USDA **United States** **Food Safety**
Department of **and Inspection**
Agriculture **Service**

Quarterly Progress Report on *Salmonella* Testing of Selected Raw Meat and Poultry Products: Preliminary Results, July - September 2008

This report discusses the *Salmonella* verification sampling results for the third quarter CY2008 as presented in Table 1-9, Chart 1, and Figures 1-8. This data is presented in the new 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

This table summarizes *Salmonella* verification samples including *Salmonella* positive results, based on sample collection date, for July-September 2008 for all eight product classes.

Tables 2-9

These tables report the proportion of establishments in each product class by categories. Tables 2-9 indicate four recent policy changes as described below.

   a. Tables 2-9 report the proportion of establishments in Category 2 and 3 that have completed at least two *Salmonella* verification-sampling sets. New establishments will not be identified in any category until FSIS has documented the results from two sets. This will align the quarterly reports with the monthly posting of names of those establishments in Category 2 and 3.

   b. An additional subcategory 2T is introduced under Category 2. An establishment in Category 2 has either the last *Salmonella* verification-sampling set or both consecutive sets at > 50% of the performance standard or guidance for its product class without exceeding it and is considered to have variable process control. An establishment with its last set ≤ 50% of the performance standard and the prior set at > 50% of the performance standard will now be sub-categorized as 2T, with T standing for transitioning to Category 1.

   c. FSIS is now rounding down the acceptable positives for Category 1 status for those product classes that have odd numbered standards or guidelines. Therefore the current performance standards will be: Turkey (Table 4) (Category 1: $\leq$6 vs $\leq$7 *Salmonella* positive results), Ground Beef (Table 6) (Category 1: $\leq$2 vs $\leq$3 *Salmonella* positive results), and Ground Turkey (Table 8) (Category1: $\leq$14 vs $\leq$15 *Salmonella* positive results). FSIS recognizes that an establishment with highly effective process control should strive to operate over time at a relatively low level of *Salmonella* positive samples if it is to maintain its Category 1 status. The Agency views this more stringent policy as a necessary and important incentive to improve performance in controlling *Salmonella.*

d. FSIS has also removed approximately 1,000 very low volume producing ground beef (<1,000 pounds/day) establishments from the traditional set-based PR/HACCP *Salmonella* verification sampling program and, beginning in the second quarter CY2008, is testing these establishments for *Salmonella* when these establishments are also tested for *E coli* O157: H7. In this way, the Agency can better allocate testing resources towards higher risk establishments. Table 6 (ground beef) reports only those establishments eligible for traditional *Salmonella* verification sampling sets and that have completed two sets.

The Agency will continue this policy for approximately one year, and each low volume producing ground beef establishment will be sampled approximately once a quarter. Positive *Salmonella* samples will be enumerated when sufficient sample is available and results will be reported to the establishments. This program will be assessed, results will be posted, and the Agency will decide whether to modify or continue it.

A total of 598 samples were collected and analyzed from July to September 2008, and 7 samples were positive for *Salmonella*.

Chart 1

This chart represents the total percentage of establishments within product classes classified by category and sub-category. The Agency has set the goal of having 90% of establishments from all product classes in Category 1 by 2010. This chart indicates that 83% of establishments are in Category 1 as of 30 September 2008.

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/Q3_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 plants 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 July, 16 establishments were in Category 2 and none in Category 3. In August, there were 14 establishments in Category 2 and none in Category 3. In September, 13 establishments were posted in Category 2 and none 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. However, because all turkey establishments eligible for *Salmonella* testing are in Category 1, 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 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 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. Percent Positive *Salmonella* Tests (All Samples) in the PR/HACCP Verification Testing Program by Product Class and Establishment Size - Third Quarter CY2008 (July 1, 2008 - September 30, 2008).

All Sets	Establishment Size								
	Large			Small			Very Small		
Product ID	Samples	Positives	Percent Positive	Samples	Positives	Percent Positive	Samples	Positives	Percent Positive
Broilers	1,341	65	4.8%	460	69	15.0%	25	10	40.0%
Market Hogs	192	3	1.6%	393	11	2.8%	592	9	1.5%
Cows/Bulls	0	0	0.0%	591	3	0.5%	207	3	1.4%
Steers/Heifers	366	0	0.0%	428	1	0.2%	752	2	0.3%
Ground Beef	306	19	6.2%	2,430	63	2.6%	1,158	31	2.7%
Ground Chicken	0	0	0.0%	69	14	20.3%	14	2	14.3%
Ground Turkey	141	27	19.1%	32	0	0.0%	4	0	0.0%
Turkeys	12	1	8.3%	0	0		0	0	0.0%

	All Sizes		
Product ID	Samples	Positives	Percent Positive
Broilers	1,826	144	7.9%
Market Hogs	1,177	23	2.0%
Cows/Bulls	798	6	0.8%
Steers/Heifers	1,546	3	0.2%
Ground Beef	3,894	113	2.9%
Ground Chicken	83	16	19.3%
Ground Turkey	177	27	15.3%
Turkey	12	1	8.3%

Note: There may be fewer establishments represented in the following new format because only those with at least 2 sets were counted.

Table 2. Broiler Establishments, by Category, Quarter 1, 2, & 3 CY2008

Broiler Establishments By Category By Category, Quarter 1, 2, & 3 CY2008						
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL	Quarter 3	Percent of TOTAL
1	140	79%	149	84%	147	84%
2T	16	9%	10	6%	13	7.5%
2	19	11%	18	10%	13	7.5%
3	2	1%	0	0%	2	1%
TOTAL *	177	100%	177	100%	175	100

*Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets
Category 1: $\leq$ 6 positive samples in the 2 most recent sets
Sub-category 2T: $\leq$6 positives in the most recent set; > 6 positives in previous set
Category 2: > 6 but no more than 12 positives in the most recent set
Category 3: > 12 positives in the most recent set

Table 3. Market Hog Establishments, by Category, Quarter 1, 2, & 3 CY2008

Market Hog Establishments By Category By Category, Quarter 1, 2, & 3 CY2008						
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL	Quarter 3	Percent of TOTAL
1	170	82%	176	84%	179	86%
2T	20	10%	16	8%	15	7%
2	12	6%	13	6%	14	7%
3	5	2%	4	2%	1	0%
TOTAL *	207	100%	209	100%	209	100

*Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets
Category 1: $\leq$ 3 positive samples in the 2 most recent sets
Sub-category 2T: $\leq$3 positives in the most recent set; > 3 positives in previous set
Category 2: > 3 but no more than 6 positives in the most recent set
Category 3: > 7 positives in the most recent set

Table 4. Turkey Establishments, by Category, Quarter 1, 2, & 3 CY2008

Turkey Establishments By Category By Category, Quarter 1,2, & 3 CY2008						
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL	Quarter 3	Percent of TOTAL
1	35	100%	35	100%	35	100%
2T	0	0%	0	0%	0	0%
2	0	0%	0	0%	0	0%
3	0	0%	0	0%	0	0%
TOTAL *	35	100%	35	100%	35	100

*Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets.
Category 1: $\leq$ 6 positive samples in the 2 most recent sets
Sub-category 2T: $\leq$6 positives in the most recent set; > 6 positives in previous set
Category 2: > 6 but no more than 13 positives in the most recent set
Category 3: > 13 positives in the most recent set

Table 5. Cow/Bull Establishments by Category, Quarter 1, 2, & 3 CY2008

Cow/Bull Establishments By Category By Category, Quarter 1,2,& 3 CY2008						
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL	Quarter 3	Percent of TOTAL
1	68	81%	68	81%	69	81%
2T	9	11%	11	13%	11	13%
2	4	5%	4	5%	5	6%
3	3	3%	1	1%	0	0%
TOTAL *	84	100%	84	100%	85	100

*Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets
Category 1: $\leq$ 1 positive samples in the 2 most recent sets
Sub-category 2T: $\leq$1 positives in the most recent set; > 1 positives in previous set
Category 2: 2 positives in the most recent set
Category 3: > 2 positives in the most recent set

Table 6. Ground Beef Establishments By Category, Quarter 1, 2, & 3 CY2008

Grd Beef Establishments By Category By Category, Quarter 1,2, & 3 CY2008						
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL	Quarter 3	Percent of TOTAL
1	219	75%	227	76%	229	78%
2T	31	11%	38	13%	24	7%
2	31	11%	29	10%	34	11%
3	11	3%	5	1%	8	3%
TOTAL *	292	100%	299	100%	295	100

*Total Number of Establishments Currently Operating and Subject to Sampling That Have at Least Two Completed Sets.
Category 1: $\leq$ 2 positive samples in the 2 most recent sets
Sub-category 2T: $\leq$2 positives in the most recent set; > 2 positives in previous set
Category 2: > 2 but no more than 5 positives in the most recent set
Category 3: > 5 positives in the most recent set

Table 7. Ground Chicken Establishments By Category, Quarter 1, 2, & 3 CY2008

Grd Chicken Establishments By Category By Category, Quarter 1,2, & 3 CY2008						
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL	Quarter 3	Percent of TOTAL
1	3	50%	3	43%	3	43%
2T	1	17%	3	43%	3	43%
2	2	33%	1	14%	1	14%
3	0	0%	0	0%	0	0%
TOTAL *	6	100%	7	100%	7	100

*Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets
Category 1: $\leq$ 13 positive samples in the 2 most recent sets
Sub-category 2T: $\leq$13 positives in the most recent set; > 13 positives in previous set
Category 2: > 13 but no more than 26 positives in the most recent set
Category 3: > 26 positives in the most recent set

Table 8. Ground Turkey Establishments By Category, Quarter 1, 2, & 3 CY2008

Grd Turkey Establishments By Category By Category, Quarter 1, 2, & 3 CY2008						
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL	Quarter 3	Percent of TOTAL
1	16	73%	16	66%	16	67%
2T	2	9%	4	17%	6	25%
2	4	18%	4	17%	2	8%
3	0	0%	0	0%	0	0%
TOTAL *	22	100%	24	100%	24	100

*Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets.
Category 1: $\leq$ 14 positive samples in the 2 most recent sets
Sub-category 2T: $\leq$14 positives in the most recent set; > 14 positives in previous set
Category 2: > 14 but no more than 29 positives in the most recent set
Category 3: > 29 positives in the most recent set

Table 9. Steer/Heifer Establishments By Category, Quarter 1, 2, & 3 CY2008

Steer/Heif Establishments By Category By Category, Quarter 1,2, & 3 CY2008						
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL	Quarter 3	Percent of TOTAL
1	65	83%	69	86%	75	87%
2T	7	9%	6	8%	5	6%
2	5	7%	4	5%	5	6%
3	1	1%	1	1%	1	1%
TOTAL *	78	100%	80	100%	86	100

*Total Number Of Establishments Currently Operating And Subject To Sampling That Have At Least Two Completed Sets
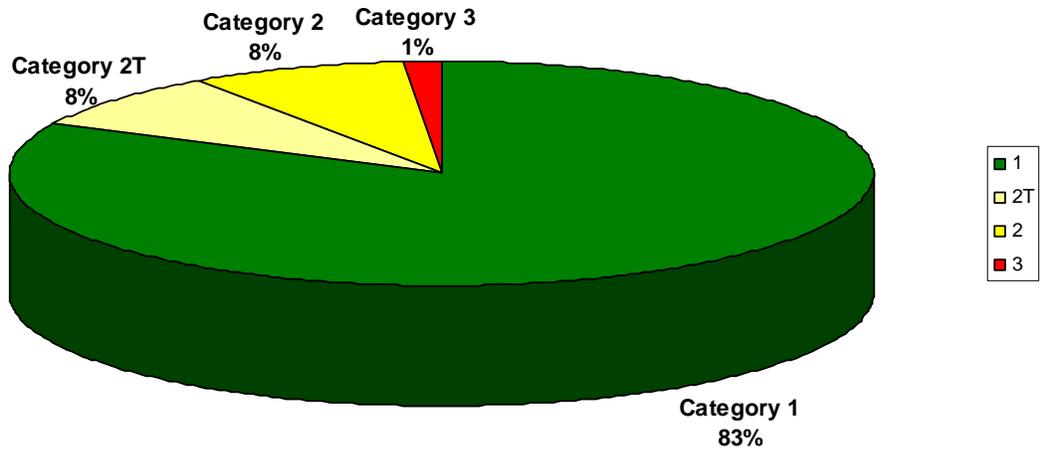Category 1: 0 positive samples in the 2 most recent sets
Sub-category 2T: 0 positives in the most recent set; > 0 positives in previous set
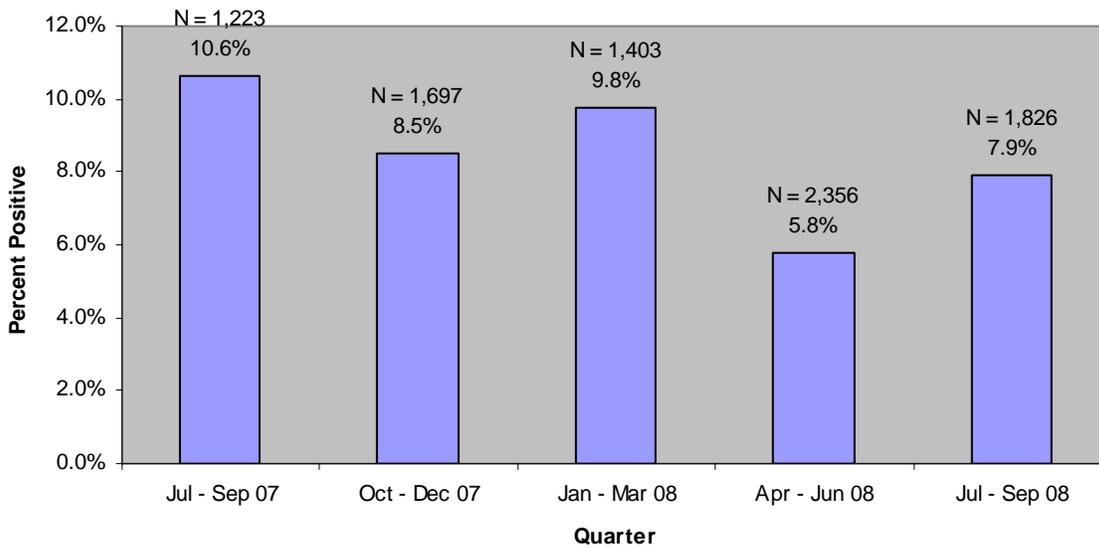Category 2: > 0 but no more than 1 positive in the most recent set
Category 3: > 1 positive in the most recent set

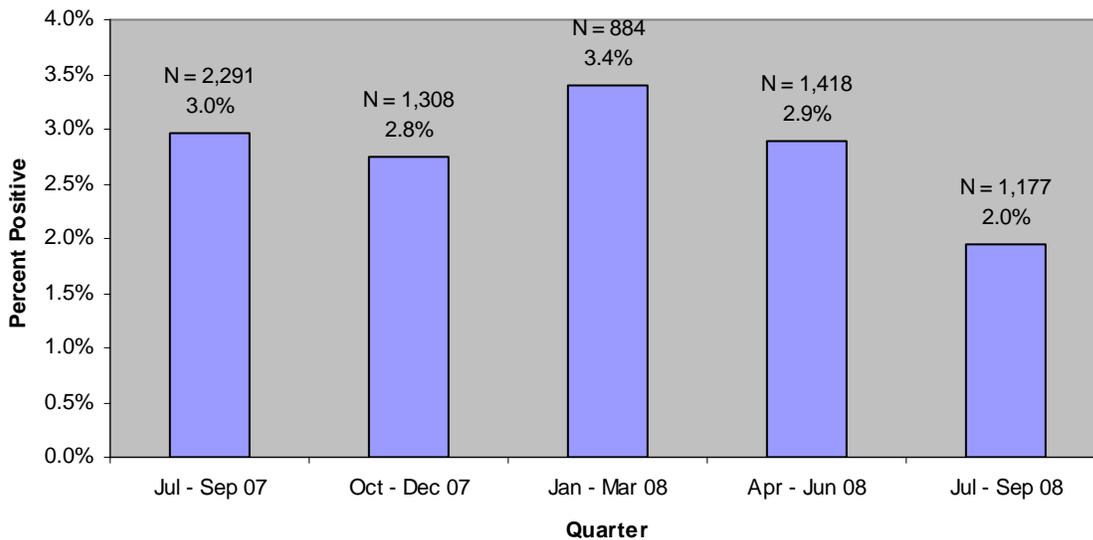*Data Source: FSIS Data Warehouse (October 07 2008) Gurinder Saini*

Chart 1 : Product Classes by Category: July-September 2008

Category 2T
8%

Category 2
8%

Category 3
1%

Category 1
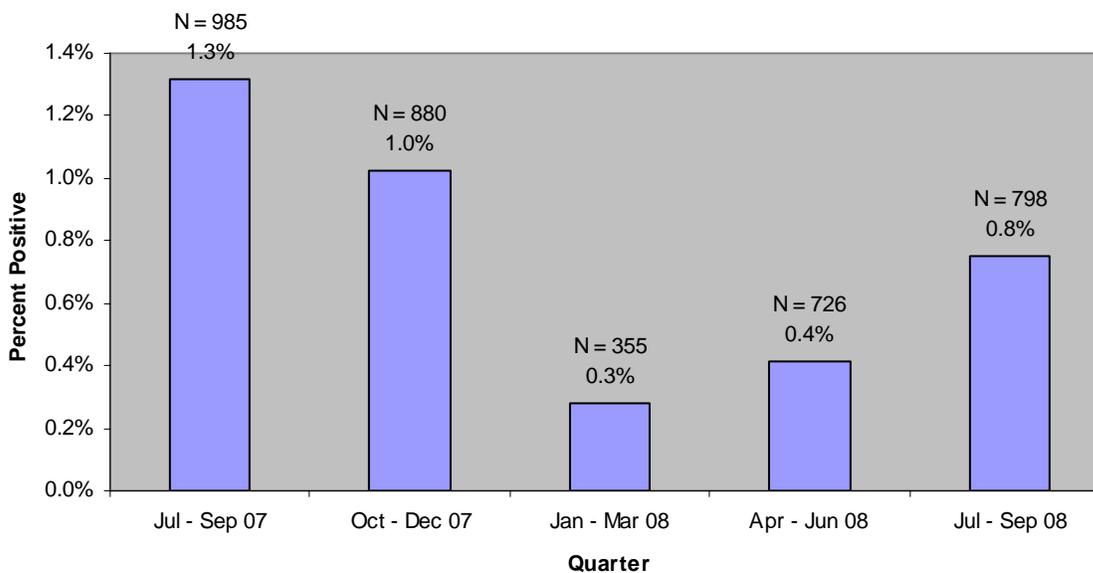83%

Legend:
- 1
- 2T
- 2
- 3

Figure 1
**Microbiological Results of Broilers (Young Chicken) Carcasses (All Samples)
Analyzed for Salmonella in the PR/HACCP Verification Testing Program Summarized
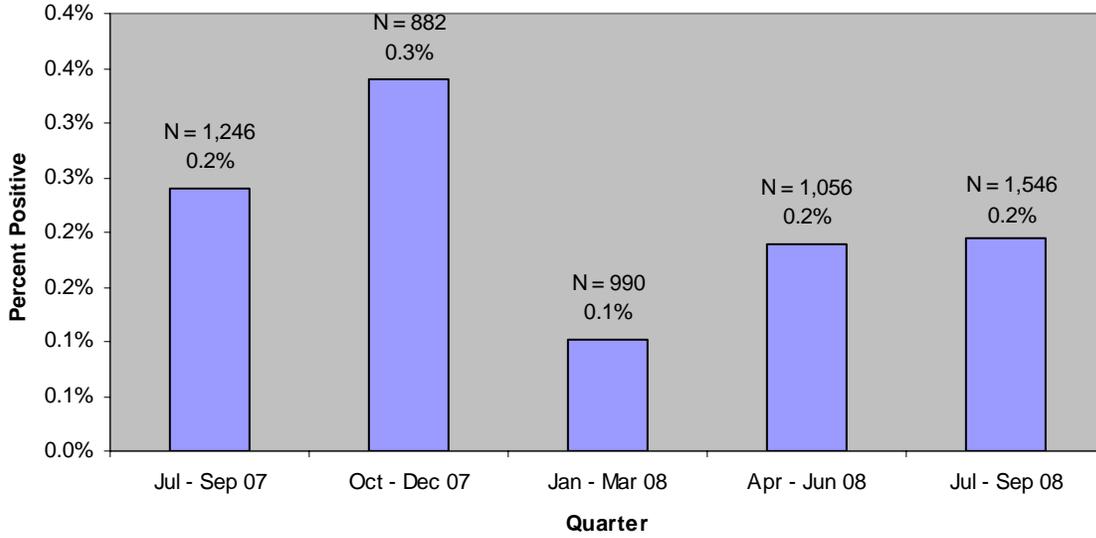by Quarter from July 2007 to September 2008**

N = 1,223
10.6%

N = 1,697
8.5%

N = 1,403
9.8%

N = 2,356
5.8%

N = 1,826
7.9%

Percent Positive

Quarter: Jul - Sep 07, Oct - Dec 07, Jan - Mar 08, Apr - Jun 08, Jul - Sep 08

Figure 2
**Microbiological Results of Market Hog Carcasses (All Samples) Analyzed for
Salmonella in the PR/HACCP Verification Testing Program Summarized by Quarter
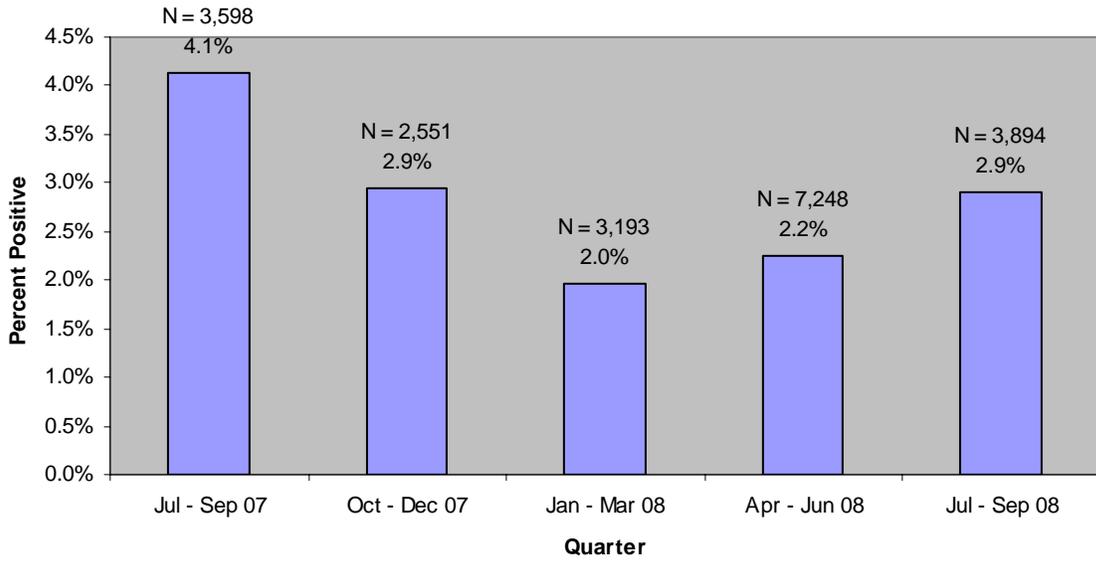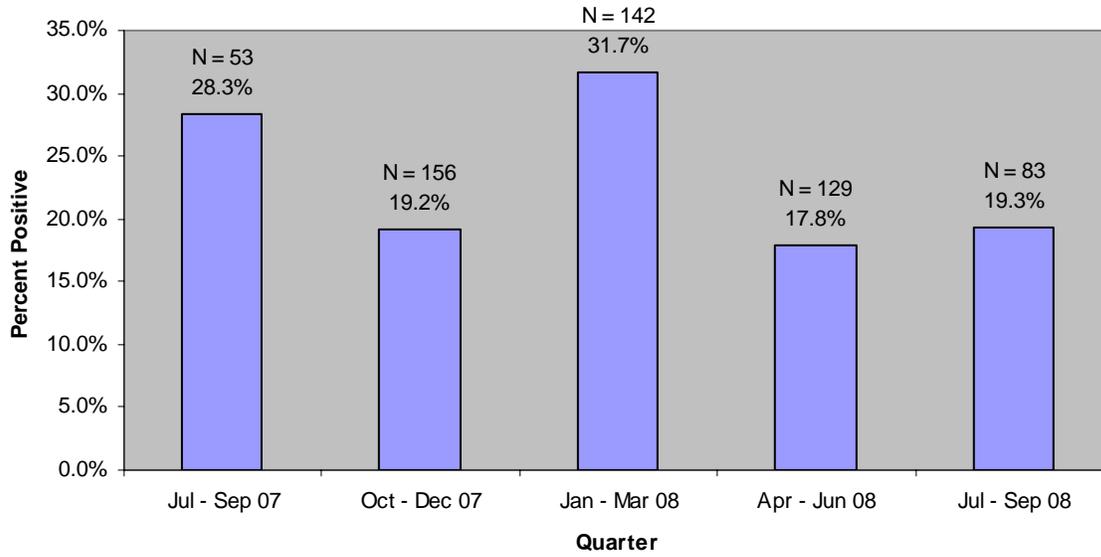from July 2007 to September 2008**

Figure 3
**Microbiological Results of Cow and Bull Carcasses (All Samples) Analyzed for
Salmonella in the PR/HACCP Verification Testing Program Summarized by Quarter
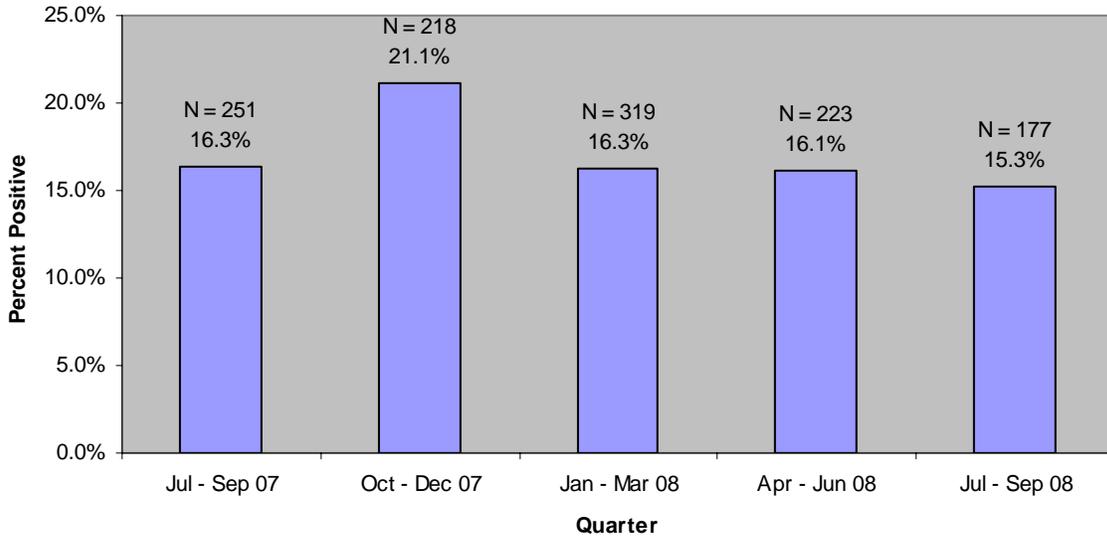from July 2007 to September 2008**

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 2007 to September 2008

Figure 5
Microbiological Results of Ground Beef (All Samples) Analyzed For Salmonella in
the PR/HACCP Verification Testing Program Summarized by Quarter from July 2007
to September 2008

Figure 6
Microbiological Results of Ground Chicken (All Samples) Analyzed For Salmonella in the PR/HACCP Verification Testing Program Summarized by Quarter from July 2007 to September 2008

Figure 7
Microbiological Results of Ground Turkey (All Samples) Analyzed For Salmonella in the PR/HACCP Verification Testing Program Summarized by Quarter from July 2007 to September 2008

Figure 8
Microbiological Results of Turkey (All Samples) Analyzed For Salmonella in the PR/HACCP Verification Testing Program Summarized by Quarter from July 2007 to September 2008