Quarterly Progress Report on *Salmonella* Testing of Selected Raw Meat and Poultry Products: Preliminary Results, January – March 2010

This report discusses the *Salmonella* verification sampling results for the first quarter CY2010 as presented in Tables 1-10, Chart 1, and Figures 1-8. 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/science/Q2_2008_Salmonella_Testing/index.asp.

Table 1
Table 1 describes the performance standards/guidance for 8 product classes and allowed positives for category 1, 2T, 2 and 3.

Table 2
This table summarizes *Salmonella* verification samples including *Salmonella* positive results, based on sample collection date, from January – March 2010 for all eight product classes.

Tables 3-10
Tables 3-10 report the proportion of establishments by category that have completed at least two recent *Salmonella* verification-sampling sets. New establishments are not identified in any category until FSIS has documented the results from two sets. This aligns the quarterly reports with the monthly posting of names of those establishments in Category 2 and 3. An establishment with its last set ≤ 50% of the performance standard or guidance and the prior set at > 50% of the performance standard or guidance is sub-categorized as 2T, with T standing for transitioning to Category 1.

Table 7 (ground beef) continues to report only those establishments eligible for traditional *Salmonella* verification sampling sets and that have completed two sets.

A total of 790 samples in the low volume ground beef sampling program were collected and analyzed from January – March 2010, and 4 samples were positive for *Salmonella*.

Chart 1
This chart represents the total percentage of establishments within product classes classified by category and sub-category. This chart indicates that as of March 31, 2010, 83% of establishments are in Category 1, 8% are in Category 2T, 7% are in Category 2, and 2% are in Category 3.

Figures 1-8
Figures 1-8 summarize *Salmonella* positive results by product classes for the most recent five quarters. **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/science/Q2_2006_Salmonella_Testing/index.asp.

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 quarter to quarter as establishments exit or enter the industry. This change does not apply to intermittently producing establishments. The Agency will continue to categorize them because they are considered to be operating at some level.

Given the revised sampling strategy, the percentage of positive samples is no longer useful as an indicator of trends. As described above, FSIS has implemented 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.

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. In January, there were 11 establishments in Category 2 and 3 in Category 3. In February, there were 12 establishments in Category 2 and 4 in Category 3. In March, 14 establishments were posted in Category 2 and 3 in Category 3.) FSIS continues to update this information on or about the 15th of each month. The current posting can be accessed at:
http://www.fsis.usda.gov/Science/Salmonella_Verification_Testing_Program/index.asp.

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/OPPDE/rdad/FRPubs/2006-0034.pdf, turkey establishments in Category 2 and 3 were eligible for posting to the FSIS website beginning May 15, 2008. However, because > 90% of all turkey establishments eligible for *Salmonella* testing are in Category 1, and no establishments are in Category 3, turkey establishments are currently not posted. The Agency is still considering publishing category results for establishments in additional product classes.

Annual reports summarizing results for calendar years are available on the FSIS website as well as previous quarterly reports. The restructuring of *Salmonella* set scheduling, however, means that it is inappropriate to compare results from 2006 onwards 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 1: Product classes, performance standards/guidance and allowed positives for category 1, 2T, 2 and 3.

Product class	Performance standard (percent positive for *Salmonella*) (%)	Number of samples tested	Maximum number of positives to achieve standard	Category 1[§]	Category 2T (letter T standing for transitioning)[§]	Category 2[§]	Category 3[§]
Broiler	20.0	51	12	recent two set results ≤6	last set ≤6 and prior set >6 w/o failing	either last one or two sets ≥6 w/o failing	most recent set ≥ 13
Cow/Bull	2.7	58	2	most recent two set results ≤1	last set ≤1 and the prior set >2 w/o failing	either the last one or two set results ≥1 w/o failing	most recent set ≥ 3
Ground Beef [Φ]	7.5	53	5	most recent two set results set ≤2	last set ≤2 and the prior set >2 w/o failing	either the last one or two set results ≥2 w/o failing	most recent set ≥6
Ground Chicken	44.6	53	26	most recent two set results set ≤13	last set ≤13 and the prior set >13 w/o failing	either the last one or two set results ≥13 w/o failing	Most recent set ≥ 27
Ground Turkey [Φ]	49.9	53	29	most recent two set results set ≤14	last set ≤14 and the prior set >14 w/o failing	either the last one or two set results ≥14 w/o failing	Most recent set ≥ 30
Market Hog	8.7	55	6	most recent two set results set ≤3	last set ≤3 and the prior set >3 w/o failing	either the last one or two set results ≥3 w/o failing	Most recent set ≥ 7
Steer/Heifer	1.0	82	1	most recent two set no positives	last set no positive and the prior set 1 positive	either the last one or two set results positive	Most recent set ≥ 2
Turkey*[Φ]	19	56	13	most recent two set results set ≤6	last set ≤6 and the prior set >6 w/o failing	either the last one or two set results ≥6 w/o failing	Most recent set ≥ 14

*Guidance measure set

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

ΦFSIS is now rounding down the allowable positives for Category 1 status for those product classes having odd numbered standards or guidelines. Therefore the current performance standards will be: Turkey (Category 1: ≤6 vs ≤7 *Salmonella* positive results), Ground Beef (Category 1: ≤2 vs ≤3 *Salmonella* positive results), and Ground Turkey (Category 1: ≤14 vs ≤15 *Salmonella* positive results).

Table 2. Percent Positive *Salmonella* Tests (All Samples) in the PR/HACCP Verification Testing Program by Product Class and Establishment Size - First Quarter CY2010 (January 1, 2010 - March 31, 2010).

All Sets	Establishment Size											
	Large			Small			Very Small			All Sizes		
Product ID	Samples	Positives	Percent Positive	Samples	Positives	Percent Positive	Samples	Positives	Percent Positive	Samples	Positives	Percent Positive
Broilers	588	40	6.8%	200	15	7.5%	2	0	0.0%	790	55	7.0%
Market Hogs	255	10	3.9%	543	13	2.4%	531	15	2.8%	1,329	38	2.9%
Cows/Bulls	0	0	0.0%	531	5	0.9%	29	1	0.0%	560	6	1.1%
Steers/Heifers	173	0	0.0%	320	0	0.0%	421	2	0.5%	914	2	0.2%
Ground Beef	428	4	0.9%	2,661	44	1.7%	333	9	2.7%	3,422	57	1.7%
Ground Chicken	0	0	0.0%	121	16	13.2%	1	0	0.0%	122	16	13.1%
Ground Turkey	203	17	8.4%	5	0	0.0%	7	0	0.0%	215	17	7.9%
Turkeys	113	0	0.0%	8	0	0.0%	0	0	0.0%	121	0	0.0%

Table 3. Broiler Establishments, by Category, Quarter 1 CY2010

Broiler Establishments, by Category, Quarter 1 CY2010		
Category	Quarter 1	Percent of TOTAL
1	138	80%
2T	16	9%
2	15	9%
3	3	2%
TOTAL *	172	100%

*Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets

Table 4. Market Hog Establishments, by Category, Quarter 1 CY2010

Market Hog Establishments, by Category, Quarter 1 CY2010		
Category	Quarter 1	Percent of TOTAL
1	162	85%
2T	15	8%
2	11	6%
3	3	1%
TOTAL *	191	100%

*Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets

Table 5. Turkey Establishments, by Category, Quarter 1 CY2010

Turkey Establishments, by Category, Quarter 1 CY2010		
Category	Quarter 1	Percent of TOTAL
1	30	88%
2T	1	3%
2	3	9%
3	0	0%
TOTAL *	34	100%

*Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets.

Table 6. Cow/Bull Establishments by Category, Quarter 1 CY2010

Cow/Bull Establishments, by Category, Quarter 1 CY2010		
Category	Quarter 1	Percent of TOTAL
1	67	89%
2T	4	5%
2	2	3%
3	2	3%
TOTAL *	75	100%

* Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets

Table 7. Ground Beef Establishments By Category, Quarter 1 CY2010

Ground Beef Establishments, by Category, Quarter 1 CY2010		
Category	Quarter 1	Percent of TOTAL
1	236	78%
2T	31	10%
2	29	10%
3	7	2%
TOTAL *	303	100%

*Total Number of Establishments Currently Operating and Subject to Sampling That Have At Least Two Completed Sets.
Establishments in Category 1 have 2 or fewer positive sample results

Table 8. Ground Chicken Establishments By Category, Quarter 1 CY2010

Ground Chicken Establishments, by Category, Quarter 1 CY2010		
Category	Quarter 1	Percent of TOTAL
1	7	78%
2T	1	11%
2	1	11%
3	0	0%
TOTAL *	9	100%

*Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets

Table 9. Ground Turkey Establishments By Category, Quarter 1 CY2010

Ground Turkey Establishments, by Category, Quarter 1 CY2010		
Category	Quarter 1	Percent of TOTAL
1	20	91%
2T	2	9%
2	0	0%
3	0	0%
TOTAL *	22	100%

*Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets.
Establishments in Category 1 have 14 or fewer positive sample results

Table 10. Steer/Heifer Establishments By Category, Quarter 1 CY2010

Steer/Heifer Establishments, by Category, Quarter 1 CY2010		
Category	Quarter 1	Percent of TOTAL
1	80	86%
2T	5	6%
2	5	6%
3	2	2%
TOTAL *	92	100%

*Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets

Chart 1: Product Classes by Category: January - March 2010.

Category 2T
8%

Category 2
7%

Category 3
2%

Category 1
83%

■Cat-1 □Cat-2T □Cat-2 ■Cat-3
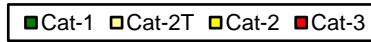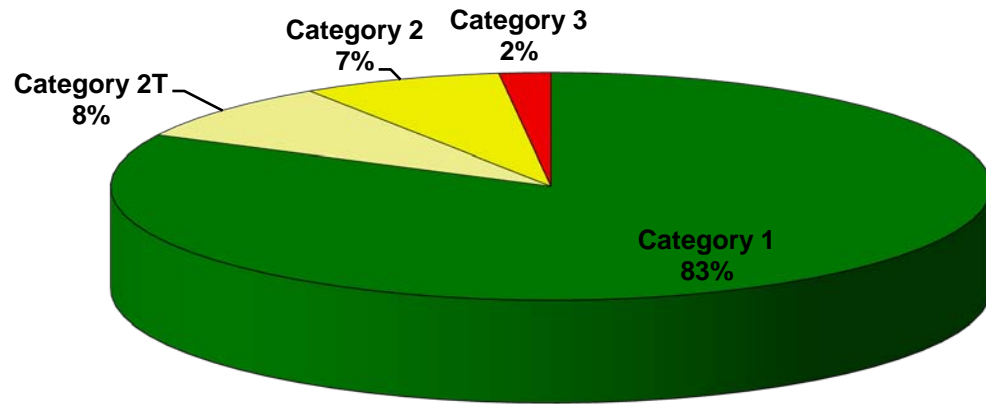
Figure 1
**Microbiological Results of Broilers (Young Chicken) Carcasses (All Samples) Analyzed
for Salmonella in the PR/HACCP Verification Testing Program Summarized
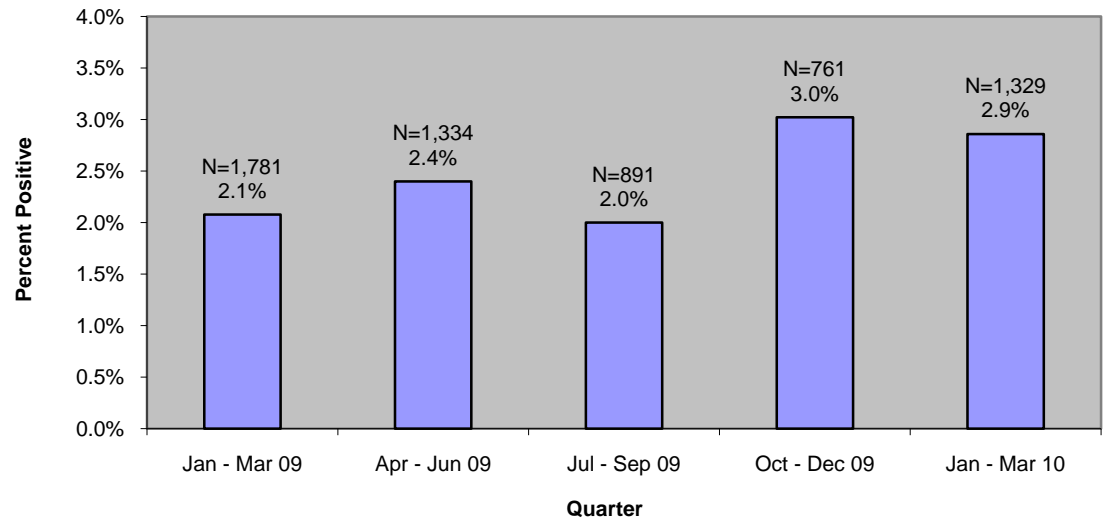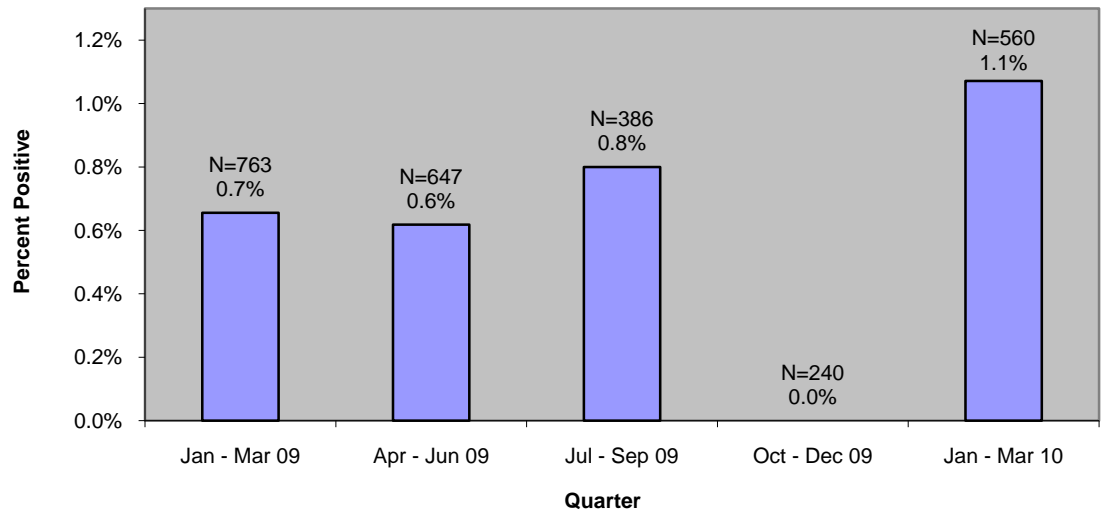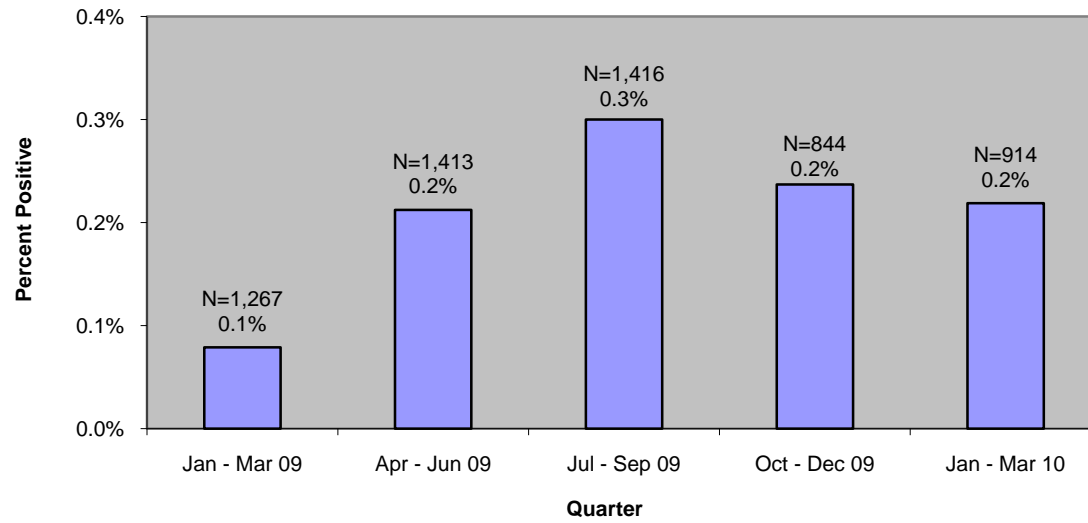by Quarter from January 2009 to March 2010**
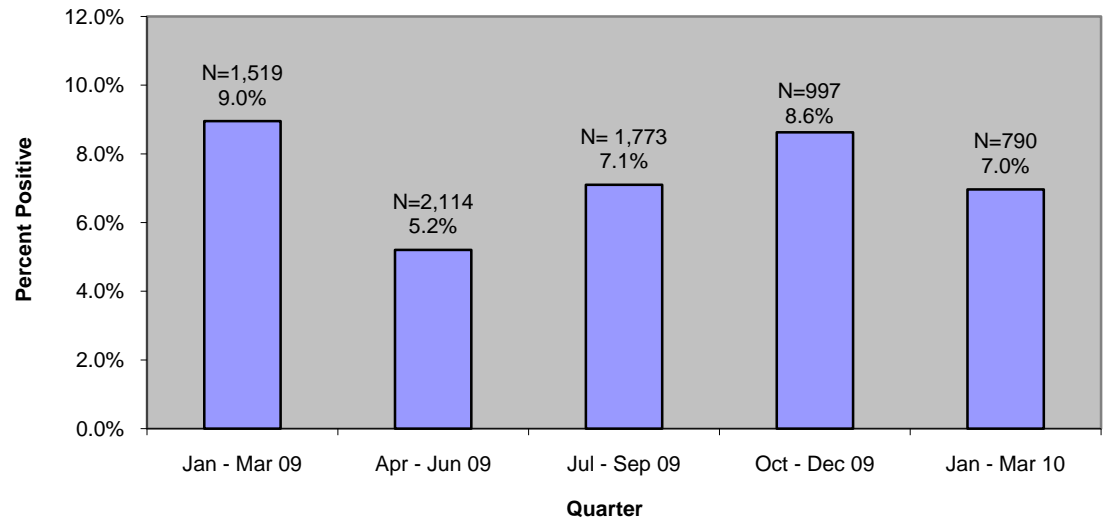
Figure 2
Microbiological Results of Market Hog Carcasses (All Samples) Analyzed for Salmonella
in the PR/HACCP Verification Testing Program Summarized
by Quarter from January 2009 to March 2010

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 January 2009 to March 2010

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 January 2009 to March 2010

Figure 5
Microbiological Results of Ground Beef (All Samples) Analyzed for Salmonella in the
PR/HACCP Verification Testing Program Summarized by Quarter
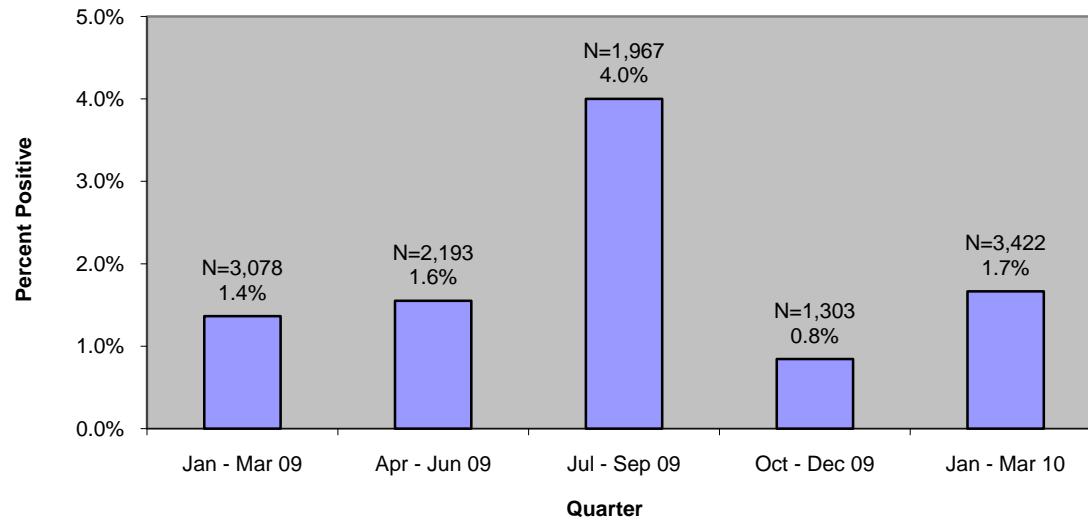**from January 2009 to March 2010**

Figure 6
Microbiological Results of Ground Chicken (All Samples) Analyzed for Salmonella in the
PR/HACCP Verification Testing Program Summarized by Quarter
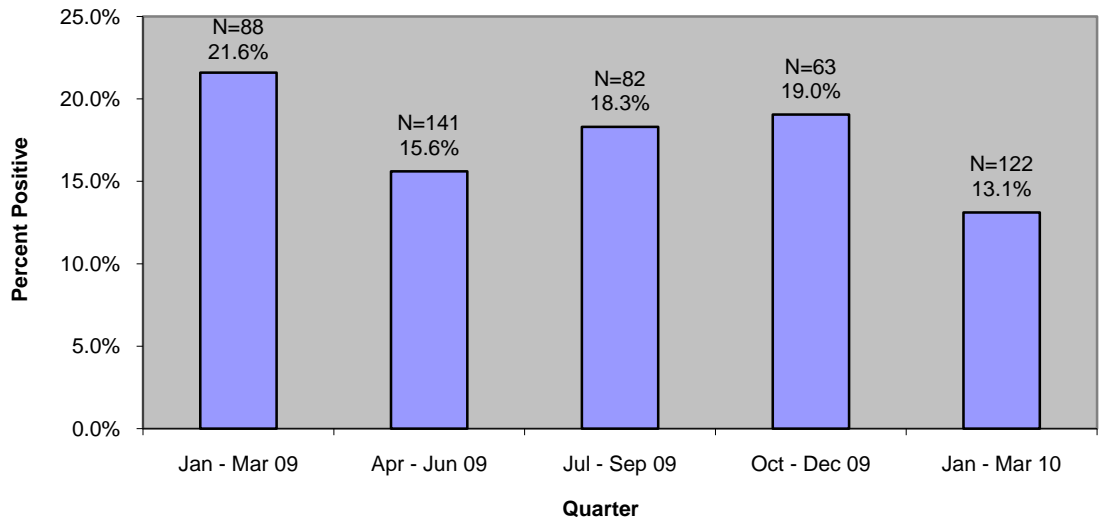**from January 2009 to March 2010**

Figure 7
Microbiological Results of Ground Turkey (All Samples) Analyzed for Salmonella in the
PR/HACCP Verification Testing Program Summarized by Quarter
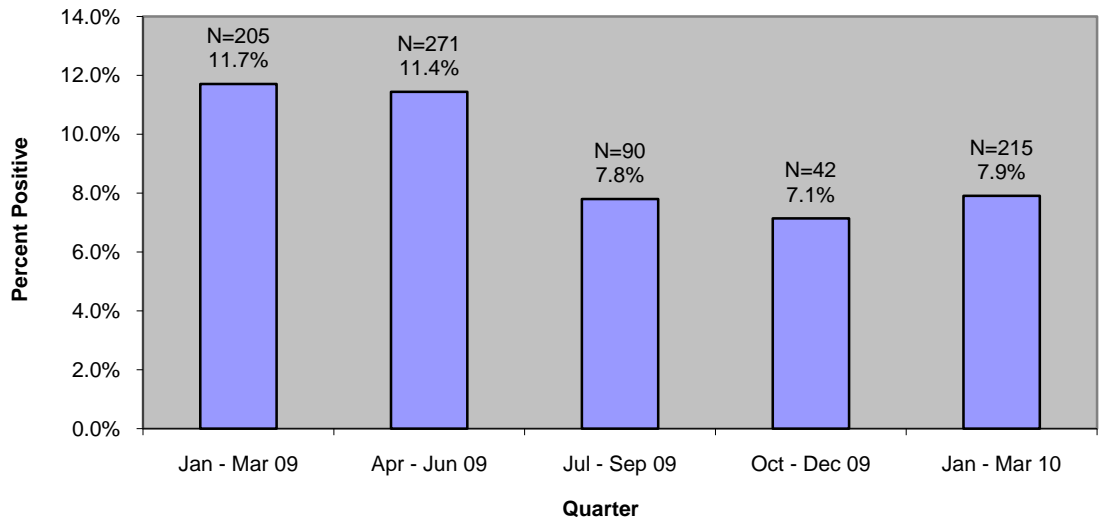**from January 2009 to March 2010**

Figure 8
Microbiological Results of Turkey (All Samples) Analyzed for Salmonella in the
PR/HACCP Verification Testing Program Summarized by Quarter
from January 2009 to March 2010