



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

This report discusses the *Salmonella* verification sampling results data for the second quarter CY2008 as presented in Table 1-9, Tables 2A-9A, Chart 1, and Figures 1-8.

### Table 1

[This table](#) summarizes *Salmonella* verification samples including *Salmonella* positive results, based on sample collection date, for April-June 2008 for all eight product classes. This data is presented in the same format as used in the past quarterly and annual reports.

### Tables 2-9 (new format) and Tables 2A-9A (previous format)

These tables report the proportion of establishments in each product class by categories. [Tables 2-9](#) indicate four new policy changes as described below. [Tables 2a-9a](#) show data as they have been reported in previous years and are included for comparison.

- a. Tables 2-9 report the proportion of establishments in Category 2 and 3 that have completed at least two *Salmonella* verification-sampling sets. This is different from the previous quarterly reports where establishments in Category 2 and 3 were categorized based on one completed set. 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 in tables 2-9. 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  $\leq$  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 allowable 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](#)) (Category 1:  $\leq 14$  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 265 samples were collected for April to June 2008, and three samples were *Salmonella* positive.

## 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 81% establishments are in Category 1 as of 30 June 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/Q2\\_2006\\_Salmonella\\_Testing/index.asp](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 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. So far in March and April 2008, FSIS posted names of 19 Category 2 and two Category 3 establishments, and in May and June 2008, FSIS posted names of 15 Category 2 and two Category 3 establishments. 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](http://www.fsis.usda.gov/Science/Salmonella_Verification_Testing_Program/index.asp). The Agency is considering publishing category results for establishments in other 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 - SECOND QUARTER 2008 (APR 1, 2008 - JUN 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	1,561	65	4.2%	764	64	8.4%	31	7	22.6%
Market Hogs	52	0	0.0%	706	29	4.1%	660	12	1.8%
Cows/Bulls	19	0	0.0%	432	0	0.0%	275	3	1.1%
Steers/Heifers	35	0	0.0%	461	0	0.0%	560	2	0.4%
Ground Beef	574	18	3.1%	4,664	84	1.8%	2,010	61	3.0%
Ground Chicken	33	5	15.2%	77	15	19.5%	19	3	15.8%
Ground Turkey	205	35	17.1%	14	1	7.1%	4	0	0.0%
Turkeys	19	0	0.0%	1	0	0.0%	0	0	0.0%

Product ID	All Sizes		
	Samples	Positives	Percent Positive
Broilers	2,356	136	5.8%
Market Hogs	1,418	41	2.9%
Cows/Bulls	726	3	0.4%
Steers/Heifers	1,056	2	0.2%
Ground Beef	7,248	163	2.2%
Ground Chicken	129	23	17.8%
Ground Turkey	223	36	16.1%
Turkeys	20	0	0.0%

**Note:** There may be fewer establishments represented in the following new format (tables 2-9) because only those with at least 2 sets were counted.

**NEW FORMAT: TABLE 2. BROILER ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008**

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

\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST TWO COMPLETED SETS

**PREVIOUS FORMAT: TABLE 2A. BROILER ESTABLISHMENT, BY CATEGORY, QUARTER 1 & 2 CY2008**

Broiler Establishments by Category, Quarter 1 & 2 CY2008				
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL
1	142	77%	148	81%
2	41	22%	35	19%
3	2	1%	0	0%
TOTAL *	185	100%	183	100%

\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST ONE COMPLETED SET.

**NEW FORMAT: TABLE 3. MARKET HOG ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008**

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

\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST TWO COMPLETED SETS

**PREVIOUS FORMAT: TABLE 3A. MARKET HOG ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008**

Market Hog Establishments by Category, Quarter 1 & 2 CY2008				
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL
1	171	72%	176	75%
2	58	25%	55	23%
3	8	3%	5	2%
TOTAL *	237	100%	236	100%

\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST ONE COMPLETED SET

**NEW FORMAT:** TABLE 4. TURKEY ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008

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

\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST TWO COMPLETED SETS. ESTABLISHMENTS IN CATEGORY 1 HAVE 6 OR FEWER POSITIVE SAMPLE RESULTS

**PREVIOUS FORMAT:** TABLE 4A. TURKEY ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008

Turkey Establishments by Category, Quarter 1 & 2 CY2008				
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL
1	35	92%	35	92%
2	3	8%	3	8%
3	0	0%	0	0%
TOTAL *	38	100%	38	100%

\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST ONE COMPLETED SET

**NEW FORMAT:** TABLE 5. COW/BULL ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008

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

\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST TWO COMPLETED SETS

**PREVIOUS FORMAT:** TABLE 5A. COW/BULL ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008

Cow/Bull Establishments by Category, Quarter 1 & 2 CY2008				
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL
1	69	68%	68	67%
2	31	30%	33	32%
3	2	2%	1	1%
TOTAL *	102	100%	102	100%

\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST ONE COMPLETED SET

**NEW FORMAT:** TABLE 6. GROUND BEEF ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008

Ground Beef Establishments by Category, Quarter 1 & 2 CY2008				
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL
1	219	75%	227	76%
2T	31	11%	38	13%
2	31	11%	29	10%
3	11	3%	5	1%
TOTAL *	292	100%	299	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.

**PREVIOUS FORMAT:** TABLE 6A. GROUND BEEF ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008

Ground Beef Establishments by Category, Quarter 1 & 2 CY2008				
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL
1	690	81%	667	80%
2	148	18%	158	19%
3	12	1%	8	1%
TOTAL *	850	100%	833	100%

\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST ONE COMPLETED SET. RESULTS FROM ESTABLISHMENTS PRODUCING <1,000 PDS/DAY HAVE BEEN REMOVED FROM THIS TABLE.

**NEW FORMAT:** TABLE 7. GROUND CHICKEN ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008

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

\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST TWO COMPLETED SETS

**PREVIOUS FORMAT:** TABLE 7A. GROUND CHICKEN ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008

Ground Chicken Establishments By Category by Category, Quarter 1 & 2 CY2008				
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL
1	4	29%	3	25%
2	8	57%	8	67%
3	2	14%	1	8%
TOTAL *	14	100%	12	100%

\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST ONE COMPLETED SET

**NEW FORMAT: TABLE 8. GROUND TURKEY ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008**

Ground Turkey Establishments By Category by Category, Quarter 1 & 2 CY2008				
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL
1	16	73%	16	66%
2T	2	9%	4	17%
2	4	18%	4	17%
3	0	0%	0	0%
TOTAL *	22	100%	24	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.

**PREVIOUS FORMAT: TABLE 8A. GROUND TURKEY ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008**

Ground Turkey Establishments By Category by Category, Quarter 1 & 2 CY2008				
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL
1	17	71%	17	74%
2	7	29%	6	26%
3	0	0%	0	0%
TOTAL *	24	100%	23	100%

\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST ONE COMPLETED SET

**NEW FORMAT: TABLE 9. STEER/HEIFER ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008**

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

\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST TWO COMPLETED SETS

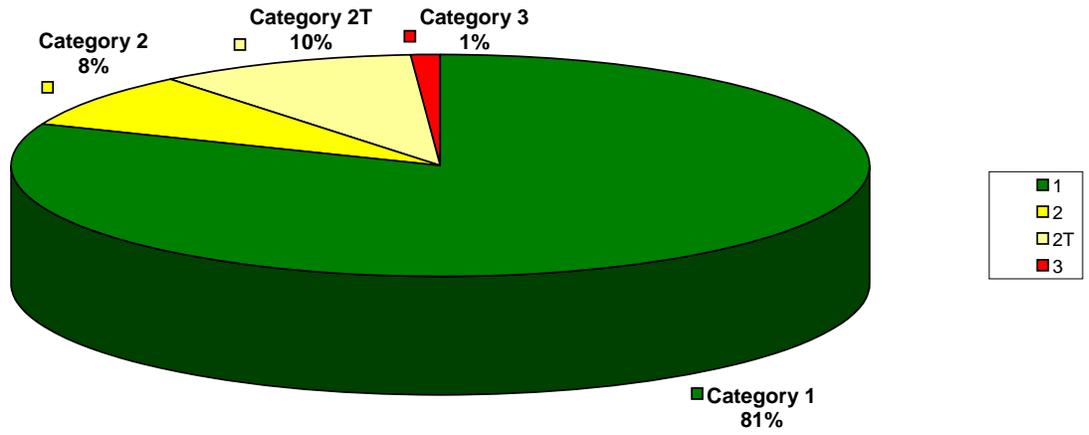
**PREVIOUS FORMAT: TABLE 9A. STEER/HEIFER ESTABLISHMENTS BY CATEGORY, QUARTER 1 & 2 CY2008**

Steer/Heifer Establishments by Category, Quarter 1 & 2 CY2008				
Category	Quarter 1	Percent of TOTAL	Quarter 2	Percent of TOTAL
1	67	58%	70	60%
2	46	40%	44	38%
3	2	2%	2	2%
TOTAL *	115	100%	116	100%

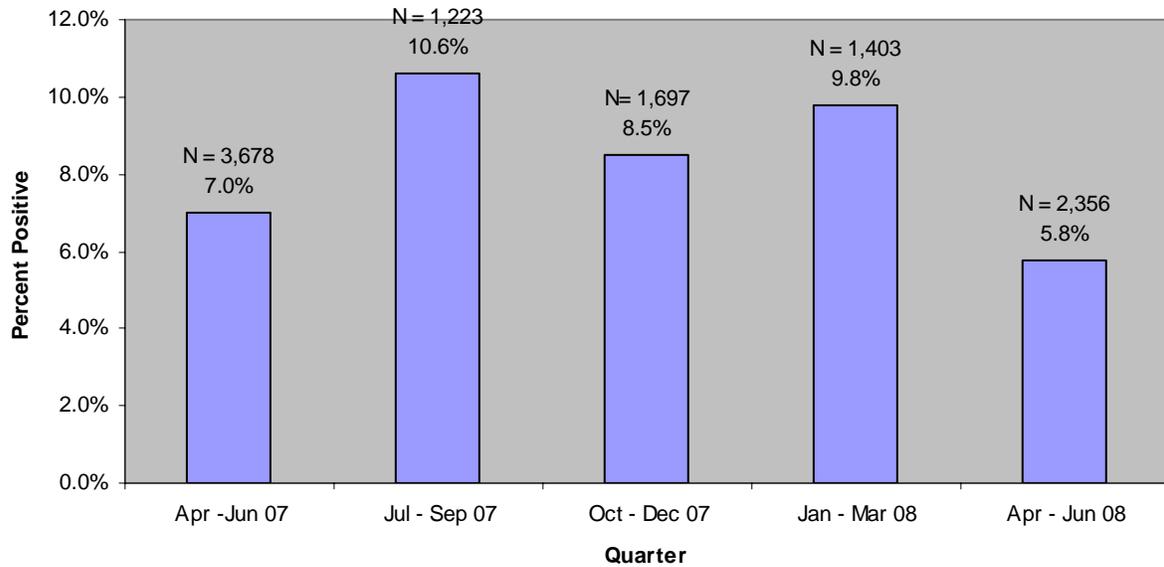
\*TOTAL NUMBER OF ESTABLISHMENTS CURRENTLY OPERATING AND SUBJECT TO SAMPLING THAT HAVE AT LEAST ONE COMPLETED SET

*Data Source: FSIS Data Warehouse (July 01 2008) Gurinder Saini*

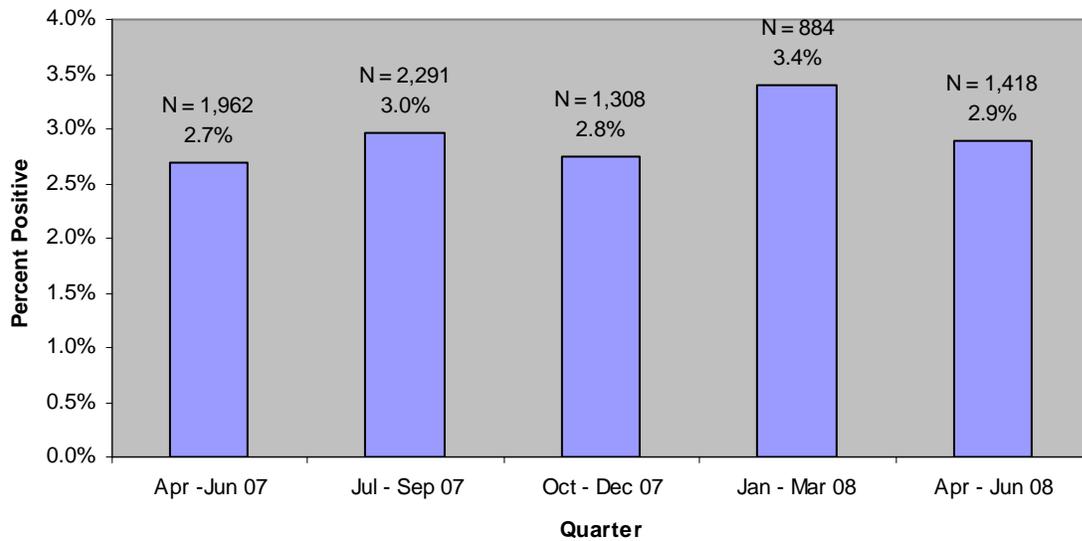
CHART 1 : PRODUCT CLASSES BY CATEGORY APRIL-JUNE 2008



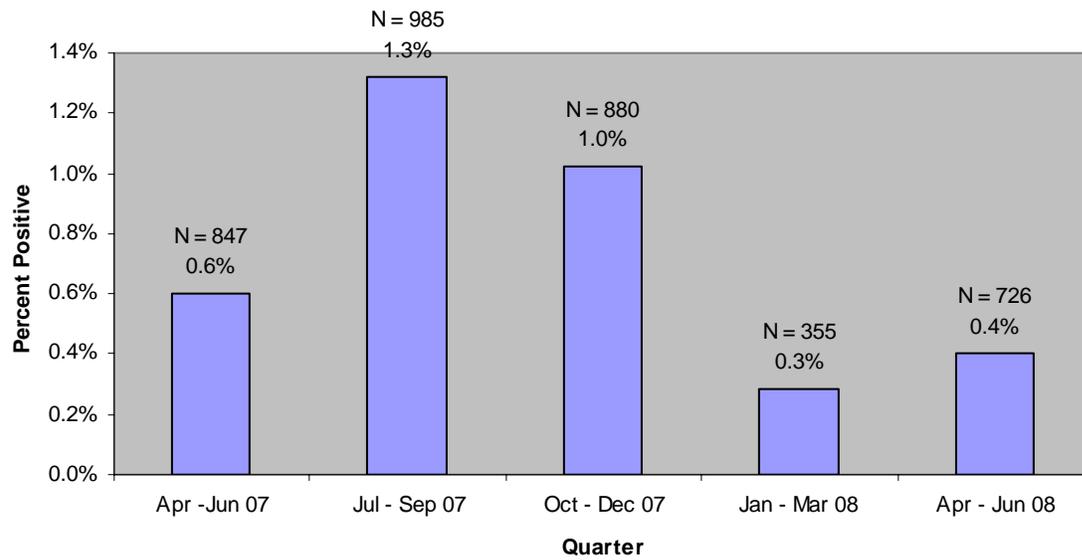
**Figure 1**  
**Microbiological Results of Broiler (Young Chicken) Carcasses (All Samples) Analyzed for Salmonella in the PR/HACCP Verification Testing Program Summarized by Quarter from April 2007 to June 2008**



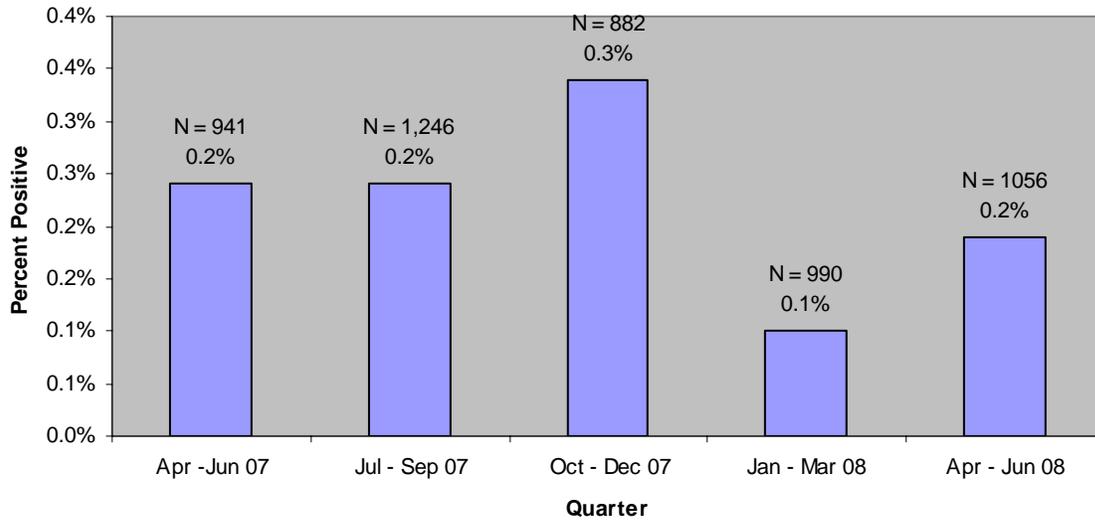
**Figure 2**  
**Microbiological Results of Market Hog Carcasses (All Samples) Analyzed for Salmonella in the PR/HACCP Verification Testing Program Summarized by Quarter from April 2007 to June 2008**



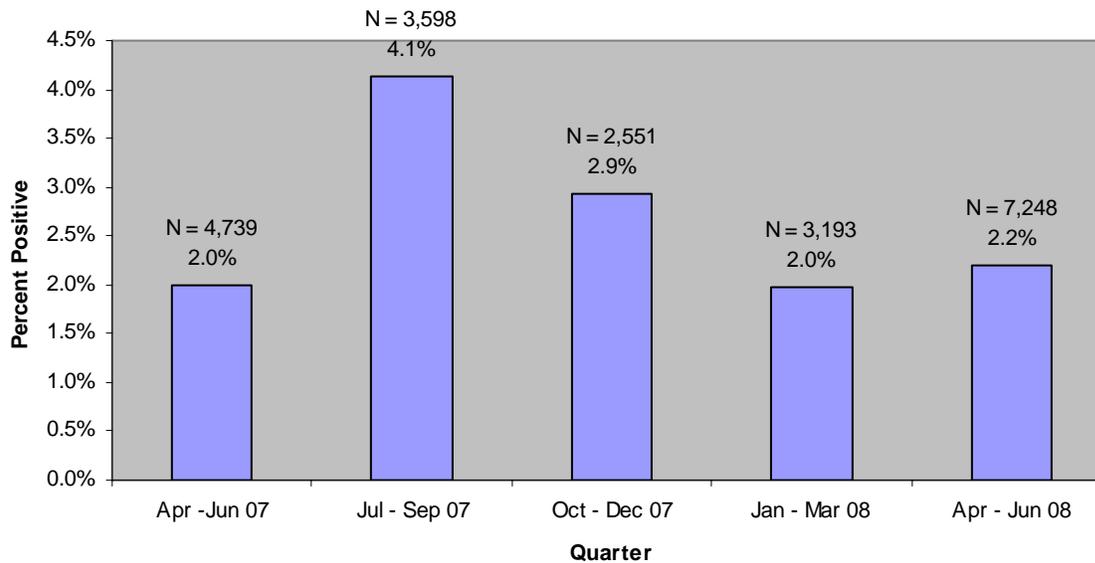
**Figure 3**  
**Microbiological Results of Cow and Bull Carcasses (All Samples)**  
**Analyzed for Salmonella in the PR/HACCP Verification Testing**  
**Program Summarized by Quarter from April 2007 to June 2008**



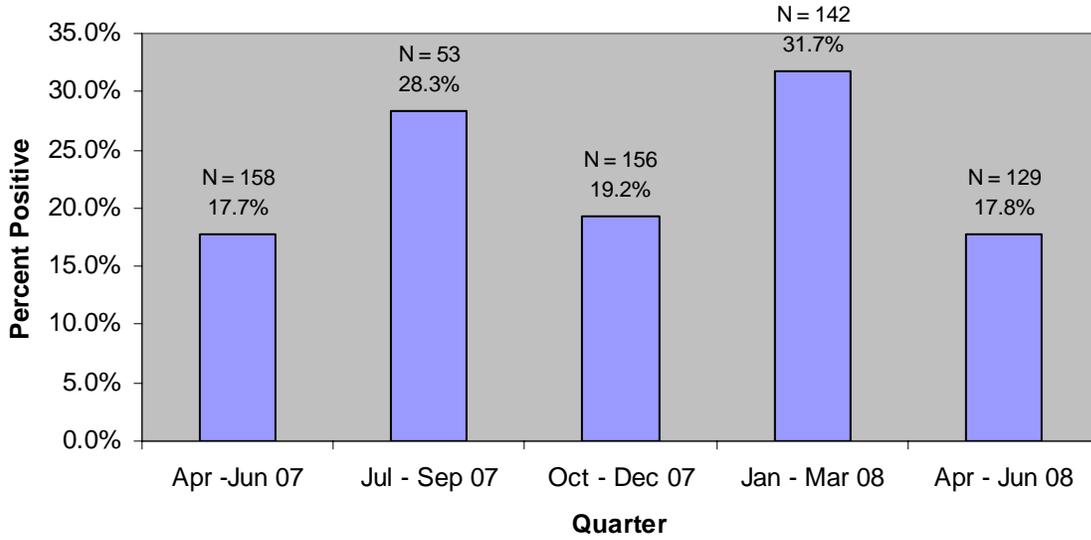
**Figure 4**  
**Microbiological Results of Steer and Heifer Carcasses (All Samples)**  
**Analyzed for Salmonella in the PR/HACCP Verification Testing Program**  
**Summarized by Quarter from April 2007 to June 2008**



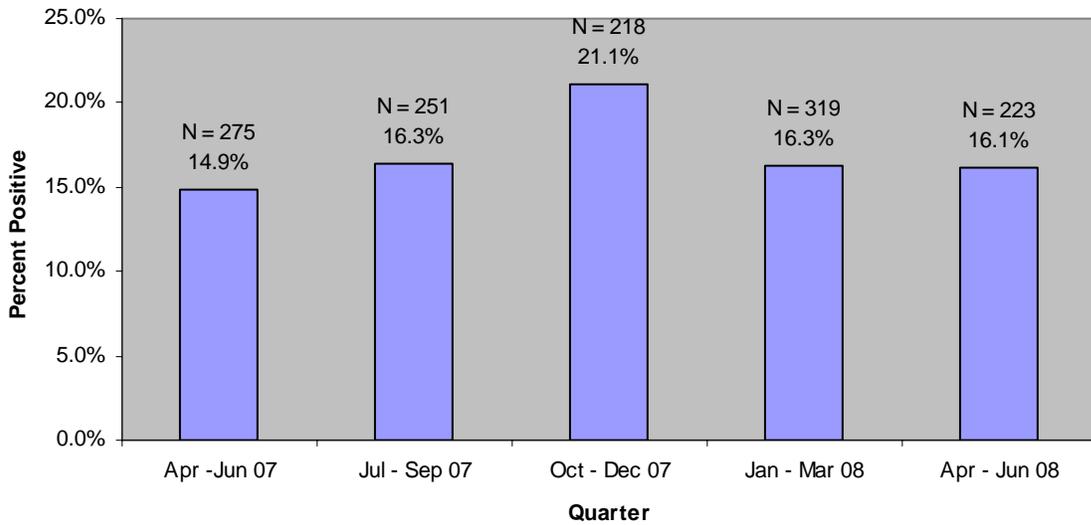
**Figure 5**  
**Microbiological Results of Ground Beef (All Samples) Analyzed for Salmonella in the**  
**PR/HACCP Verification Testing Program Summarized by Quarter from April 2007 to**  
**June 2008**



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



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



**Figure 8**  
**Microbiological Results of Turkey (All Samples) Analyzed for Salmonella in the PR/HACCP Verification Testing Program Summarized by Quarter from April 2007 to June 2008**

