



# Strengthening Verification Activities at and Guidance for Veal Slaughter Establishments

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# Objectives

- **Identification of Problem**
  - Higher percent positive for STEC
- **Analysis of Problem**
  - Sanitary dressing
  - Antimicrobial intervention implementation
- **Policy document development**
  - Sanitary Dressing Verification Documents Overview
  - Changes to 2002 Beef Slaughter Guidance under Consideration
- **NACMPI Committee Questions**



# Identification of Problem: Higher percent positive for STEC in Veal

- FSIS test results show that the percent positive for STEC from veal products appear to be higher than beef products from other cattle slaughter classes
  - Some establishments who got an initial positive also then received multiple positives during follow up sampling.

[http://www.fsis.usda.gov/Science/Ground\\_Beef\\_E.Coli\\_Testing\\_Results/index.asp](http://www.fsis.usda.gov/Science/Ground_Beef_E.Coli_Testing_Results/index.asp)



# Identification of Problem: Higher Percent Positive for STEC in Veal

Raw Ground Beef Components (RGBC)				
YTD 2012 Totals				
Source	Serotype	Trim Verification	Follow-up to RGB Positive at Supplier	Follow-up to RGBC Positive
BEEF	O157:H7	0.53% (12/2,263)	0.00% (0/208)	0.66% (3/455)
	non-O157 STEC	0.91% (14/1,533)	1.03% (1/97)	1.74% (6/345)
	O26	5	1	4
	O45	0	0	0
	O103	7	0	2
	O111	2	0	0
	O121	0	0	0
	O145	0	0	0
VEAL	O157:H7	7.89% (3/38)	10% (1/10)	1.67% (2/120)
	non-O157 STEC	13.04% (3/23)	0.00% (0/0)	19.33% (23/119)
	O26	0	0	4
	O45	1	0	2
	O103	0	0	14
	O111	1	0	1
	O121	0	0	0
	O145	1	0	2



# Analysis of Problem: FSA reviews and onsite visits

- Results from FSA reviews and onsite visits indicated common deficiencies:
  - Sanitary dressing
  - Antimicrobial intervention implementation



# Analysis of Problem:

## Key findings

- Inadequate sanitary dressing procedures to prevent carcass contamination and the creation of insanitary conditions
- Contamination from inadequate sanitary dressing procedures overwhelmed the antimicrobial interventions
- Ineffective implementation of antimicrobial interventions
  - Failure to identify critical operating parameters



# Analysis of Problem:

## Key Findings

- Veal industry may not consistently implement sanitary dressing procedures
- Inspection personnel may not consistently enforce sanitary dressing at veal establishments
- Issues include:
  - Identifying and implementing sanitary dressing procedures
  - Identifying critical operating parameters and implementing interventions effectively
  - Relating microbial data from FSIS and establishment testing to the effectiveness of the slaughter operation



# Analysis of Problem:

## Example

- Context:
  - Veal slaughter establishment
    - Multiple FSIS positive STEC results in trimmings
    - Establishment generic *E. coli* carcass results indicating increasing contamination
- Findings:
  - Failure to relate microbial data to slaughter operations
  - Significant sanitary dressing deficiencies and ineffective implementation of interventions



# Example:

## Sanitary dressing deficiencies

- Cutting through esophagus during sticking or head removal (without closing it first) → contamination with ingesta
- Failing to bag and tie off the bung → carcass contamination
- Failing to adequately remove the hide so that carcasses are free of visible contamination prior to carcass washes



## **Example:**

### **Sanitary dressing deficiencies**

- Failure to prevent the hide from contacting carcasses during hide removal
  - Hides flapped and contacted exposed carcass
- Failure to clean and sanitize hands, gloves, knives, and equipment as frequently as necessary
- Routinely puncturing GI tract during evisceration



# Example:

## Ineffective Implementation of Interventions

- Failure to implement interventions effectively
  - In some cases, carcass coverage was not achieved because carcasses were suspended from a single hook → inadequate carcass coverage
  - In other cases, establishments were not implementing antimicrobial interventions so that they achieved full coverage
  - Product (trim) coverage was not achieved because
    - Antimicrobial applied to the top surface of trimmings only
    - Product folded or stacked
    - Arc of the spray was insufficient to reach product on the side of the conveyor belt
  - Antimicrobial interventions further spread contamination
    - Establishment applied them to visibly contaminated carcasses



# Example:

## Ineffective Implementation of Interventions

- Failure to identify critical operating parameters in their support documents
  - Establishment's support for its carcass wash cabinet included:
    - Concentration, temperature and pressure
  - Establishment only identified concentration as the critical operating parameter
    - No additional support for its application



# **Existing Guidance and Verification Procedures: Focus on the larger beef slaughter classes**

- Most existing beef slaughter guidance and verification procedures
  - Focus primarily on the slaughter of larger slaughter classes
    - Steer, heifer, dairy cow, and beef cow



# Existing Verification Procedures

- FSIS PHIS Directive 6410.1 Verifying Sanitary Dressing and Process Control Procedures in Slaughter Operations of Cattle of Any Age
  - Provides instructions to FSIS personnel for verifying:
    - Sanitary dressing
    - Antimicrobial interventions
    - Use of microbial data in decision making
  - Also apply to veal slaughter operations



# Existing Verification Procedures

- [FSIS Notice 17-12 Verification of Antimicrobial Intervention Coverage of Carcass or Product at Veal Slaughter and Beef Fabrication Establishments](#)
  - Provides instructions to FSIS personnel for verifying:
    - Antimicrobial interventions properly cover carcasses and products
  - First policy document that specifically addresses a common deficiency in veal slaughter establishments
    - Slaughter practice of suspending carcasses with both hind limbs on a single hook



# Policy Document Development: Sanitary Dressing Verification

- Draft procedures at veal slaughter establishments include:
  - Common deficiencies concerning sanitary dressing and implementation of interventions
  - Relationship of microbial data to slaughter operations
  - Associating noncompliance reports to strengthen enforcement
  - Use of photos to aid understanding of best practices and deficiencies



# **Policy Document Development: Changes to 2002 Beef Slaughter Guidance under Consideration**

- **Revise 2002 beef slaughter guidance to include:**
  - Discussion of unique concerns for establishments that slaughter veal and bison
  - Development of effective sanitary dressing procedures
  - Implementation of effective antimicrobial interventions
  - Proper use microbial data



# NACMPI Input

- Agency is requesting feedback on documents
  - Existing sanitary dressing verification procedures
  - Draft sanitary dressing verification procedures
  - Existing 2002 beef slaughter guidance and changes under consideration
- Are there additional aspects unique to veal slaughter not covered?
- Agency is requesting innovative ideas on how to convey this information to stakeholders
- 5 questions provided to initiate conversation



# Question 1

- What improvements can be made to the existing sanitary dressing verification procedures (FSIS PHIS Directive 6410.1) to address unique aspects of veal slaughter and processing?
  - Are there instructions that do not apply to veal slaughter establishments?
  - Are there instructions that need to be added to address unique aspects of veal slaughter and processing?
  - Should the frequency of sanitary dressing verification be different for veal as compared with beef?



## Question 2

- What improvements can be made to the draft notice on verifying veal slaughter sanitary dressing to address any additional unique aspects of veal slaughter and processing not currently in the document?



## Question 3

- What improvements can be made to the 2002 beef slaughter compliance guidance document to address unique aspects of veal slaughter?
  - Is there guidance that does not apply to veal slaughter establishments?
  - Is there guidance that needs to be added to address unique aspects of veal slaughter?
  - Are there other changes to the guidance that are needed in addition to the changes currently under consideration?



## Question 4

- Are there differences in the classes of veal (bob veal, formula fed, non-formula fed, and heavy calf) that impact slaughter and should be pointed out in FSIS policy documents?



## Question 5

- What innovative strategies can the Agency use to help industry (comprised of small and very small establishments) and FSIS inspection personnel better understand the needs for slaughtering animals used to produce veal products?



**Questions?**