

Quarterly Progress Report on *Salmonella* Testing of Selected Raw Meat and Poultry Products: Preliminary Results, July-September, 2006

In February 2006, FSIS [announced several changes](#) | [PDF](#) to the Agency's *Salmonella* Verification Testing Program, including:

- **Increasing the testing frequency in establishments that exhibit highly variable or variable process control.** New criteria for scheduling *Salmonella* sets were implemented for sets scheduled from June 2006 onwards. (Visit FSIS' Web site at http://www.fsis.usda.gov/pdf/scheduling_criteria_salmonella_sets.pdf (PDF Only) to view these.) These new criteria focus FSIS resources on establishments with the most samples positive for *Salmonella* and the most samples with serotypes most frequently associated with human salmonellosis. While these new criteria are preliminary in nature and will be continually reassessed and modified when needed, the overall objective of a risk-based approach to verification sampling remains constant.
- **Testing of turkey carcasses.** The guidance document "Generic *E. coli* and *Salmonella* Baseline Results," which specifically addressed turkeys (<http://www.fsis.usda.gov/OPPDE/rdad/FRPubs/02-046N.pdf>, PDF Only) (February 17, 2005 Federal Register Notice (70 FR 8058)) specified a maximum of 13 positive samples in a set of 56 samples. That guidance was based on results from the turkey carcass sponge baseline study conducted from July 1997 through June 1998 (http://www.fsis.usda.gov/PDF/Baseline_Data_Young_Turkey.pdf, PDF Only). The results for the 1,362 turkey carcass samples collected July-September 2006 are presented (table 1).
- **Posting quarterly results to the FSIS Web site.** This is the third such report, covering July-September 2006. Data are presented in three formats:
 - Percent positive *Salmonella* tests by product class and establishment size. Table 1 summarizes all third-quarter samples in the same format used in past annual reports.
 - Proportion of establishments in each of the three categories identified in February Federal Register Notice. Given the revised testing strategy, the percentage of positive samples is no longer useful as an indicator of trends, and so FSIS is considering alternative trend indicators for the *Salmonella* verification program. Tables 2, 3, and 4 detail the proportion of establishments in each of the three categories identified in February Federal Register Notice, using broiler (young chickens), market hog and cow/bull establishments as examples. The largest proportions of establishments are in Category 1 as of Oct 1, 2006: 45% of broiler establishments (table 2); 55% of market hog establishments (table 3); and 54% of cow/bull establishments (table 4). Note: The February 2006 FR Notice stated a goal of having 90% of establishments within a class of raw product in Category 1 one year after initiation of the program, as a proxy for the Healthy People 2010 goal of reducing illness associated with *Salmonella*. While the Agency does not expect this trend indicator to vary greatly on a quarterly basis, it should facilitate tracking of overall industry performance when examined over multiple years. Other product classes will be added to future quarterly reports as appropriate data are available, and other trend indicators continue to be considered.
 - *Salmonella* results summarized by product class for the most recent five quarters. NOTE: While the first two quarterly reports included individual sample results from "A" sets only, this report and future reports will

summarize data from all sets. This change was discussed in the second quarterly report. While earlier quarterly reports will not be retrospectively changed, the data in this report from July 2005 through June 2006 has been updated to include all samples for consistency in the graphs.

In this revised format the results for each product class are shown in a graph (PDF Only) depicting the number of samples and the percentage of positive samples by quarter for the last five quarters. Graphs for all product classes are included, recognizing that the number of samples can be very small, even zero, for some products in a specific quarter. This is the second quarter for turkey testing, therefore only two quarters appear on this graph.

[Annual reports](#) summarizing results for calendar years will continue to be available on the FSIS Web site. (FSIS is also considering posting results by fiscal year). However, the restructuring of *Salmonella* set scheduling means that comparison of results from 2006 onwards to previous years will be inappropriate. Similarly, the changes to the verification program will prevent valid comparisons of testing results over time (e.g., quarter-to-quarter or year-to-year trends). For such comparisons, the results of upcoming nationwide baseline studies can be used to provide valid estimates of the prevalence of certain pathogens of public health concern and permit valid statistical comparisons to be made over time. A 12-month Young Chicken (Broiler) Baseline Study is scheduled to begin shortly, and additional baseline studies are under development.

Table 1. Percent Positive *Salmonella* Tests (All Samples) in the PR/HACCP Verification Testing Program by Product Class and Establishment Size – Third Quarter 2006 (7/1/2006 - 9/30/2006)*

Product Class	Establishment Size									All Sizes		
	Large			Small			Very Small					
	Samples	Positives	% Pos	Samples	Positives	% Pos	Samples	Positives	% Pos	Samples	Positives	%Pos
Broilers	3,242	340	10.5	1,247	181	14.5	133	31	23.3	4,622	552	11.9
Market Hogs	222	5	2.3	694	31	4.5	1,164	60	5.2	2,080	96	4.6
Cows/Bulls	104	0	0.0	383	2	0.5	168	3	1.8	655	5	0.8
Steers/Heifers	340	1	0.3	392	5	1.3	368	0	0.0	1,100	6	0.5
Ground Beef	46	9	19.6	1,975	80	4.1	1,445	24	1.7	3,466	113	3.3
Ground Chick	41	20	48.8	19	7	36.8	10	0	0.0	70	27	38.6
Grd Turkey	11	0	0.0	16	2	12.5	0	0	-	27	2	7.4
Turkeys	967	90	9.3	395	30	7.6	0	0	-	1,362	120	8.8

* Preliminary data

Table 2. Broiler Establishments, by Category, Quarters 1 through 3, 2006[§].

Category	Qtr 1	% of Total	Qtr 2	% of Total	Qtr 3	% of Total
1	66	35%	65	34%	87	45%
2	97	51%	103	54%	84	44%
3	23	12%	19	10%	20	10%
New establishments*	3	2%	2	1%	2	1%
Total**	189	100%	189	100%	193	100%

Table 3. Market Hog Establishments, by Category, Quarters 1 through 3, 2006[§].

Category	Qtr 1	% of Total	Qtr 2	% of Total	Qtr 3	% of Total
1	125	60%	126	60%	137	55%
2	69	33%	70	33%	103	41%
3	9	4%	7	3%	10	4%
New establishments*	7	3%	6	3%	1	0%
Total**	210	100%	209	100%	251	100%

Table 4. Cow/Bull Establishments by Category, Quarters 1 through 3, 2006[§]

Category	Qtr 1	% of Total	Qtr 2	% of Total	Qtr 3	% of Total
1	49	56%	49	56%	52	54%
2	35	40%	36	41%	42	44%
3	3	3%	2	2%	2	2%
New establishments*	1	1%	1	1%	0	0%
Total**	88	100%	88	100%	96	100%

[§]Preliminary data

*An establishment that is currently operating and subject to inspection, but without a minimum of one completed set.

**Total number of establishments currently operating and subject to sampling

Figure 1

**Microbiological Results of Broiler (Young Chicken) Carcasses (All Samples)
Analyzed for *Salmonella* in the PR/HACCP Verification Testing Program
Summarized by Quarter from July 2005 to September 2006***

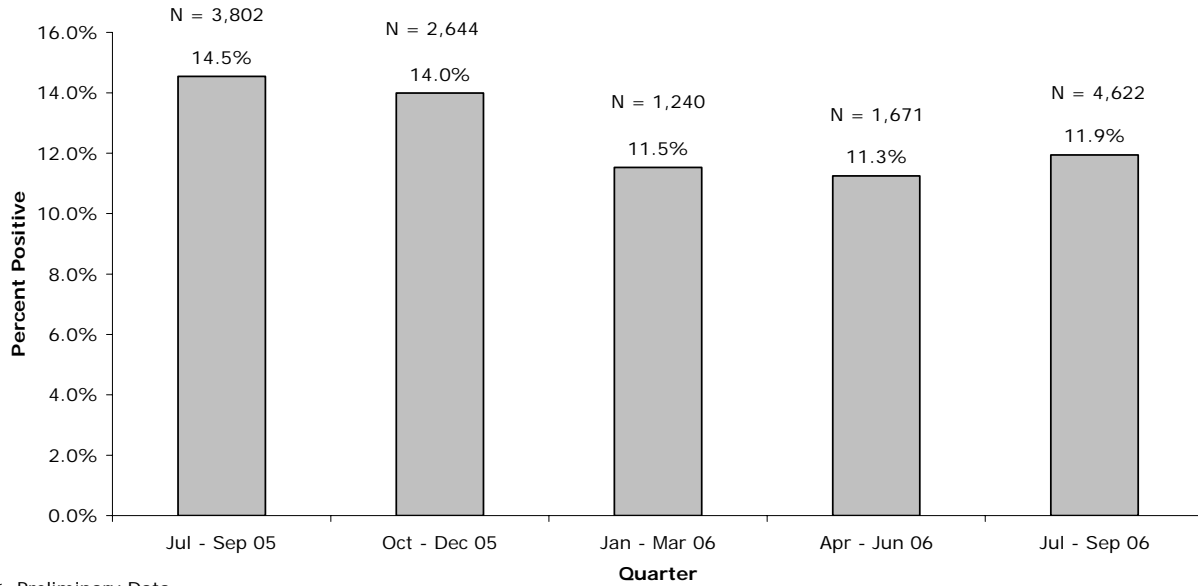


Figure 2

**Microbiological Results of Market Hog Carcasses (All Samples) Analyzed
for *Salmonella* in the PR/HACCP Verification Testing Program
Summarized by Quarter from July 2005 to September 2006***

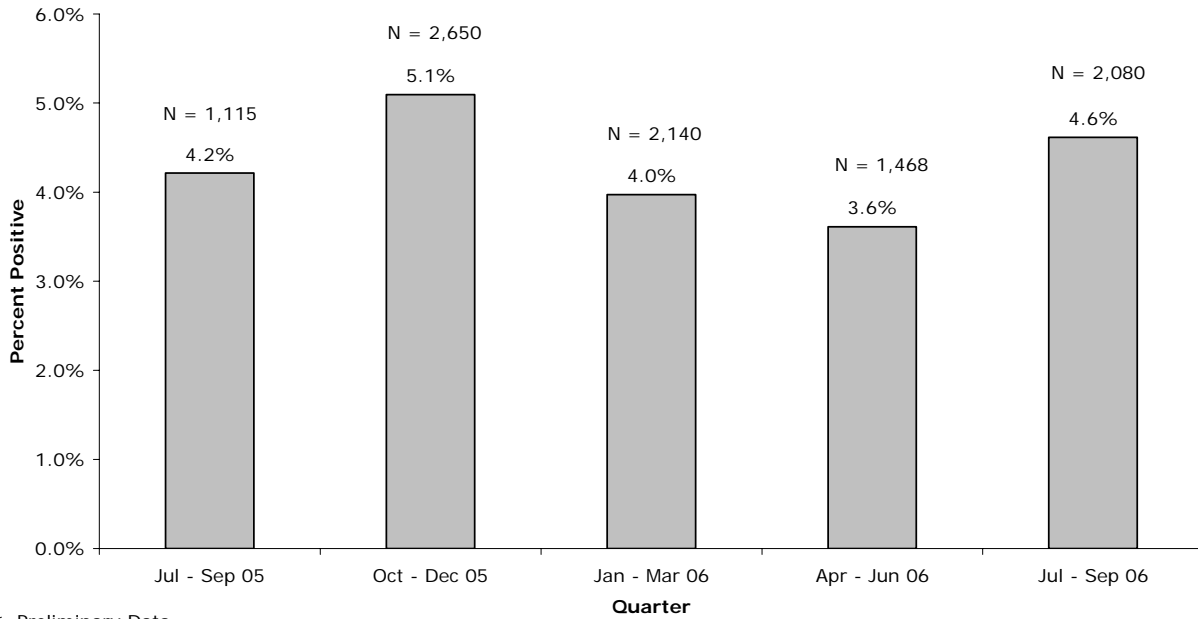
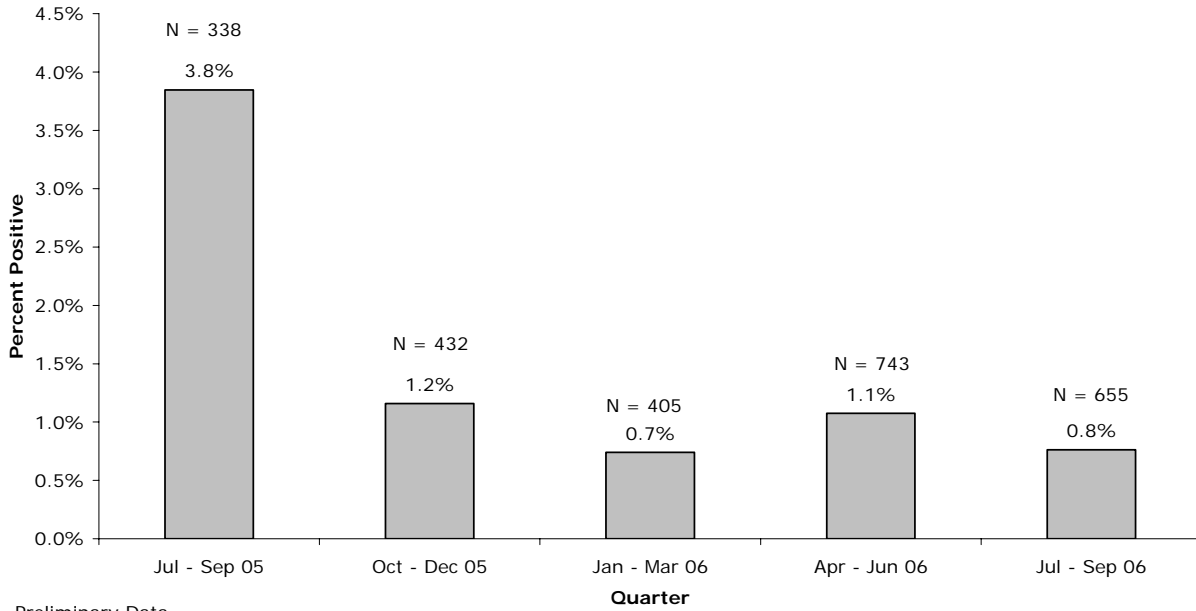


Figure 3

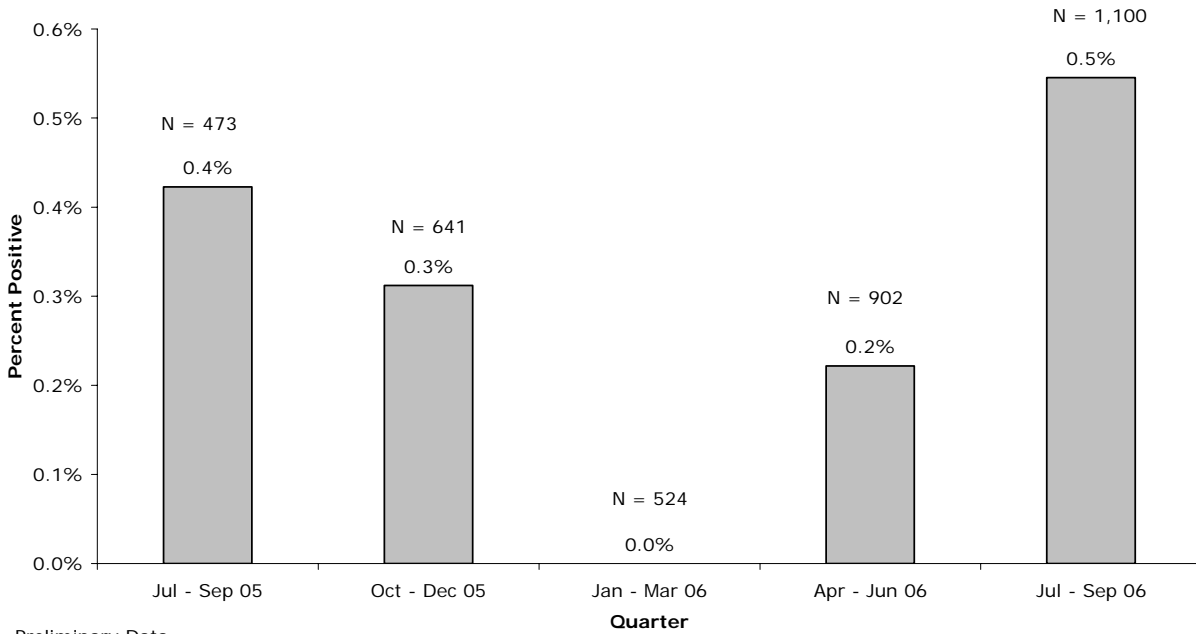
Microbiological Results of Cow and Bull Carcasses (All Samples) Analyzed for *Salmonella* in the PR/HACCP Verification Testing Program Summarized by Quarter from July 2005 to September 2006*



* Preliminary Data

Figure 4

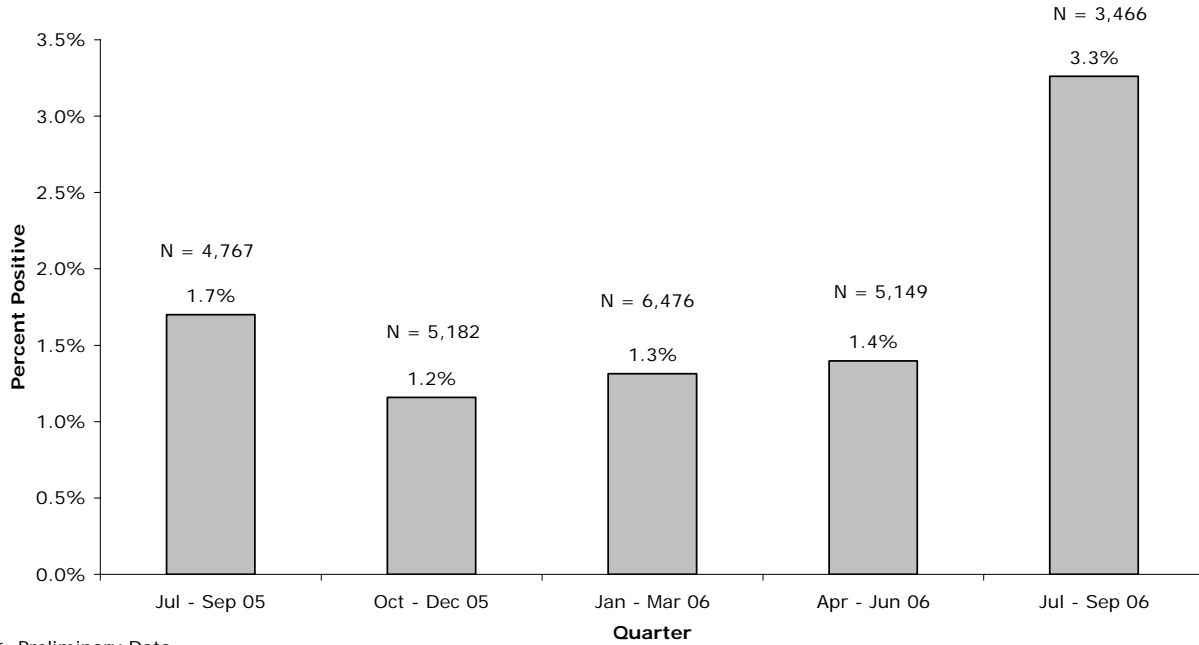
Microbiological Results of Steer and Heifer Carcasses (All Samples) Analyzed For *Salmonella* in the PR/HACCP Verification Testing Program Summarized by Quarter from July 2005 to September 2006*



* Preliminary Data

Figure 5

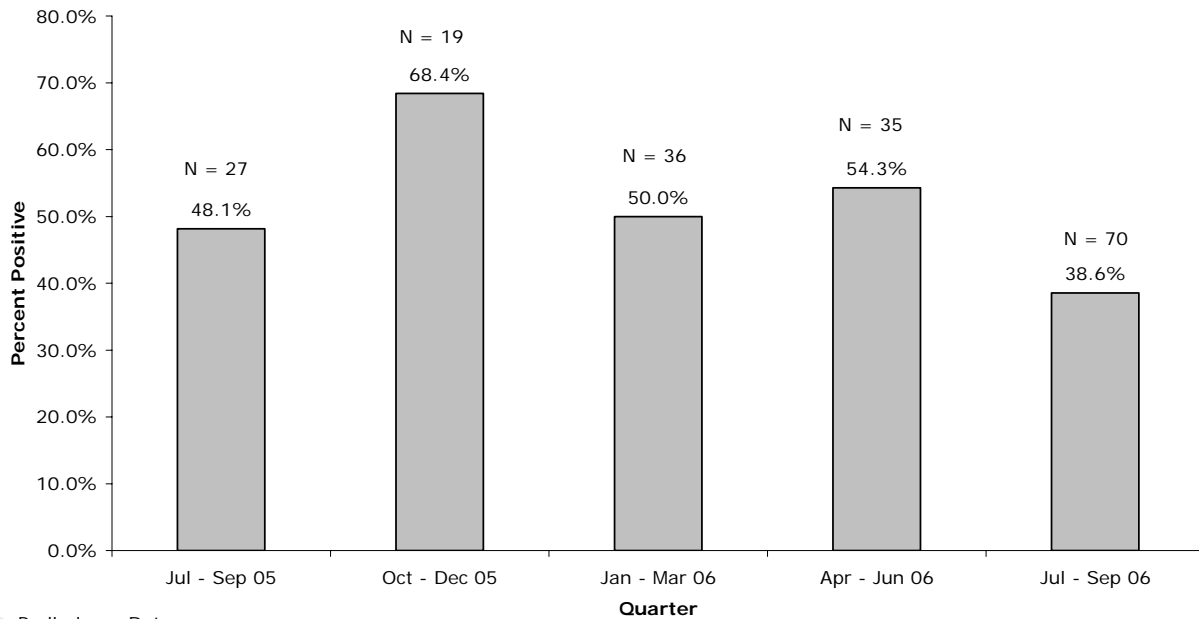
Microbiological Results of Ground Beef (All Samples) Analyzed For *Salmonella* in the PR/HACCP Verification Testing Program Summarized by Quarter from July 2005 to September 2006*



* Preliminary Data

Figure 6

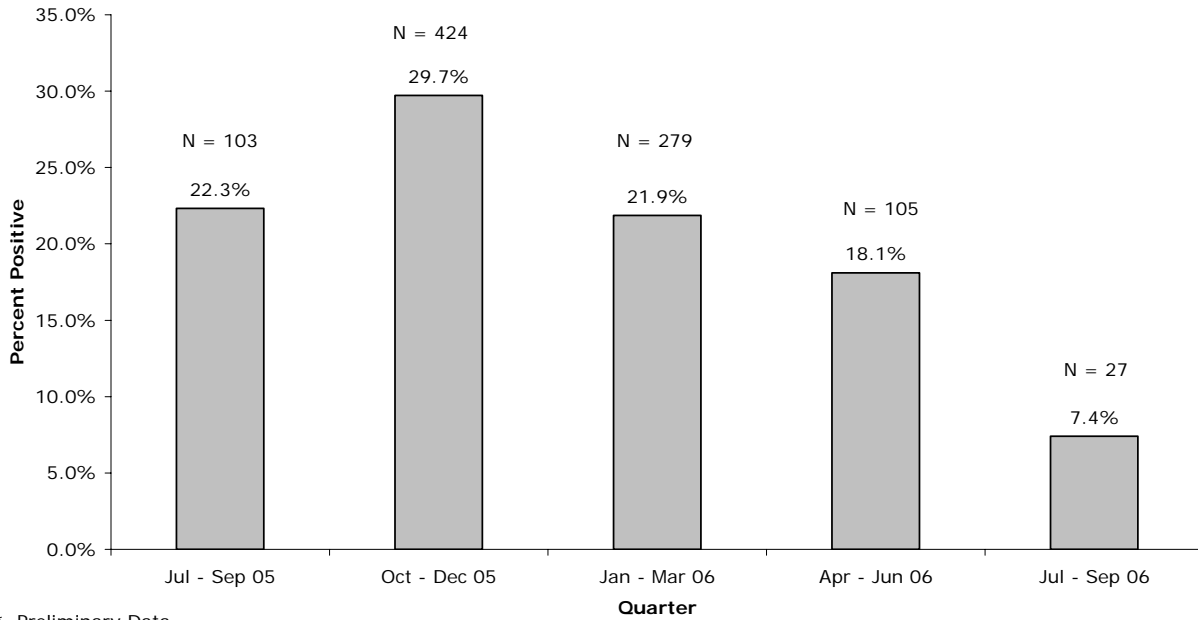
Microbiological Results of Ground Chicken (All Samples) Analyzed For *Salmonella* in the PR/HACCP Verification Testing Program Summarized by Quarter from July 2005 to September 2006*



* Preliminary Data

Figure 7

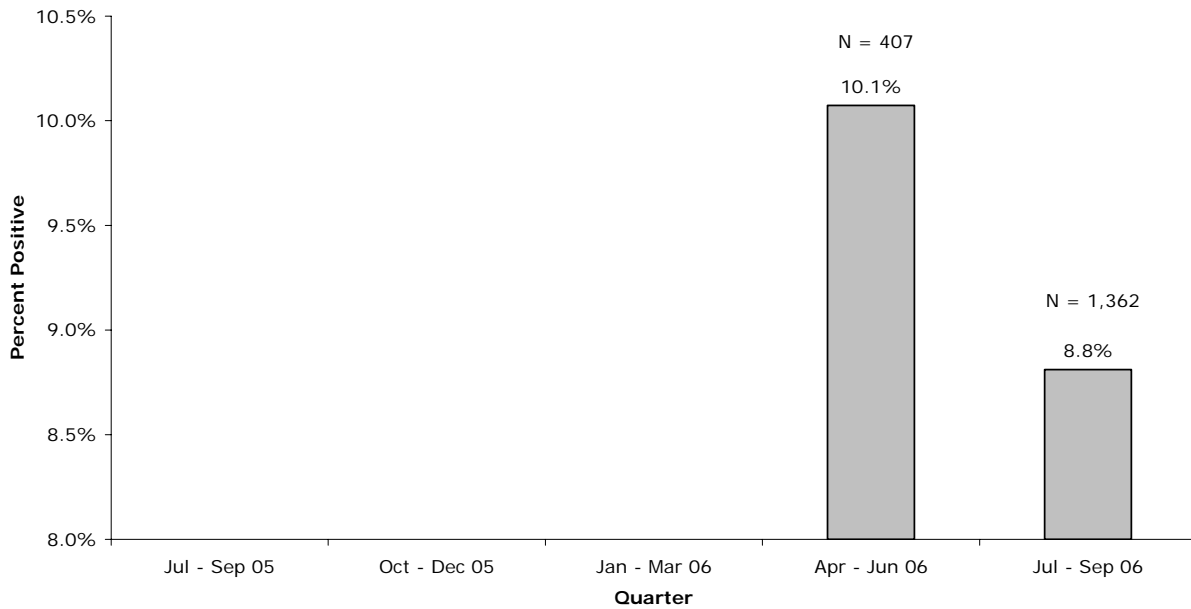
Microbiological Results of Ground Turkey (All Samples) Analyzed For *Salmonella* in the PR/HACCP Verification Testing Program Summarized by Quarter from July 2005 to September 2006*



* Preliminary Data

Figure 8

Microbiological Results of Turkey Carcasses (All Samples) Analyzed for *Salmonella* in the PR/HACCP Verification Testing Program Summarized by Quarter from July 2005 to September 2006*



* Preliminary Data