the lot code/id 203 on the 1,000 bags that are removed from the lot, and FGIS verifies that the code/id is obliterated from the 1,000 bags removed from the lot.
- (3) Remove a suspected portion of containers from the lot and re-offer the lot for inspection as a smaller lot. In this instance, if the contractor elects not to remark the bags left in the lot, they must obliterate the lot code/id on the portion of the lot removed; and FGIS must verify that the containers removed do not have the same lot code/id as those that remain in the lot.

- f. Review lot codes with other markings during the condition of food container examination and whenever else possible.
- g. Record the contractors lot code/id on the [FGIS-992, "Service Performed Report"](#) and FGIS-993, "Commodity Inspection Certificate."
- h. If the lot fails to meet the lot coding/id requirements, consider the lot noncompliance and failing the condition of food container standards and place a statement in the "Remarks" section of the certificate according to the [Certification Handbook, General Information, Container/Package Markings Information, "Contract Specification Markings."](#)

3.5 CHECKLOADING

- a. Domestic shipments. Domestic shipments do not require checkloading. However, applicants may request checkloading in accordance with [Directive 9180.50, "Checkcounting, Observation of Loading, and Checkloading Services."](#)
- b. Export shipments. The purchase announcement will indicate when checkloading is required for export shipments. Applicants may request and receive checkloading service when it is not required by the purchase announcement. CP purchase announcements require that export railcars meet the following rules found in the [Association of American Railroads \(AAR\) Standards, "Minimum Loading Standards for Prepared Food and Similarly Packaged Products in Closed Cars."](#)
 - (1) When checkloading export railcars or if onsite performing other duties while railcars are being loaded even though checkloading is not being performed, confirm that the AAR requirements are met by examining the car to ensure that:
 - (a) The car is clean and free of objects that could damage the product (i.e., basic stowage exam) and,
 - (b) Adequate door and wall protection is in place for the door opposite the loading door.
 - (2) Then, once loading is completed, examine the railcar to ensure that:
 - (a) Adequate door protection is in place for the loading door and,
 - (b) The cargo is not loaded above the fiberboard and/or paper lining.
 - (3) Place any appropriate statements on the certificate according to [Directive 9180.50, "Checkcounting, Observation of Loading, and Checkloading Services."](#)

3.6 NET WEIGHT AND UNDER-FILL LIMITS

CP announcements may include average, under-fill, or no net weight requirements. Review announcements to determine the applicable requirement.

- a. If the announcement has no net weight requirement, proceed as follows:
 - (1) Compare the average net weight of the containers obtained by checkweighing with the marked net weight on the container or specified in the announcement.
 - (2) If the average net weight of the containers meets or exceeds the marked or specified net weight, multiply the number of containers in the lot by the marked net weight and place this quantity on the certificate.
 - (3) If the average net weight of the containers is less than the marked or specified net weight, multiply the number of containers in the lot by the average net weight obtained by checkweighing and place this quantity on the certificate. Certify the lot as complying with the contract and place a statement in the "Remarks" section of the certificate indicating that the lot does not meet average net weight according to approved statements in the [Certification Handbook, Processed Commodity Certificates, "Statements and Descriptions."](#)

- b. If the announcement has an average net weight requirement, the average net weight of the lot must be 98 percent or more of the marked or specified net weight. If the announcement contains an average net weight requirement, proceed as follows:
 - (1) Determine if the average net weight of the containers obtained by checkweighing is less than 98 percent of the marked or specified net weight.
 - (2) If the average net weight of the containers meets or exceeds the marked or specified net weight, multiply the number of containers in the lot by the marked or specified net weight and place this quantity on the certificate.
 - (3) If the average net weight of the containers is less than the marked or specified net weight but not less than 98 percent of the marked net weight, multiply the number of containers in the lot by the average net weight obtained by checkweighing and place the quantity on the certificate. Certify the lot as complying with the contract and place a statement in the "Remarks" section of the certificate indicating that the lot does not meet average net weight according to approved statements in the [Certification Handbook, Processed Commodity Certificates, "Statements and Descriptions."](#)

- (4) If the average net weight of the containers is less than 98 percent of the marked or specified net weight, multiply the number of containers in the lot by the average net weight obtained by checkweighing and place this quantity on the certificate. Certify the lot as not complying with the contract and place a statement in the “Remarks” section of the certificate that the lot does not meet average net weight according to approved statements in the [Certification Handbook, Processed Commodity Certificates, “Statements and Descriptions.”](#)
- c. If the announcement has an under-fill requirement for individual containers, proceed as follows:
- (1) Determine the net weight of each individual container weighed by subtracting the established tare weight from the gross weight and further determine if the net weight is less than the under-fill limit.
 - (2) If all containers weighed are equal to or greater than the under-fill limit, calculate the weight of the lot and certify in accordance with a. above as if no net weight requirement exists.
 - (3) If one or more of the individual containers weighed is less than the under-fill limit, certify the lot as not complying with the contract and place a statement in the “Remarks” section of the certificate that the lot fails due to under-filled containers according to approved statements in the [Certification Handbook, Processed Commodity Certificates, “Statements and Descriptions.”](#)
- d. If the checkweighing results and marked net weights or specified under-fill limits have a different number of decimal places, round the number with the most decimal places to equal the number with the least decimal places.
- For example:** If checkweighing results indicate the net weight of a 4-liter vegetable oil can is 7.84 pounds and the under-fill limit is 7.9 pounds, round the checkweighing result to 7.8 pounds and consider the lot failing the under-fill requirement.
- e. If the applicant is dissatisfied with checkweighing results they may:
- (1) Request an appeal inspection on the checkweighing service only.
 - (2) Rework the lot and offer the lot for a new original inspection. If the applicant removes or adds products from the lot, the identity of the lot will be considered changed, and the lot must be re-sampled for quality factors; or
 - (3) Request acceptance of the lot by CP. Regardless as to whether CP elects to accept or reject the lot, certify the lot as not complying with the contract.

3.7 SAMPLING PRODUCTS WITH BACTERIOLOGICAL REQUIREMENTS

a. General.

Some products purchased by CP must meet specific bacteriological requirements, such as bacteria count, E. coli, Salmonella, and Staphylococcus aureus.

b. Sampling Devices.

- (1) Use only stainless steel ladles and triers of the size specified in [Chapter 2, Sampling](#).
- (2) Clean and sterilize ladles, triers (inside and outside of inner and outer tubes), and spoons and maintain their cleanliness and sterility as follows:
 - (a) Before sampling each lot, clean by wiping with clean, dry paper toweling or, when necessary, by washing with soapy water, rinsing with clean water, and wiping dry with clean, dry paper toweling.
 - (b) Sterilize immediately after cleaning by immersing in a 70 percent denatured ethyl alcohol solution or wiping with a clean cloth saturated with this solution and shaking dry. The alcohol solution must remain in contact with the surfaces of these materials for at least 1 ½ minutes.
 - (c) Place in new, clear polyethylene bags immediately after sterilizing and keep them there when not in use.
- (3) To prevent cross-contamination, ensure sterilized equipment. If any of the equipment becomes contaminated while sampling a lot, immediately clean and sterilize it or obtain and use clean and sterile equipment.

Examples of equipment contamination are: (1) the ladle falls on the floor, or (2) it is time to obtain a sample portion and you did not return the ladle to the container (bag) immediately after taking the previous sample portion.

c. Sample Containers.

- (1) When sampling products with bacteriological requirements, clean sample pails and lids according to the instructions in (b) above.
- (2) Place the sample in clean plastic bags.
- (3) To prevent external contamination, keep the sample bags (composite and subsample) closed, except when adding or transferring samples.

3.8 SAMPLING PRODUCTS WITH SALMONELLA REQUIREMENTS

a. General.

- (1) Some CP purchase announcements require that products be tested for Salmonella.
- (2) For products requiring Salmonella testing, obtain a separate set of samples from selected lots and analyze them for Salmonella. FGIS considers Salmonella a deleterious substance. Salmonella positive lots must be reported to FDA.

b. Sampling Devices.

- (1) Obtain Salmonella samples with individually wrapped sterile, and disposable plastic tablespoons or sterilized stainless-steel tablespoons.
- (2) When obtaining Salmonella samples with stainless steel tablespoons, wash and sterilize the spoons before sampling and maintain the spoons in a sterile condition as follows:
 - (a) Wash spoons with soapy water, rinse with clear water, and wipe dry with paper toweling.
 - (b) Wrap individual spoons completely with aluminum foil and heat the wrapped spoons for 1 hour in an oven with a temperature of at least 350 degrees Fahrenheit (177 Celsius).

Caution: Burn Hazard.

- (c) Place the wrapped, sterile spoons in a new, polyethylene bag.
- (d) Close the bag completely and fasten with a clip, band, or similar device immediately after inserting spoons or retrieving a spoon.

c. Sample Containers.

Empty Salmonella samples into sterile polyethylene “whirl-pak” or equivalent sampling bags (4½ in x 9 in, 18 oz or 11.3 cm x 22.5 cm, 504 g).

- (1) The bags may have a write-on area for identification.
- (2) When using bags without write-on areas, place the information on the bags with a permanent marker or on “stick-on” labels attached to the bags.

d. Obtaining Samples.

- (1) Obtain samples from two lots, for each contract, at each plant.
- (2) Select the lots using random sampling techniques.

- (3) As soon as practicable after sampling begins, inform the applicant that the lot is being sampled for Salmonella analysis.
- (4) Obtain samples from a lot as follows:
- (a) Select eight containers.
 - (b) Collect 24 samples aseptically (under sterile conditions) from the 8 containers; 3 samples from each container. Each sample must weigh approximately 250 grams.
 - (c) When obtaining a sample portion for the composite sample and a Salmonella sample from the same container, take the Salmonella sample first.
 - (d) When obtaining samples from containers before closure, obtain the samples after the containers pass the “dribbler,” if there is one, and immediately after they are full.
 - (e) Obtain a sample from a closed container as follows:
 - 1 Lay the container flat.
 - 2 Sterilize a cutting blade by dipping it in a 70 percent denatured ethyl alcohol solution and allowing it to air dry before each use. The solution must remain in contact with the blade for at least 1 ½ minutes. Prepare the solution outside of the plant or warehouse or in the plant’s laboratory.
 - 3 Open a hole in a corner with the sterile blade and carefully fold back the cut portion. Make the hole just large enough to obtain the sample.
 - 4 Use a separate spoon for each container.
 - 5 Spoon the commodity into an 18-ounce sterile “whirl-pak” or equivalent sample bag as quickly as possible.
 - 6 Close the bag completely immediately after obtaining the sample. Make sure that the spoon’s bowl touches only the product and the inside of the bag.
 - 7 Record the contract number, plant location (city and State), date sampled, applicable sample number (1A, 1B, and 1C if from the first container; 2A, 2B, and 2C if from the second container; . . . 8A, 8B, and 8C if from the eighth container), and the phrase “Salmonella Sample” on the “whirl-pak” bag.

- (b) When the lot is at any other location, obtain only 2 samples per container (12 “A” samples for TSD and 12 “B” samples that you must keep secure for reserve samples).
- (2) TSD will make 3 composite samples out of the 12 “A” samples (4 randomly selected “A” samples; 100 grams from each, yields one 400-gram sample) and analyze them for Salmonella.
 - (a) If the three samples are Salmonella negative, notify the applicant that the original Salmonella positive result is an incidental occurrence, and the lot is Salmonella negative.
 - (b) If any sample is Salmonella positive, notify the applicant that the analysis confirms the original Salmonella positive test result and the lot, therefore, contains Salmonella.
- (3) Confirmation testing is a part of the original inspection. Therefore, do not issue the original inspection certificate until the applicant declines confirmation testing or you receive confirmation test results from TSD.
- d. When both samples are Salmonella positive, the field office must notify the applicant that the lot contains Salmonella. If the applicant requests confirmation testing, inform them that FGIS does not provide this service when both samples are Salmonella positive.
- e. When any sample is Salmonella positive, obtain Salmonella samples from every lot.
 - (1) Start with the lot that the applicant is producing at the time you receive the Salmonella positive test result or, if the Applicant is not producing one, with the next lot.
 - (2) Continue obtaining Salmonella samples from every lot until:
 - (a) The original Salmonella positive test result is considered an incidental occurrence.
 - (b) All file samples, upon retesting, are Salmonella negative; or
 - (c) The applicant has a record of at least six consecutive Salmonella negative lots, whichever comes first.
- f. TSD will complete all tests in progress on the day that (whichever comes first):
 - (1) It finds the sixth sample Salmonella negative.
 - (2) It confirms that the Salmonella positive sample is an incidental occurrence; or
 - (3) A retest inspection shows that the lot is Salmonella negative.

TSD will discard all Salmonella samples that arrive at the laboratory after that date, if official personnel obtained them because a Salmonella test result was positive. The field office must stay in close contact with TSD to determine which samples TSD analyzed and is analyzing. Bill the applicant for all completed Salmonella analyses.

3.10 RETEST INSPECTION SERVICE FOR SALMONELLA POSITIVE LOTS

When a lot is Salmonella positive, applicants may request a retest inspection.

- a. If an applicant requests, and the field office approves, a retest inspection, TSD will test each file sample for Salmonella (two file samples when one of the two original samples was Salmonella positive and the applicant did not request confirmation testing; two file samples when two original samples were Salmonella positive; five file samples when one of the two original samples was Salmonella positive, the applicant requested confirmation testing, and any of the three confirmation samples were Salmonella positive).
- b. If TSD determines that one file sample is Salmonella positive, the lot is Salmonella positive.
- c. No appeal inspection may be obtained.

3.11 HEAT-TREATED SALMONELLA POSITIVE LOTS

- a. CP's announcements specify that contractors may treat Salmonella positive lots with heat; and CP will accept Salmonella positive lots that, after heat treatment, meet all announcement quality specifications, including Salmonella negative.
- b. After you receive a request from an applicant to inspect a heat-treated Salmonella positive lot, obtain sample portions and Salmonella samples as follows:
 - (1) Sample Portions. Obtain and composite sample portions and distribute subsamples according to [Chapter 2, Sampling](#), except that the sample size is 36 containers. TSD will analyze the sample for all announcement quality factors, except Salmonella.
 - (2) Salmonella Samples. Obtain and distribute Salmonella samples according to the normal procedures, except that you must obtain 36 samples from 12 containers (3 from each container).
 - (a) TSD will make 3 composite samples out of the 12 "A" samples (4 randomly selected "A" samples; 100 grams from each yields one 400-gram sample) and analyze each for Salmonella.
 - (b) If any sample is Salmonella positive, the lot is Salmonella positive; otherwise, the lot is Salmonella negative. There is no confirmation testing.

3.12 SALMONELLA PLANT SANITATION INSPECTIONS

- a. Applicants must produce products that require Salmonella testing in Salmonella-free plants. Perform sanitation inspections according to the [Sanitation and Food Defense Handbook](#) for Beans, Peas, Lentils, and Processed Commodities, except that:
 - (1) Frequency will be quarterly, unless conditions are such that more frequent inspections are necessary; and
 - (2) Environmental material samples must be obtained during or after completing each inspection and send them to TSD for Salmonella analyses.
- b. Environmental Material Sampling.
 - (1) Draw samples from locations in the facilities that may harbor organisms, such as:
 - (a) Scrapings from spout and bin buildup.
 - (b) Spilled residue, including material mixed with oil and grease, on or around plant machinery.
 - (c) Residue from plant ventilation filters.
 - (d) Floor sweepings.
 - (e) Material from uncovered bins and areas where dust and debris accumulate.
 - (f) Material from areas where contact with the product is or could be made by humans or other sources of contamination.
 - (2) Take samples from three locations immediately after or during each inspection on a rotation basis.
 - (a) Obtain one sample (about 250 grams) per location. Take samples aseptically (free from contamination caused by harmful bacteria, viruses, or other microorganisms).
 - (b) Record date, plant name and location, and sample number (1, 2, 3) on bagged samples and place the samples in a new, clear polyethylene bag.
 - (c) Complete a [FGIS-992, "Service Performed Report,"](#) describing in the "Number and Kind of Containers" block, opposite each sample number, the location where you obtained the sample.
 - (d) Mail the three samples, along with the laboratory copy of the FGIS-992, to TSD.

c. Reporting Results and Corrective Actions.

- (1) TSD will report the findings to the field office. The field office will notify the applicant verbally and then confirm the notification in writing.
- (2) If a positive test indicates possible product contamination:
 - (a) Inform the applicant that plant personnel must clean up the plant and equipment as soon as possible but, in any case, within 7 days.
 - (b) Re-sample (problem location(s) plus additional location(s)) to obtain three samples after cleanup is completed.
 - (c) Obtain Salmonella samples from three consecutive lots. Start with the lot that the plant is producing at the time you receive the positive test result or, if it is not producing one, with the next lot, record the statement "Sampling because of an environmental material Salmonella positive sample" in the FGIS-992 "Number and Kind of Containers" block.

Note: An example of possible product contamination is as follows: Air passes through a type of filter (non-absolute) that cannot remove 99.9 percent .2, micron or larger particles and comes in contact with the product. A sample taken from the filter tests Salmonella positive.

- (3) If a positive test does not indicate possible product contamination:
 - (a) Inform the applicant that plant personnel must clean up the plant as soon as possible but, in any case, within 7 days.
 - (b) Re-sample (problem location(s) plus additional location(s)) to give three samples after the plant completes the cleanup. For the amount, identification, and description of sample(s) and the completion of the FGIS-992, refer to Environmental Material Sampling above.

Note: Contact the Office of the Director, Field Management Division, if there is any question about the likelihood of product contamination.

**CHAPTER 4:
REVISION HISTORY**

CONTENTS

CHANGE NO: 7	OCTOBER 1, 2022	4-1
CHANGE NO: 6	MARCH 28, 1997	4-1
CHANGE NO: 5	JULY 5, 1996	4-2
CHANGE NO: 4	MARCH 1996.....	4-2
CHANGE NO: 2	JANUARY 1995	4-2
CHANGE NO: 1	AUGUST 1, 1994	4-2

CHANGE NO: 7 OCTOBER 1, 2022

The handbook was revised to include updates such as the change of Defense Personnel Support Center (DPSC) to the Defense Logistics Agency (DLA) Troop Support and to consolidate DLA and VA chapter into the Commodity Procurement chapter since all processed commodities are now solicited by the Commodity Procurement Program and are no longer required to be inspected by FGIS unless requested or required by contract.

The following FGIS Directives were incorporated and/or referenced in this update:

- Directive 4735.2, “Uniform and Identity Apparel and Dress Code Policy.”
- Directive 9060.2, “Implementation of the FGIS-FDA Memorandum of Understanding.”
- Directive 9070.6, “Reporting Violations of the U.S. Grain Standards Act, and The Agricultural Marketing Act of 1946.”
- Directive 9170.13, “Uniform File Sample Retention System.”
- Directive 9170.14, “FGIS Rolling Stock Fall Protection.”
- Directive 9170.15, “Review Inspection of Grains and Commodities.”

The following Policy Bulletins were incorporated and/or referenced in this update:

- Policy Bulletin, Reference #252, “Probe Sampling AMA Commodities.”

Additionally, the Certification chapter was removed to be implemented into its own handbook. Acronyms and organizational details were updated to reflect accurate administrative structure and associated program information (i.e., reference to the Grain Inspection Packers and Stockyards Administration (GIPSA) was replaced by the Federal Grain Inspection Service (FGIS)).

CHANGE NO: 6 MARCH 28, 1997

The handbook was revised to correct a block label on Forms FGIS 993 and 994 used as examples in Attachments 1 and 2. The labels were revised to reflect what is printed on the actual certificates (“Date of Service” to Date of Issuance”). The instructions for the completion of the certificates were revised to read “Enter the date the certificate is issued or the date the service was completed.

CHANGE NO: 5 JULY 5, 1996

The handbook was revised to incorporate August 1, 1994, through December 31, 1995 policy and procedural changes previously provided in memo and program bulletin form. Chapter 2 was revised to allow mixing of the composite sample with a ladle. Chapter 6 was revised to eliminate the use of the quality compliance and noncompliance statements for Farm Service Agency (FSA) purchases. The handbook was also revised to change the name of Agricultural Stabilization and Conservation Agency to Farm Service Agency.

CHANGE NO: 4 MARCH 1996

The Appendix (FSA Checklists of Assigned Responsibilities) was revised to reflect the name change from Consolidated Farm Services Agency to Farm Services Agency (FSA) and to revise FSA announcement numbers and to require vomitoxin testing for all wheat products.

CHANGE NO: 2 JANUARY 1995

The Appendix (CFSA Checklists of Assigned Responsibilities) was revised to reflect Consolidated Farm Services Agency (CFSA) (formerly ASCS) revisions to some of their export announcement numbers and effective dates, source references, and to add the “seal and peel” test where applicable.

CHANGE NO: 1 AUGUST 1, 1994

The handbook is revised to provide a more concise explanation of FGIS processed commodity inspection procedures and to reflect current government food procurement programs administered by ASCS, DPSC, and VA.