Subcommittee on Salmonella
Report to CPAS 2018

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Chair, USAHA Subcommittee on Salmonella
Agenda Topics

• Agency Summaries
  • Vet-LIRN
  • NPIP
  • NVSL
  • CDC
  • FSIS

• Salmonella Heidelberg in dairy calves
• No resolutions/recommendations
• Subcommittee review in 2019
Salmonella Mini-Symposium

• S. Heidelberg in Dairy Calves: One Health Challenge
• Blockchain: What is it and Why Should I Care?
• One Health Benefits of Using Whole Genome Sequencing as a Tool for Herd Management
• Past, Present and Future of Salmonella Control in Poultry
  • Dale Lauer
• Ecology of Salmonella

• Wednesday 10/24 9:00 am-1200 pm  Chicago C
Earlier CPAS Presentations

- NPIP Update – Dr. Denise Heard
- NVSL Update – Brenda Morningstar-Shaw
- CDC Report – Dr. Megin Nichols
Vet-LIRN Summary  Drs.Olgica Ceric/Renate Reimscheussel

• 24 animal feed recalls due to Salmonella
  • Primarily raw foods and treats
  • 9 of last 10 were raw product
  • 5/24 primarily poultry products, others meat combinations not listed
    • 3 chicken
    • 1 turkey
    • 1 duck

• 1 case of ground turkey product with S. Reading related to sick children
Vet-LIRN AMR Pilot Project

• Similar to NAHLN project
• Collecting organisms from host species - AST, WGS
• All Salmonella 2017
  • 586:AST
  • 71:WGS
  • 61 total avian isolates
  • 29 serovars: Typhimurium, Dublin, Newport top 3 submitted
• All Salmonella first half 2018
  • 225:AST
  • 169:WGS
FSIS Summary  Dr. Kristin Holt

• 2017 *Salmonella* detected in 1 of 14,645 (0.01%) samples of ready-to-eat meat and poultry products, down from 0.10% in 2016
• Routinely verify establishments meeting performance standards
  • *Salmonella* Verification Testing Program for Raw Meat and Poultry
    • Collect and analyze carcass and product samples
    • Group for Process Control Categories: 1/Consistent, 2/Variable, 3/Highly Variable
• 2017 Pasteurized Egg Products 1,687 (0%) samples
• Perform pulsed-field gel electrophoresis analysis, antimicrobial susceptibility testing, and whole genome sequencing
• Publishes its microbiological laboratory guidelines and test results on the FSIS website at [www.fsis.usda.gov](http://www.fsis.usda.gov)
FSIS NARMS Cecal Sampling

• National Antimicrobial Resistance Monitoring System
  • WHO: Healthy animal sampling at slaughter – estimate AMR in food animals
  • March 2013

• 2014 Salmonella Data
  • Young Chickens
    • Pansusceptible 46.6%
    • Resistant 38.3%
    • MDR 14.6%
  • Young Turkeys
    • Pansusceptible 24.4%
    • Resistant 28.9%
    • MDR 46.7%* highest of all Salmonella isolates/production types tested
CDC Summary  Dr. Matthew Wise

- Multistate Salmonella Outbreaks – poultry related
  - 2 linked to chicken consumption (I 4,[5]),12:i:- and Infantis)
  - 2 linked to shell egg consumption (Braenderup and Enteritidis)
  - Chicken salad sold at a single grocery chain (Typhimurium)
  - Multiple turkey products including ground, whole, and raw pet food (Reading)
  - Contact with backyard poultry (multiple serotypes)
  - Contact with guinea pigs (Enteritidis)

- 4 themes
  - Meat and poultry products
  - Atypical strains
  - “Repeat Offenders”
  - Multi-ingredient, pre-made foods from grocery stores
S. Heidelberg in Dairy Calves  Drs. Elisabeth Patton/Jason Lombard

• Multi-state outbreak
• Multi-drug resistance, PFGE and WGS closely related isolates
• Multi-agency collaboration – human and animal outbreak
• Contact with dairy bull calves
• Calve morbidity and mortality

• Used boot cover swabbing as part if their environmental testing