



Quarterly Progress Report on *Salmonella* and *Campylobacter* Testing of Selected Raw Meat and Poultry Products: Preliminary Results, July 2015 to September 2015

Executive Summary

In May 2015, FSIS began testing poultry carcasses under new project codes (HC_CH_CARC01 and HC_TU_CARC01) related to PR/HACCP verification testing and discontinued the previous set-based verification projects (HC11_BR and HC11_TU). Results from both types of testing are presented in this report, with the set-based testing referred to as either 'Young Chickens' or 'Set-based Young Chicken Testing' or either 'Young Turkeys' or 'Set-based Young Turkey Testing.' The newer projects are referred to as either 'Moving window-based Young Chicken Carcasses' or 'Moving window-based Young Turkey Carcasses.'

- There were 14 beef and zero (0) poultry carcass samples collected and analyzed for *Salmonella* in the original set-based PR/HACCP verification program, and 2421 samples analyzed for new moving window-based PR/HACCP verification projects on Young Chicken Carcasses and Young Turkey Carcasses.
 - Moving window-based Young Chicken Carcasses – 1.4% positive (1997 samples analyzed)
 - Moving window-based Young Turkey Carcasses – 0.9% positive (424 samples analyzed)
- There were zero (0) carcass samples analyzed for *Campylobacter* from the original set-based PR/HACCP verification program, and 2207 samples also analyzed for new moving window-based projects (HC_CH_CARC01 and HC_TU_CARC01):
 - Moving window-based Young Chicken Carcasses – 2.2% positive (1810 samples analyzed)
 - Moving window-based Young Turkey Carcasses – 1.5% positive (397 samples analyzed)
- With the publication of "Changes to the *Salmonella* and *Campylobacter* Verification Testing Program: Proposed Performance Standards for *Salmonella* and *Campylobacter* in Not-Ready-to-Eat Comminuted Chicken and Turkey Products and Raw Chicken Parts and Related Agency Verification Procedures and Other Changes to Agency Sampling," 80 FR 3940 (March 10, 2015), FSIS has suspended the categorization of establishments until such time as changes to FSIS sampling programs have been implemented. These changes are expected to be fully implemented by the end of May 2016. Not-Ready-To-Eat (NRTE) Comminuted Poultry Sampling Projects were discontinued after May 2015 and are therefore not included in this report.

- Small production volume beef establishments are being analyzed under the MT43 (raw ground beef) sampling program for both *E. coli* O157:H7 and *Salmonella*.¹ A total of 2688 samples were analyzed in the raw ground beef sampling program. Of those, 82 (3.1%) were positive for *Salmonella*.
- Out of 1614 samples analyzed in the ten (10) other domestic MT sampling projects, 63 samples (3.9%) were *Salmonella* positive, while in imported raw beef products tested, three samples of 163 (1.8%) were positive for *Salmonella*.
- There were 280 positive out of 1267 samples analyzed for *Salmonella* (22.1%) for Chicken Parts, and 174 positive out of 1170 samples analyzed for *Campylobacter* (14.9%) for Chicken Parts.
- There were 76 positive out of 259 samples analyzed for *Salmonella* (29.3%) from sampling in Ground and Other Comminuted Chicken (not Mechanically Separated), and 34 positive out of 206 analyzed samples (16.5%) for *Salmonella* from sampling in Ground and Other Comminuted Turkey (not Mechanically Separated), 16 positive out of 22 samples analyzed (72.7%) from Exploratory Sampling for Mechanically Separated Chicken, and 5 positive out of 19 samples analyzed (26.3%) from Exploratory Sampling for Mechanically Separated Turkey.
- There were eight (8) positive out of 254 samples analyzed for *Campylobacter* (3.1%) from Ground and Other Comminuted Chicken (not Mechanically Separated), and 0 positive out of 202 analyzed samples (0%) for *Campylobacter* from Ground and Other Comminuted Turkey (not Mechanically Separated), 2 positive out of 22 *Campylobacter* samples analyzed (9.1%) from Exploratory Sampling for Mechanically Separated Chicken, and 0 positive out of 19 *Campylobacter* samples analyzed (0%) from Exploratory Sampling for Mechanically Separated Turkey.

¹ Raw beef samples, including import MT08 and MT51 samples, collected for *E. coli* O157:H7 and/or non-O157 STEC analyses are also analyzed for *Salmonella* by [FSIS Notice 18-15, which was implemented on July 1, 2014.](#)

This report discusses the *Salmonella* and *Campylobacter* verification sampling results for the third quarter of CY2015 as presented in Tables 1-7, Chart 1, and Figures 1-6.² It no longer includes sampling results from the NRTE Comminuted Poultry Sampling Project in Tables 5a and 5b because these sampling projects were replaced by new sampling projects in May 2015, so there is no data to report for July through September 2015.³ Tables and charts related to establishment categories are currently excluded from these quarterly reports until such time as new projects announced in 80 FR at 3940 are fully implemented. The table and chart titles will remain in place with a note about the temporary exclusion, however.

In May 2015, FSIS began testing poultry carcasses under new project codes (HC_CH_CARC01 and HC_TU_CARC01) related to PR/HACCP verification testing and discontinued the previous set-based verification projects (HC11_BR and HC11_TU). Results from both types of testing are presented in this report, with the set-based testing referred to as either 'Young Chickens' or 'Set-based Young Chicken Testing' or either 'Young Turkeys' or 'Set-based Young Turkey Testing.' The newer projects are referred to as either 'Moving window-based Young Chicken Carcasses' or 'Moving window-based Young Turkey Carcasses.'

Tables 1a and 1b

Table 1a describes the historical *Salmonella* performance standards/guidance for two product classes and allowed positives for categories 1, 2T, 2 and 3. Table 1b describes the historical *Campylobacter* performance standards/guidance for two product classes and allowed positives for categories 1, 2T, 2 and 3.

² This data is presented in the format discussed in the *Salmonella* second quarterly report CY2008 which can be accessed on the FSIS website at http://www.fsis.usda.gov/wps/portal/fsis/topics/data-collection-and-reports/microbiology/quarterly-reports-salmonella/q2-2008/ct_index.

³ The NRTE Comminuted Poultry Sampling Project was initiated by Federal Register Notice FSIS–2012–0007: <http://www.fsis.usda.gov/wps/wcm/connect/0dffacbe-45e8-43ea-8b65-3b7100e19acb/2012-0007.pdf?MOD=AJPERES>.

Tables 2a and 2b

Table 2a summarizes *Salmonella* verification samples including *Salmonella* positive results, based on sample collection date, from July through September 2015 for both product classes. The sampling results for new pathogen reduction performance standards for *Salmonella* in raw chicken parts and not-ready-to-eat (NRTE) comminuted chicken and turkey products are also listed ⁴.

Table 2b summarizes **quantitative (1 ml—regulatory)** results for *Campylobacter* verification samples including *Campylobacter* positive results, based on sample collection date, from July through September 2015 for young chicken and young turkey carcass samples. The sampling results for new pathogen reduction performance standards for *Campylobacter* in raw chicken parts and not-ready-to-eat (NRTE) comminuted chicken and turkey products are also listed ⁴.

Tables 3 and 4

Tables 3 and 4 are related to the categorization of establishments and are therefore not reported at this time, as noted above. In previous reports, they reported the proportion of young chicken and young turkey slaughter establishments by categories that had completed at least two recent *Salmonella* verification-sampling sets. New establishments were not identified in any category until FSIS had documented the results from two sets. An establishment with its last set $\leq 50\%$ of the performance standard or guidance and the prior set at $> 50\%$ of the performance standard or guidance was sub-categorized as 2T, with T standing for transitioning to Category 1. Young chicken and young turkey set results were classified using the performance standards that were in place at the time the set was initiated.

Tables 5a and 5b

Table 5a was used in past reports to summarize *Salmonella* positive results from each quarter for the NRTE Comminuted Poultry Exploratory Sampling Projects. Table 5b was used to summarize *Campylobacter* positive results from each quarter for chicken and turkey comminuted products for the NRTE Comminuted Poultry Exploratory Sampling Projects. Both tables also displayed the quartile distributions of percent positives among the sampled establishments for each type of product. Because these sampling projects were replaced by new sampling projects in May 2015, there is no data to report for July through September 2015. The results from the new sampling projects are included in tables 2a and 2b.

⁴ Changes to the *Salmonella* and *Campylobacter* Verification Testing Program: Proposed Performance Standards for *Salmonella* and *Campylobacter* in Not-Ready-to-Eat Comminuted Chicken and Turkey Products and Raw Chicken Parts and Related Agency Verification Procedures and Other Changes to Agency Sampling can be found in [80 FR at 3940](#).

Tables 6 and 7

Table 6 summarizes the *Salmonella* samples analyzed from all 11 domestic raw beef projects, while Table 7 includes the samples taken from all raw beef products imported from other countries.⁵

A total of 4302 samples were analyzed from 11 MT projects for *Salmonella* in the third quarter of CY2015, from which 145 samples were positive. A total of 2,688 samples were collected and analyzed for *Salmonella* in raw ground beef sampling program MT43, of which 82 (3.1%) were positive. In imported raw beef products from all other countries, FSIS found three samples positive out of 163 analyzed for *Salmonella*. In imported raw and not-ready-to-eat poultry products, nine of 119 samples (7.6%) tested positive for *Salmonella*.

Chart 1

In past reports, this chart represented the total percentage of establishments within product classes classified by category and sub-category for young chicken and young turkey. For reasons indicated above, this chart will be excluded from the quarterly reports until changes to sampling projects announced in 80 FR at 3940 are fully implemented..

Figures 1 through 3

Figures 1 through 3 summarize *Salmonella* positive results by product class for the most recent five quarters. Past reports included figures with ground beef, ground turkey and ground chicken sampling results. The last samples for these products under these programs were taken in October 2013. Therefore, those figures are not included in this report. These products are now sampled in the Risk-based E.coli O157:H7 Sampling of Raw Ground Beef or Veal Products, Sampling for Ground and Other Comminuted Chicken (not Mechanically Separated), Sampling for Ground and Other Comminuted Turkey (not Mechanically Separated), Exploratory Sampling for Mechanically Separated Chicken, and Exploratory Sampling for Mechanically Separated Turkey projects. The original sampling programs transitioned to new ones identified in 80 FR at 3940 before July 2015. The data from these newer programs are shown in Table 2a.

Figures 4 and 5

Figures 4 and 5 summarize *Campylobacter* positive results by product classes for the most recent five quarters. The original sampling programs transitioned to new ones identified in 80 FR at 3940 before July 2015. Therefore, the number of samples collected for the most recent quarter is substantially smaller than in past quarters. The data from these newer programs are shown in Table 2b.

⁵ FSIS Notice 32-15 introduced sampling in raw imported poultry products in July 2015.

Figure 6

Figure 6 summarizes *Salmonella* positive results by project code in this quarter for the 11 domestic raw beef (MT) projects.

NOTE: While earlier quarterly reports included individual sample results from “A” sets only, the current report format summarizes data from all sets. This change was discussed in the 2006-second quarterly report, which can be accessed on the FSIS website: http://www.fsis.usda.gov/wps/portal/fsis/topics/data-collection-and-reports/microbiology/quarterly-reports-salmonella/q2-cy-2006/ct_index.

Additional information regarding this report

In order to handle sample scheduling more efficiently and to update information on actively producing establishments, the Agency continues to automate the sampling algorithm process. Therefore, the total number of active operating establishments can change from quarter to quarter as establishments exit or enter the industry. This change does not apply to intermittently-producing establishments. The Agency will continue to report data from these establishments because they are considered to be operating at some level.

Given the revised sampling strategy, the percentage of positive samples is not useful as an indicator of trends. As described above, FSIS has temporarily suspended placing establishments into Category 1, 2T, 2, or 3 as an alternative trend indicator for the *Salmonella* verification sampling program. While the Agency does not expect the category trend indicator to vary greatly on a quarterly basis, it should facilitate tracking of overall industry performance when examined over multiple years. Other trend indicators continue to be considered and may be implemented once program changes announced in 80 FR at 3940 are fully implemented.

Beginning March 28, 2008, FSIS posted completed *Salmonella* sample set results from Young Chicken slaughter establishments with variable (Category 2) and highly variable (Category 3) process control. Currently the posting of ANY category information on the FSIS website is suspended until programs announced in 80 FR at 3940 are fully implemented.

As announced in the January 2008 Federal Register Notice: *Salmonella* Verification Sampling Program: Response to Comments and New Agency Policies (<http://www.fsis.usda.gov/wps/wcm/connect/dab45316-44b2-4d75-a91e-a70f83b0cf7d/2006-0034.pdf?MOD=AJPERES>), young turkey establishments in Categories 2 and 3 were eligible for posting to the FSIS website beginning May 15, 2008. The Agency is considering publishing category results for establishments in turkey and other product classes once the programs announced in 80 FR at 3940 are implemented. Annual reports summarizing results for calendar years are available on the FSIS web site as well as previous quarterly reports. The restructuring of *Salmonella* set scheduling, however, means that it is inappropriate to compare results from 2006 onward to previous years. Similarly, the changes to the *Salmonella* verification sampling program prevent valid comparisons of testing results over time (e.g., quarter-to-quarter or year-to-year trends).

Table 1a: *Salmonella* Product classes, Historical Performance Standards/Guidance, and Historically Allowed Positives for Categories 1, 2T, 2 and 3

Product class	Performance standard (percent positive for <i>Salmonella</i>) (%)	Number of samples tested	Maximum number of positives to achieve standard \diamond	Category 1 [§]	Category 2T (T for Transitioning) [§]	Category 2 [§]	Category 3 [§]
Young Chicken*	7.5	51	5	recent two set results ≤ 2	last set ≤ 2 prior set NOT ≤ 2	Last set >2 w/o failing	last set ≥ 6
Young Turkey*	1.7	56	4	most recent two set results set ≤ 2	last set ≤ 2 prior set NOT ≤ 2	Last set >2 w/o failing	last set ≥ 5

\diamond Maximum number of positives is set at the number which would provide 80% likelihood of an establishment passing the sample set, if it were operating at exactly the performance standard (e.g. there is an 80% chance that a Young Chicken slaughter establishment that has *Salmonella* in exactly 7.5% of its product getting 5 or fewer positive samples out of a set of 51).

*New performance standards for young chicken and young turkey carcass samples were implemented July 1, 2011

§Establishment category, which is based on the most recent two sets completed

[¶] FSIS is in the process of developing new performance standards and is not currently categorizing according to the existing standards because of sampling changes.

Table 1b: *Campylobacter* Product classes, Performance Standards/Guidance, and Allowed Positives for Categories 1, 2T, 2 and 3

Product class	Performance standard (percent positive for <i>Campylobacter</i>) (%)	Number of samples tested	Maximum number of positives to achieve standard	Category 1	Category 2T (letter T standing for transitioning)	Category 2	Category 3
Young Chicken	10.4	51	8	T.B.D.	T.B.D.	T.B.D.	T.B.D.
Young Turkey	0.79	56	3	T.B.D.	T.B.D.	T.B.D.	T.B.D.

Categories for *Campylobacter* To Be Determined (T.B.D.)

Table 2a: Percent Positive *Salmonella* Carcass Tests (All Samples) in the PR/HACCP Verification Testing Program and newly added programs for Chicken Parts, and NRTE Comminuted Chicken and Turkey by Product Class and Establishment Size - Third Quarter CY2015 (July 1, 2015 through September 30, 2015)

Product ID	Establishment Size											
	Large			Small			Very Small			All Sizes		
	Samples	Positive	Percent Positive	Samples	Positive	Percent Positive	Samples	Positive	Percent Positive	Samples	Positive	Percent Positive
Set-based Young Chickens ¹	0	0		0	0		0	0		0	0	
Moving window-based Young Chicken Carcasses	1564	15	1.0%	358	7	2.0%	75	5	6.7%	1997	27	1.4%
Set-based Young Turkeys ¹	0	0		0	0		0	0		0	0	
Moving window-based Young Turkey Carcasses	267	2	0.7%	152	1	0.7%	5	1	20.0%	424	4	0.9%
Chicken Parts	664	134	20.2%	504	122	24.2%	99	24	24.2%	1267	280	22.1%
Ground and Other Comminuted Chicken (not Mechanically Separated)	51	9	17.6%	163	53	32.5%	45	14	31.1%	259	76	29.3%
Ground and Other Comminuted Turkey (not Mechanically Separated)	121	23	19.0%	79	11	13.9%	6	0	0.0%	206	34	16.5%
Mechanically Separated Chicken	13	10	76.9%	9	6	66.7%	0	0		22	16	72.7%
Mechanically Separated Turkey	13	3	23.1%	6	2	33.3%	0	0		19	5	26.3%

¹ The Young Chicken and Young Turkey sampling transitioned to newer projects for Young Chicken Carcasses and Young Turkey Carcasses, respectively, in May 2015. Therefore, there were no samples reported in this table in the older projects from July through September.

Table 2b: Percent Positive Quantitative (1 ml--regulatory) *Campylobacter* Carcass Tests (All Samples) in the PR/HACCP Verification Testing Program and newly added programs for Chicken Parts, and NRTE Comminuted Chicken and Turkey by Product Class and Establishment Size - Third Quarter CY2015 (July 1, 2015 through September 30, 2015)

Product ID	Establishment Size											
	Large			Small			Very Small			All Sizes		
	Samples	Positive	Percent Positive	Samples	Positive	Percent Positive	Samples	Positive	Percent Positive	Samples	Positive	Percent Positive
Set-based Young Chickens ¹	0	0		0	0		0	0		0	0	
Moving window-based Young Chicken Carcasses	1406	15	1.1%	336	11	3.3%	68	13	19.1%	1810	39	2.2%
Set-based Young Turkeys ¹	0	0		0	0		0	0		0	0	
Moving window-based Young Turkey Carcasses	253	4	1.6%	140	2	1.4%	4	0	0.0%	397	6	1.5%
Chicken Parts	606	82	13.5%	473	77	16.3%	91	15	16.5%	1170	174	14.9%
Ground and Other Comminuted Chicken (not Mechanically Separated)	50	2	4.0%	161	6	3.7%	43	0	0.0%	254	8	3.1%
Ground and Other Comminuted Turkey (not Mechanically Separated)	118	0	0.0%	78	0	0.0%	6	0	0.0%	202	0	0.0%
Mechanically Separated Chicken	13	1	7.7%	9	1	11.1%	0	0		22	2	9.1%
Mechanically Separated Turkey	13	0	0.0%	6	0	0.0%	0	0		19	0	0.0%

¹ The Young Chicken and Young Turkey sampling transitioned to newer projects for Young Chicken Carcasses and Young Turkey Carcasses, respectively, in May 2015. Therefore, there were no samples reported in this table in the older projects from July through September.

Table 3: Young Chicken Slaughter Establishments by *Salmonella* Category, 3rd Quarter CY2015

With the publication of 80 FR at 3940 (“Changes to the *Salmonella* and *Campylobacter* Verification Testing Program: Proposed Performance Standards for *Salmonella* and *Campylobacter* in Not-Ready-to-Eat Comminuted Chicken and Turkey Products and Raw Chicken Parts and Related Agency Verification Procedures and Other Changes to Agency Sampling”), FSIS has suspended the categorization of establishments until such time as changes to FSIS sampling programs have been implemented.

Table 4: Young Turkey Slaughter Establishments by *Salmonella* Category, 3rd Quarter CY2015

With the publication of 80 FR at 3940 (“Changes to the *Salmonella* and *Campylobacter* Verification Testing Program: Proposed Performance Standards for *Salmonella* and *Campylobacter* in Not-Ready-to-Eat Comminuted Chicken and Turkey Products and Raw Chicken Parts and Related Agency Verification Procedures and Other Changes to Agency Sampling”), FSIS has suspended the categorization of establishments until such time as changes to FSIS sampling programs have been implemented.

Table 5a: Percent Positive *Salmonella* Tests (All Samples) in the NRTE Comminuted Poultry Exploratory Sampling Projects by reported Finished Product Category – All Samples (July 1, 2015 through September 30, 2015)**

Product Group	Finished Product	Overall Samples			Establishment Data		Establishment Percent Positive Distribution		
		Number Analyzed	Number Positive	Percent Positive	Plants Sampled	Avg. Samples per Plant	Q1	Median	Q3
Chicken	Ground/Other Comminuted Chicken	0							
	Mechanically Separated Chicken	0							
	Chicken Subtotal	0							
Turkey	Ground/Other Comminuted Turkey	0							
	Mechanically Separated Turkey	0							
	Turkey Subtotal	0							
Salmonella Grand Total									

**NOTE: These sampling projects were replaced by new sampling projects in May 2015, so there is no data to report for July through September 2015.

Table 5b: Percent Positive *Campylobacter* Tests (All Samples) in the NRTE Comminuted Poultry Exploratory Sampling Projects by reported Finished Product Category - All Samples (July 1, 2015 through September 30, 2015) **

Product Group	Finished Product	Overall Samples			Establishment Data		Establishment Percent Positive Distribution		
		Number Analyzed	Number Positive	Percent Positive	Plants Sampled	Avg. Samples per Plant	Q1	Median	Q3
Chicken	Ground Chicken / Other Comminuted Chicken	0							
	Mechanically Separated Chicken	0							
	Chicken Subtotal	0							
Turkey	Ground Turkey / Other Comminuted Turkey	0							
	Mechanically Separated Turkey	0							
	Turkey Subtotal	0							
<i>Campylobacter</i> Grand Total		0							

**NOTE: These sampling projects were replaced by new sampling projects in May 2015, so there is no data to report for July through September 2015.

Table 6: Percent Positive *Salmonella* Tests (All Samples) in Domestic Raw Beef (MT) Sampling Projects – All Samples (July 1, 2015 through September 30, 2015)

Project	Project Name	Total Samples Analyzed	Total Samples Positive	Percent Positive
MT05	Raw Ground Beef – Retail	115	5	4.3%
MT43	Risk-based Sampling for Raw Ground Beef	2688	82	3.1%
MT44	Raw Ground Beef – Follow-up testing to a raw ground beef positive*	17	1	5.9%
MT44T	Raw Ground Beef – Trace back	14	0	0.0%
MT52 ¹	Follow-up testing at supplier establishments following MT43, MT44, or MT55 positive ¹	26	0	0.0%
MT53	Follow-up testing to a MT60, MT54, MT55, or MT52 positive*	128	17	13.3%
MT54 ²	Raw ground beef components other than trim	86	6	7.0%
MT55 ²	Bench Trim	232	2	0.9%
MT60	Beef manufacturing trim	890	28	3.1%
MT64 ²	Raw ground beef components other than trim	18	2	11.1%
MT65 ²	Bench Trim	88	2	2.3%
Total	Domestic Raw Beef Sampling Projects	4302	145	3.4%

¹ Dependent on positive findings from other E. coli O157:H7 or non-O157 (STEC) sampling projects.

² FSIS changed sample scheduling methodology for the MT54 and MT55 sampling projects. Therefore, data collected under the new methodology is reported under new project codes MT64 and MT65.

Table 7: Percent Positive *Salmonella* Tests (All Samples) in Imported Raw Beef (MT) Products Sampling Projects – All Samples (July 1, 2015 through September 30, 2015)

Product	Total Samples Analyzed	Total Samples Positive	Percent Positive
Imported raw ground beef and imported trim/other raw ground beef components (MT08 + MT51)	163	3	1.8%
Import Sampling of Raw and NRTE Poultry Products ¹	119	9	7.6%

¹ FSIS began sampling imported raw and NRTE poultry products in July 2015.

**Chart 1: Establishment Categories for Young Chicken and Young Turkey Classes
from July 2015 through September 2015**

With the publication of 80 FR at 3940, FSIS has suspended the categorization of establishments until such time as changes to FSIS sampling programs have been implemented. Therefore, this chart is currently excluded from the report.

Figure 1
Microbiological Results of Young Chickens (All Samples) Analyzed for *Salmonella* in the Set-based PR/HACCP Verification Testing Program Summarized by Quarter from July 2014 to September 2015

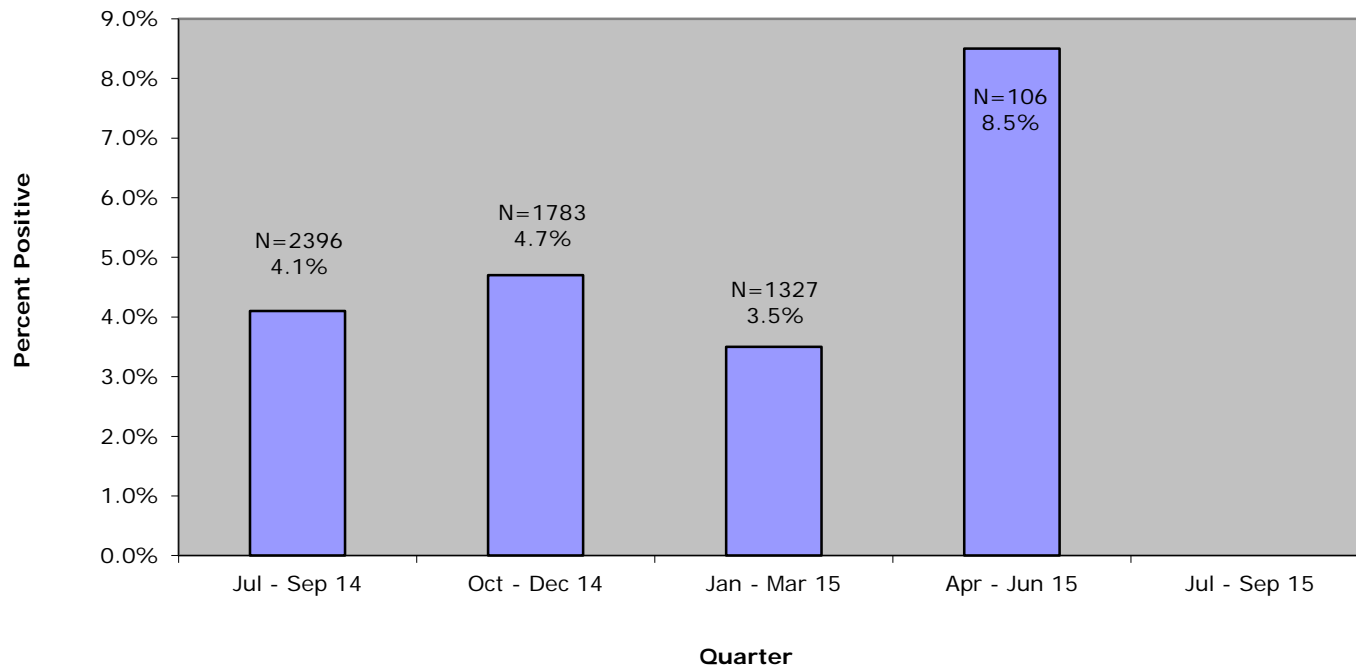


Figure 2
Microbiological Results of Ground Beef (All Samples) Analyzed for *Salmonella* in the Set-based PR/HACCP Verification Testing Program Summarized by Quarter from July 2014 to September 2015

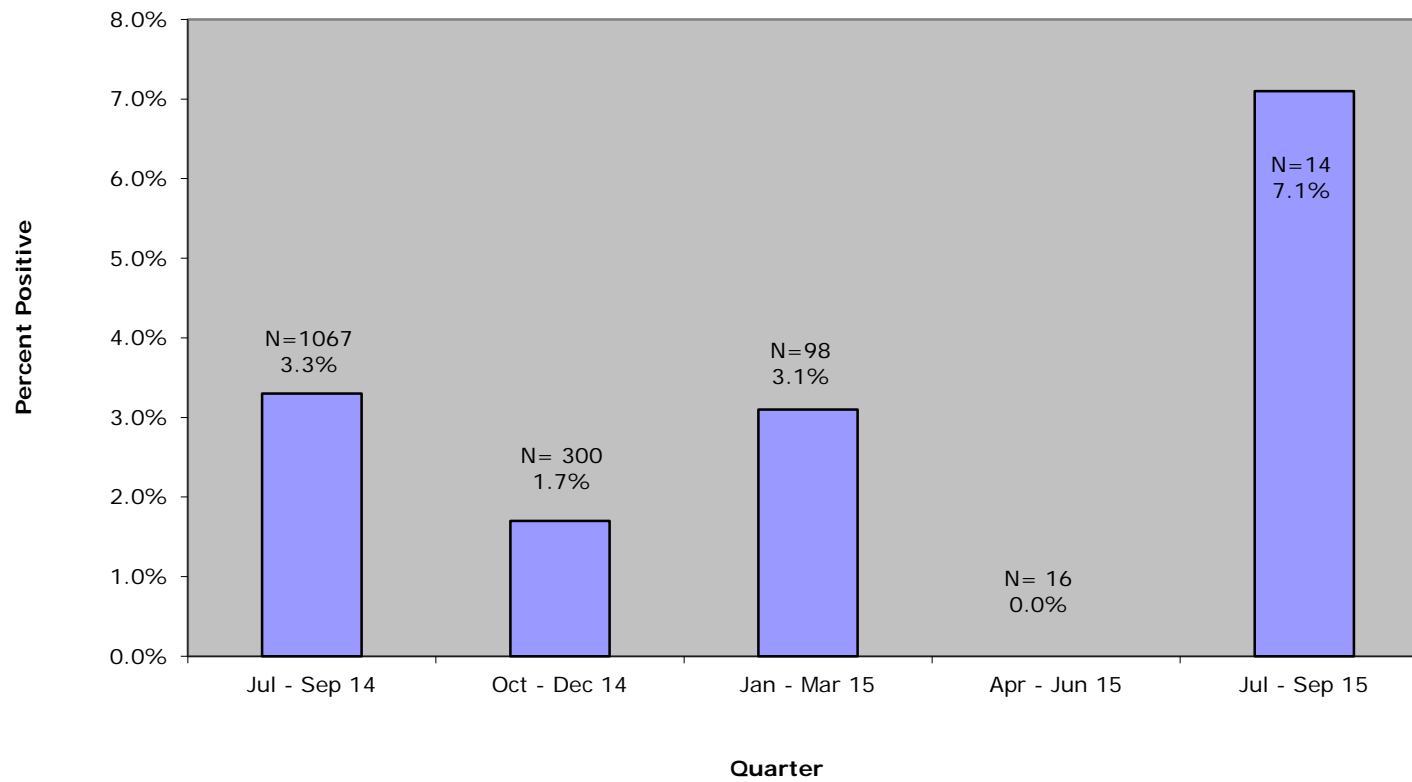


Figure 3
Microbiological Results of Young Turkeys (All Samples) Analyzed for *Salmonella* in the Set-based PR/HACCP Verification Testing Program Summarized by Quarter from July 2014 to September 2015

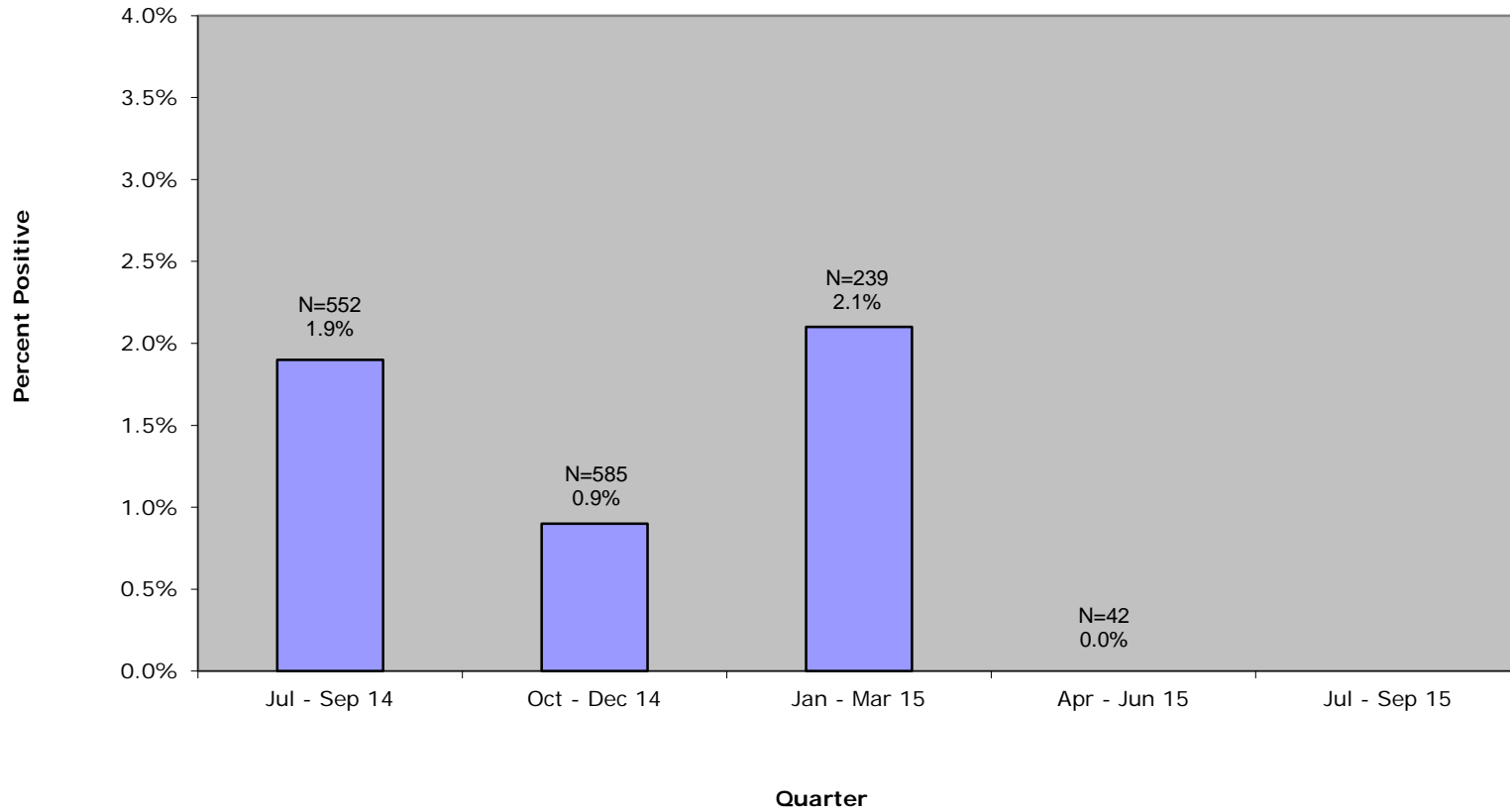


Figure 4
Microbiological Results of Young Chickens (All Samples) Analyzed for *Campylobacter* in the Set-based PR/HACCP Verification Testing Program Summarized by Quarter from July 2014 to September 2015

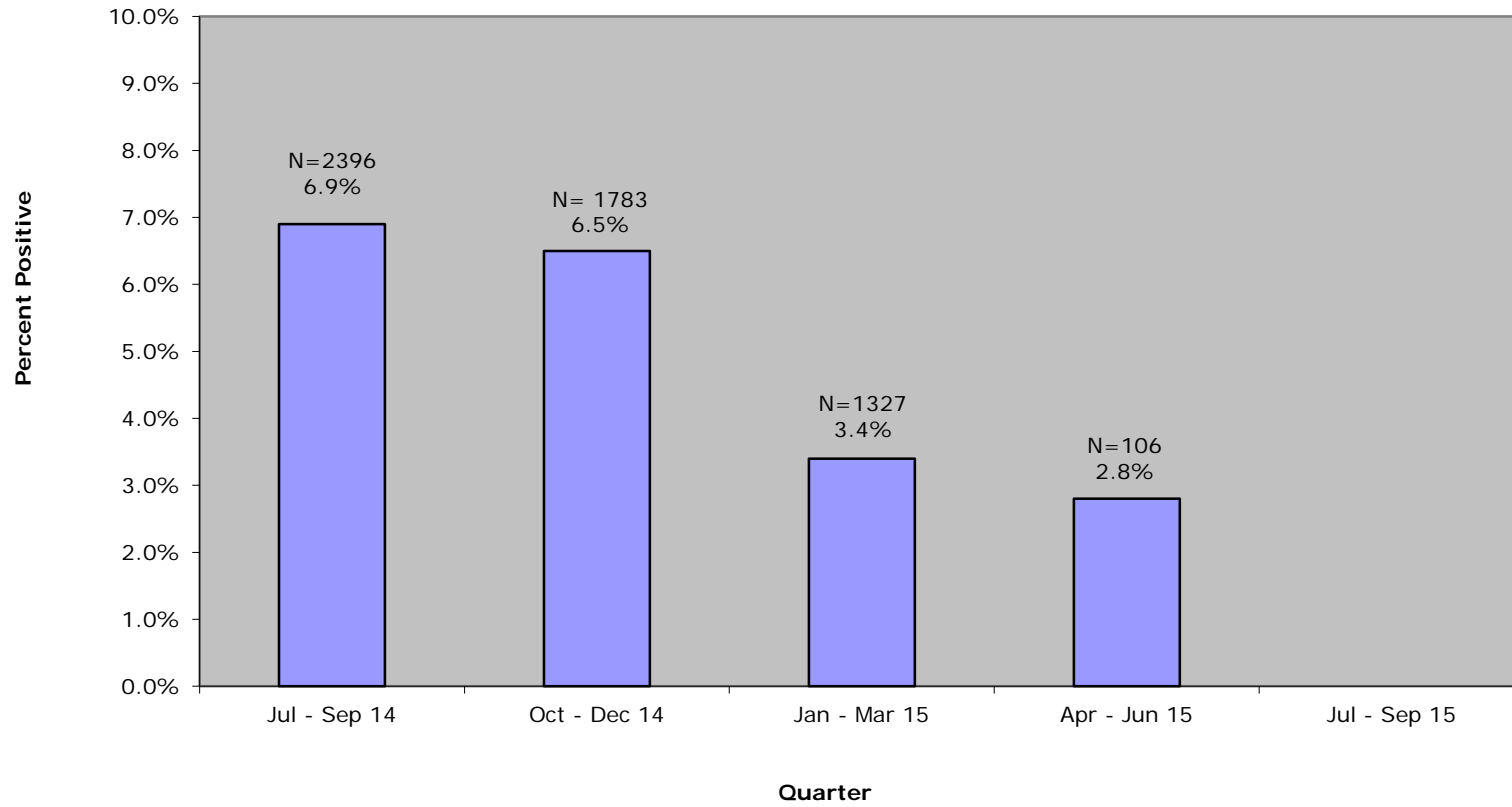


Figure 5
Microbiological Results of Young Turkeys (All Samples) Analyzed for *Campylobacter* in the Set-based PR/HACCP Verification Testing Program Summarized by Quarter from July 2014 to September 2015

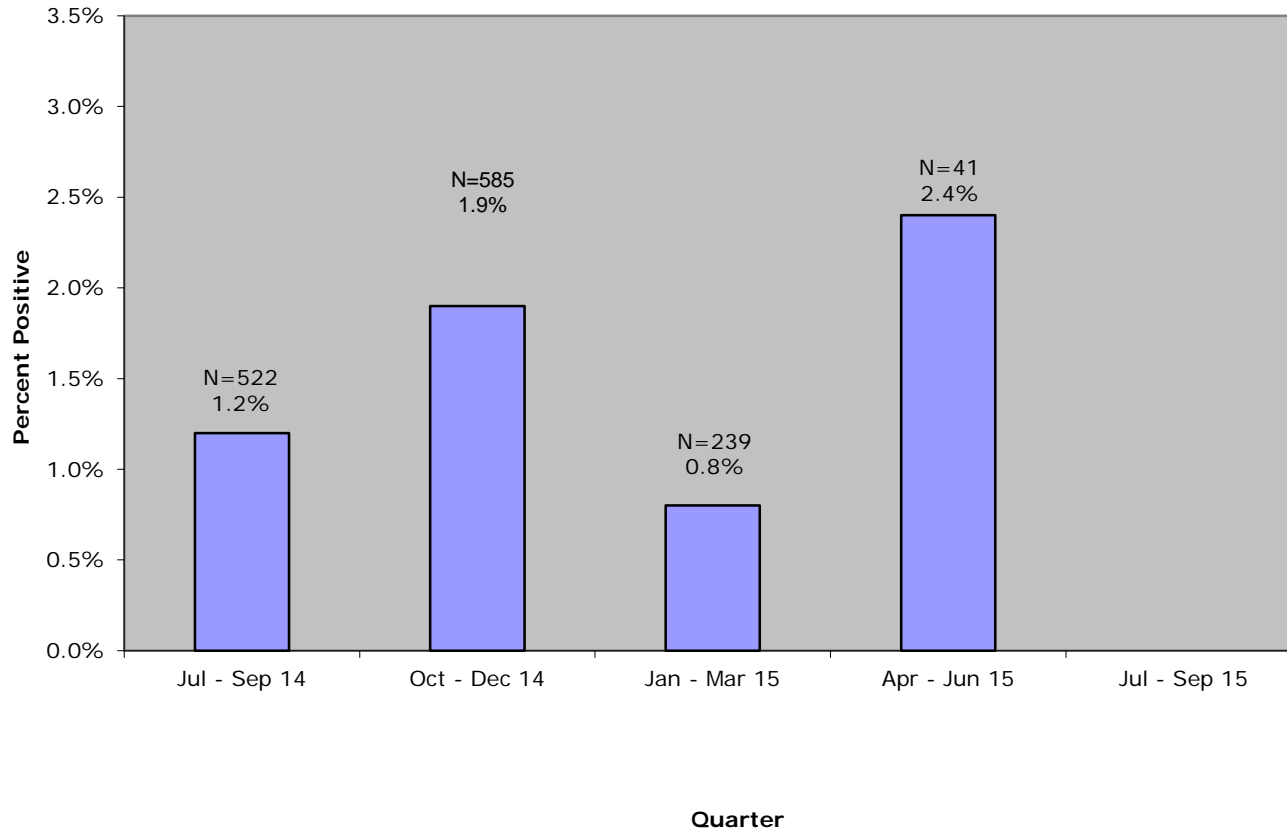


Figure 6
Microbiological Results of Domestic Raw Beef Projects (All Samples) Analyzed for *Salmonella*
in MT Monitoring Testing Program Summarized for the Third Quarter of CY2015
(from July 2015 to September 2015)

