Ritual Slaughter Guidelines

Erika L. Voogd
Voogd Consulting, Inc.
February 2006
evoogd@voogdconsulting.com
Agenda

- Ritual Audit Results
- Animal, Slaughterman and Plant Needs
- Troubleshooting
- Types of Ritual Slaughter
- Questions
The Importance of Auditing:

3 Medium Beef Plants

<table>
<thead>
<tr>
<th>Critical Point</th>
<th>Accept. Score</th>
<th>No AW Program Avg. Score</th>
<th>WITH Program Avg. Score</th>
<th>This Year’s Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Prodding</td>
<td>≤25</td>
<td>8.2</td>
<td>4.0</td>
<td>11.3</td>
</tr>
<tr>
<td>% Slipping</td>
<td>≤3</td>
<td>32.9</td>
<td>1.4</td>
<td>0.7</td>
</tr>
<tr>
<td>% Falling</td>
<td>≤1</td>
<td>2.3</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>% Vocalisation</td>
<td>≤5</td>
<td>7.4</td>
<td>2.2</td>
<td>3.0</td>
</tr>
</tbody>
</table>

3rd Party Audit of Ritual and non-Ritual plants with Head and Body Restrainers

Copyright Voogd Consulting, Inc. 2005
Changes Made

- Employee training
- Reduced slipping in lead up and box
- Reduced distractions
- Implementation of plant internal audit program
## Improving Vocalization in Ritual Beef Plants:

<table>
<thead>
<tr>
<th>Plant</th>
<th>INITIAL Score</th>
<th>FINAL Score</th>
<th>REASON for Vocalization.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant 1</td>
<td>5.6</td>
<td>1.0</td>
<td>Prod usage at entrance</td>
</tr>
<tr>
<td>Plant 2</td>
<td>6.0</td>
<td>3.0</td>
<td>Prod usage at entrance</td>
</tr>
<tr>
<td>Plant 3</td>
<td>32.0</td>
<td>5.0</td>
<td>Box too short</td>
</tr>
<tr>
<td>Plant 4</td>
<td>5.0</td>
<td>4.0</td>
<td>Prod usage at entrance</td>
</tr>
<tr>
<td>Plant 5</td>
<td>4.0</td>
<td>0.0</td>
<td>Agitation prior to entrance in box</td>
</tr>
<tr>
<td><strong>Average:</strong></td>
<td><strong>10.5</strong></td>
<td><strong>2.6</strong></td>
<td></td>
</tr>
</tbody>
</table>

Copyright Voogd Consulting, Inc. 2005
Methods to Reduce Vocalization

- Reduce agitation prior to box entry
- Reduce slipping in lead up and box
- Eliminate pinch points
- Avoid Excessive Restrainer Pressure
The Importance of Maintenance in Beef Plants:

<table>
<thead>
<tr>
<th>Plant</th>
<th>INITIAL Score</th>
<th>FINAL Score</th>
<th>REASON for Vocalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant 6</td>
<td>1.0</td>
<td>9.0</td>
<td>Malfunction of controls</td>
</tr>
</tbody>
</table>

Equipment should be:
- Checked daily
- Properly maintained
- Audited to assure proper function
Troubleshooting: Balking/Prod use

- **Restrainer design**
  and lighting may cause balking

- **Result:** electrical prodding and agitation at the restrainer entrance
Troubleshooting: Balking

1. Cattle visible through head opening
2. Shackle area visible at floor level
3. Reflective metal surface
4. Reflective metal floor bars
5. Open windows to shackle area
Troubleshooting: Balking

1. Curtain added to block view of kill floor
2. Windows covered
3. Surface changed to dark, non-reflective.
4. Sawdust added to floor
5. Flap added to block view of shackle area
Troubleshooting: Vocalization

Floor condition may be causing slipping and falling

Slippery

SAFE
Troubleshooting: Vocalization

- Slaughterman and restrainer operator behaviors may be scaring animals or causing agitation.
Troubleshooting: Vocalization

- Box Door is too short or narrow for some cattle
- Electric Prodding is necessary, agitates the animal
- Cattle may hear noises, air hiss
Troubleshooting Restrainer Vocalization

Look for the PAIN: Missing Hair, Bruise

Same Animal
What the Animal Needs:

- **Proper Lighting** in box
- **Blocked vision, prevent** distractions
- **Eliminate** reflections and noise
What the Animal Needs:

**Restraint:**
- **Setup:** No jerky movements
- No pinch points
- **Belly lift:** maximum height 71 cm (27 inches),
- **Restraint:** Auto stop
- **Pressure limit switch**
What the Animal Needs:

Mechanical movement of restraint device:
- Smooth, hydraulic,
- With mid-stroke stop
- Gentle movements, no slamming
What the Animal Needs:

**Optimum pressure:** Hold the animal, but do not cause discomfort.

**Do not trigger struggle:** Animal should not feel discomfort or imbalance.
What the Animal Needs:

**Restraint:**

- **Stance:** Back should be **level**

**Correct**

Release the rear pusher prior to making the throat cut.

**Not Correct**
What the Animal Needs:

Restraint:

Chin lift:

- 15 cm wide rubber forehead cover suggested
- Chin holder, below eye - not near jaw (jowl) line

Photo by Temple Grandin
What the Animal Needs:

- Head Position and knife
- Position head parallel to the floor
- Cut within 10 seconds of restraint
- Knife length: 2 times the width of the throat

Photo by Temple Grandin
What the Animal Needs:

Knife Cut:

- Cut with one single **continuous motion**, if possible
- **Razor sharp knife**, free of nicks – sharpen the knife at least every 10 animals
- Deep cut **close to the jaw bone** (As religiously possible)
- **A quick cut** will hasten bleed out
What the Animal Needs:

Bleeding:

- **Loosen** neck restrainer and chin lift immediately after the cut, to aid bleeding.
- Do not allow the cut surfaces to touch (this could cause animal pain and discomfort)
What the Animal Needs:

Bleeding and Insensibility:

- **Bleeding Time:** Allow 10-15 seconds after the cut for bleeding.
- **Maximum 60 seconds** (For welfare reasons)
What the Animal Needs:

Bleeding and Insensibility:

If the animal does not become insensible, (within 60 seconds), it should be stunned with a captive bolt.

Photo by Temple Grandin
What the Animal Needs:

Backup stun:

- **Well maintained** backup stun gun available for poor cut
- **Dry cartridges** are critical!!!
Bleeding and Insensibility:

- For safety reasons, be certain the animal is insensible, before removing it from the box.
- Do not hoist prior to insensibility.
Bleeding and Insensitivity:

Signs of insensitivity:
- Eye roll
- Loss of posture
# The Importance of Low Stress Handling on Bleed Time:

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th></th>
<th>2005</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Same Ritual plant</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>N=22</strong></td>
<td><strong>N=23</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setup Time (sec)</td>
<td>23.8</td>
<td>38.5*</td>
<td>24.2</td>
<td>22.5</td>
</tr>
<tr>
<td>Seconds to Insensibility</td>
<td>3.5</td>
<td>28.2</td>
<td>7.0</td>
<td>6.4</td>
</tr>
<tr>
<td>Setup Time (sec)**</td>
<td>29</td>
<td>107</td>
<td>41</td>
<td>37</td>
</tr>
<tr>
<td>Seconds to Insensibility**</td>
<td>14</td>
<td>11</td>
<td>8</td>
<td>13</td>
</tr>
</tbody>
</table>

*3 cattle required stun

**Setup time: time to prepare animal for Slaughterman
Changes Made

- **Employee training** on handling in barn
- **Improved floors** in lead up and box
- **Improvements to head holder**
- **Rabbi assistance** to reduce distractions and optimize movement
SOP for Kosher Box

1. Gently move animal into the box
2. Close door and ease animal to front of box with rear pusher
3. Close head/neck restrainer
4. Raise belly lift, but do NOT lift animal from ground
SOP for Kosher Box

5. Adjust chin lift
6. **RELEASE** rear pusher
7. Rabbi performs wash and cut
8. Quick release of head/neck restrainer and lower chin lift slightly
9. Allow animal to fall (faint) onto belly lift
A Rapid Release of Restraint will hasten Bleed Time:

Traditional Ritual Plant \(N=17\)

<table>
<thead>
<tr>
<th></th>
<th>Setup Time (sec)</th>
<th>Seconds from setup to cut</th>
<th>Seconds to Insensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Average Time</strong></td>
<td>7.4</td>
<td>3.3</td>
<td>17.2</td>
</tr>
<tr>
<td><strong>Std Deviation</strong></td>
<td>4.9</td>
<td>1.5</td>
<td>7.4</td>
</tr>
<tr>
<td><strong>High</strong></td>
<td>18</td>
<td>7</td>
<td>38</td>
</tr>
<tr>
<td><strong>Low</strong></td>
<td>2</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

Copyright Voogd Consulting, Inc. 2005
What the Slaughterman Needs:

A quiet, calm animal that will not struggle.

- If the animal is calm, the cut can be made more easily.
- Lower blood pressure will result in a more complete blood loss during the bleeding phase of the religious slaughter process.
What the Slaughterman Needs:

- The animal should be restrained from movement for throat wash.
- The restraint system should hold the head gently, yet firmly.

Photo by Temple Grandin
What the Slaughterman Needs:

- If the neck is *loose*, it is difficult to make the cut and an *improper cut* is more likely to occur.

Photo by Temple Grandin
What the Plant Needs:

- Minimize Distractions During Loading.
- Prepare Box Prior to Animal Loading: Slaughterman needs to perform any preparatory operations prior to the loading of the animal into the restraining box. (Knife wash and sharpening, head holder washing, etc.).
What the Plant Needs:

**Slaughterman Not Visible to Animal:** The Slaughterman needs to stand back, stay still and not make movements while animals are being loaded into the box.

**Proper Situation of Animal:** The box operator will adjust the animal to “present” it to the Slaughterman.
What the Plant Needs:

- **Rapid Preparation:** Once situated, the Slaughterman should quickly wash the neck and cut the throat.

- **Deliberate Movements:** That are not jerky or fast will decrease animal agitation during throat cut.

- **Minimum Time:** Between positioning the animal and making the throat cut should be a **maximum of 10 seconds**.
Troubleshooting: Blood splash

**Time of year:**
Most of blood splash occurs when weather is changing.
- Warm days, cool nights.
Troubleshooting: Blood splash

**Cut Location:** Slaughterman is not cutting in the correct location (Close to the jaw, through both carotid arteries)

**Multiple cuts:** Knife is straight, but not sharp. (Arteries are closing over after the cut).
Troubleshooting: Blood splash

- Knife blade is **sharp** but not **straight** (needs to be steeled or honed properly)
- **Knife is not sharp** and being dragged over the wound, resulting in closure of arteries and veins, after the cut is made
Troubleshooting: Blood splash

- **Restrainer is too tight**: Blood is not being released from the animal (especially large animals).

- **Head holder is too tight**: Pressure is not being released after the cut is made.
Pre-stress: The animal has been subjected to too much stress prior to slaughter.

- Blood pressure is raised, muscles and capillaries tighten and blood flow is reduced.
Solution

Keep the animal CALM, prior to slaughter!!!

Minimized pressure

Fast, effective cut

Quick release of head holder and rump pusher after the cut

Blood splash is controllable

Grandin Data:
John Morrell: Upright Restrainer

<table>
<thead>
<tr>
<th>Percent Blood splash</th>
<th>3.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Blood splash</td>
<td>5.0%</td>
</tr>
<tr>
<td>Average Blood splash</td>
<td>4.2%</td>
</tr>
</tbody>
</table>
Types of Kosher Slaughter: Regular Methods

Center Track
Restrainer with head holder-enter restrainer, move body forward, lift head, cut throat and stun (captive bolt)

Photo by Temple Grandin
Types of Kosher Slaughter: Regular Methods (N. America & Europe)

- **Upright restrainer** - enter restrainer, restrain body, lift head, cut throat and stun (captive bolt)

Photo by Temple Grandin
Types of Kosher Slaughter: Glatt (N. America)

- **Glatt: Upright “Standing” Restrainer** with head holder - enter restrainer, restrain body, raise head, cut throat and bleed.
- With Glatt, pre or post stunning of the animal is not permitted.

Photo by Temple Grandin
Types of Kosher Slaughter: Glatt (Israel)

- **Glatt: Rotating Restrainers with head holder (Facomia and Weinberg Pen) - enter restrainer, restrain body, lift head, rotate body, cut throat.**

Photo by Temple Grandin
Types of Halal Slaughter

N. America: Upright restraint with head holder—enter restrainer, restrain body, lift head, cut throat and bleed.

Photo by Temple Grandin
Types of Halal Slaughter:

New Zealand: **electrical stun** with nose plate- restrain, stun, rotate, cut throat
Types of Halal Slaughter:

- C. America and S. America: **electrical stun** with head stunner. Enter box, drop animal, electrically stun head, hoist and bleed.

- Welfare concerns
Types of Halal Slaughter:

Asia, C. America and S. America: electrical stun with head holder-enter box, restrain head, stun head, drop animal, hoist and bleed
Types of Halal Slaughter:

Australia: **Head holder and mushroom stunner** (cartridge fired or pneumatic) - enter box, restrain head, stun, drop animal, shackle, hoist and bleed
Types of Halal Slaughter:

N. America: **Head restrainer in upright box**- enter box, restrain head, captive bolt stun, drop animal, shackle, hoist and cut.
QUESTIONS

Thanks

evoogd@voogdconsulting.com  1-630-293-9444

Copyright Voogd Consulting, Inc. 2005