

FSIS Establishment Eligibility Criteria for the *Salmonella* Verification Sampling Program¹

And

FSIS Scheduling Algorithm for the *Salmonella* Verification Sampling Program for Raw Meat and Poultry

Introduction

FSIS schedules up to 90 new sample sets each month under the *Salmonella* Verification Sampling Program for Raw Meat and Poultry.² The establishments and products selected for sample sets are chosen according to a risk-based algorithm from a list of eligible establishments and their respective products. These are the criteria used to create this list of plants and their products that are eligible for inclusion in the *Salmonella* Verification Sampling Program, and the methods used to select establishments for sampling.

Eligibility Criteria and the Sampling Frame

The *Salmonella* Verification Sampling Program currently schedules 5 different product classes for sampling: Young Chicken, Young Turkeys, Ground Beef, Ground Chicken, and Ground Turkey. Eligibility requirements for the Raw Intact Products differ from the Raw Ground Products.³ The first step in the scheduling process is to assemble the sampling frame, i.e. list of eligible establishments and their respective products. A plant's HACCP size does not factor into its eligibility.

I. Establishments Producing Eligible Product

The first step in this process is to create a list of all establishments that produce sufficient volumes of eligible products. Volume requirements were implemented by Policy to ensure that a sample set could be completed within a reasonable timeframe (goal: < 2 years).

1) Intact Raw Products

Using slaughter volume data captured by PHIS, the total number of each eligible intact product slaughtered at FSIS establishments over the last 12 months is collected.

Establishments that meet the minimum production volume requirements are kept.

Young Chickens: minimum of 20,000 heads/year slaughtered

Turkeys: minimum of 20,000 heads/year slaughtered

2) Raw Ground Beef

Establishments that have products listed in their plant profiles that are eligible for the MT43 sampling program (*E. coli* in Raw Ground Beef are also eligible for *Salmonella* Verification sampling. The average daily raw ground beef production volume listed in the plant profile is used to determine whether a plant meets minimum production volume requirements:

1. This includes *Campylobacter* testing for Broiler and Turkey sets begun after July 1, 2011.

2. See Federal Register Notice of July 25, 1996 regarding the HACCP Systems Final Rule; <http://www.fsis.usda.gov/OPPDE/rdad/FRPubs/93-016F.pdf>

3. Until further notice, *Salmonella* sampling of Market Hogs, Cows/Bulls, and Steers/Heifers has been suspended.

- A. Raw Ground Beef: minimum of 1000 pounds/day produced⁴

3) Raw Ground Poultry (Chicken and Turkey)

Establishments that have the products “Ground Chicken” or “Ground Turkey” listed in their plant profiles are eligible for *Salmonella* Verification Sampling. The average daily raw ground chicken or turkey production volume listed in the plant profile is used to determine whether a plant meets minimum production volume requirements:

- A. Raw Ground Chicken: minimum of 1000 pounds/day produced⁵
- B. Raw Ground Turkey: minimum of 1000 pounds/day produced⁵

II. Active Plants

The second step is to keep only establishments that are currently listed as active in their plant profiles. Plants that are shut down or withdrawn from inspection are removed from eligibility, as well as plants that are currently inactive for any reason (seasonal producers, temporarily closure, etc.).

III. Exclusions

Next, plants that meet certain exclusionary criteria are removed from the sampling frame. These criteria include the following:

1) At Establishment Level

- A. Plants that are currently in an ongoing set for any product are removed from the sampling frame.⁶
- B. Plants that completed and passed a set within 30 days of the date the sets are being scheduled to start collection are removed from the sampling frame.

2) At Establishment Product Level

- A. Plants that perform only exempt slaughter (custom or religious slaughter) are identified by responses to prior sampling requests.⁷ Plants that returned a *Salmonella* Verification sampling request form with a code 60 response (“Requested sample/product never slaughtered/produced”) within 6 months of the date the sets are being scheduled to start collection are removed from the sampling frame for that product. Therefore, these plants will get sampling requests a minimum of 2 times a year, which they will need to cancel with a code 60 reason.

4. Plants producing less than 1,000 pounds of Raw Ground Beef per day are tested for *Salmonella* under the MT43S (low volume) sampling program.

5. FSIS Notice to expand *Salmonella* Verification testing eligibility to include mechanically separated and other raw comminuted poultry products is currently in development. This will increase the number of plants eligible for ground poultry sampling.

6. If a plant products multiple products, these products are scheduled independently; however, it will not be scheduled for more than one set at a time.

7. Plants that perform both exempt and non-exempt slaughter are eligible for Verification Sampling for the non-exempt products.

Scheduling Algorithm

Once the sampling frame has been assembled, the list of eligible establishments and their respective products is sorted by certain criteria. Then the top N plants are selected from this list.⁸ These are the priority groups and the order in which they are sorted, in descending order of importance.⁹

IV. Plant Category or Plant Status

Plants are initially sorted by category or status.¹⁰

Category 3 Establishments (includes Establishments with One Completed Set that was Failing)
New Establishments and Existing Establishments with Newly Eligible Product¹¹

Establishments with One Completed Set that was Passing

Category 2 Establishments (≥ 100 days since last set)

Category 2T Establishments (≥ 100 days since last set)

Category 1 Establishments (≥ 660 days since last set)

Category 1 Establishments (365 to 659 days since last set)¹²

V. Product

Within each status category, plants are then sorted based on product priority.

Young Chickens

Young Turkeys

Ground Chicken¹³

Ground Turkey

Ground Beef

VI. Most Recent Set Result

Within each product class, priority is assigned based on the result of the most recent *Salmonella* set.

Failed; Exceeded Performance Standard

Passed; > 50% Performance Standard

Passed; $\leq 50\%$ Performance Standard

VII. Human Health Serotypes

Within each group of recent set results, the next priority is given to the number of human health serotype isolates identified in samples from an establishment's **last** set.¹⁴

8. "N" is an integer that can change from month to month depending on current lab capacity. N typically ranges between 75 and 90.

9. This algorithm is subject to periodic intra-program review and adjustment; during natural disasters (e.g., hurricane), Category 2 plants not currently scheduled may be scheduled.

10. See FSIS method to categorize Salmonella establishments published in Federal Register Notice of January 28, 2008 (73 FR 4767-4774; <http://www.fsis.usda.gov/OPPDE/rdad/FRPubs/2006-0034.htm>).

11. Includes eligible turkey slaughter plants (carcasses) as of May 2006, and any new plant operating for at least 90 days (to accommodate 9 CFR 304.3)

12. Category 1 Establishments are not routinely scheduled for sampling until at least 12 months after their last set unless special request is made by IPP due to a plant's change in process.

13. If plant is combination carcass/grinding operation, these products are scheduled independently (these plants will have a category for each product); carcass and ground product sets will not be scheduled concurrently.

VIII. Days Since Last Completed Set

Final priority is given to the number of days since each establishment's last completed set (the more time has passed, the higher the priority).

Additional Requirements

As monthly availability permits, establishments may also be scheduled for *Salmonella* Verification Sample Sets by request from personnel in the Office of Field Operations (OFO).

Young Chicken and Turkey *Salmonella* sets scheduled after July 1, 2011 are being co-analyzed for *Campylobacter*. All Young Chicken and Turkey establishments will maintain their *Salmonella* category statuses, but will be marked as having "newly eligible product" or "one completed set" until two sets are completed under the new testing program.¹⁵

Plant categories for these poultry establishments are based on the *Salmonella* set results, however, if a plant fails a set for EITHER *Salmonella* OR *Campylobacter* it will be treated as a failed set (for the purposes of scheduling only) and be scheduled for immediate follow-up set the next month.

Due to Laboratory capacity for analysis of *Campylobacter*, the maximum number of Young Chicken and Turkey sets that can be scheduled each month had been 16 for the first 12 months. This limit is currently up to 40 per month. The remainder of the available sample sets will come from other products.

14. Number calculated using top 20 Human Health Serotypes for most recent calendar year as reported by the CDC.

15. Once 90% of Broiler and Turkey establishments have 2 completed sets under the new standard, FSIS will begin putting them into categories for *Campylobacter* as well as *Salmonella*.