SOLVING VEAL STUNNING AND HANDLING ISSUES

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Overview

• Definitions and background
• Tackling Veal Stunning Issues
• A Practical Approach to Kosher Veal Slaughter
• Solving Veal Handling Issues
Veal calves are dairy animals that are slaughtered at an earlier age than beef.
Along with cull cows, veal calves are a meat animal co-product of the Dairy Industry.
• **Bob veal** - calves that are slaughtered when only a few days old up to 90 lb.

• **Formula-fed or Nature veal** - from calves that are raised on a milk formula supplement. Usually slaughtered when they reach 18–20 weeks of age, 450 to 500 pounds.

• **Non-formula-fed veal**, from calves that are raised on grain, hay, or other solid food.
Veal Animal Welfare Issues

• Bob calves that are not fed from birth to slaughter (2-3 days)
• Confined housing and diet for formula fed calves
• Poor Stunning
• Return to Consciousness on the Bleed Rail
• Transportation unloading challenged
• Non ambulatory disabled calves
• Kosher Insensibility Issues
Three Main Topics:

• Tackling Veal Stunning Issues
• A Practical Approach to Kosher Veal Slaughter
• Improving Handling in the Plant
Tackling Veal Stunning Issues
Humane Slaughter Act

All animals are rendered insensible to pain by a single blow ...that is rapid and effective, before being shackled, hoisted, thrown, cast, or cut”
Tackling Veal Stunning Issues

• Captive Bolt Stunners
• Causes of Poor Stunning Performance
• Concussion Stunning and the Stun-to-Bleed Interval
Tackling Stunning Issues

• **Captive Bolt Stunners**
• Causes of Poor Stunning Performance
• Concussion Stunning and the Stun-to-Bleed Interval
1865
Humane Stunner fired a bullet

Also for
HORSES, SHEEP, PIGS and DOGS
1872 French Slaughter mask
Captive Bolt Stunners

- Pneumatic
- Cartridge Fired
- Penetrating
- Non-Penetrating (concussion)
Tackling Stunning Issues

• Captive Bolt Stunners

• Causes of Poor Stunning Performance

• Concussion Stunning and the Stun-to-Bleed Interval
Root Causes of Stunning Problems

- Maintenance
- Operator
- Layout
- Power supply
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The biggest cause of mis-stuns is poor equipment maintenance.
Maintenance

• Clean and Maintain Daily
• Replace worn parts
• Adequate supply of spare parts
• Follow manufacturers instructions
• Keep a daily log of repairs by stunner tool
• Contact manufacturer for service or training

(from Chuck Bildstein, Bunzl Processing Division)
Manufacturer’s Service Reps: Invaluable Resource to solve equipment problems

**Bunzl/Cash**
Chuck Bildstein: 319-573-6121

**Jarvis**
Greg Hanson: 402-334-4990
Feedback to Manufacturers leads to product innovation

Lighter, less powerful pneumatic stunners are being developed for smaller animals like veal calves, hogs, goats, and lambs.

Jarvis USSS 1/2
The stunner at the top is lighter, with a short bolt stroke, making it a better match for stunning smaller animals such as veal calves, lambs, hogs, and goats.
Root Causes of Stunning Problems

• Maintenance
• **Operator**
• Layout
• Power supply
Operators

- Training
- Shot Placement
- Patience
- Document double stuns

(Source: Grandin.com)
Shot placement is important
The importance of shot placement
Root Causes of Stunning Problems

• Maintenance
• Operator
• **Layout**
• Power supply
Equipment Layout Can Affect Stunning Efficacy

- A heavy pneumatic stunner must be in the correct ergonomic position and proper balancer tension.
- A plant that uses a center track restrainer for formula fed and bob calves may struggle with a comfortable position with the smaller bob calves.
- Using a head hold can solve position and chasing problems.
Root Causes of Stunning Problems

• Maintenance
• Operator
• Layout

• Power supply
**Ensure Proper Power Supply**

**Cartridge Fired Stunner**
- Correct cartridges for the stunner model
- Correct cartridge strength
- Keep them clean and dry

**Pneumatic Stunner**
- Adequate Air Supply
- Dedicated Compressor for consistency
- Air Pressure Gauge at Stunner Operator Station
Tackling Veal Stunning Issues

• Captive Bolt Stunners
• Causes of Poor Stunning Performance
• Concussion Stunning and the Stun-to-Bleed Interval
Concussion stunners have a different return to consciousness characteristic than a penetrating captive bolt stunner does.
Stun to Bleed Interval

“Animals stunned with a non-penetrating captive bolt should be bled within 20 seconds and there is no maximum stun to bleed interval for penetrating captive bolt.”

(AMI 2013 Recommended Animal Handling Guidelines pg 28)
Concussion stunners and stun to bleed interval

• Concussion stunners are often used to preserve veal heads for customer orders
• Stun to bleed interval must be less than 20 seconds
• A practical approach that works is to use a head hold/stun/bleed sequence at the head hold
With the head restrained, the operator doesn’t have to chase the head to apply the stun.
After stunning and checking for insensibility, the operator can make the bleed cut, and then the calf can be shackled and hoisted. This will work in plants running less than 60 hd/hr.
A Practical Approach to Kosher Veal Slaughter
Solving a Kosher Veal Insensibility Problem

Problem: Kosher Veal still conscious after 60 seconds
Tools used to measure and fix the problem
To Solve:

- Measure time to collapse
- Evaluate effectiveness of the Shochet
- Identify factors impacting the issue
- Talk about the problem and seek input
- Fix any physical facility issues
- Train the team
Make the Shochet part of the Humane Slaughter Team
This is the position from which the Shochet administered the neck cut. There were a number of poor neck cut placements.
The Shochet said he was unable to make his best cut because of a metal brace in the way of his knife to make a perfect cut.
The brace was removed, and collapse times improved with a precisely placed cut.
Establishing Head Hold Parameters
Use the Head Hold Properly

Relaxed

Overstretched
Another problem was stretching the neck too tight
Changes made to improve collapse time

- Set expectations with Kosher Certification Agency
- Made the Shochet part of the team
- Modified the tilt limit of the head restrainer
- Removed a metal piece that was affecting the Shochet’s cut placement
- Trained the head hold operator
- Head hold operator used a stop watch to measure collapse time on each animal
- Apply captive bolt after 60 seconds
Improving Handling In the Plant
Improving Handling in the Plant

- Unloading differences between bob calves and formula fed
- Eliminating prod usage
- NAD veal
- Flight zone differences
- Solving balking issues
Unloading Practices at the Plant

• Only plant personnel unload the trailer
• Must have a receiving policy that is enforced and communicated to all drivers
• Good night receiving team
• Captive bolt stunners serviced and available.
• Always have a backup stunner on hand
• Senior management always available
• No Prods allowed!!
Transportation and Unload

- Take control of your unload
- Non ambulatory or resting?
- Bob vs natures (time difference to unload?)
- Night coverage
NO ELECTRIC
PROD USE

NO ELECTRICO
DE PROD
Unloading differences

Bob Veal
• No Flight Zone
• Lots of patience
• Up to 2 hrs to unload
• Must deal with NAD calves regularly

Formula Fed
• Frisky
• Slips and falls can be an issue
• Handler inside truck to slow them down
• Unload in 15-20 minutes
Good Handling Attributes

• Apply flight zone principles
• Understand how to use point of balance
• No yelling
• Move small groups
• Eliminate electric prods
Flight Zone Difference

- Bob calves have no flight zone.
- Formula fed calves raised in individual stalls have a small flight zone.
- FF calves raised in open barns have a medium flight zone, and can easily be moved in groups of 6-8.
Patience required
Can you identify the distraction?
What do you see?
Butt Pusher on Pneumatic Cylinder
PEN #1
MAXIMUM
101 HEAD
Change to translucent barrel
FSIS Directive 6100.1 Rev 2

“9 CFR 309.13 (b) provides that veal calves that are unable to rise from a recumbent position and walk because they are tired or cold, after they are US Condemned but before they are euthanized, may be set apart and held for treatment but only under appropriate FSIS supervision.”
Auditing for Successful Welfare

• You manage what you measure
• Provides basis for continuous improvement
• Best practice frequency is daily
QUESTIONS?