

Current and Emerging Food Safety Issues Affecting Meat Processors

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Topics for Discussion

- Interstate Shipment of Meat & Poultry
- Country of Origin Labeling
- Humane Handling
- FDA Feed Ban
- HACCP Plan Validation
- Current Food Safety Issues
- Thoughts on HACCP and Food Safety

Interstate Shipment

- Passed as provision within the 2008 Farm Bill
- Creates Title V Program for the Federal Meat Inspection Act
 - Optional program for state-inspected plants with 25 employees or less
 - Does not replace existing state program
 - States will have to individually adopt the program to utilize it



Interstate Shipment

- USDA serves as “Selected Establishment Coordinator”
 - Federal employee responsible for each state to provide oversight
- State inspection program where a designated State person will enforce Federal food safety standards
- State inspector will be trained in enforcement of the Federal Meat Inspection Act and the Poultry Products Inspection Act



Interstate Shipment

- Operation “at least equal to” not allowed
 - Must be the same as federal standards
- Federal mark of inspection used in interstate products
 - “SEWI 192”
- States may still produce products under State MPI program for in-state distribution
 - Bear state inspection legend
 - “WI 192”

Interstate Shipment

- USDA's Role State Coordinator
 - Establish a program for state-inspected plants with more than 25 employees to transition to federal inspection if they are interested in shipping interstate
 - Provide grants for states to use to help state plants transition to the new Title V program
 - Will reimburse states for at least 60% of the costs



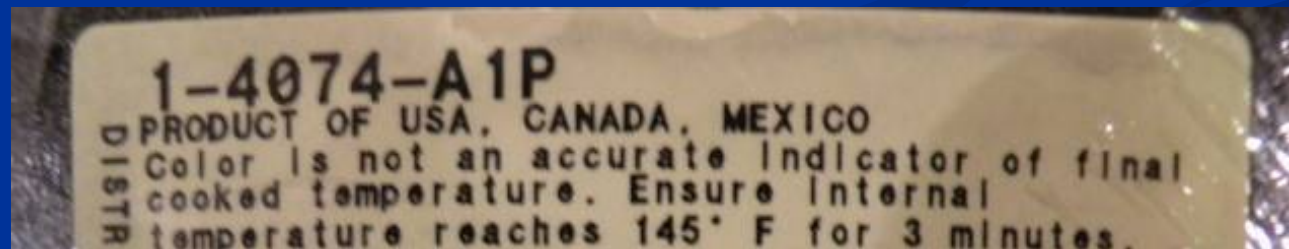
Interstate Shipment

- Timeline – currently developing program details
 - Public comment period (public meetings and/or hearings) prior to final rule
 - Sept. 16 – Nov. 16, 2009
 - Enactment of the provisions within 18 months of releasing the final rule
 - ~ January 2010

- Concerns?
 - Will states adopt the program?
 - Will plants take advantage of the program, or will it end up being too challenging?
 - Will this negatively impact the state programs?

Country of Origin Labeling

- COOL included in 2008 Farm Bill – started implementation on September 30, 2008
- Final Rule went into effect March 16, 2009
 - Commodities of interest – beef, lamb, pork, goat, chicken
 - Includes ground product and whole muscle cuts
- Definition of a “Retailer” for COOL
 - Must be licensed under the Perishable Agricultural Commodities Act (PACA)



Country of Origin Labeling

- Definition of a retailer under PACA
 - Any person engaged in the business of selling any perishable agricultural commodity at retail
 - Any location where invoice costs exceed \$230,000 of perishable agricultural commodity during a calendar year
- Definition of “perishable agricultural commodity”
 - Fresh and frozen fruits and vegetables
- PACA licensing only applies to invoice costs of \$230,000 of fresh and frozen fruits and vegetables/year, and not revenue generated from other products.

Country of Origin Labeling

- Product Designations

- U.S. Country of Origin, Multiple Countries of Origin, Imported for Immediate Slaughter, and Foreign Country of Origin

- Ground Product Labeling

- The country or countries-of-origin of the inputs that went into the product, OR a list of “reasonably possible countries of origin” that could be in the product



Country of Origin Labeling

- Processed Products
 - NOT COVERED under COOL



Humane Handling

- Increased scrutiny of animal handling because of Hallmark/Westland Packing Co. incident in 2008
- Several regulations and policies
 - 9 CFR 313 – Humane Slaughter of Livestock
 - FSIS Directive 6900.1, Revision 1 and FSIS Directive 6900.2, Revision 1
 - FSIS Notice 16-08



FDA Feed Ban

- New FDA Feed Ban is now in effect
- Designates “Cattle Materials Prohibited in Animal Feed (CMPAF)”
 - The entire carcass of BSE-positive cattle;
 - The brains and spinal cords from cattle 30 months of age and older;
 - The entire carcass of cattle not inspected and passed for human consumption that are 30 months of age or older from which brains and spinal cords were not removed;
 - Tallow that is derived from other materials prohibited by this rule that contain more than 0.15% insoluble impurities; and
 - Mechanically separated beef that is derived from the materials prohibited by this rule.
- Specified Risk Materials (SRMs) designated by USDA are different than CMPAF

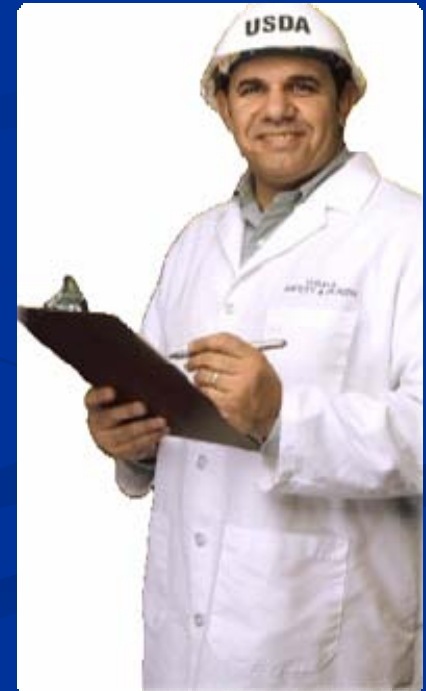
FDA Feed Ban

- Renderers likely to change their pick-up policies
- What are your options for disposing of unwanted material?
 - Disposal in trash or local landfill
 - Composting
 - Incineration
 - Burial
- FSIS permits the return of SRMs to customers, provided that they are properly denatured
- Renderers may require additional recordkeeping, documentation, and segregation of materials

HACCP Plan Validation

- Previous published regulation
 - 1996 – Federal register 61 FR 38826-38827
 - Title 9 CFR – 417.4(a)(1) – Validation, Verification, Reassessment

“Upon completion of the hazard analysis and development of the HACCP plan, the establishment shall conduct activities designed to determine that the HACCP plan is functioning as intended.”



HACCP Plan Validation

- According to FSIS officials
 - This will be implemented to all HACCP plans, all CCPs, and all products within each HACCP category.
 - Currently focusing on *Listeria monocytogenes* interventions in RTE products and *E. coli* O157:H7 interventions in raw beef products.
 - Still awaiting specific guidance from FSIS



HACCP Plan Validation

- Impact on meat industry depends on the number of products establishment manufacturers
 - \$10,000 - \$20,000+ validation studies
 - Negates scientifically published studies
 - Would have devastating impact on meat industry



**Current Food Safety Issues
Providing Industry Challenge**

Listeria monocytogenes (*Lm*)

- *Lm* is considered an adulterant
- Post lethality processing environment concerns
 - Psychotroph
 - Little microbial competition
 - Biofilms
 - Harborage sites



- Although many pathogens must be addressed in meat establishments, *Listeria monocytogenes* continues to present some of greatest challenges in controlling

Listeria monocytogenes

Challenges

- Increased risk of *Lm*
 - Aging facilities
 - Traffic patterns
 - Potential for contamination
 - Natural presence of increasing false sense of security



E. coli O157:H7

- *E. coli O157:H7* has emerged as a top priority for USDA, FSIS control and remains the top challenge for fresh beef processors

E. coli O157:H7

- *E. coli O157:H7* is considered an adulterant
- All facilities with beef addressing *E. coli O157:H7*
 - Slaughter
 - Fabrication
 - Grinding
 - Enhancement
 - Blade Tenderization
 - Cooked sausages
 - Dried sausages

Addressing *E. coli* O157:H7

- Increasing scrutiny of this pathogen has led to new challenges for meat processors
- More emphasis being placed on testing programs for *E. coli* O157:H7
 - N60, hourly, daily, monthly
- Low infectious dose
- Few interventions in process



Addressing *E. coli* O157:H7

- Establishments have:
 - Struggled to determine what more they could do
 - Questioned the USDA mark of inspection
 - Question how to better address this pathogen



Beef Slaughter

- Final Inspection
 - Zero fecal, milk or ingesta
- Antimicrobial Process
 - Hot/cold water washes
 - Dry aging
 - Lactic/acetic acid
 - Steam pasteurization
 - Trimming
- Testing for verification



Moisture Enhanced and Blade Tenderized Beef Products

- Good Manufacturing Practices
 - Lotting / traceability program
 - Hold and test program
 - Sanitation program
 - Testing for verification



Raw, Ground Beef

- Good Manufacturing Practices
 - Lotting / traceability program
 - Hold and test program
 - Sanitation program
 - Pathogen sampling
 - Based on volume
 - Based on risk/comfort
 - N-60 type



Raw, Ground Beef Challenges

- Establishment size / production volume
- Variety of vendors
 - Loss of control through wholesale purchasing
- What is appropriate frequency of testing?
- Testing to prevent vs. testing as a tool



Addressing *E. coli* O157:H7

■ FSIS Sample Testing Frequencies:

Volume of Production	Testing Frequency
>250,000 pounds daily	Test more than once per month (>12 times annually)
>50,000 but ≤ 250,000 pounds daily	Test at least once every month (12 times annually)
>1,000 but ≤ 50,000 pounds daily	Test at least once every 2nd month (6 times annually)
<1,000 pounds daily	Test at least once every 3rd month (4 times annually)

FSIS expects increased testing frequencies when using product that has not been previously tested.

Addressing *E. coli* O157:H7

- When to test?
 - Take sample when USDA samples
 - Document information thoroughly
 - Consider possible intensified testing during peak months (April through October)

- Hold tested product!



Raw, Not Ground Beef

- Historically not considered a high risk for *E. coli* O157:H7
- Recent outbreaks with bench trimmings has changed this
 - FSIS Notice 51-09 – Sampling bench trimmings
- USDA considered revising the definition of adulteration to include *E. coli* O157:H7 in primals and subprimals

Addressing *E. coli* O157:H7

- The bottom line
 - Test results will not provide 100% guarantee of a safe product
 - Consumer education & responsibility is key



Thoughts on HACCP & Food Safety

The Significance of Food Safety

- As an Establishment

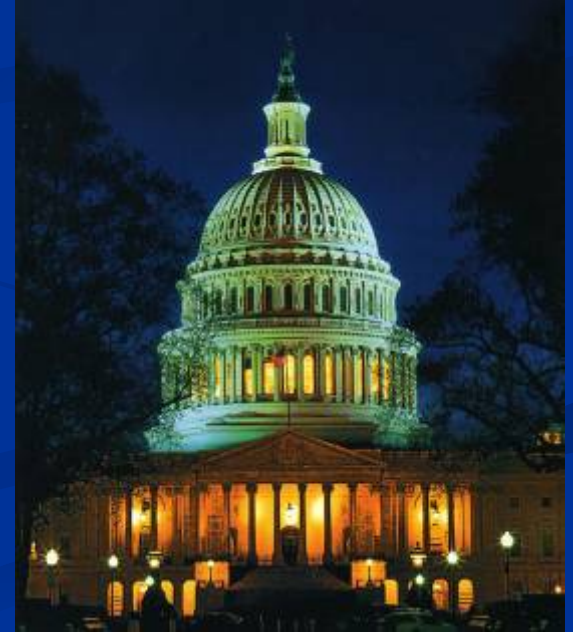
- Little room for error
 - Dangerous pathogens
 - Severe consequences



- Faster food-borne outbreak detection capabilities
 - Faster, more accurate microbiology methods
 - More interstate collaboration
 - Response time from weeks to now days

The Significance of Food Safety

- As the Government
 - An extremely aggressive approach
 - High numbers of recalls / outbreaks show a system not working
 - Tremendous pressure by consumer groups, politicians and consumers



The Significance of Food Safety

- As a Consumer
 - Confusion
 - Demand for safer foods
 - Lack simple food preparation knowledge/skills
 - Uncertainty of the safety of the foods they consume
 - Taking responsibility
 - Cook meat product = meat establishment responsibility
 - Raw meat product = consumer responsibility?



Thoughts on HACCP

- Looking back....
 - Necessary for meat industry
 - Very effective during emergence of pathogens
 - Significant improvement of food safety
 - Manufacturer shift in responsibility for food safety



Thoughts on HACCP

- Currently....
 - Continual effectiveness about pathogens
 - Not in all cases...E. coli O157:H7
 - “all problems can be fixed” with HACCP mentality
 - The HACCP system has and currently does not align well with certain raw meat food safety concerns
 - Needs to be maintained as an establishment’s program

Thoughts on HACCP

- In the future....
 - HACCP will be expected to respond to increased food safety demands
 - Principles must be extended to consumers
 - i.e. education
 - Hopefully extended to farmers & ranchers
 -time will tell

Questions?