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Agency of Agriculture Food & Markets
116 State Street
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www.Agriculture.Vermont.gov

2020-2021 Salmonella and Campylobacter Sampling Program

I. Purpose

Salmonella and *Campylobacter* performance standards are used as a measure of a properly operating food safety system. VT meat inspection program follows the PR/HACCP rule that sets *Salmonella* and *Campylobacter* performance standards for establishments that slaughter a minimum volume of selected classes of intact food animals or that produce a minimum volume of selected classes of raw ground products. These minimum volumes are based on the minimum volumes that FSIS uses in establishing establishment eligibility for sampling.

Salmonella and *Campylobacter* performance standards are used to ensure that each establishment that meets this minimum volume of product is consistently achieving an acceptable level of performance with regard to controlling and reducing harmful bacteria on raw meat and poultry products. The microbiological performance standards for reduction of *Salmonella* and *Campylobacter* in raw products, coupled with performance criteria for use with *E. coli* testing allow our program to verify the effectiveness of process controls in slaughter establishments in a method that is equal to the USDA FSIS.

In establishments that slaughter less than 20,000 young chicken or turkey annually or produce less than 1001lbs of either raw ground or comminuted poultry or raw chicken parts per production day (low volume), as of August 2019 (Notice 27-10), the USDA FSIS does not perform routine Salmonella or Campylobacter verification sampling. However, the Vermont Meat Inspection program may periodically sample these products for *Salmonella* and/or *Campylobacter* in these low volume establishments.

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II. **References**:
- A. FSIS Directive 10250.1
- B. FSIS Eligibility Criteria and Sampling Frame Guidance
- C. VT Directive 5300.1, Managing the Establishment Profile in the Public Health Information System
- D. Any current Notice related to Salmonella and Campylobacter Sampling
- E. Guidance to States on Frequency of Microbiological Testing for the current Review Cycle

III. Background

A. Terminology

i. *Salmonella* Serotype: A group or sub-species of closely related Salmonella bacterial microorganisms distinguished by a characteristic set of cell structure antigens.

ii. *Salmonella* Subtype: Includes a sample isolate's serotype, pulsed-field gel electrophoresis (PFGE) pattern, and antimicrobial resistance profile.

iii. Performance Standards: See Attachment A
The performance standards for these product classes are based on the prevalence of Salmonella and Campylobacter as determined from the recent Nationwide Microbiological Baseline Data Collection Programs: The Young Chicken Baseline Survey (YCBS) of 2007-2008, and the Young Turkey Baseline Survey (YTBS) of 2008-2009

IV. **Sampling Program**

A. General Sampling Policies

i. IPP are to routinely update product volumes in the Public Health Information System (PHIS) to ensure that all information is accurate (see VT Directive 5300.1, Managing the Establishment Profile in the Public Health Information System)

ii. Prior to collecting samples, IPP are to be familiar with:
1. Random sampling, which may include the use of random number tables, drawing cards, or using computer generated random numbers;
2. Aseptic sampling techniques. In general, extraneous organisms from the environment, hands, clothing, sample containers, and sampling devices may lead to erroneous analytical results. Stringent requirements for microbiological analysis are necessary; therefore, use of aseptic sampling techniques and clean, sanitized equipment are of utmost importance; and
3. The sampling steps appropriate to the product class sampled.

B. Products Subject to Sampling

i. Raw products with established PR/HACCP performance standards that meet minimum production; includes carcasses of young chickens (broilers), and young turkeys. Processed products measured by performance standards include ground beef, ground chicken, and ground turkey.
ii. VT will continue to assess trim and ground beef for Salmonella verification coupled with *E. coli O157H7* and STEC testing. Additionally, it will suspend Salmonella verification sets for market hogs until FSIS reinstates its testing.

C. Products Not Subject to Sampling
i. Until further notice, sample sets will not be scheduled for Market Hogs, Cows/Bulls, or Steers/Heifers.
ii. Religious exempt poultry product is not subject to sampling
iii. Mixed species ground product is not eligible for sampling
iv. establishments that slaughter less than 20,000 young chicken or turkey annually or produce less than 1001lbs of either raw ground or comminuted poultry or raw chicken parts per production day (low volume)

D. Notification of sampling
i. When the inspector schedules a sample to be taken on a slaughter day, please contact Carrie to make arrangements with the lab and if there is a need to use Priority Express or UPS for sample transport.

E. Sampling Supplies
i. Inspectors are to verify that proper supplies are present, and request any supplies needed form the Meat Inspection Office.

CHAPTER I: SALMONELLA AND CAMPYLOBACTER SAMPLING PROCEDURES FOR YOUNG CHICKENS

I. PERFORMANCE STANDARDS

Product class	Pathogen	Performance standard	Number of samples tested	Sampling Method	Maximum number of positives to achieve standard	Revised Standard Implemented
	Salmonella	9.8%	52		11	5/1/16

Young Chickens (Carcass)	*Campylobacter*	15.7%		100 ml nBPW rinsate	10	

II. PRODUCT ELIGIBILITY FOR SAMPLING

A. Carcasses of "Rock Cornish game hens" (also called "Cornish game hen" or "poussin"), "broilers," "fryers," and "roasting chickens" (also called "roasters"), as described in 9 CFR 381.170(a), are in the "Young Chicken" product class and are to be sampled for *Salmonella* and *Campylobacter*. Other chicken product classes -- capon, hen, fowl, baking chicken or stewing chicken, and cock or rooster -- are not subject to VAAFM verification testing.

B. VAAFM does not collect samples of or analyze for *Salmonella* and *Campylobacter* chickens or chicken products produced under a religious exemption and not bearing the mark of inspection. Religious exempt poultry is considered a unique product that was not included in baseline studies from which *Salmonella* and *Campylobacter* performance standards were derived.

C. Products of any product class diverted for pet food manufacture without the mark of inspection are not subject to VAAFM sampling for *Salmonella* or *Campylobacter*.

D. An establishment is excluded from sampling when the establishment either processes all product in a product class into RTE product or moves all product from a product class to another official State-inspected establishment for further processing into an RTE product (see Chapter VII – Raw product destined for Ready-to-Eat product excluded from *Salmonella* testing).

NOTE: Establishments that slaughter less than 20,000 young chicken or turkey annually or produce less than 1001lbs of either raw ground or comminuted poultry or raw chicken parts per production day (low volume) are not eligible for routine Salmonella or Campylobacter verification sampling. In these low volume establishments the Vermont Meat Inspection program may periodically sample these products for *Salmonella* and/or *Campylobacter.* The frequency and timing of testing of carcasses is based on the establishment's previous test results and other information concerning the establishment's performance. VT reserves the right to use the moving window approach for sampling young chickens and young turkey carcasses for determining compliance with the *Salmonella/Campylobacter* FSIS PR/HACCP sampling program. In an establishment producing more than one class of product subject to the pathogen reduction standard, VT may sample any and all such class of product.

III. PREPARING TO COLLECT A SAMPLE

A. IPP are to check availability of supplies:

i. Designate an area for preparing and gathering sampling supplies. A small tote or caddy carried to the location of sampling could be used for transporting supplies and supporting sample bags to which IPP are adding sterile solutions;

ii. Open a shipping container and check the office to ensure that all the supplies needed for sample collection are inside or in the inspectors' office. Remove the supplies from the container. These can be stored in the government office; Inspectors are to verify the proper sample supplies and sampling forms for the VT Department of Health are available.

iii. Check the refrigerator for the Buffered Peptone Water (nBPW) container.

iv. Place gel packs in the freezer; and

v. Place the open shipping container in the cooler/refrigerator to pre-chill.

B. IPP are to select a time at which to collect the sample:

i. Determine the times that chilled carcasses will be available at the end of the drip line, or at the last readily accessible point before packaging or cut-up (or the equivalent in air-chill or hot-bone operations), and then randomly select the time from within that time frame for collecting the sample.

ii. IPP are to select a chiller or line from which to collect the sample. If more than one chiller system is in operation at the time of sample collection, IPP are to randomly select the chill tank from which to take the sample. IPP are to determine a safe, appropriate point from which to collect the sample unit.

C. If samples are being transported by Priority Express, verify the time of pick-up of samples on the day of slaughter, in order to have the samples packaged and ready to go.

D. Ensure that all sampling supplies are on hand and readily available before beginning sample collection;

i. Current VDH Sample Request Form
ii. General supplies for sample collection (e.g., sample collection bags, sterile gloves); and the specific materials for the type of sample to be collected (e.g., templates and specimen sponges for turkey carcass samples or bags and nBPW for carcass rinses);
iii. Collect the sanitizing solution, if needed;
iv. Retrieve the appropriate container of nBPW from the refrigerator/cooler. Use only chilled nBPW when sampling.
v. Sanitize the cart, caddy[1], tote[1], or other designated work area surfaces by spraying the Lysol ® Food Surface sanitizer over the caddy until wet, then letting air dry. Alternatively, wipe with a clean disposable cloth or paper towel dipped in freshly prepared 500 parts per million (ppm) sodium hypochlorite solution (0.05% sodium hypochlorite) or other approved sanitizing solution that provides the equivalent available chlorine concentration. If IPP use a sodium hypochlorite solution, they are to make it just prior to use, since its strength diminishes upon standing. To make the solution, IPP are to add 2-4 oz of sodium hypochlorite (Purex® or its equivalent)[1] to one gallon (128 oz) of potable water. This will give a strength of 500-1000 ppm hypochlorite. The sample work area surfaces must be free of standing liquid before sampling supplies or product containers are placed on them.

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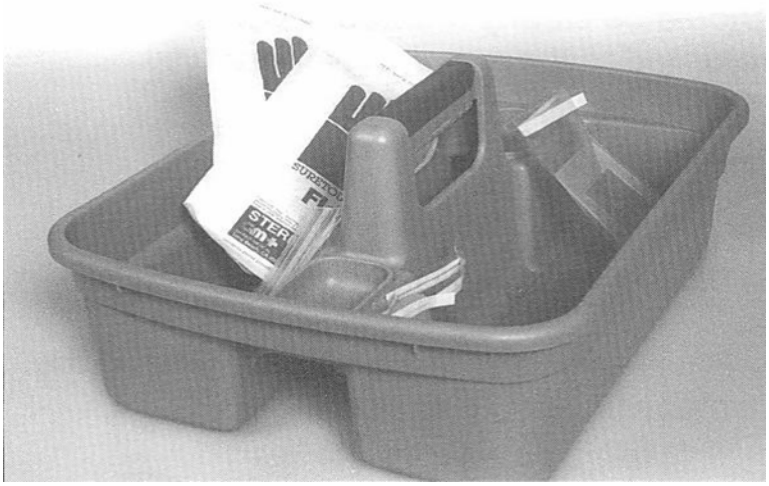

E. IPP are to use aseptic techniques and perform the following step-by-step procedures:

i. Wash and sanitize hands;

ii. Sanitize work surfaces (surfaces that will contact supplies *while the supplies are being gathered*);

iii. Gather the supplies;

iv. Label the sample container;

v. Wash and sanitize hands again;

vi. Take supplies to the sampling location;

vii. Sanitize work surfaces (surfaces that will contact supplies *during sampling*);

viii. Lay out supplies;

ix. Open the large sterile bag; and

x. Put on the sterile gloves (see Attachment B – How to put on sterile gloves).

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IV. COLLECTING THE SAMPLE (CARCASS RINSE)

A. IPP are to notify official establishment management just before collecting each sample that a routine *Salmonella* or *Campylobacter* sample is being collected as a verification sample.

B. At the time selected, IPP are to randomly select a carcass from the post-chill area after all interventions have taken place and after sufficient drip time to prevent dilution of the sample. IPP are to select a carcass and then count back or ahead 5 carcasses and select the next carcass for sampling (to avoid any possible bias during selection). If the sixth carcass is not a whole bird (e.g., untrimmed, with or without neck), count back or ahead an additional 5 carcasses for sample selection. Repeat until a whole carcass is available.

C. In establishments where the end location of the drip line makes removing a carcass from a moving line unsafe for IPP, IPP are to pull the sample at the chiller exit, directly from the conveyor belt. If the establishment has temporarily altered the location of its normal final antimicrobial intervention because of an unforeseen event (e.g., equipment malfunction), IPP are to select a carcass after the new intervention step. (Also see Chapter VIII, Section II. Actions to take when an establishment substantially or temporarily alters its *Salmonella* or *Campylobacter* control process).

D. IPP are to take the randomly selected carcass and allow excess fluid to drain without contaminating any sterile items.

NOTE: In general, a drip time of 1 minute is sufficient. During this time, IPP are to be careful to avoid cross-contamination.

E. IPP are to rinse the carcass with chilled nBPW (See Attachment C – How to rinse a Young Chicken carcass).

E. IPP are to prepare the sample for shipping. It is acceptable to remove the gloves at this time; however, IPP are continue to work in an aseptic manner and perform the following step-by-step procedures:

1. Dry the outside of the sample container. Place the sample container in the small resealable bag, expel excess air, and seal the bag;
2. Discard the remaining liquid; and
3. Return the chicken to the chill tank or to where the bird was collected.

F. The sample is now complete. Follow the storage and shipping instructions in Chapter IV – Submitting the collected sample.

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CHAPTER II: SALMONELLA AND *CAMPYLOBACTER* SAMPLING PROCEDURES FOR YOUNG TURKEYS

I. PERFORMANCE STANDARDS

Product class	Pathogen	Performance standard	Number of samples tested	Sampling Method	Maximum number of positives to achieve standard	Revised Standard Implemented
Young Turkeys (Carcass)	*Salmonella*	7.1%	52	Back and thigh surface sampling- 50 cm^2 for each using one cellulose sponge hydrated with BPW	14	5/1/17
	Campylobacter	5.4%			19	

II. PRODUCT ELIGIBILITY FOR SAMPLING

A. VAAFM does not collect samples of or analyze for *Salmonella* and *Campylobacter* turkeys or turkey products produced under a religious exemption and not bearing the mark of inspection. Religious exempt poultry is considered a unique product that was not included in baseline studies from which *Salmonella* and *Campylobacter* performance standards were derived.

B. Products of any product class diverted for pet food manufacture without the mark of inspection are not subject to VAAFM sampling.

C. Products of any product class diverted for pet food manufacture without the mark of inspection are not subject to VAAFM sampling for Salmonella or Campylobacter.

D. An establishment is excluded from sampling when the establishment either processes all product in a product class into RTE product or moves all product from a product class to another official State-inspected establishment for further processing into an RTE product (see Chapter VII– Raw product destined for Ready-to-Eat product excluded from *Salmonella* testing).

NOTE: Establishments slaughtering less than 20,000 poultry/year are not currently subject to FSIS' PR/HACCP performance standards sampling. In low volume establishments (do not meet the minimum volumes for eligibility for sampling products under the *Salmonella* or *Campylobacter* performance standards), the Vermont Meat Inspection program may periodically sample these products for *Salmonella* and/or *Campylobacter.* The frequency and timing of testing of carcasses is based on the establishment's previous test results and other information concerning the establishment's performance. VT reserves the right to use the moving window approach for sampling young chickens and young turkey carcasses for determining compliance with the

Salmonella/Campylobacter FSIS PR/HACCP sampling program. In an establishment producing more than one class of product subject to the pathogen reduction standard, VT may sample any and all such class of product**.**

III. PREPARING TO COLLECT A SAMPLE

A. IPP are to check availability of supplies:

i. Designate an area for preparing and gathering sampling supplies. A small tote or caddy carried to the location of sampling could be used for transporting supplies and supporting sample bags to which IPP are adding sterile solutions;

ii. Open a shipping container and check the office to ensure that all the supplies needed for sample collection are inside or in the inspectors' office. Remove the supplies from the container. These can be stored in the government office; Inspectors are to verify receipt of proper sample supplies and sampling forms for the VT Department of Health.

iii. Place gel packs in the freezer; and

iv. Place the bags with the carcass sponges, BPW, and the open shipping container in the cooler/refrigerator to pre-chill.

B. IPP are to select a time at which to collect the sample:

v. Determine the times that chilled carcasses will be available at the end of the drip line, or at the last readily accessible point before packaging or cut-up (or the equivalent in air-chill or hot-bone operations), and then randomly select the time from within that time frame for collecting the sample.

vi. IPP are to select a chiller or line from which to collect the sample. If more than one chiller system is in operation at the time of sample collection, IPP are to randomly select the chill tank from which to take the sample. IPP are to determine a safe, appropriate point from which to collect the sample unit.

C. If samples are being transported by Priority Express, verify the time of pick-up of samples on the day of slaughter, in order to have the samples packaged and ready to go.

D. Ensure that all sampling supplies are on hand and readily available before beginning sample collection:

vi. VDH Sample Request Form

vii. General supplies for sample collection and the specific materials for the type of sample to be collected (e.g., templates and specimen sponges for turkey carcass samples);

viii. Collect the sanitizing solution, if needed;

ix. Retrieve the bags with carcass sponges and BPW from the refrigerator/cooler. Use only pre-chilled BPW when sampling;

x. Sanitize the cart, caddy[1], tote[1], or other designated work area surfaces by spraying the Lysol ® Food Surface sanitizer over the caddy until wet, then letting air dry. Alternatively, wipe with a clean disposable cloth or paper towel dipped in freshly prepared 500 parts per million (ppm) sodium hypochlorite solution (0.05% sodium hypochlorite) or other approved sanitizing solution that provides

the equivalent available chlorine concentration. If IPP use a sodium hypochlorite solution, they are to make it just prior to use, since its strength diminishes upon standing. To make the solution, IPP are to add 2-4 oz of sodium hypochlorite (Purex® or its equivalent)[1] to one gallon (128 oz) of potable water. This will give a strength of 500-1000 ppm hypochlorite. The sample work area surfaces must be free of standing liquid before sampling supplies or product containers are placed on them.

E. IPP are to use aseptic techniques and perform the following step-by-step procedures:

1. Wash and sanitize hands;
2. Sanitize work surfaces (surfaces that will contact supplies *while supplies are being gathered*);
3. Gather the supplies;
4. Make sure that one sponge bag is labeled with an "S" and the other one with a "C";
5. Wash and sanitize hands again;
6. Take supplies to the sampling location;
7. Sanitize work surfaces (surfaces that will contact supplies *during sampling*);
8. Lay absorbent towels or sanitized rack on work surface to prevent the carcass from slipping;
9. Lay out supplies; and
10. Put on the sterile gloves (see Attachment B – How to put on sterile gloves).

IV. COLLECTING THE SAMPLE (SPONGE SAMPLE)

A. At the time selected, IPP are to randomly select a carcass from the post-chill area after all interventions have taken place and after sufficient drip time to prevent dilution of the sample. IPP are to select a carcass and then count back or ahead 5 carcasses and select the next carcass for sampling (to avoid any possible bias during selection). If the sixth carcass is not a whole bird (e.g., untrimmed, with or without neck), count back or ahead an additional 5 carcasses for sample selection. Repeat until a whole carcass is available.

B. In establishments where the end location of the drip line makes removing a carcass from a moving line unsafe for IPP, IPP are to pull the sample at the chiller exit, directly from the conveyor belt. If the establishment has temporarily altered the location of its normal final antimicrobial intervention because of an unforeseen event (e.g., equipment malfunction), IPP are to select a carcass after the new intervention step. (Also see Chapter VIII, Section 2. Actions to take when an establishment substantially or temporarily alters its *Salmonella* or *Campylobacter* control process);

C. IPP are to sponge the carcass and prepare the sample for shipping (follow the general sponging techniques as outlined in Attachment D – How to prepare the sponge and template for sample collection; Attachment D – How to sponge a carcass (General); and Attachment E – How to sponge a Young Turkey carcass).

D. IPP are to take the randomly selected carcass and allow excess fluid to drain without contaminating any sterile items. Do not touch the back or thigh areas.

NOTE: In general, a drip time of 1 minute is sufficient. During this time, IPP are to be careful to avoid cross-contamination.

E. Follow the storage and shipping instructions in Chapter IV – Submitting the collected sample.

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CHAPTER III: SALMONELLA SAMPLING PROCEDURES FOR GROUND BEEF AND BEEF TRIM

I. PRODUCT ELIGIBILITY FOR SAMPLING

A. Establishments that produce less than 1,000 pounds of raw ground beef products (Low volume raw ground beef) in a typical day's production are sampled for *Salmonella* when sampled for *E. coli O157H7* testing, and are not to be sampled under the *Salmonella* Performance standards ground beef sampling program.

B. Establishments that produce less than 1,000 pounds of raw beef trim (Low volume raw beef trim) in a typical day's production are sampled for *Salmonella* when sampled for E. coli O157H7 and non-O157H7 STEC testing, and are not to be sampled under the *Salmonella* Performance standards beef trim sampling program.

C. The frequency will be based on FSIS' Guidance to the states on the average frequency of testing done at very small federal establishments. In addition, VT reserves the right to alter the frequency at any given establishment based on information from, but not limited to, inspection activity, sampling results, and food safety assessments, in order to tailor the verification sampling program to address any perceived increase in risk. The frequency of this testing mirrors that of the frequency for *E. coli O157:H7* and STEC testing.

D. An establishment is excluded from sampling when the establishment either processes all product in a product class into RTE product or moves all product from a product class to another official federally-inspected establishment for further processing into an RTE product

E. Products of any product class diverted for pet food manufacture without the mark of inspection are not subject to VAAFM sampling.

II. COLLECTING THE SAMPLE

a. The IIC should refer to the VT Protocol for E. coli O157:H7 and STEC in taking requested samples.

CHAPTER IV – SUBMITTING THE COLLECTED SAMPLE (ALL PRODUCT CLASSES)

I. PACKAGING THE SAMPLE

A. IPP are to ensure that the sample container (bags or jars) are correctly closed. Jar lids must be correctly threaded and not over-tightened to prevent leaking. Also ensure the outside of the sample container is dry.

B. Place the sample container inside a large ziplock bag to contain any leaks that may occur during transport.

C. Dry out the inside of the shipping container (box) completely.

D. Place the ziplock bag with the sample container in the box.

Place the corrugated cardboard pad on top of the sample to prevent the sample from coming in direct contact with the frozen gel pack. This barrier prevents freezing of portions of the sample which could have an effect on the sample results

E. IPP are to place the frozen gel pack on top of the cardboard in the refrigerated shipping container. During hot summer months, it may be necessary to include extra gel packs in the shipping container (these will be seasonally supplied by the labs).

F. Sample Security (see VT Directive 7355.1): Vermont sample container seals will need to be applied as follows: The small bar code seal will need to be applied to the sample form and to the immediate sample containers. The long narrow seal is to be applied over the opening of the bag containing the sample.

G. Place the sample form into a ziplock bag to ensure the form stays dry. Place this in the shipping container. (The VT Department of Health laboratory forms are pre-filled with establishment and testing information. The inspector should fill the sample information, not forgetting to indicate the product code (product codes can be obtained from the office if needed)).

H. IPP are to let the rinsate or sponge samples cool down prior to packaging by **refrigerating for one hour** if this does not delay shipment by Priority Express.

I. IPP are to pack the sample in the shipping container as close to the expected courier pickup time as possible. The shipping container itself should not be used as a refrigerator. However, multiple samples for that day (if needed) may be stored in the open shipping container that is placed in a cooler or refrigerator. IPP are never to store packed and prepared sample boxes near areas exposed to excessive heat or allow them to go below 32° F (0° C);

NOTE: The labs do not consider frozen samples (below 32°F (0°C)) or samples that are too warm (above 59°F (15°C)) to be valid and will not analyze them when they arrive at the labs. Some bacteria may be damaged by temperatures that are too cold, while temperatures that are too warm can allow bacteria to multiply. Maintaining samples at improper temperatures may contribute to inaccurate analytical results.

J. IPP are to close the box flaps so that the container is secure, apply tape (minimal amount) to keep the flaps closed, and then apply the VAAFM Laboratory Sample Container Seal (FSIS Form MI-84 A) across an outer flap of the shipping container as described in VT Directive 7355.1 *Use of Sample Seals for Laboratory Program Samples and Other Applications.* This is so the lab knows that the box has been properly sealed at a glance.

II. SHIPPING THE SAMPLE

A. IPP are to ensure sample security is maintained at all times (see VT Directive 7355.1).

B. All samples are to be refrigerated or placed on ice immediately after sample collection and maintained under refrigeration at 40°F (4.4°C), or lower, until shipped. Do not freeze samples. (See **NOTE** above)

Note: (Until further notice, the VDH lab is not accepting food samples. Use the SD laboratory for all samples)

C. Once a date is determined for sampling, please contact Carrie Roberts. She will make arrangements with the lab and schedule Priority Express for pick-up (if needed).

E. IPP can ship the refrigerated sample via UPS. Samples are to be scheduled for pick up and are to be shipped on the *same calendar day* the sample is collected, when possible. IPP are to hold any sample overnight that they randomly select too late in the day, and after UPS is no longer available for pick-up the same calendar day. For example, samples collected from late production, are to be held overnight under refrigeration and sent by courier the next calendar day.

NOTE: Samples not received the day following the day of shipment will be discarded by the laboratory. All dates on the sampling form shipped with the sample must be accurate.

CHAPTER VI – RAW PRODUCT DESTINED FOR READY-TO-EAT PRODUCT EXCLUDED FROM *SALMONELLA* TESTING

I. CIRCUMSTANCES IN WHICH SAMPLING IS NOT WARRANTED

A. An establishment meets the criteria for exclusion when the establishment either processes all product in a product class (e.g., young chickens) into RTE product or moves all product in a product class to another official State-inspected establishment for further processing into RTE product.

B. For example, an establishment slaughters young chickens and produces not ready-to-eat (NRTE) ground chicken as one of its products. The establishment ships all of its NRTE ground chicken product to another establishment that uses it to make an RTE product. In this situation, IPP are not to sample the NRTE ground chicken; however, if any raw products are not destined for RTE product in an official establishment, the young chicken carcasses would still be eligible for *Salmonella* sampling.

II. IPP VERIFICATION RESPONSIBILITIES

A. If the establishment:

1. Processes all product or all product from a particular product class into RTE product; or

2. Moves all product or all product from a particular product class to another official state inspected establishment for further processing into RTE product;

IPP are to verify during the performance of the associated HACCP procedure that the intended use of all the product the establishment produces is for processing into RTE product (9 CFR 417.2(a)(2)). If an establishment meets the criteria in Section II.A.1., above, all raw products in that product class would remain in the establishment to be further processed.

B. IPP are to verify by:

1. Observing that all the product moves to be further processed into RTE product in the establishment; or

2. Reviewing records to ensure that all products are further processed into RTE products in the establishment. Records may include those containing production codes or production lot codes.

C. In establishments that claim to meet the criteria in Section II.A.2., above, IPP are to review the establishment's HACCP plan and hazard analysis for the intended use of the products and are to verify that the establishment has procedures incorporated in its food safety system that effect the movement of all product from that product class to another state-inspected establishment at which the product is further processed into RTE product.

D. Some acceptable ways that IPP could verify that the establishment has necessary procedures incorporated into its food safety system include:

1. The establishment maintains records showing that the official establishment receiving the raw product processes all of the product into RTE product, such as a copy of HACCP records showing the product meets a lethality Critical Control Point (CCP) matched with bills of lading with corresponding production codes;

2. The establishment receives letters of guarantee showing that all product from a particular product class is further processed into RTE product and maintains on-going communication with the receiving establishment to verify that all its product is being processed as RTE; and

3. The establishment has a contractual agreement with the receiving establishment so the producing establishment has knowledge of the receiving establishment's production process.

E. Some insufficient procedures would include:

1. The establishment only labels the raw product with a statement "for further processing"; and

2. The establishment only maintains a letter from the receiving establishment that says it only produces RTE, without the receiving establishment gathering additional information to verify that all product is processed into RTE product in an official establishment.

F. If an establishment does not have procedures incorporated into its food safety system that effect the movement of all product to another state-inspected establishment at which the product is further processed into RTE product, then the establishment is still subject to the traditional sampling under the *Salmonella* verification testing program. IPP are to be aware that it is the responsibility of the establishment to maintain sufficient documentation to support the establishment's assertion that the product in question is further processed into RTE product.

NOTE: NRTE products destined to other than domestic, state-inspected establishments for processing into RTE products do NOT meet the criteria in Section II.A.2. above. Examples of such establishments include foreign, federally inspected, or food service establishments, including hotel, restaurant, institution (HRI) facilities.

G. If an establishment produces more than one lot of NRTE ground beef and ships the product to different establishments, and one of the establishments produces NRTE products, IPP are to sample product under the *Salmonella* verification testing program. Some of the product produced from the product class (e.g., NRTE ground beef) goes to at least one establishment that uses it for NRTE product. In this situation, IPP are not to differentiate between the product going to establishments producing the RTE product versus the product going to establishments producing the NRTE product when taking a sample.

III. ADDITIONAL INSTRUCTIONS FOR IPP

A. Should an establishment NOT meet the criteria in Section II. A. above and produce both RTE and NRTE end products of a single product class, IPP are to make two entries for the product class in the establishment profile; and

1. Check the 'RTE' intended use box in the establishment profile on one of the entries; and
2. NOT check the 'RTE' intended use box in the establishment profile on the other entry.

B. Should an establishment meet the criteria in Section II.A. above and produce ONLY RTE end products of a single product class, IPP are to:

1. Make a single entry for the product class in the establishment profile; and
2. Check the 'RTE' intended use box in the establishment profile for that product;

NOTE: This establishment will NOT be scheduled for verification sampling.

C. If IPP determine that an establishment no longer processes all raw product from a particular class into RTE product, or no longer moves all raw product from a particular class to another official state-inspected establishment for further processing into a RTE product, then IPP are to update the entries in the establishment profile and let the meat inspection office know.

CHAPTER VII – VERIFYING ESTABLISHMENT *SALMONELLA* AND *CAMPYLOBACTER* CONTROL PROGRAMS FOR RAW CLASSES OF MEAT OR POULTRY PRODUCT

I. REVIEWING ESTABLISHMENT *SALMONELLA* AND *CAMPYLOBACTER* CONTROL PROGRAMS FOR RAW CLASSES OF MEAT OR POULTRY PRODUCT

A. IPP are to determine whether an establishment has procedures in place designed to address the control or monitoring of *Salmonella* in any programs within its food safety system (e.g., HACCP, Sanitation Standard Operating Procedures, prerequisite programs, or other programs the establishment does not consider part of the HACCP system). These programs may include, but are not limited to:

1. *Salmonella* testing of live animals or animal raising facilities, testing of products, or testing of the production or lairage environment prior to slaughter;

2. Testing for other bacterial contamination when the establishment uses that data to support decisions about *Salmonella* or *Campylobacter*;

3. Interventions to reduce or eliminate *Salmonella* or *Campylobacter*; or

4. Other pre-harvest practices or purchase specification programs intended to reduce *Salmonella* in live animals or raw materials received at the establishment.

B. If the establishment has procedures in place designed to address the control of *Salmonella* or *Campylobacter*, or makes modifications to those procedures, IPP are to seek answers to such questions as:

1. What data are collected in support of the program?

2. How does the establishment view this data as a measure of its program? For example:

   a. How does the establishment analyze the data and track the results of the program?

   b. How does the establishment explain how the data will be used to support or verify the effectiveness of the program?

   c. How does the establishment determine and explain the difference between normal fluctuations in the data and what represents that the program is not functioning as designed (i.e., is out of control)? and

   d. Does the establishment consider the incoming *Salmonella* or *Campylobacter* load on the effectiveness of interventions used during processing (i.e., does it examine whether a high incoming *Salmonella* or *Campylobacter* load may overwhelm the interventions in place)?

C. In accordance with the instructions in VT Directive 5000.2, *Review of Establishment Testing Data by Inspection Program Personnel*, on a weekly basis, IPP are to review the data from the program, unless another frequency is more appropriate based on when the establishment collects the data. For example, if the establishment collects *Salmonella* data or other data related to *Salmonella* on a monthly basis, then IPP are to review that specific data monthly.

D. IPP are to look for trends such as:

1. A significant portion of the program results exceed the established criteria over time;

2. A few instances of the program results exceed the established criteria by a large amount within a relatively short period of time; or

3. The program results show a consistent trend of worsening performance over a relatively long period of time.

E. In the example below, the results would not represent regulatory noncompliance in themselves. However, IPP are to discuss the findings with establishment management to find out how they interpreted and responded to the results.

Example: Establishment A analyzes a product sample for *Salmonella* once per shift and has set criteria (based on performance standards published in the Federal Register (76 FR 15282)) of no more than 5 positive results in a moving window of 51 samples. IPP would be expected to discuss these results with establishment management if they see any of the following trends:

1. IPP observe that, over the course of one month, the positive test results exceeded the establishment criteria of 5 positives in the 51-sample window 5 times out of 20 (25%);

2. IPP observe that over the course of one week, the positive test results reached 9 of the last 51 samples, significantly exceeding the establishment's control limit of 5 positives; or

3. IPP observe that over the course of 3 months, the positive test results exceeded the establishment's criteria 1 time during the first month, 3 times during the second month, and 7 times during the third month, demonstrating a trend of worsening performance.

F. If IPP have questions on the design of the program, the manner in which the establishment collects or analyzes the data, or developing trends, they are to address their concerns through supervisory channels.

II. ACTIONS TO TAKE WHEN AN ESTABLISHMENT SUBSTANTIALLY OR TEMPORARILY ALTERS ITS *SALMONELLA* or *campylobacter* CONTROL PROCESS

A. Following *Salmonella* verification sampling, an establishment may make substantial changes to its food safety system, such as removing chlorine-based compounds from the process or substituting other antimicrobial chemicals. Such changes are acceptable if validated; however, in some cases, Agency testing might be warranted to verify that the food produced by the modified system is safe. Alternatively, an establishment may temporarily change its food safety process during VAAFM *Salmonella* or *Campylobacter* verification sampling, then return to pre-sampling conditions once VAAFM sampling is completed. For example, an establishment may increase chlorine levels in poultry chillers or on equipment to levels not supported in its hazard analysis, and then lower the levels again after sampling.

NOTE: These instructions are **not** restricted to poultry establishments.

B. IPP are to verify that changes to a food safety system are consistently accompanied by HACCP supporting documentation, including during and after VAAFM *Salmonella* verification testing, based on requirements in 9 CFR 417.2(a) and 9 CFR 417.5(a)(1). In addition, IPP are to determine whether an establishment altered its food safety system to coincide with the VAAFM *Salmonella* or *Campylobacter* verification sample set. The Public Health Veterinarian (PHV) or IIC is to file a Memorandum of Interview (MOI) detailing any changes or modifications that an establishment makes in its process when VAAFM conducts a *Salmonella* or *Campylobacter* verification sample set. The IIC is to present the information to the establishment management for discussion at the next weekly meeting (see VT Directive 5010.1, *Food Safety Related Topics for Discussion During Weekly Meetings*, and VT Directive 5000.1).

C. Examples of changes typically covered by paragraph B. of this section include, but are not limited to:

1. Temporarily changing antimicrobials used in a poultry chiller only during a *Salmonella* or *Campylobacter* verification set, such as replacing chlorine with peroxyacetic acid (PAA);

2. Substantially increasing levels of antimicrobials above normal operating parameters only during a *Salmonella* or *Campylobacter* verification set. This type of change includes increasing to the upper bounds of levels within a validated system if the establishment routinely operates at the lower bounds. For example, if the establishment's validated range of chlorine in potable water measured at the chiller fresh water intake is 20-50 ppm, it routinely maintains a level of 20 ppm but increases the level to 50 ppm only during the set; and

3. Permanent replacement of systemic hyper-chlorinated water with non-chlorine- based antimicrobials since the last *Salmonella* or *Campylobacter* verification set without proper validation.

D. Examples of changes typically NOT covered by this policy include, but are not limited to:

1. Replacing equipment that will be operated in the same manner as old equipment. For example, replacing one poultry immersion chiller with another without changing antimicrobial or product temperature parameters; and

2. Permanently adding or removing antimicrobials at various steps in the process if the changes have been properly reflected in the establishment's food safety system with appropriate supporting documentation.

E. If IPP identify temporary changes, modifications, or inconsistencies in an establishment's production practices that coincide with the VAAFM sample and confirmed through documentation and discussions that the changes are not supported in the HACCP system, the IIC is to inform the Office. Further sampling may be warranted.

K. The PHV is to review the establishment's supporting documentation and issue an NR if the interventions are not implemented in a manner that is consistent with their supporting documentation or changes to the process are not supported in the hazard analysis. For example, the establishment's food safety system might ordinarily rely on the direct application of a particular pathogen reduction system, but the establishment varies the concentration without accompanying support in order to accommodate a specific purchase specification or when VAAFM verification sampling is conducted.

L. If IPP have evidence that the establishment changes to an unsupported alternative process, or continues to have noncompliances associated with unsupportable decisions, the Supervisory EIAO is to consider scheduling a for-cause Food Safety Assessment (FSA). The FSA is to be used to determine whether the hazard analysis and supporting documentation associated with the alternative or modified process demonstrates that the process will prevent or control *Salmonella* or *Campylobacter* in a manner that is at least as protective as the process used during VAAFM *Salmonella or Campylobacter* verification testing.

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CHAPTER VIII– REPORTING OF *SALMONELLA* AND *CAMPYLOBACTER* SAMPLING RESULTS

I. Individual Samples and Actions

A. The Laboratory reports the *Salmonella* and/or *Campylobacte*r positive samples to the VT Meat Inspection Office. Serotype data for *Salmonella* positive samples is added later once updated information becomes available, and entered into PulseNet.

B. The official result is reviewed by the Head of Service, Chief or designee, and entered into the establishment's salmonella sampling folder. The result is entered into the color coded spreadsheet on Sharepoint. The office notifies the inspector and the establishment of the positive result as each individual test becomes available.

C. Plan of Action for positive result Poultry individual samples during Periodic Sampling

1.When the number of positive samples reaches:

a. Salmonella

Young chicken: 3 positive samples in a 12 month period.
Young turkey: 2 positive samples in a 12 month period

b. Campylobacter:

Young chicken: 6 positive samples in a 12 month period
Young turkey: 3 positive samples in a 12 month period

the in-plant inspection team increases verification activities of sanitation and process control activities. In addition, the plant may receive an observation visit by the chief of inspection or the EIAO to evaluate the steps the plant is or is not taking to address the positive samples.

2. The Meat Inspection Office keeps lines of communication open with the plant and IIC in relation to their plan of action.
The VT Meat Inspection service reserves the right to initiate an ongoing *Salmonella/Campylobacter* performance measures sampling based on testing results.

II. Completed Set Reports IF AN ESTABLISHMENT IS ELIGIBLE FOR ONGOING SAMPLING

A. When sufficient samples to complete a moving window have been analyzed for pass or fail status, a completed letter summarizing all individual pass and fail sample results, as well as the pass or fail outcome of the entire number of samples, will be mailed to the establishment.

B. IPP are not to issue a Noncompliance Record (NR) exclusively because of a failed *Salmonella* or *Campylobacter* verification set.

NOTE: Enforcement, Investigations, and Analysis Officers will review these sampling results in depth during any Food Safety Assessment conducted at the establishment per VT PHIS Directive 5100.4, Prioritized Scheduling of Food Safety Assessments Using the Public Health Information System. Also, establishments that have a higher number of positives in a moving window than is allowed by the performance measures, move up in priority to be scheduled to receive an FSA. The moving window of sampling will continue.

III. *Salmonella* and *Campylobacter* EOS Letters IF AN ESTABLISHMENT IS ELIGIBLE FOR ONGOING PERFORMANCE BASED SAMPLING

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A. Upon completion of the *Salmonella* verification set, the Agency provides detailed information about *Salmonella* serotypes that are associated with human illness in the *Salmonella* EOS letters that are sent to establishments. The EOS letter provides information about the results of the last two completed sample sets. This information includes positive and negative test results, as well as available information about the serotype, PFGE-based information, and public health ranking of the isolates. The letter specifically includes information on serotypes that are commonly associated with human illness, as well as other subtypes of potential public health concern. An EOS letter example is found in Attachment I - End of Set Letter Example.

B. In addition, for Young Chicken and Young Turkey sets, the EOS letter includes *Campylobacter* results.

C. IPP are to be aware that in addition to assessing process control through analysis of results, VAAFM identifies *Salmonella* subtypes. VAAFM considers that isolates with subtypes historically associated with human illness are more likely to cause human illness than those without such a history. The Agency has said that establishments that repeatedly produce product with *Salmonella* subtypes of public health concern are of high priority for a FSA (see VT Directive 5100.4). VAAFM considers information on subtypes to be very important for protecting the public health. It provides information on subtypes to establishments through *Salmonella* EOS letters for them to use in their food safety decision-making processes.

NOTE: Since FSIS has not established a performance standard for *Salmonella* subtypes, this information is not used to determine whether the establishment has passed or failed the *Salmonella* verification set.

D. IPP are to be aware that the fact that isolates have subtypes historically associated with human illness does not automatically implicate the sampled product as the cause of any human illness or necessarily mean that the establishment's food safety system is ineffective. VAAFM will determine these specific associations through an epidemiological investigation or an FSA.

E. IPP are to be aware that the EOS letters include the following sections: (See Attachment I - End of Set Letter Example)

1. **Process Control:** This section states whether an establishment has maintained consistent process control. The *"Summary Results from Last Two Sampling Sets"* table identifies the product tested, date set completed, number of samples analyzed, number of *Salmonella* and *Campylobacter* (where applicable) positives, and current *Salmonella* process control category;

2. **Public Health-Focused Evaluation of Isolates by Serotype:** This section provides detailed serotyping information from the establishment's last *Salmonella* verification set. This section includes the *"Serotype Results for the Most Recent Sampling Set"* table which provides the details of the serotype results for the current set as well as a brief explanation of the type of information provided in the table;

3. **Discussion of Compiled Set Results:** This section provides a brief explanation of the information provided in the letter, including information on future *Salmonella* and *Campylobacter* (where applicable) verification testing scheduled at the establishment and Agency expectations.

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F. IPP are to be aware that it may take several weeks after completion of the set before an EOS letter is issued.

NOTE: Unless instructed by the office, there is no follow-up verification for IPP to perform or enforcement action to take based on the information and results provided in the EOS letter. An Enforcement, Investigation, and Analysis Officer (EIAO) will verify the appropriateness of the establishment's response to the results in the next FSA performed at the establishment.

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CHAPTER IX– DISCUSSION OF INSPECTION FINDINGS WITH THE ESTABLISHMENT

A. As set out in VT Directive 5000.1, IPP are to conduct weekly meetings with the establishment to discuss topics that could affect food safety and the establishment's ability to meet regulatory requirements.

B. When necessary at the weekly meeting, IPP are to discuss with establishment management any trends that IPP believe may indicate that the establishment's *Salmonella* or *Campylobacter* program is not in control. In addition, IPP are to ask what actions, if any, establishment management has taken to re-establish control.

C If Establishments are in an ongoing performance testing window, IPP are to:

1. Provide the Completed Set Report to the establishment's management as soon as it is available;

2. Inform the establishment that it will be receiving a detailed EOS letter by mail as soon as *Salmonella* serotype information is available for all positive samples, which can take several weeks; and

D. At the next weekly meeting after issuance and receipt of each EOS letter IPP are to:

1. Review the information in Sections A-F of Chapter VIII, Section III and the results provided in the letter with establishment management;

2. Discuss the subtyping information provided in the EOS letters with establishment management to emphasize the importance of the information;

3. Advise establishment management that it should always consider process control and subtyping results in its decision-making process when evaluating its overall food safety system and make changes as appropriate;

4. Inform establishment management that VAAFM may determine that an establishment that does not adequately take the provided information into account in its decision-making process has an ineffective food safety system;

E. IPP are to document notes from the meeting on a MOI in accordance with VT Directive 5000.1 and FSIS Directive 5010.1.

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Attachment A

Salmonella and *Campylobacter* Sampling Plans for Slaughter Classes

Product	Performance Standard (%)	Size of Sample Set (n)	Number Positives Allowed (c)	Pr (Pass) at Standard (%)
Steer/Heifer	1.0	82	1	80.2
		22	0	80.2
Cow/Bull	2.7	58	2	79.4
		31	1	79.6
Market Hog	8.7	55	6	80.0
		46	5	79.2
		36	4	80.0
		27	3	79.6
		18	2	79.8
		10	1	78.6
Broiler	7.5	51	5	81.9
		16	2	88.7
Broilers (*Campylobacter*)	10.4	51	8	92.2
		16	3	92.3
Turkey	1.7	56	4	99.7
		17	2	99.7

Turkey (*Campylobacter*)	1.7	56	3	99.90
		17	2	99.97

NOTE: (n, c) pairs are chosen to give approximately 80% chance of obtaining c or fewer positive results in a random sample of n carcasses from a process operating at the performance standard. The percent in the last column is the actual probability of passing (observing c or less positive results in n tests) when operating at performance standard. Because n and c must be whole numbers, an exact 80% probability could not be achieved in most cases. See pages 6803-6804 of the proposed rule for the rationale for choosing 80% as the chance of passing at the performance standard.

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Salmonella Sampling Plans for Ground Product

Product	Performance Standard (%)	Size of Sample Set (n)	Number Positives Allowed (c)	Pr (Pass) at Standard (%)
Ground Beef	7.5	53	5	79.5
		42	4	79.5
		31	3	80.0
		21	2	79.4
		11	1	80.3
Ground Chicken	44.6	53	26	78.6
		40	20	80.2
		32	16	78.6
		24	12	77.0
		16	8	75.5
Ground Turkey	49.9	53	29	79.9
		38	21	79.5
		23	13	80.0
		14	8	79.0

NOTE: (n, c) pairs are chosen to give approximately 80% chance of obtaining c or fewer positive results in a random sample of n carcasses from a process operating at the performance standard. The percent in the last column is the actual probability of passing (observing c or less positive results in n tests) when operating at performance standard. Because n and c must be whole numbers, an exact 80% probability could not be achieved in most cases. See pages 6803-6804 of the proposed rule for the rationale for choosing 80% as the chance of passing at the performance standard.

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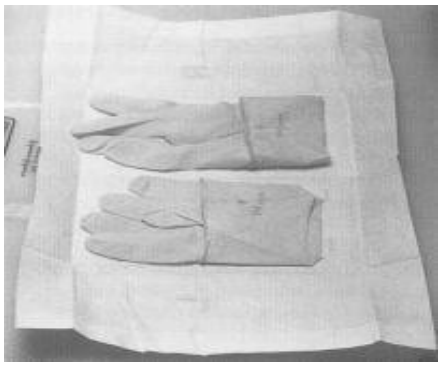
Attachment B

HOW TO PUT ON STERILE GLOVES

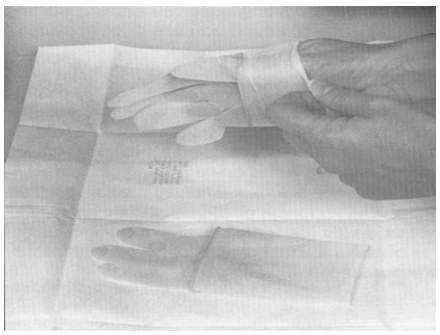
Step 1 First, wash and sanitize your hands to the mid-forearm. Dry your hands using disposable paper towels.

Position the glove package so that the letters L and R face you (L=left, R=right).

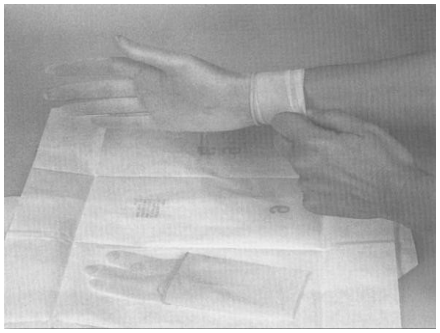


Step 2 When you first open the package, the gloves are folded, forming a cuff on the sleeve, and lying palm up. Leave the gloves in the package until you start to put them on.

Step 3 Hold one glove open by the inside cuff area. Insert your hand into the glove, palm side up, and remove the glove from the package.



Step 4 Pull the glove completely on with the ungloved hand and pull the cuff up without touching the outside surface of the glove with your ungloved hand.



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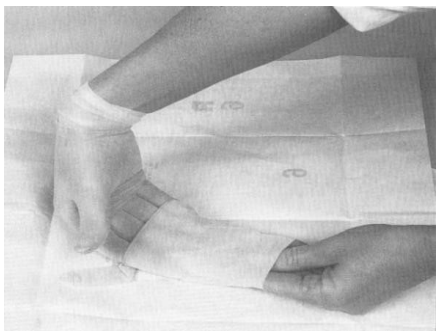
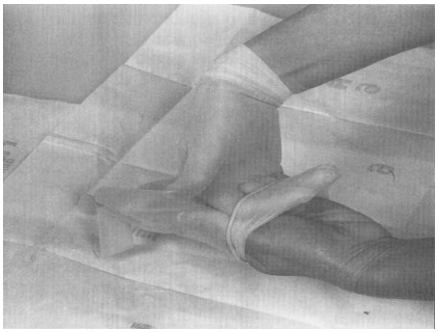
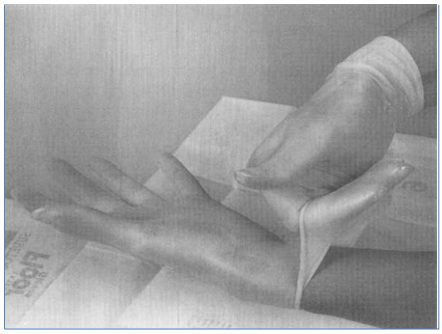
Step 5 Repeat the previous steps with the other glove, with one key exception: do not handle the second glove by the inside cuff. If you do, the outside of the first sterile glove may contact your hand and wrist as you pull the second glove on. Even though you washed and sanitized your hands, they are not sterile. The correct way is to place your ungloved hand, palm up, into the second glove.

Insert the fingers of your gloved hand into the fold of the second cuff and ease the second glove on.



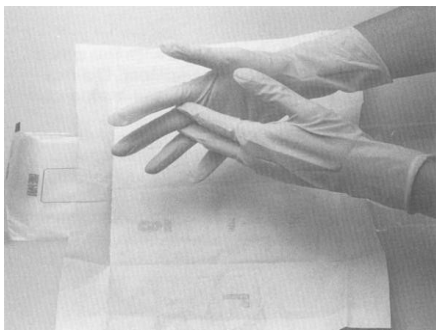
Step 6 Handle the second glove on the outside only and adjust the cuff on your wrist.





Step 7 Once both gloves are on, you can touch the outside of a glove with the other gloved hand to adjust the fit.

If at any time you are concerned that a glove may have become contaminated, discard it and repeat the procedure for putting on sterile gloves.



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Attachment C

Sampling Procedures for Young Chickens

The following is a list of the supplies for each young chicken sampling event under this notice:

Shipping container:

1-15" x 20", large sterile plastic bag
1- pair of sterile gloves
1- 400 mL bottle of Buffered Peptone Water (nBPW)
1- quart resealable ziplock-type bag (secondary container)
1- VT Form 7355-2A/2B (Laboratory sample security seals)
Cardboard separators
Gel coolant packs

1. IPP are to refrigerate the nBPW container upon receipt. Ensuring that the nBPW is chilled is critical to this verification sampling procedure. Only use chilled nBPW.

2. Additional pairs of sterile gloves can be ordered from the Meat Inspection Office. IPP are to change disposable gloves whenever necessary, to prevent cross-contamination of birds and samples and are to avoid contamination of carcasses and rinse supplies.

3. At the post-chill sampling location**,** IPP are to determine a random time at which the carcasses will reach the end of the drip line, or the last readily accessible point prior to cut-up. IPP are to randomly select a poultry carcass from the post-chill area (after all interventions have taken place) and to allow drip time to prevent dilution of the sample.

SPECIFIC PROCEDURES FOR COLLECTING YOUNG CHICKEN RINSATE

Step 1 IPP are to take all necessary precautions not to contaminate any of the sampling supplies and are to discontinue the sampling procedure if a contamination event occurs that would compromise the integrity of the submitted sample. Use a small tote or caddy for carrying supplies to the sampling location. Sanitize the work surface.

Wash and dry hands.

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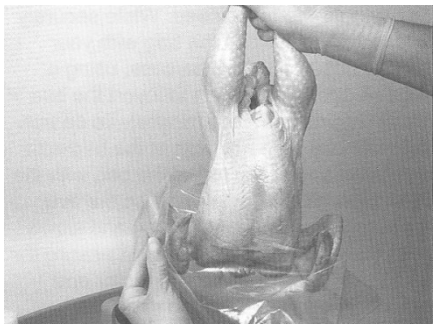
Carefully open the large sterile bag. Do not contaminate the interior of the bag. The bag may lie on its side, opened, while you select the chicken carcass for sampling.

Put on a pair of sterile gloves as described in Attachment 1 – How to put on sterile gloves.

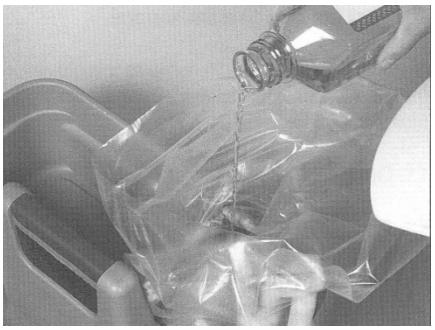
Step 2 Using one gloved hand, pick up the selected chicken carcass by the legs and allow any excess fluid to drain.



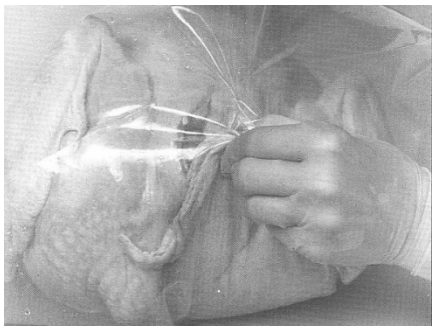
NOTE: For safety purposes, do not remove the chicken carcass from the shackle but collect it after it has dropped from the line.

With the other hand, pick up the open sample bag. Place the bird in the sample bag with the legs and vent toward the bag opening. Do not touch the inside of the bag with either hand.

Step 3 Rest the bottom of the bag on a flat surface. Holding the top of the bag slightly open, uncap the nBPW container and pour its entire contents into the carcass cavity.
NOTE: when removing the lid of the nBPW container and after pouring the contents out, be sure to place the lid and the container on the sterile work surface so as not to contaminate the container and lid. The rinsate is poured back into this container after rinsing the bird.



Step 4 Pick up the bag by the top and, through the bag, manipulate the loose neck skin on the carcass to position it over the neck bone to act as a cushion and prevent punctures to the bag.



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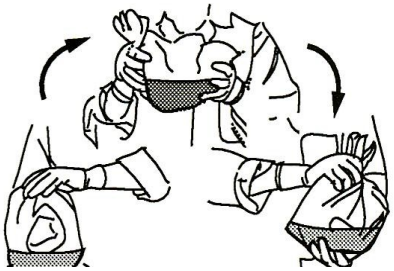
Step 5 Expel most of the air from the bag, twist the top of the bag and fold the twist over. Firmly hold the bag closed. While securely supporting the bird in the bag with your hands, rinse the entire carcass, using a repeated rocking motion to invert the bird 30 times (approximately 1 minute). To do this, hold the bird at the bottom of the bag with one hand and at the top of the bag with the other.



Keeping a secure grip on the bird, repeatedly invert your bottom hand slowly over the top. This procedure will ensure that all surfaces of the carcass, interior and exterior, are rinsed. As the bird is rinsed, a fluid "sloshing" sound should be heard.

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Step 6 Before collecting the 100 mL rinsate, aseptically remove the chicken from the sample bag by the following steps:

1. Rest the bag on a flat surface;
2. Carefully open the plastic bag containing the bird without touching the inside of the bag or the inside corners;
3. Work the plastic bag down around the carcass so that you can firmly grip one leg, without touching the inside of the plastic bag;
4. While holding the bag with the one hand, carefully remove the bird from the bag with the other hand; and
5. Place the bird back on the conveyor or table.

NOTE: It is not necessary to rinse the carcass with potable water prior to returning it to the line.

Collect the 100 mL rinsate sample from the sample bag immediately by:

1. Using the "V" formed by the bag at the lower corner as a pouring spout, carefully pour the rinsate into the open jar, collecting as much of the nBPW rinsate as possible, but at least 100 mL, and
2. Placing the cap back on the jar and checking to be sure that the lid is securely in place.

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Step 7 Place the collected and labeled sample container in a ziplock-type bag, expel any excess air, and seal the bag.

Collected samples are to be refrigerated within five (5) minutes of collection and held under refrigeration and VAAFM control until shipment to the laboratory.

Repeat these steps above for each *Salmonella* sample request. Use a different carcass for each sample.

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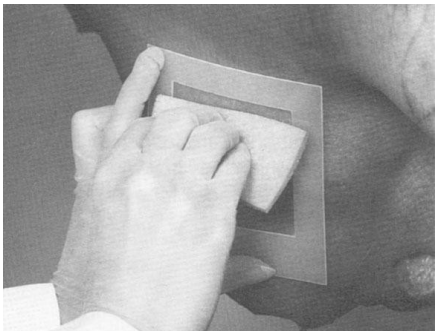
Attachment D

HOW TO SPONGE A CARCASS (GENERAL)

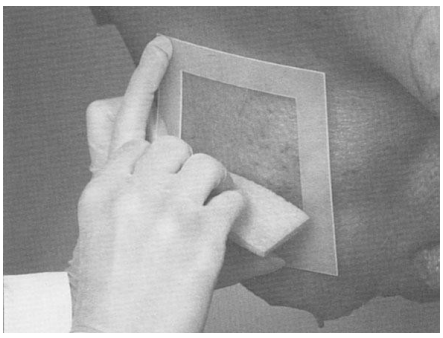
There are two methods to move the sponge across the sample surface for each direction:

Sponging Method One:

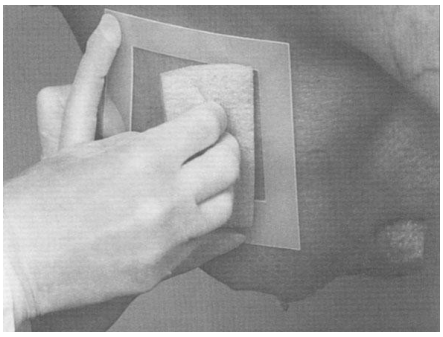
Firmly hold the sponge and wipe it across the surface in one direction. For vertical, wipe the sponge down. For horizontal, wipe it from left to right.



Lift the sponge and place it in the same beginning position and repeat wiping in the same direction across the sample site. Repeat this until it has been done 10 times.



Then change to the other direction (horizontal or vertical) and follow the same steps using the same side of the sponge.



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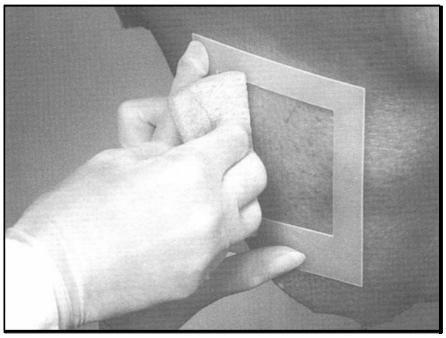
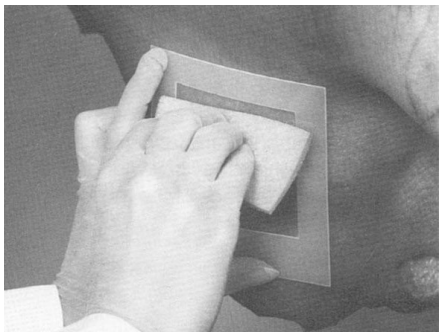
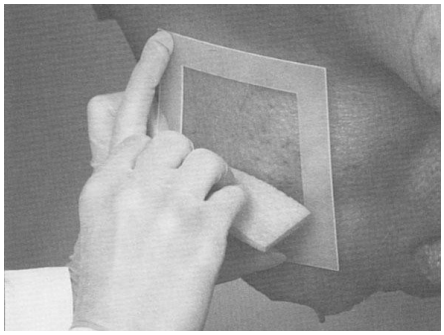


Sponging Method Two:

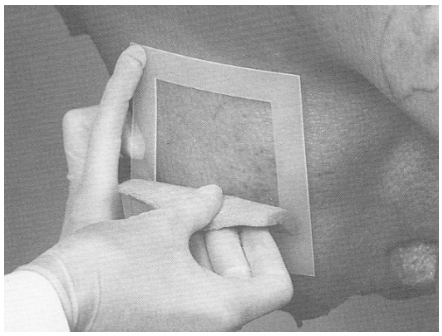
Firmly hold the sponge and wipe it across the surface in one direction. For vertical, wipe the sponge down. For horizontal, wipe it from left to right.





When you reach the end of the wipe, lift the sponge and turn your wrist so that your hand and the sponge are facing back in the direction that was just wiped. This allows the same surface of the sponge to contact the sample site.

Now wipe the sponge across the surface going the other way.



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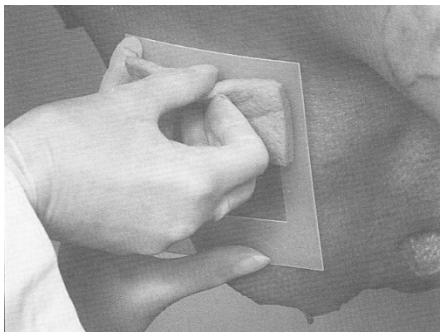
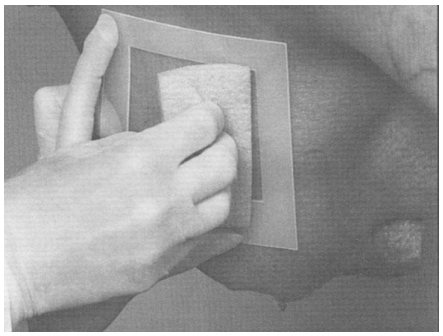
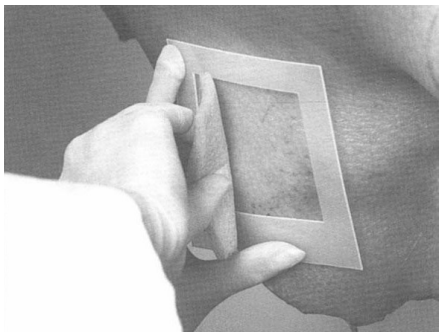
Repeat this until the surface has been wiped with 10 passes of the sponge (i.e., for horizontal, wiping left-to-right and right-to-left for 5 cycles; and for vertical, wiping from top-to-bottom and bottom-to-top for 5 cycles).



Then change to the other direction (horizontal or vertical) and follow the same steps using the same side of the sponge.



Do not switch sponging methods while at the same sample site. Remember that it is extremely important to conduct this and all sampling in a uniform manner to ensure valid sample results.



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Attachment E

SPONGE SAMPLING PROCEDURES FOR TURKEYS

Also, refer to Attachment 3 - How to sponge a carcass (General).

There will be TWO carcass swabs per post-chill sample with 10 mL of BPW diluent used to moisten the sponge for the *Salmonella* sample and 25-mL of BPW diluent used to moisten the sponge for the *Campylobacter* sample. IPP are to collect one turkey carcass for sampling. The first sponge is to be used to swab the left side of the carcass for *Salmonella*, while the second sponge is to be used to swab the right side of the carcass for *Campylobacter*.

The following is a list of the supplies for each young turkey sampling event:

shipping container:
3- pairs of sterile gloves
1- 10 mL tube of BPW marked “S”
1- 25 mL tube of BPW marked “C”

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2- sterile specimen sponges (swabs) in marked Whirl-Pak® bags; one swab labeled "C", one swab labeled "S"
2- sterile templates 5" x 10" cm in bag
2- quart resealable ziplock-type bags (secondary container)
1- VT Form 7355-2A/2B (Laboratory sample security seals)
Cardboard separators
Gel coolant packs
Food contact surface sanitizer

IPP are to refrigerate the BPW containers upon receipt. Ensuring that the BPW is prechilled is critical to this verification sampling procedure. Only use prechilled BPW.

Additional pairs of sterile gloves can be ordered from the Meat Inspection Office. IPP are to change disposable gloves whenever necessary, to prevent cross-contamination of birds and samples and are to avoid contamination of carcasses and sponge sampling supplies.

Use a small tote or caddy for carrying supplies to the sampling location. Sanitize the work surface. Wash and dry hands.

Place clean paper towels, tray-pack absorbent pads, a sanitized wire rack, or equivalent on the sanitized work surface. These will prevent the turkey carcass from slipping during sponge sampling.

At the post-chill sampling location**,** IPP are to determine a random time at which the carcass will reach the end of the drip line. IPP are to randomly select a poultry carcass from the post-chill area (after all interventions have taken place) and to allow drip time to prevent dilution of the sample.

Step 1 - Put on a pair of sterile gloves as described in Attachment B – How to put on sterile gloves.

IPP are to take all necessary precautions not to contaminate any of the sampling supplies and are to discontinue the sampling procedure if a contamination event occurs which would compromise the integrity of the submitted samples.

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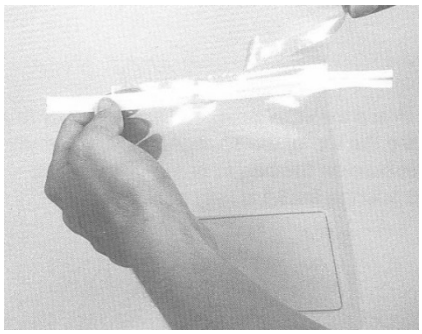
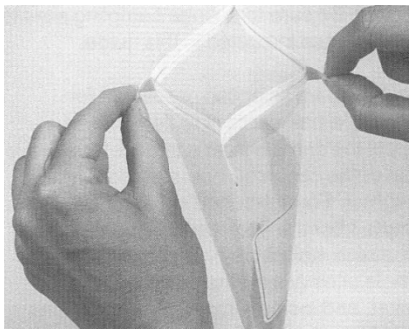
Step 2 - While wearing the first pair of sterile gloves, remove the turkey in a safe manner. Holding the turkey by the legs and avoiding contact with the back or thigh areas, place the turkey breast down on a sanitized work surface covered with clean paper towels or absorbent pads to prevent the carcass from slipping during sponge sampling. Remove and discard the gloves. If heavy birds require assistance for lifting, have helpers wear sterile gloves and ensure that they do not touch the sampling areas. For safety purposes, do not remove the turkey carcass from the shackles but collect it after it has dropped from the line.

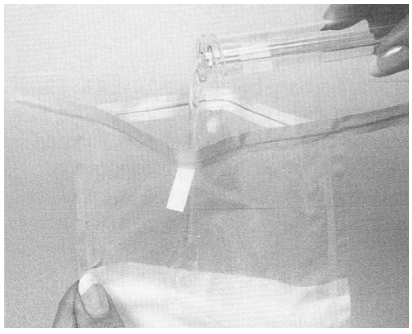
Open the sponge bag by tearing off the top perforated strip. Do not remove the wire closures from the bag. Pull apart the two small white tabs on either side to open the mouth of the bag.

Step 3 Open the sponge bag by tearing off the top perforated strip. Do not remove the wire closures from the bag. Pull apart the two small white tabs on either side to open the mouth of the bag.





Step 4 Remove the cap from the smaller, 10-mL pre-chilled sterile BPW container marked “S” designated for *Salmonella* sampling, being careful not to touch the container opening. Carefully pour the entire contents of the BPW container into the sponge bag marked “S”. Do not contaminate the top inside of the Whirl-Pak® bag. Set the empty BPW container aside.



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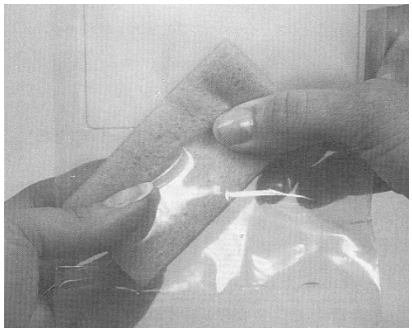
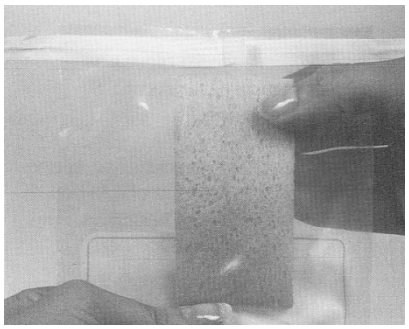
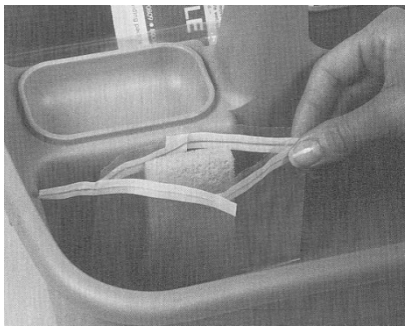
Step 5 Press the wire closures back together to close the top of the sponge bag. Use hand pressure on the outside of the bag to carefully massage the sponge until it is fully moistened.



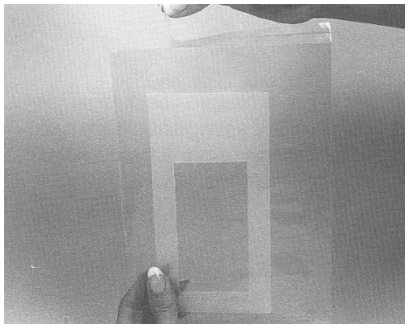
With the bag still closed, squeeze any excess diluent out of the sponge while carefully pushing the moistened sponge to the uppermost portion of the bag.



Step 6 Open the sponge sample bag, being careful not to touch its inner surface. The wire closure should keep the bag open.
Set the bag aside, being careful not to contaminate the sponge and careful not to spill the remaining BPW fluid.



Step 7 Open the sterile template bag by tearing off the top perforated strip. Set the template bag aside, being careful not to contaminate the template.



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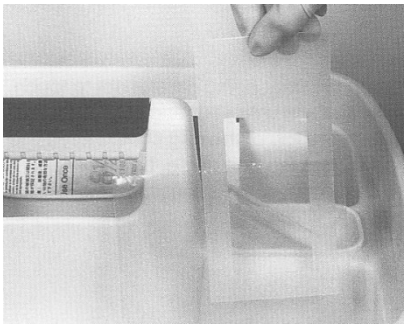
Step 8

Put on the second pair of sterile gloves.
Carefully remove the moistened sponge from the bag by grasping the end of the sampling sponge with your gloved sampling hand. Do not touch the outside of the Whirl-Pak® bag.

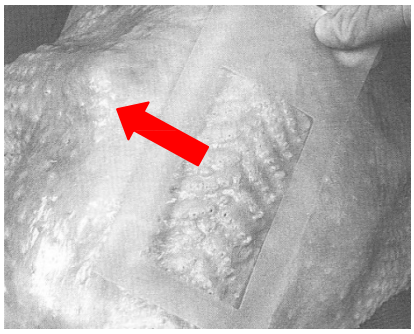
With your other gloved hand, retrieve the template by its outer edge, taking care not to contaminate the inner edges that define the template's sampling area.



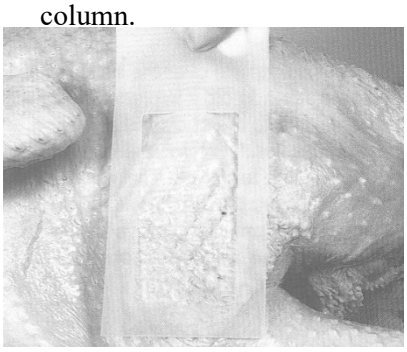
Step 9

It is important to sponge the sampling areas in the order of "least to most" contaminated to avoid spreading contamination on the carcass. Be sure to sponge sampling sites in the sequence indicated.

Place the template over the back sampling area and hold it in place to the LEFT of the vertebral column. Using your sampling hand, wipe the sponge over the entire enclosed area approximately 10 times vertically and 10 times horizontally. Use only one side of the sponge.
For a drawn picture see Sample Sites for Salmonella Testing of Turkey Carcasses.
NOTE: The template may need to be "rolled" from side to side as the sponging is performed since the surface of the carcass is not flat. This will ensure that the full 50 cm2 area is sampled during the sponging.



NOTE: Actual placement of each individual template used while sponging will be to the left or right of center and not directly on the vertebral column.



Repeat the sponging procedure using the same sponge but with the template placed over the LEFT thigh sampling area. Turn the sponge over so that the unused side of the sponge contacts the thigh surface, wiping the entire area enclosed by the template with approximately 10 vertical and 10 horizontal passes of the sponge. Lay aside the template to discard later.

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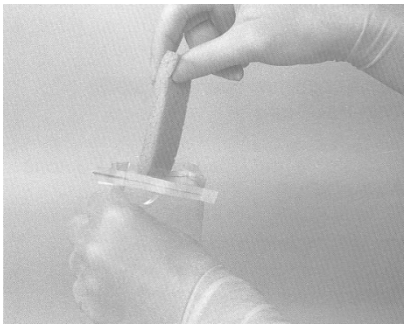
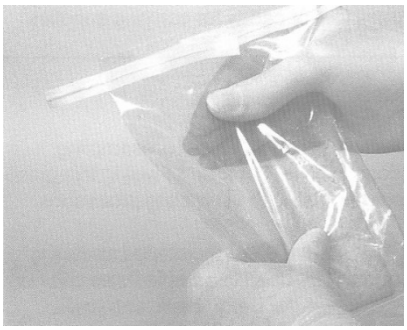
Step 10 Carefully replace the sponge into the Whirl-Pak® sample bag (marked with an "S") with any remaining portion of BPW without touching the outside of the bag with the sponge. Expel any excess air from the sample bag and fold over the top edge of the bag 3 or 4 times to close the top. Secure the top by folding the wire attachments back against the bag.

Discard the template.





Step 11 REPEAT steps 1- 10 using the other, larger, 25-mL pre-chilled sterile BPW container marked "C" designated for *Campylobacter* sampling and the Whirl- Pak® sponge bag marked "C". Swab the RIGHT side of the same turkey carcass using a new pair of gloves and a new template. Upon completion of the second swabbing, and securing the swab in its marked sample bag, return the turkey carcass to the point where you collected the bird.

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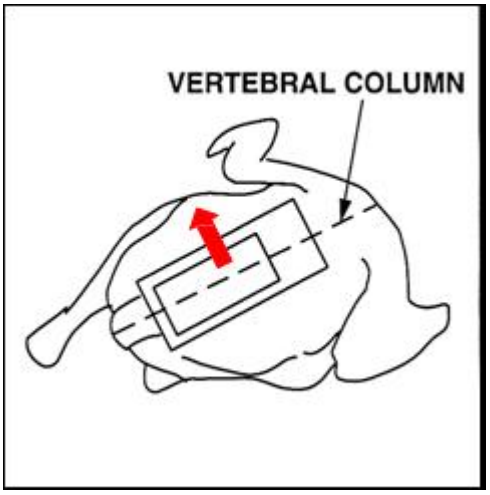
Sample Sites for *Salmonella* Testing of Turkey Carcasses:

Back

Locate the tail. The area to sample (5 cm x 10 cm) starts just anteriorly from the tail and extends forward along either side of the vertebral column. Two separate samples are taken individually, with one template and sponge used just to the left of the vertebral column, and the other template and sponge used just to the right of the vertebral column.



NOTE: Actual placement of each individual template used while sponging will be to the left or right of center and not directly on the vertebral column.

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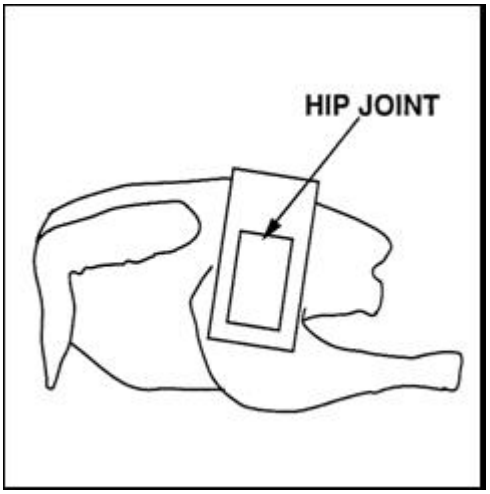
Thigh

Locate the hip joint. The area to sample (5 cm x 10 cm) starts at the hip joint and extends laterally and ventrally to cover the thigh area.



Attachment F - HOW TO SPONGE A BEEF CARCASS

I. PURPOSE OF THIS ATTACHMENT

Routine *Salmonella* verification of beef (Steers/Heifers and Cows/Bulls) carcasses has been suspended. The methodology is provided here for use in special projects or other instances where it may be required.

II. PREPARING TO COLLECT A SAMPLE

A. Select a time at which to collect the sample. Determine the times that carcasses chilled for 12 hours or more will be on hand. Then randomly select a time from within that time frame for collecting the samples.

B. Select the cooler site from which to collect the sample. Select a safe and accessible site in the cooler for collecting samples from a beef half-carcass. This site may be located at the transfer chain, grading chain, a rail, or other safe, uncrowded location in the cooler.

C. Use aseptic techniques..

1. Wash and sanitize hands.

2. Sanitize work surfaces (surfaces that will contact supplies while they are being gathered).
3. Gather the supplies.
4. Label the sponge bag.
5. Wash and sanitize hands.
6. Take supplies to the sampling location.
7. Sanitize work surfaces (surfaces that will contact supplies during sampling).
8. Lay absorbent towels or sanitized rack on work surface to prevent the carcass from slipping.

III. COLLECTING THE SAMPLE (SPONGE SAMPLE)

A. At the random time selected, go to the sampling location. Do not choose the carcass that is at the predetermined location. Instead, count back or ahead 5 sample units and choose the sixth unit to sample. (The reason for counting back or ahead 5 half-carcasses is to avoid any possible bias during selection.) Normally it should not be necessary to have the establishment move many half- carcasses to access a random one to sample.

B. Sponge the carcass and prepare the sample for shipping (follow the general sponging techniques as outlined in Attachment D – How to sponge a carcass (General)):

1. Position equipment (keep safety in mind).
2. Locate the areas of the carcass for sampling (see Sample Sites for *Salmonella* Testing of Beef Carcasses).
3. Layout supplies.
4. Open the sponge bag.
5. Pour BPW into the sponge bag.
6. Close the bag and massage the sponge.
7. Push the sponge to the top of the bag, open it, and set it aside on a sanitized surface.
8. Open the template bag and set it aside on a sanitized surface.
9. Put on the sterile gloves (see Attachment 1 – How to put on sterile gloves).
10. Remove the sponge.
11. Remove the template.
12. Lay the template over the flank (see Sample Sites for *Salmonella* Testing of Beef Carcasses). Do not touch the sampling area.
13. Hold the template with one gloved hand and use the other hand to wipe the area with the sponge.
14. Do 10 vertical wipes over the entire sample surface; then do 10 horizontal wipes over the entire sample surface.
15. Lay the template over the brisket (see Sample Sites for *Salmonella* Testing of Beef Carcasses). Do not touch the sampling area.
16. Hold the template with one gloved hand and use the other hand to wipe the area with the sponge.
17. Do 10 vertical wipes over the entire sample surface; then do 10 horizontal wipes over the entire sample surface.
18. Carefully climb to sample the rump without touching the template or sponge to any area not being sampled.
19. Lay the template over the rump (see Sample Sites for *Salmonella* Testing of Beef Carcasses). Do not touch the sampling area.
20. Hold the template with one gloved hand and use the other hand to wipe the area with the sponge.

21. Do 10 vertical wipes over the entire sample surface; then do 10 horizontal wipes over the entire sample surface.
22. Place the sponge in the Whirl-Pak® bag and seal the bag.
23. The sample is now complete. Follow the storage and shipping instructions in Chapter VI – Submitting the collected sample.

Sample Sites for *Salmonella* Testing of Beef Carcasses

Rump
Locate the posterior aspect of the ischium or aitch bone. Draw an imaginary line toward the Achilles tendon. At the point where the line intersects the cut surface of the round is the starting point for the rump sample.

Place the template over this area of the rump.

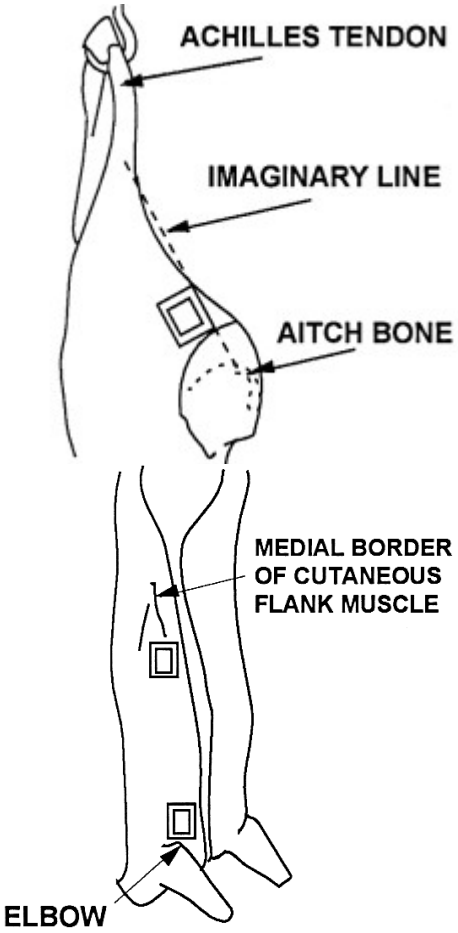
NOTE: This illustration has been purposely altered: a true lateral view of the carcass would not show the aitch bone. From a medial view, the whole 10 cm x 10 cm sample area could not be seen. Therefore, a lateral view with a portion of the round removed is shown to illustrate the location of the aitch bone.

Flank
Locate the cutaneous flank muscle (external abdominal oblique) and follow the medial border of the muscle anteriorly until it comes within approximately 3" of the midline.

This will be where to place the template.

Brisket
Locate the elbow of the carcass. Draw an imaginary line straight across (medially) to the midline cut.

This will be where to place the template.



IV. BEEF CARCASS SPONGE SAMPLING TECHNIQUE

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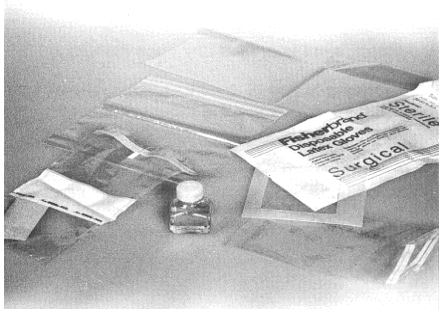
Step 1

Sampling supplies included in shipping container:

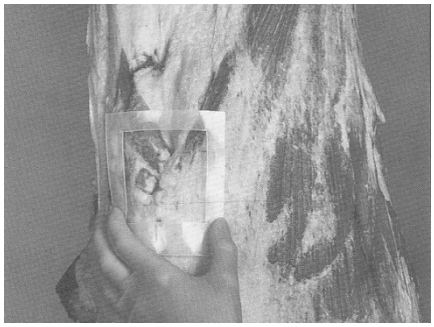


1 - Sterile specimen sponge in Whirl-Pak® bag
1 - 10 ml sterile pre-chilled Buffered Peptone Water (BPW)
1 - Sterile template in bag
1 – pair Sterile gloves
1 – 6" x 12" plastic sleeve for completed sample form
1 – FSIS Form 7355-2A/2B Laboratory sample security seal set
3 – FedEx preprinted billable stamps (one for each FSIS laboratory)
1 – Absorbent pad
1 – Foam plug per shipping container
Cardboard separators
Gel coolant packs

Ensure that all sample supplies are on hand. Use a small tote or caddy for carrying supplies to the sampling location. Sanitize the work surface.
Wash and dry hands.

Step 2

Carefully remove the moistened sponge from the bag by grasping the end of the sampling sponge with your gloved sampling hand. Do not touch the outside of the bag.



With your other gloved hand, retrieve the template by its outer edge, taking care not to contaminate the inner edges that define the template's sampling areas.

Place the template over the **flank** sampling area and hold it in place. Be careful not to contaminate the enclosed sampling area with your hands.

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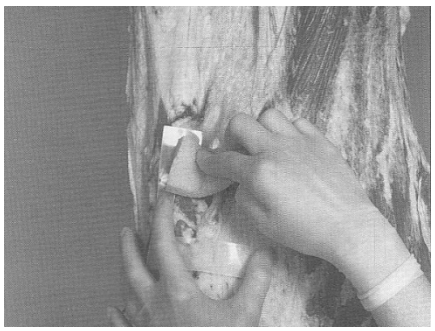
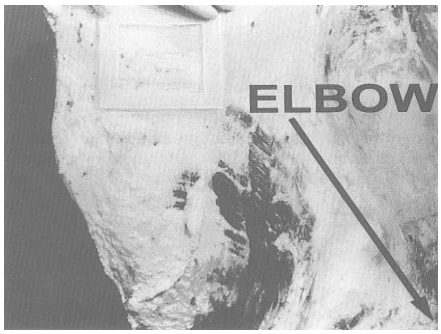
Step 3 With the sampling hand, wipe the sponge over the entire enclosed area (5 cm x 10 cm) approximately 10 times vertically and 10 times horizontally. Use only one side of the sponge.

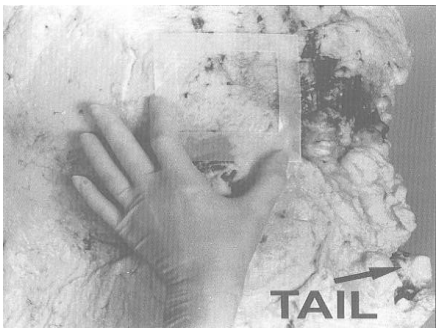
NOTE: the template may need to be "rolled" from side to side as the sponging is performed since the surface of the carcass is not flat. This will ensure that the full 100 cm2 area is sampled during the sponging.



Step 4 Repeat steps 2 and 3 for the **brisket** area, using the same surface of the sponge that you used to wipe the **flank** sampling area.



Step 5 Repeat steps 2 and 3 for the **rump** area, this time using the "clean" side of the sponge (the side that was not used to wipe the flank and brisket areas). After sponging the **rump** area, transfer the template back to the sampling hand. Be careful not to contaminate the sponge. Climb down from the ladder while holding the handrail with your "climbing" hand. Lay the template aside to discard later.



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ATTACHMENT G

HOW TO SPONGE A SWINE CARCASS

I. PURPOSE OF THIS ATTACHMENT

Routine *Salmonella* verification of swine (Market Hogs) carcasses has been suspended. The methodology is provided here for use in special projects or other instances where it may be required.

II. PREPARING TO COLLECT A SAMPLE

A. Select a time at which to collect the sample. Determine the times that carcasses chilled for 12 hours or more will be on hand. Then randomly select a time from within that time frame for collecting the samples.

B. Select the cooler site from which to collect the sample. Select a safe and accessible site in the cooler for collecting samples from a swine carcass. This site may be located at the transfer chain, grading chain, a rail, or other safe, uncrowded location in the cooler.

C. Use aseptic techniques as outlined in Chapter II, Section I.A.2.

1. Wash and sanitize hands.
2. Sanitize work surfaces (surfaces that will contact supplies while they are being gathered).
3. Gather the supplies.
4. Label the sponge bag.
5. Wash and sanitize hands.
6. Take supplies to the sampling location.
7. Sanitize work surfaces (surfaces that will contact supplies during sampling).

III. COLLECTING THE SAMPLE (SPONGE SAMPLE)

A. At the random time selected, go to the sampling location. . Do not choose the carcass that is at the predetermined location. Instead, count back or ahead 5 sample units and choose the sixth unit to sample. Counting back or ahead 5 carcasses avoids any possible bias during selection. Normally it should not be necessary to have the establishment move many carcasses to access a random one to sample.

Swine carcasses that are routinely partially skinned may be used.

C. Sponge the carcass and prepare the sample for shipping (follow the general sponging techniques as outlined in Attachment D – How to sponge a carcass (General)):

1. Position equipment (keep safety in mind).
2. Locate the areas of the carcass for sampling (see Sample Sites for *Salmonella* Testing of Swine Carcasses).
3. Layout supplies.

4. Open the sponge bag.
5. Pour BPW into the sponge bag.
6. Close the bag and massage the sponge.
7. Push the sponge to the top of the bag, open it, and set it aside on a sanitized surface.
8. Open the template bag and set it aside on a sanitized surface.
9. Put on the sterile gloves (see Attachment B – How to put on sterile gloves).
10. Remove the sponge.
11. Remove the template.
12. Lay the template over the belly (see Sample Sites for *Salmonella* Testing of Swine Carcasses). Do not touch the sampling area.
13. Hold the template with one gloved hand and use the other hand to wipe the area with the sponge.
14. Do 10 vertical wipes over the entire sample surface; then do 10 horizontal wipes over the entire sample surface.
15. Carefully climb to sample the ham without touching the template or sponge to any area not being sampled.
16. Lay the template over the ham (see Sample Sites for *Salmonella* Testing of Swine Carcasses). Do not touch the sampling area.
17. Hold the template with one gloved hand and use the other hand to wipe the area with the sponge.
18. Do 10 vertical wipes over the entire sample surface; then do 10 horizontal wipes over the entire sample surface.
19. Carefully climb down to sample the jowl without touching the template or sponge to any area not being sampled.
20. Lay the template over the jowl (see Sample Sites for *Salmonella* Testing of Swine Carcasses). Do not touch the sampling area.
21. Hold the template with one gloved hand and use the other hand to wipe the area with the sponge.
22. Do 10 vertical wipes over the entire sample surface; then do 10 horizontal wipes over the entire sample surface.
23. Place the sponge in the Whirl-Pak® bag and seal the bag.
24. The sample is now complete. Follow the storage and shipping instructions in Chapter VI – Submitting the collected sample.

Sample Sites for *Salmonella* Testing of Swine Carcasses

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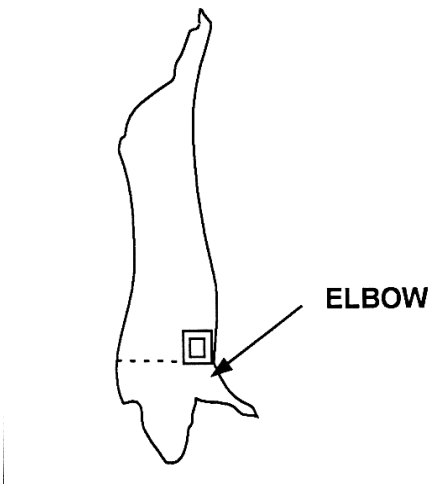
Belly

Locate the elbow of the carcass.

Place the template over this area (armpit) of the belly.



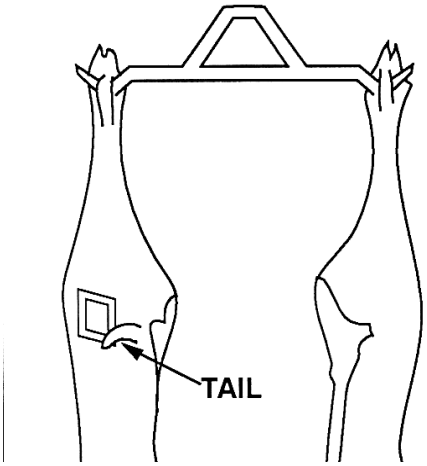
Jowl

Draw an imaginary line from the atlas/axis joint to the ventral midline; all skin below that point will be considered the jowl.

Ham

From the dorsal position, locate the lateral surface of the base of the tail.

Place the template over this area of the ham. Do not include the base of the tail.



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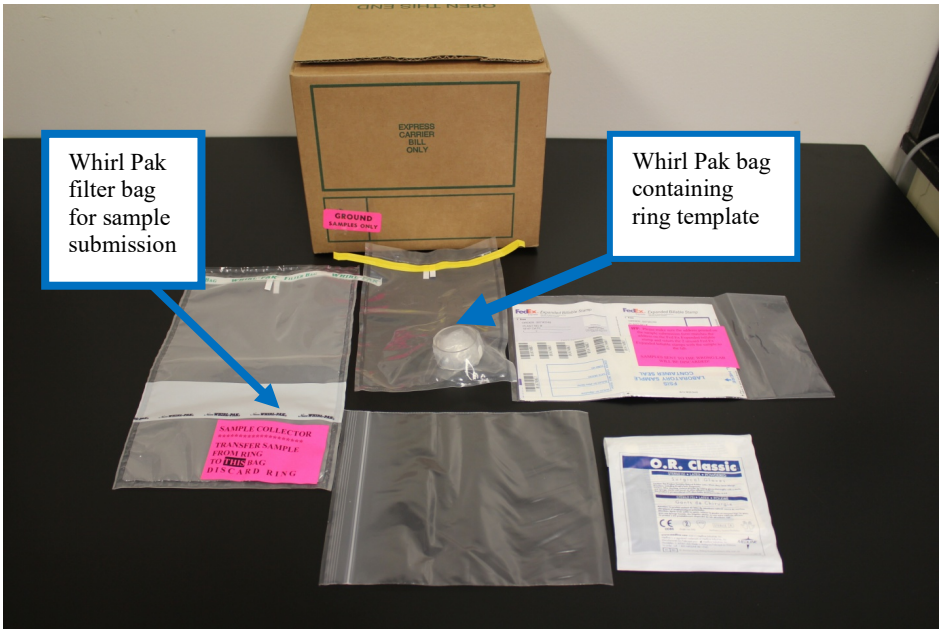
Attachment H

HOW TO COLLECT A GROUND PRODUCT (BEEF, CHICKEN OR TURKEY) SAMPLE

Step 1 Ensure that all sample supplies are on hand. Use a small tote or caddy for carrying supplies to the sampling location. Sanitize the work surface. Wash and dry hands.



Materials for sampling contained in shipping container:

1 - Sterile Whirl-Pak® bag with a sterile, clear, rigid plastic ring template overwrapped in a sealed sheet of sterile plastic.
1 – Sterile Whirlpak® filter bag (labeled with a pink label)
1 – pair Sterile gloves
1 – 6” x 12” plastic sleeve for completed sample form
1 – VT Form Laboratory sample security seal set
Cardboard separators
Gel coolant packs

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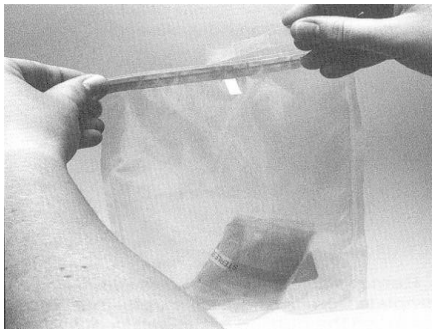
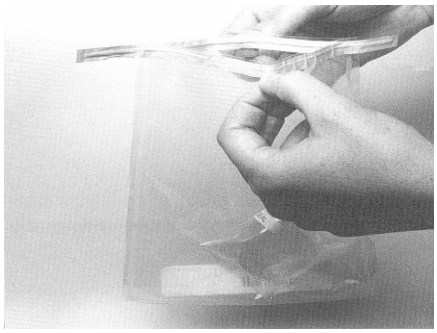
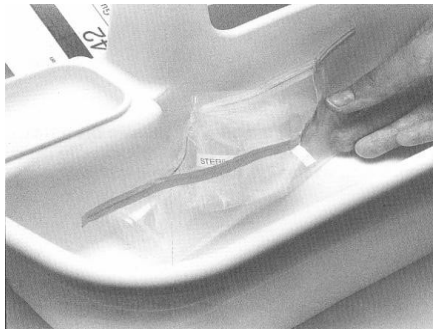
Step 2 Open the Whirl-Pak® bag containing the ring template by holding it at one corner by the wire closure (usually colored white or yellow). Tear off the clear perforated strip at the top of the bag. Do not remove or tear off the wire closures.



Step 3 Pull apart the two small white tabs on either side of the bag to open the mouth of the bag.

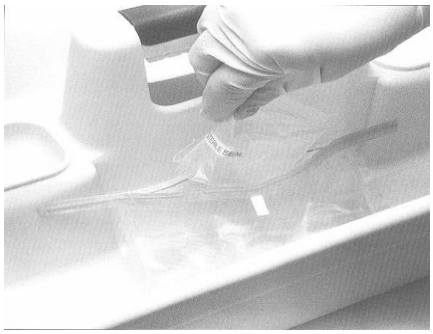


Step 4 While touching only the outside of the bag, manipulate the sterile plastic wrapped ring up to the top of the bag. Fold the bottom of the bag to keep the ring positioned at the top and set the bag upright on a sterile surface. Be careful not to contaminate the ring or the inside of the bag.



Step 5 Put on a pair of sterile gloves as described in Attachment 1 – How to put on sterile gloves.

Remove the sterile plastic wrapped ring template from the bag. Be careful that you do not touch the outside of the bag or any other non-sterile surface.



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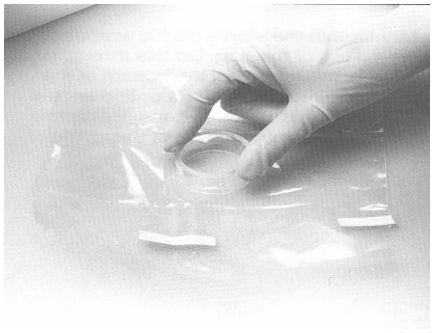
Step 6 Open the Whirl-Pak® filter bag by holding it at one corner by the wire closure. Tear off the clear perforated strip at the top of the bag. Do not remove or tear off the wire closures. Pull apart the two small white tabs on either side of the bag to open the mouth of the bag.

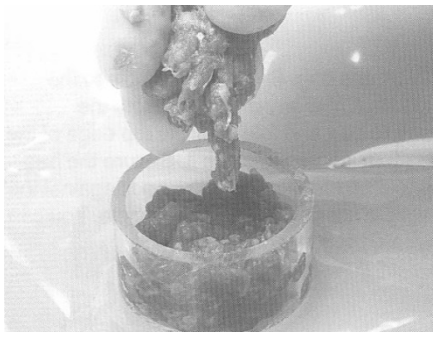
The interior of the bag is sterile so be careful not to touch the inside. Set the bag upright in the caddy.

Step 7 Open the sterile tape seal and unwrap the sterile plastic ring template.

Place the sterile sheet of plastic on a flat sanitized work surface. Place the sterile rigid plastic ring in the center of the plastic sheet.



Step 8 Collect enough raw ground product to fill the sterile ring. Select various portions of the product to ensure that the sample is representative of the batch of product. Do not touch any surface except for the ring and the raw ground product selected for sampling.



Step 9 Pack the sample into the ring. Do this firmly to eliminate any air pockets. Fill the ring level to the top. It is critical that the ring be filled in this manner to ensure that a 25-gram sample is uniformly collected.

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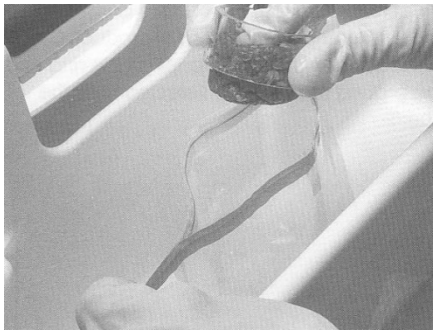
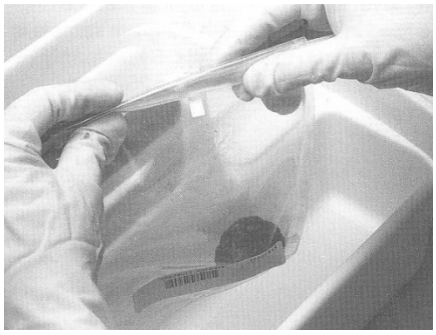
Step 10 Lift the filled ring from the plastic sheet.
Hold the ring over the open end of the sterile Whirl-Pak® filter bag. Push the sample out of the ring and into the bag. Do not let the sample touch anything other than the inside of the bag.

NOTE: do not place the sample in the Whirl Pak bag that contained the ring template. Use the Whirl Pak filter bag only (the one with the pink label applied)



Step 11 Lift the bag. Shake the sample to the bottom. Expel any excess air from the sample bag and fold over the top edge of the bag 3 or 4 times to close it. Secure the bag by folding the attached wire back against the bag.



Do not double-bag the sample. Discard the sample ring and the plastic sheet. Collected samples are to be refrigerated within five (5) minutes of collection and held under refrigeration and FSIS control until shipment to the laboratory.

Repeat these steps above for each sample request.

Attachment I

END OF SET LETTER EXAMPLE

This is an example of an EOS letter with fictitious data to illustrate the sections and flow of the letter. Depending on the results, the letter will have additional or deleted information:

Establishment 99999 P

Sunshine Farms

Sunshine City, FL 00000

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Dear Establishment 99999 P:

This letter is sent to provide compiled *Salmonella* serotype and *Campylobacter* set results[1] and inform you of where your establishment stands with respect to this risk-based *Salmonella* and *Campylobacter* testing program and strategy. The Food Safety and Inspection Service (FSIS) bases its *Salmonella* and *Campylobacter* verification testing program and strategy on the combination of an establishment's overall process control, individual *Salmonella* subtype (serotype, pulsed-field gel electrophoresis (PFGE) pattern, and antimicrobial susceptibility profile) results. FSIS focuses more intently on establishments that have had a high percentage of *Salmonella* or *Campylobacter* positive test results, with emphasis on *Salmonella* serotypes that are commonly associated with human illness, as well as other *Salmonella* subtypes and *Salmonella* antimicrobial resistance patterns of potential public health concern. You have been provided individual sample results as they have become available.

Process Control

With the completion of a Young Chicken carcass *Salmonella* and *Campylobacter* verification sample set on September 23, 2011, Establishment 99999 P has tested at or below half the acceptable number of positives for *Salmonella* and at or below the acceptable number of positives for *Campylobacter* verification testing for this product class. These results are an indication that the establishment maintained consistent process control for the incidence of generic *Salmonella* during the period of sampling. Together with the results from the previous set, this places Establishment 99999 P in Category 1. In addition these results show that your establishment has passed the Campylobacter Performance Standard for the last set and this product class. Several compliance guidelines can be accessed on the FSIS webpage2 and provide detailed information on controlling *Salmonella* and *Campylobacter*. A more detailed explanation of FSIS *Salmonella* process control categories can also be found on the FSIS webpage3.

Summary Results from Last Two Sampling Sets:

Product class	Performance Standard*			Date set completed	Number of samples analyzed	Number of samples positive for *Salmonella*	Number of samples positive for *Campylo-bacter*	Current *Salmonella* process control category
	Number of samples taken	Maximum *Salmonella* positives allowed	Maximum *Campylo-bacter* positives allowed					
Young Chickens	51	5	8	09/23/11	51	1	2	Cat 1
		12	NA	06/05/09	51	5	NA	

1 The lag-time between reporting individual results and this compiled letter is a result of the time required to complete all laboratory and reporting procedures. PFGE and antimicrobial susceptibility pattern information will be provided in a separate mailing when the information becomes available.
2 http://www.fsis.usda.gov/Regulations_&_Policies/Compliance_Guides_Index/index.asp#Salmonella
3 *Salmonella* Scheduling Algorithm Functions

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*New Performance Standard in effect as of July 1, 2011

Public Health-focused Evaluation of Isolates by Serotype

FSIS has evaluated the serotype[4] of the *Salmonella* isolates from the most recent verification sample set referenced above and is providing public health-focused information on these recent isolates. Serotyping, PFGE pattern identification, and antimicrobial susceptibility profiling[5] of bacterial isolates provide added distinction to *Salmonella* isolates from food and environmental samples and from human specimens. This information can be used to better focus food safety efforts to protect public health. Compiled serotypes are provided in this letter to facilitate the establishment's efforts to identify interventions (e.g., pre-harvest interventions) it may use to address these serotypes. PFGE and antimicrobial susceptibility pattern information will be provided in a separate mailing once it becomes available.

Salmonella Serotype Results for the Most Recent Sampling Set:

Form ID	Collection Date	Serotype	Serotype commonly associated with human illness[6]
00000000	08/03/11	ENTERITIDIS	Yes***

*** There was one sample that had a serotype commonly associated with human illness in this set, which is a medium number for this product class[7].

Serotype commonly associated with human illness: These *Salmonella* isolates have a serotype that is commonly associated with human illness. A list of the serotypes that are more commonly associated with human illness can be found on the CDC Web site at:

http://www.cdc.gov/ncezid/dfwed/PDFs/salmonella-annual-report-2011-508c.pdf

4 Serotypes of positive samples are provided by the National Veterinary Services Laboratory of USDA.
5 PFGE and antimicrobial susceptibility patterns of positive samples are provided by the Agricultural Research Service
6 Based on the CDC's most recent published list of 20 most frequently reported *Salmonella* serotypes from humans (http://www.cdc.gov/ncezid/dfwed/PDFs/salmonella-annual-report-2011-508c.pdf). FSIS will inform establishments through this letter if serotypes are otherwise of heightened interest, as determined through additional analysis of available data.
7 Based on the distribution of serotypes commonly associated with human illness in this product class found in FSIS verification testing over the past two calendar years, where results lower than the 25th percentile equals "low", results above the 75th percentile equals "high", and all other results equal "medium".

Isolates with a serotype not included on this list have a serotype that is less frequently associated with human illness. Please note that all *Salmonella* serotypes are considered to be capable of causing illness in humans.

Discussion of Compiled Set Results

The following results related to your operation are being provided for you to use in the evaluation of your operation:

The verification results are an indication that your establishment maintained consistent process control for the incidence of generic *Salmonella* during the period of sampling and passed the *Campylobacter* Performance Standard. In addition one *Salmonella* isolate had a serotype commonly associated with human illness, which is a medium number for this product class. In the event additional follow-up searches alter the establishment's serotyping results, a revised letter will be issued to the establishment.

FSIS will use *Salmonella* process control and serotype as well as *Campylobacter* set results to further determine scheduling for *Salmonella* and *Campylobacter* testing. Based on the present *Salmonella* serotypes commonly associated with human illness, Establishment 99999 P is likely to be scheduled for another sample set sooner than an establishment that did not have the individual serotype results that your establishment has had.

FSIS expects establishments to consider these testing results in the decision-making process when evaluating the effectiveness of its overall food safety system. This could be accomplished by establishments identifying and implementing relevant pre-harvest or post-harvest strategies. More information on such strategies can be found in available Agency Compliance Guidelines for controlling *Salmonella* and *Campylobacter* which can be accessed on the FSIS webpage8.

Please be advised that an establishment that does not adequately take the provided information into account in the decision-making process when evaluating the effectiveness of its overall food safety system may be determined to have an ineffective food safety system. In addition, if FSIS determines that a product produced by an establishment is associated with human illness because *Salmonella* is present in that product, FSIS may consider the product adulterated and take appropriate regulatory action.
Please direct questions to askFSIS (http://askfsis.custhelp.com).

Sincerely,

[DM]

Office of Field Operations

8 http://www.fsis.usda.gov/Regulations_&_Policies/Compliance_Guides_Index/index.asp#Salmonella

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cc: Inspector-in-Charge (via electronic copy)

Front-Line Supervisor (via electronic copy)