FOOD SAFETY AND COMMODITY SPECIFICATIONS DIVISION

Microbiological Data Review

Annual Industry Meeting
October 24, 2017
Agenda

- FY2017 Microbiological Review
- AMS-UMN Research Project
- Supplement 211 & 212 Vendor Performance Handouts
- Animal Handling & Welfare Review
FY2017 - Microbiological Review

- Cooked Diced Chicken
- Egg Products
- Boneless Beef
- Finished Product (Ground Beef)
FY2017 – Cooked Diced Chicken: Microbial Summary

- 570 Lots Produced by 1 Contractor
  - Coliforms, Generic *E. coli*, *S. aureus*
    - No Critical Limits Exceeded
  - SPC
    - Four (4) Critical Limits Exceeded
  - *Salmonella* & *L. monocytogenes*
    - No Positive Results
- 9,800,000 lbs. Purchased
FY2017 – Unpasteurized Liquid Whole Eggs: Microbial Summary

- 401 Lots Produced by 5 Contractors
  - SPC
    - 63 Critical Limits Exceeded
  - Coliforms
    - 16 Critical Limits Exceeded
  - Generic E. coli
    - 14 Critical Limits Exceeded
  - 10,176,000 lbs. Purchased
FY2017 – All Purpose Egg Mix: Microbial Summary

- 73 Lots Produced by 1 Contractor
  - SPC, Coliforms
    - No Limits Exceeded
  - *Salmonella*
    - No Positive Results
- 540,000 lbs. Purchased
FY2017 – Frozen Pasteurized Whole Eggs: Microbial Summary

- 387 Lots Produced by 6 Contractors
  - SPC
    - 9 Critical Limits Exceeded
  - Coliforms
    - No Critical Limits Exceeded
  - Salmonella
    - No Positive Result
- 9,051,360 lbs. Purchased
FY2017 – Boneless Beef: Indicator Organism Summary

- 67,418 Lots Produced by 13 Suppliers
  - SPC
    - 45 Critical Limits Exceeded
  - Coliforms
    - 48 Critical Limits Exceeded
  - Generic *E. coli*
    - 33 Critical Limits Exceeded
  - 135,685,554 lbs. Produced
FY2017 – Boneless Beef:
Pathogen Prevalence by Month

Lot Count: 31,632
Supplier Count: 11
Pounds Tested: 64,078,236

E. coli O157:H7: 16 (0.05%)
Salmonella: 412 (1.30%)
FY2017 – Boneless Beef: Non-O157
STEC Summary

- 3,367 Lots Produced by 10 Contractors
  - O45, O111 & O145
    - No Positive Results
  - O26
    - 2 Positive Results
  - O103, O121
    - 1 Positive Result
- 6,825,466 lbs. Produced
Boneless Beef: Comparison of Pathogen Prevalence (% Positive) by Fiscal Year

\[ \text{E. coli O157:H7} \quad \text{Salmonella} \]

Values with different superscripts within the same column color are significantly different (P<0.05).
FY2013 to 2017 – Boneless Beef: Top 5 *Salmonella* Serotypes

- Dublin: 831
- Newport: 166
- Montevideo: 111
- Typhimurium: 68
- Anatum: 54
FY2017 – Finished Product: Indicator Organism Summary

- 13,224 Sublots Produced by 9 Contractors
  - SPC
    - 7 Critical Limits Exceeded
  - Coliforms
    - 13 Critical Limits Exceeded
  - Generic *E. coli*
    - 5 Critical Limits Exceeded
- 120,370,354 lbs. Produced
FY2017 – Finished Product: Pathogen Prevalence by Month

Lot Count: 5,076
Contractor Count: 6
Pounds Tested: 46,761,080

E. coli O157:H7: 5 (0.10%)
Salmonella: 90 (1.77%)
Finished Product: Comparison of Pathogen Prevalence (% Positive) by Fiscal Year

**E. coli O157:H7**

**Salmonella**

Values with different superscripts within the same column color are significantly different (P<0.05).
FY2013 to 2017 – Finished Product: Top 5 *Salmonella* Serotypes

- **Dublin**: 43
- **Montevideo**: 35
- **Newport**: 24
- **Anatum**: 19
- **Meleagrisidis**: 14
AMS-UMN Research Project

- Analysis of Microbiological Testing Data for Boneless Beef and Ground Beef Commodities Associated with Federal Nutrition Assistance Programs
- Scott Vial – PhD Candidate, School of Public Health
- Robust and Collaborative Analysis
- Blinded Data Set – 10/2013 to 7/2017
- Trends, Relationships and Modeling Components
FY2017 – Animal Handling & Welfare Review

- 86 Audits Conducted by QAD
  - 13% Increase from FY16
  - 2 For-Cause Audits Conducted
  - 38 Establishments
  - 3 Species
  - 7,760 Head

- Results
  - 2 Missed Stuns Observed (Beef)
  - No Sensible Animal on Rail Observed

http://www.ams.usda.gov/resources/ahw
Thank you....

Questions & Discussion