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Providing Quality, Time Sensitive Microbiological Testing

IMPORTANT! Roesink Microbiology Laboratories does not accept Category A Infectious Substances (Biosafety Level 3 or 4 materials or any pathogen that causes highly contagious or otherwise serious disease).

Recommended Guidelines for Sampling Raw Ground Beef Product for *Escherichia coli* 0157:H7:

Note: Ensure all samples are properly collected, labeled, stored and transported and employ good record-keeping.

Introduction: Personal hygiene is essential anytime a sample is collected, whether it is in its final package or if multiple sub-samples are collected to form a final composite sample to represent the production lot. In order to prevent contamination of the sample or the surrounding products and area, aseptic technique must be employed at all times. For intact final packaged ground beef product, hands must be cleaned and sanitized before collecting a sample and gloves are to be worn. For collecting sub-samples, hands and lower arms are to be cleaned and sanitized. Sterile gloves are to be worn when collecting sub-samples. Historically, *Escherichia coli* 0157:H7 is not evenly distributed throughout a production lot. Samples to be analyzed for *Escherichia coli* 0157:H7 should be collected periodically throughout the production time as to give a more accurate representation of the sampled lot and detect pockets of contamination. The establishment is to define the sampled lot.

Sampling Guidelines:

- I. Samples are randomly collected once the establishment has identified the day, shift, and times for sampling.
- II. 2 lbs of sample are required by Roesink Laboratories for analysis of *Escherichia coli* 0157:H7.
- III. Samples are to be collected and shipped on the same day as production.
- IV. If the product is sampled in a non-frozen state, it should be maintained in this state (0°C - 10°C) until received by Roesink Laboratories.
- V. If the product is sampled in a frozen state, it should be maintained in a frozen state until it is received by Roesink Laboratories.
- VI. Sub-samples or intact final packaged product of raw ground beef may be submitted for analysis. Sub-samples are to be sampled periodically throughout production and consist of small portions sampled every 15-30 minutes. The final composite sample must weigh 2 lbs. Aseptic technique must be used at all times. Sterile gloves are to be worn and samples are

to be placed in a sterile whirl-pak bag. If supplies are needed, contact Roesink Laboratories. Countertops and/or caddies should be sanitized thoroughly prior to sampling. Wearing food safety gloves, open a sterile whirl-pak bag and place on a sanitized surface, upright in a sanitized caddy, or have a co-worker hold it. (Note: Make sure the co-worker has cleaned and sanitized their hands and is wearing gloves.) Using aseptic technique, remove a sterile glove from its package and place on hand. Being careful not to touch the outside of the bag or any surrounding objects, collect a sample of raw ground beef and place in the sterile whirl-pak bag. Close bag by rolling the top over multiple times and bending wire tabs inward. Collect sub-samples every 15-30 min by repeating the steps above, until a 2 lb composite sample representative of the lot has been acquired. Seal the final composite sample and place in a secondary bag (zip-lock bag) to prepare for shipment.

- VII. For final packaged product, several sealed packages may be shipped intact to Roesink Laboratories and a composite of sub-samples will be prepared by a laboratory technician for testing. Final packaged products should be placed in individual zip-lock bags and be clearly labeled with the day, shifts, and times of sampling.
- VIII. After sampling, samples must be shipped CHILLED to the laboratory. For valid results, the following points must be ensured:
- a. Testing should begin within 24 hours of sampling; therefore, the samples must be shipped the day of sampling.
 - b. Ship for priority overnight delivery.
 - c. Maintain temperature at 0 to 10°C (32 to 50°F) during transit.
 - d. COMPLETELY fill out a Roesink Laboratories Sample Submittal Form and place in a zip lock-bag in the shipping cooler. Make a copy of the form to keep on file for your records.