Cattle and Sheep Handling
ABC’s of Cattle, 3rd Edition

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Colorado State University
Humane Slaughter Regulations
9 CFR.313.2

- Driving livestock “minimize excitement and discomfort”
- “Any use of such implements (referring to electric prods or other driving implements) which, in the opinion of the inspector is excessive, is prohibited”
Big Question: When Does Tapping Become Beating?

- Video “Proper Use of Livestock Driving Tools with Temple Grandin”

- Demonstrates hitting an empty corrugated cardboard box. When it starts to crush, tapping has become beating.
Humane Slaughter Act

- “All animals rendered insensible to pain by a single blow or gunshot”
- Problem for the industry – Absolute perfection is impossible – Scored 3 large plants in 2014, 2015 scores were 99%, 100%, 100%
<table>
<thead>
<tr>
<th>Event</th>
<th>Acceptable Scores</th>
<th>Excellent Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stunned with one shot</td>
<td>95%</td>
<td>99%</td>
</tr>
<tr>
<td>Insensible</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>Electric prod</td>
<td>25%</td>
<td>5%</td>
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Falling down – Score in two locations:
- truck unloading and stunning area: 1%
- Vocalizing – All vocalizations in stun:
  - box count. Lead up chute vocal counts during active handling: 3%
  - Do not use vocalization scoring with sheep: 5%
✓ All scores are per animal.

✓ An acceptable score on all five of the numerically scored core criteria is required to have an acceptable level of welfare.

✓ Religious slaughter: Omit the stunning score, and score all the other variables. Restrain animal in comfortable, upright position.
Automatic Failure

- Starting a dressing procedure on an animal showing signs of return to sensibility.
- Act of abuse
Core Criteria 6
Acts of Abuse

- Dragging conscious animals – **Violation of both NAMI and USDA/FSIS**
- Intentionally applying prods to sensitive parts
- Deliberately slamming gates on livestock
- Purposefully driving livestock on top of one another
- Hitting of beating an animal
Core Criteria 7

Access to water

Do animals have access to clean drinking water?

Required by USDA/FSIS
Secondary Audit Items

Not used for determining if a facility passes or fails an audit
Trouble Shooting
Handling

1. Distractions that cause balking
2. Slick floor causes agitation
3. Facility design problem
4. Employee training issue
Herding animal’s behavior is controlled by vision.

An opaque curtain will contain them.
Most Common Distractions

- Reflections on water or metal
- Air blowing towards approaching cattle
- Moving people or equipment
- Chute entrance too dark
- Visual cliff in conveyor restrainer
- Shadows high contrasts
Do you see anything in this photo?
Animal Avoids Walking on the Reflection
Bright Green Hose May Cause Animals to Stop
Tie Up Back Stops
Be Observant

What distraction would cause balking in this photo?
Reflections on a Wet Floor
Cattle may refuse to walk over drain
Install Solid Sides and Shields to Block Vision
Identify the distractions in these photos
Easy Fixes to Reduce Balking

1. Hang a curtain in front of the restrainer
2. Move a ceiling light to eliminate a reflection on wet shiny surfaces
3. Change color of employee hats or coats to reduce contrast
4. Change where people stand
5. Experiment Experiment with lights
6. Flooring in crowd pens and chutes should look the same
Rubber flaps reduces rearing in this conveyor restrainer by blocking vision.
A solid barrier around the animal’s head keeps it calm by blocking vision
On a sunny day cattle may refuse to enter a dark building.
Light up a dark entrance to reduce balking
To reduce reflections, this lamp was directed through a hole in a shield that prevented the cattle from seeing distractions.
Non-slip Flooring is Essential

Audits Keep Finding Slick Floors
Metal rods welded to the floor prevent rapid small slips (jigging)
Causes of Increased Vocalization

1. Electric prod use
2. Missed stuns
3. Excessive pressure from restraint device
4. Sharp edges on restrainer devices
5. Isolated animal
6. Slipping
Principles of Restraint

- Block Vision
- Non-slip Floor
- Optimal Pressure
- Restraint devices have smooth motion. Sudden jerky motion frightens
Training Employees

1. Flight Zone Principles
2. Point of Balance
3. No Yelling
4. Move Cattle in Small Groups
5. Fill Crowd Pen Half Full
6. Get Electric Prods Out of People’s Hands
Alternative Driving Aids
Main Tools

Electric prods should not be constantly carried
Use Lead Sheep

Photo – Ruth Woiwode
Each Lead Sheep is a Specialist

- Truck unloader
- Pen leader
- Judas lead to stunner
A lead goat can also be used
Move Small Groups
Flight Zone Diagram

- **Edge of flight zone**
- **Blind spot shaded grey**
- **Handler position to stop movement**
- **Handler position to start movement**
- **Point of balance**
Using the flight zone correctly to control cattle movement
Handler Movement Pattern to Keep Cattle Moving into a Squeeze Chute or Restrainer

Return path leaving flight zone.
Path to move animals forward.

Point of Balance
Cattle will move forward when the handler passes the point of balance at the shoulder of each animal. The handler walks in the opposite direction along side the single file race.
Handler Movement Pattern to Keep Cattle Moving into the Squeeze Chute in a Curve Chute System

Cattle will move forward when handler crosses the point of balance of each animal.
Sheep Have Intense Following Behavior
Fill Crowd Pen Half Full
Tips for Handling

1. Move in small bunches
2. The crowd pen is the “passing through pen”*(Do not let animals stand in it)*
3. Timing of bunches so animals keep moving
4. Fill the crowd pen half full
5. Do not push animals with the crowd gate
Sheep Handling
Continuous Flow

Sheep corralled with curtain
When Building New Facilities

Curved Chutes with Solid Sides are Recommended
Use Scoring as a Trouble Shooting Tool

“Do I have a facility problem or a people problem?”

Use balk scoring to determine if you have a facility problem
# Balking Scores

<table>
<thead>
<tr>
<th></th>
<th>Low Balking Plant (well-trained handlers)</th>
<th>High Balking Plant (facility problem)</th>
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<tbody>
<tr>
<td>% Cattle Backing Up in the Chute</td>
<td>% Vocalizing</td>
<td>% Vocalizing</td>
</tr>
<tr>
<td>0%</td>
<td>1%</td>
<td>38%</td>
</tr>
<tr>
<td>3%</td>
<td>2%</td>
<td>25%</td>
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Vocalization Score Increase Due to Increased Electric Prod Use.
Use Scoring to Show How Changes Made in Your Operation Improved Handling

Effect of Air Blowing into the Faces of Cattle at the Restrainer Entrance on Vocalization Score

% Cattle Vocalizing Due to Balking & Increased Electric Prod Use

Air Blowing Out Through Restrainer Entrance Towards the Cattle Approaching Cattle

No Air Movement

4.5

0
Reduction in Cattle Vocalizations After Equipment Modifications

- Install Light on Restrainer Entrance: 8% Before, 0% After
- Install False Floor to Reduce Balking: 9% Before, 0% After
- Reduce Pressure of Neck Restraint: 23% Before, 0% After
Scoring Can Also Be Used to Identify Hard to Handle Animals That May Cause Either Welfare or Meat Quality Problems.
Get Down in the Chute and
Get a Cow’s Eye View
You Manage What You Measure

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