



## **RETAIL FOOD SAMPLE COLLECTION GUIDANCE**

### **Introduction and Purpose**

This guidance is intended as general aseptic sample guidance for Retail Food Safety Inspectors. There are multiple types of samples and sampling procedures that are not covered in this document, such as environmental, water, and surveillance sampling. This document focuses on sampling related to epidemiologic investigations and may require the coordination, organization, and response of multiple agencies. Once sample is obtained, the inspector ships it to an approved lab for processing.

### **Recommended Trainings**

- [ComplianceWire: Food Microbiological Control 10 - Aseptic Sampling MIC13](#)
- [FDA ORA LearnED: CC8035W - Sampling](#)
- AFDO: FD170 – Application of Inspection and Investigation Techniques

### **Equipment Needed**

Keep a stock of the following sampling supplies:

- Security bags with a security strip
- Whirl-pak bags (large and small)
- Plastic bags for blue ice
- Blue ice or ice cubes
- Sterile Gloves
- Clean outer clothing, such as laboratory coat
- Sterile Scoop/Tongue Depressors/Wrapped Spoon
- Sterile plastic cups
- Security tape
- Sharpie pen
- Packaging tape/scissors
- Foam-lined cooler shipping boxes
- Applicable forms (G-22/G-23, Chain of Custody, etc.)

### **Sampling Process Steps:**

1. Determine which product to sample and schedule the sample with the receiving lab.
2. Notify establishment management.
3. Collect the sample.
4. Document the sample.
5. Pack and ship the sample and form.
6. Respond to the results.



## Before Leaving for the Investigation:

1. Go over the objectives of the assignment. Determine potential types of samples to be collected.
2. Plan to collect controls like gloves or bags, in order to ensure equipment is not contaminated.
3. Arrange for the submission of samples with laboratories. Confirm with laboratory prior to collection of any sample. If utilizing an approved Texas DSHS laboratory, then sample must be collected by a Registered Sanitarian (R.S). See laboratory guidance below for more information.
4. Check expiration dates on all sampling materials to make sure they are not expired.
5. Print out adequate Chain of Custody, laboratory submission, and other required forms. TX DSHS lab forms can be found [HERE](#).
6. Schedule sample collection with Person-In-Charge (PIC) of Retail Food Establishment. (Unless imminent health hazard or unannounced need exists)

## Laboratory Guidance

Food samples shall never be obtained prior to lab approval. Different labs have different protocols and requirements. It is important to obtain lab approval and understand the lab's specific requirements prior to heading into the field for a sample collection. Texas DSHS labs require the sample collection to be completed by a Registered Sanitarian (R.S.), while other accepted labs may not require an R.S. for sample collection. If sample collection is not possible due to these requirements or other barriers, contact Texas DSHS for sample collection coordination. Depending on the nature or state of the outbreak, FDA labs or other approved labs may be utilized. For more information about Texas DSHS laboratory services, see [HERE](#).

## Aseptic Sampling

Aseptic sampling is a technique used to ensure the person collecting the sample is not increasing the microbial load of a product sample by using sterile sampling implements/containers and a prescribed sampling method. Inspectors use proper hygiene and wear protective gear such as hairnet, beard restraint, clean clothing/lab coat, sterile single-use gloves, and any required protective gear provided by the firm (e.g. hard hat, sleeve-guards, face mask), and proper handwashing during the sample collection process. When obtaining food samples, it is recommended to utilize teams of 2 or more. See video [HERE](#) for aseptic sampling sample collection techniques.



### **Basic Aseptic Sampling Techniques:**

- Use only sterile equipment and containers.
- When opening sterile sampling containers, work rapidly so that contaminants from the environment do not compromise the sample or equipment. Open sterile sampling containers only to admit the sample and close the container immediately. Do not touch the inside or opening of the sterile container.
- If it is necessary to open product containers to collect a sample, open the container in a way that does not contaminate the product. Be sure to wash hands and wear sterile gloves to collect the sample aseptically.
- Take steps to minimize exposure of product and sampling equipment to the environment. Dust in the air surrounding the container can carry pathogenic bacteria.
- Use a fresh sterile glove for each sample submitted under a new number. See video [HERE](#) on donning and doffing gloves.

### **Sample Collection Procedures:**

1. Utilize aseptic sampling techniques, when applicable.
2. Wash hands thoroughly to mid forearm for at least 20 seconds and dry with paper towel.
3. Use properly fitting sterile gloves and be mindful not to cross-contaminate samples. Remove disposable glove from packaging, avoiding contact with the outer surface of the glove as much as possible. Insert hands without puncturing the glove.
4. Open the "whirl-pack" or other sterile container with your gloves on.
5. Using a sterile instrument such as a wrapped spoon or tongue depressor, fill the container with amount of product requested by lab during pre-investigation steps. Collect the sample from multiple locations and depths of the product in order to ensure it is a representative sample.
6. Close the sample without touching the interior of the container and seal. Use seal tape to seal food container or Whirl-Pak bag. Be mindful to not cover any pertinent or important information on containers with seal tape.
7. Place sealed sample into security bag. Seal security strip.
8. Label each container and security bag with identifying information such as: type of food, date and time collected, establishment name, sample



- number, and initials/signature of the person taking the sample. You can also give it your own unique ID# such as LHD-FiLi-1 (Local Health Department name - First Initial Last Initial - Sample Number 1).
9. Place samples in insulated carrier with ice packs to transport and refrigerate as soon as possible. If using wet ice, then double bag to ensure prevention of melted ice contaminating sample.
  10. Provide PIC of Retail Food Establishment with a copy of the documentation for the receipt of samples (Receipt of Samples Form, Inspection Form Documentation, etc.).
  11. Transport the samples to the pre-approved lab within 24 hours. Longer time frames may be acceptable if sample integrity is maintained, and the receiving lab approves the longer duration.
  12. Maintain a chain of custody for each food sample taken at all times.
  13. Reports and chain of custody forms must be maintained in the facility's file when the investigation is completed.
  14. Complete any laboratory required documentation, such as G-22/G-23.

## **Shipping Recommendations**

Before sample collection, review the shipping requirements and determine which shipping location is going to be used. Contact the laboratory manager if a sample must be shipped in a manner not addressed in the courier's shipping requirements. Ensure samples are properly packed to prevent breakage, spillage, and/or possible contamination of samples. Each food sample must be put in its own security bag.

### **Shipping Temperatures**

#### **Refrigerated Samples:**

- Use a type of refrigerant, or similar product, to maintain refrigerated temperatures.
- Place refrigerants in sealed plastic bags to protect samples from possible contamination should the container break, the ice melt, or the refrigerant penetrate the sample. Use Styrofoam insulated shipping cartons for shipping samples to the laboratory.
- All micro samples, including environmental swabbing, must be refrigerated regardless of storage conditions at the firm.

#### **Frozen Samples:**

- Pre-chill sterile containers before collecting frozen samples.
- Transfer liquids in glass to expandable containers before freezing. If the liquid will be frozen in glass, leave sufficient headspace to allow expansion.



- If freezer facilities are not available or if the sample is to be shipped, pack with ice, or ice substitute, in insulated cartons.
- Do not use dry ice unless advised to do so by lab. Most microbiology labs will not accept any samples sent with dry ice. All samples must be packed with ice substitute or wet ice only.

**Insect Samples:**

- Samples with live insects shall be frozen.

**Appendix – Required and Recommended Sample Forms**



Sample Collection Chain of Custody DEPARTMENT OF STATE HEALTH SERVICES P.O. Box 149347 Austin, Texas 78714-9347

Firm Name: \_\_\_\_\_

Sample Number: \_\_\_\_\_

Firm Address: \_\_\_\_\_

Security Number: \_\_\_\_\_

Sample Description: \_\_\_\_\_

Date Sample Collected: \_\_\_\_\_

Sample Collection Start Time: \_\_\_\_\_

Sample Collection End Time: \_\_\_\_\_

Investigator Name: \_\_\_\_\_

Initial Delivery or Storage Location: \_\_\_\_\_

Date: \_\_\_\_\_

Time: \_\_\_\_\_

Table with 6 columns: Transfer Date and Time, Released By, Initials, Received By, Initials, Reason for Change of Custody

Table with 6 columns: Transfer Date and Time, Released By, Initials, Received By, Initials, Reason for Change of Custody

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Division

Form No. G-22-(Food) Laboratory Services Section Main Lab Number: 512-458-7318 or 888-963-7111

<input type="text"/>	Date and Time of Collection	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Foods Sample Number(s)		Month	Day	Year	Hour	Minute	AM/PM

Inspection is:  CONTRACT  Other: Sample type:  Surveillance  Compliance

Firm Name:	Inspection #:
Firm Address:	Reference #: (PSQA enters)
Firm City, Zip:	Collected by Name:
Number of Samples:	Area:
<b>COMPLETE ONLY IF NEW FIRM:</b>	Phone number:
<input type="checkbox"/> Sole Proprietor <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation <input type="checkbox"/> 501 (c)(3) Tax Exempt	Corp officer/ owner's name:
Firm owned by:	Check one:
<input type="checkbox"/> Bacterial <input type="checkbox"/> Chemical <input type="checkbox"/> Physical <input type="checkbox"/> Filth <input type="checkbox"/> Other:	<input type="checkbox"/> 2401 Food Manufacturer <input type="checkbox"/> 2404 Registrant <input type="checkbox"/> 2402 Food Warehouse Operator <input type="checkbox"/> 2405 Salvage <input type="checkbox"/> 2403 Food Wholesaler <input type="checkbox"/> 2504 Multiple Products

Brief product description:

Sample Number (Sub)	Test Desired	Complete Description (Manufacturer, address, product name, weight, packaging, physical form, etc.)	Lab Identification Number	Test Results

Email results to: DL DSHS Foods Management Group ([DLDSHSFoodsManagementGroup@dshs.state.tx.us](mailto:DLDSHSFoodsManagementGroup@dshs.state.tx.us)) with "Final or Presumptive" plus the Foods Group "Sample Number" in the subject line of the e-mail.

Microsoft Word document content



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Table with 5 columns and 8 rows, currently empty.

Email results to: DL DSHS Foods Management Group (DLDSHSFoodsManagementGroup@dshs.state.tx.us) with "Final or Presumptive" plus the Foods Group "Sample Number" in the subject line of the e-mail.





**TEXAS**  
Health and Human  
Services

Texas Department of State  
Health Services

**G-23-Food Sample Specimen  
Submission Form (JAN 2022)**

CAP# 3024401 CLIA# 45D0660644

www.dshs.texas.gov/lab

**\*\*\*For DSHS Use Only\*\*\***

Specimen Acquisition: (512) 776-7598

**\*\*ONE FORM PER SPECIMEN REQUIRED\*\***

**Section 1. SAMPLE INFORMATION –(\*\*REQUIRED)**

Reason for Testing

Routine

Food Borne Outbreak

(If this box is checked, please complete Section 4 of this form)

Sample Description:

**Section 3. PAYOR SOURCE -- (REQUIRED)**

IDEAS

**Section 4. OUTBREAK LINKED SAMPLES**

Outbreak Location: (City)

PH Region

Date of Collection \*\* (REQUIRED)

Time of Collection \*\*

AM\*\*

PM\*\*

Collected By \*\*

Brand:

Facility/ Submitter Name

Code:

Sample Number:

Submitter Number:

Product:

Contact Phone #

Contact Fax #

Seal:

**Section 2. TESTING INFORMATION**

**\*\*\*\*\* EACH TEST REQUIRES ≥ 4 oz SAMPLE-REPEAT, EACH TEST\*\*\*\*\***

Please Indicate Desired Testing

Food Analysis: Campylobacter

Food Analysis: Listeria

Food Analysis: Cronobacter

Food Analysis: Salmonella

Food Analysis: Cyclospora, PCR

Food Analysis: Shigella

Food Analysis: E. coli O157

Food Analysis: Staphylococcus enterotoxin

Food Analysis: non-O157 STEC

Food Analysis: Yersinia

Food Analysis: Other \_\_\_\_\_

Size:

Condition:

Remarks:

Brief description of patient's symptoms:

Details of test and specimen requirements can be found in the Laboratory Services Section's web site at <http://www.dshs.texas.gov/lab/>.

Date Received

**FOR LABORATORY USE ONLY**

Specimen Received:  Room Temp.  Cold  Frozen



**TEXAS**  
Health and Human  
Services

Texas Department of State  
Health Services

Specimen Acquisition: (512) 776-7598

**G-22 Specimen Submission Form  
(Jan 2022)**

NELAC# T104704297

[www.dshs.texas.gov/lab](http://www.dshs.texas.gov/lab)

**\*\*\*\*For DSHS Use Only\*\*\*\***

**THE SUBMITTER WILL BE BILLED FOR ALL TESTING**

DSHS is not responsible for 3<sup>rd</sup> party payment arrangements

**Section 1. SUBMITTER/BILLING INFORMATION – (\*\* REQUIRED)**

**Section 4. REPORTING INFORMATION**

*Indicate where & how you would like the results sent*

Sample Identifier	Submitter Number	Establishment or Location	Name
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Date of Collection ** (REQUIRED)	Time of Collection **	<input type="checkbox"/> AM** <input type="checkbox"/> PM**	Collected By/Contact **	Address
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Agency / Submitter Name	City	State	Zip Code
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Address	Preferred Reporting Method <input type="checkbox"/> Mail <input type="checkbox"/> Fax <input type="checkbox"/> Email	Fax Number or email:
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City	State	Zip Code	<b>Section 5. PROGRAM INFORMATION when applicable</b>
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Laboratory Identification # / TCEQ NELAC Certificate #	Phone #	Fax #	Program Identification Number	Program Sample Identifier
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**Section 2. SAMPLE INFORMATION -- (\*\* REQUIRED)**

**Section 6. SPLIT SAMPLE FLUORIDES**

Sample Type/Description**:	System ID #:	Date Collected
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Name of Water System
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**Section 3. ENVIRONMENTAL TESTING INFORMATION**

Collected By:
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\*\*\*\*\* To Ensure Proper Collection Please Refer to Laboratory Services Section's web site at <http://www.dshs.texas.gov/lab> for Container, Sample Size, and Requirements Specific to the Test Requested \*\*\*\*\*

- Reagent Water Suitability Test
- List Other Test(s) Requested:

Phone #
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Sample Location / Comments:
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Water System Test Results Fluoride _____ mg/L	DSHS Lab Test Results(Do Not Write Below) Fluoride _____ mg/L
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**Notes / Comments**

**FOR LABORATORY USE ONLY** Specimen Received:  Room Temp.  Cold \_\_\_\_\_ °C

Date Received	Date Reported
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