



Funded by the Beef Checkoff.



# BQA FEEDYARD ASSESSMENT





## Table of Contents

<p>Introduction and Context.....2</p> <p>Assessment Process.....2</p> <p style="padding-left: 20px;">Scheduling</p> <p style="padding-left: 20px;">Preparing for an Assessment</p> <p style="padding-left: 20px;">Conducting an Assessment</p> <p style="padding-left: 20px;">Assessment Grading</p> <p style="padding-left: 20px;">Sample Size and Pen/Animal Selection</p> <p style="padding-left: 20px;">Completing an Assessment</p> <p style="padding-left: 20px;">Corrective Actions</p> <p>Feedyard Information.....7</p> <p>Critical Failures.....8</p> <p>Procedures and Records.....10</p> <p>Feedyard Self-Assessment.....10</p> <p>Beef Quality Assurance Certification.....10</p> <p style="padding-left: 20px;">BQA Transportation Certification</p> <p>Employee Training.....10</p> <p style="padding-left: 20px;">Commitment to Animal Welfare</p> <p>Herd Care/Animal Health.....10</p> <p style="padding-left: 20px;">Veterinarian-Client-Patient-Relationship (VCPR)</p> <p style="padding-left: 20px;">Routine Animal Care</p> <p style="padding-left: 20px;">Disease Prevention</p> <p style="padding-left: 20px;">Disease Management</p> <p style="padding-left: 20px;">Disease Treatment</p> <p style="padding-left: 20px;">Surgical Procedures</p> <p style="padding-left: 20px;">Antibiotic Stewardship</p> <p>Calving Heifer/Newborn Calf Care/Management.....11</p> <p>Cattle Health Product Management.....11</p> <p style="padding-left: 20px;">Receiving/Handling/Storage/Inventory</p> <p style="padding-left: 20px;">Cattle Health Product Disposal</p> <p>Biosecurity.....12</p> <p>Compromised/Non-Ambulatory Cattle Evaluation..12</p> <p>Euthanasia.....12</p> <p style="padding-left: 20px;">Personnel Responsible for Euthanasia</p> <p style="padding-left: 40px;">Decision Making</p> <p style="padding-left: 20px;">Euthanasia Tool Function</p> <p style="padding-left: 20px;">Euthanasia Tool Maintenance</p> <p>Mortality/Carcass Disposal.....13</p> <p style="padding-left: 20px;">Cattle Mortality</p> <p style="padding-left: 20px;">Carcass Disposal</p> <p>Feed Quality/Medicated Feed.....13</p> <p style="padding-left: 20px;">Feed Quality</p> <p style="padding-left: 20px;">Ruminant Derived Feed Ban</p> <p style="padding-left: 20px;">Medicated Feed</p>	<p>Cattle Handling/Processing.....13</p> <p style="padding-left: 20px;">Unloading</p> <p style="padding-left: 20px;">Receiving/Processing</p> <p style="padding-left: 20px;">Inclement Weather</p> <p style="padding-left: 20px;">Broken Needles</p> <p style="padding-left: 20px;">Shipping</p> <p style="padding-left: 20px;">Loading</p> <p>Pen Surface Management .....14</p> <p>Emergency Action Plan.....14</p> <p>Record Keeping.....14</p> <p>Cattle Handling Observations.....15</p> <p>Home Pen Observations .....16</p> <p>Individual Animal Observations.....17</p> <p>Specialty Pen Observations ..... 19</p> <p>Cattle Processing/Unloading/Loading Facilities....20</p> <p>Unloading/Loading Observations.....21</p> <p>Appendix.....22</p> <p style="padding-left: 20px;">Audit Preparation Checklist</p> <p>References.....26</p>
--	--

## Assessor's Guide to a Beef Quality Assurance Feedyard Assessment

### The BQA Feedyard Assessment

The BQA Feedyard Assessment is an on-site educational tool that allows for assessing and benchmarking key indicators of animal care and well-being as well as feedyard conditions. The standards set by the Beef Quality Assurance (BQA) program have laid the foundation for a robust and prosperous industry that is committed to doing the right thing. Results from the assessment can provide information back to the feedyard to drive continuous improvement and measure the effectiveness by which the operation implements BQA standards.

The Feedyard Assessment may be utilized as a self-assessment, completed by a second party (i.e., consulting veterinarian, nutritionist, feedyard staff, extension personnel, BQA coordinator, other resource team member) or conducted by a third-party assessor. The real key, regardless of who conducts the assessment, is that the assessment be repeated on a periodic basis so that comparisons may be made, trends observed, and management actions be taken to maximize animal care and well-being *and* feedyard efficiency. The assessment was intentionally designed to be applicable to all feedyards independent of operation size, facility/housing type, breed, or geographical location.

The Feedyard Assessment was developed to be in close alignment with commonly used feedyard audit tools, such as the U.S. Cattle Industry Feedyard Audit, to better prepare feedyards prior to scheduling and completing a third-party audit. This voluntary preparation allows feedyard operations to demonstrate and quantify their commitment to animal care and a safe and abundant food supply. This assessment also demonstrates transparency, credibility, and compliance with BQA industry standards, and is just one component of a comprehensive commitment to enhance and maintain customer and consumer trust in beef.

A complete assessment will include review of records, protocols, animal observations both in pens and during processing, facilities, and potentially employee interviews.

This assessment is about continuous improvement and evaluates multiple assessment points. It can help identify items and create benchmark points that may need to be improved including animal handling, facility/equipment maintenance, and recordkeeping/Best Management Practices (BMPs), among other items.

### Scheduling

If a second or third-party assessment is to be conducted, adequate notice should be provided to the off-site assessor so that biosecurity and other protocols are known and can be observed. Additionally, advance notice will provide time for copies of any required records that may be stored off-site to be made available at the feedyard site. Annual assessments are recommended though some operations may decide to conduct an assessment more frequently.

A feedyard assessment should only be scheduled when the feedyard is operating under normal conditions. An assessment should not be performed during or immediately after a weather event that could create adverse facility conditions or increase morbidity. Additionally, an assessment should not be performed during an uncommon disease outbreak. Should an assessment be conducted during adverse conditions or during a disease outbreak, this should be noted so that it is taken into consideration when reviewing results. Assessments that are conducted during these situations may not be an accurate reflection of feedyard management and implementation of protocols.

A feedyard site is defined by its Premises Identification Number (PIN). If a feedyard operation has more than one yard under its management, the assessor must establish if the operation is requesting an assessment of all yards owned by the operation or just specific feedyards. If each yard site has its own PIN, then it should have its own assessment conducted.

## Preparing for an Assessment

The next two sections only pertain to instances where a second- or third-party assessment is utilized, though some tips might help prepare fellow team members when conducting a first-person or internal self-assessment. Assessors have the responsibility to ensure the feeding operation is ready and prepared for an assessment before arriving on site. These preparation steps include:

- Contacting the owner/manager of the operation to schedule the on-site assessment at a mutually agreeable time and date.
- Scheduling the assessment during normal operations to ensure that animal handling and facilities are evaluated under typical conditions. It should be communicated that animal handling is expected to be observed so an assessment should be scheduled when cattle processing is going to occur.
- Providing the owner/manager with a current assessment form and checklist of documents/records/protocols that will be reviewed.
- Acquiring feedyard specific biosecurity information that the assessor must be aware of prior to arrival.
- Informing the owner/manager if any additional personnel will be attending the assessment (i.e., shadow auditors/ assessors, interns, etc.) to be sure that the operation permits this and enables them to conduct any background checks or other preferred operational processing prior to arrival.
- The assessor should make a clear request for the operation to provide an employee/on-site guide to be available for the duration of the assessment. This person should be deeply familiar with daily operations and animal care. If a translator is necessary, that should be discussed and arranged prior to the assessment.
- The assessor should request current feedyard inventory numbers and a yard map/layout so that they can pre-determine animal and pen sampling before arrival. If this information is unavailable, the assessor should be prepared to make such decisions and calculations on site.

### Abbreviations:

<b>BCS</b>	Body Condition Score
<b>BMP</b>	Best Management Practices
<b>BQA</b>	Beef Quality Assurance
<b>CIP</b>	Continuous Improvement Plan
<b>EAP</b>	Emergency Action Plan
<b>F</b>	Fall
<b>FB</b>	Feed bunk
<b>FDA</b>	U.S. Food and Drug Administration
<b>ID</b>	Identification
<b>MCAP</b>	Mandatory Corrective Action Plan
<b>NAMI</b>	North American Meat Institute
<b>P</b>	Electric prod use
<b>PF</b>	Pen facilities
<b>PIN</b>	Premises Identification Number
<b>S</b>	Stumble
<b>SR</b>	Stocking rate
<b>VCPR</b>	Veterinarian-Client-Patient Relationship
<b>WT</b>	Water tank

## Conducting an Assessment

- An assessment should begin with an opening meeting with feedyard management to make introductions, answer any questions, and review the scope and purpose of the assessment. The group should review the flow of the assessment and how the assessor will be reviewing documentation, making observations, and potential interviews that may need to be conducted with employees. Be aware of activities that will need to be observed (i.e., processing, loading/unloading, etc.) as this will determine the assessment flow and timetable.
- *Assessments should include: reviewing records, protocols, and potentially electronic documentation; evaluating facilities; observing cattle and animal handlers; and interviewing management and employees. Protocols may be verified through records, observations, or interviews with management or employees as stated by each question.*
- The goal of the assessment is to determine that there is consistency between documented and verbally expressed practices and verify with observations of practices and cattle. Inconsistencies identified throughout the assessment should be used as points of continuous improvement or training opportunities.
- A feedyard employee/guide should accompany the assessor at all times.
- The assessor must not interfere with the normal operations of the feedyard. The assessor should not move any animals without assistance from feedyard employees to complete an observation.

- Unlike an audit, this assessment can result in discussion, advice, or consultation to guide improvements in facilities, processes, record keeping or management.
- If necessary, assessors should interview employees and management using open-ended questions and avoid guiding the interviewee to a specific answer. The assessors may ask additional questions for clarification.
- For any assessed areas that are determined to be unacceptable or needs improvement, the assessor should verbally explain immediately why the practice is unacceptable or needs improvement during the observation and provide written comments to explain the advice. It is also helpful to provide immediate verbal feedback during the process and notes at the conclusion of the assessment for areas that needed improvement. These notes will help the assessor explain the results in a closing meeting and will also assist the feedyard in making improvements and implementing corrective actions.
- If a willful act of abuse or neglect is observed the assessor should immediately address this with feedyard management so that appropriate corrective actions can take place.

## Assessment Grading

This Assessor's Guide is written to help the individual(s) conducting a feedyard assessment complete the assessment and associated assessment form(s) accurately and efficiently. The complete assessment form is included in this guide. The form(s) used depends upon the individual assessor and the operation being assessed. All forms have a common framework, they list the following:

- Major category (ex: BMPs/Records)
- Category Point, a specific component of a major category (ex: Training)
- Measure, how the category point is evaluated (ex: Is there a protocol in place?)
- Result (3 choices, select one)
  - **Satisfactory – This point/measure was satisfied appropriately**
  - **Needs Improvement – This point/measure was somewhat satisfied but could use improvement, was not met satisfactorily, or is unacceptable, requires the comment field to be filled out**
  - **Not Applicable – This point does not apply in this operation/situation, comment section should be completed to explain why**
- Comments: area for comments on that category point including commentary on why a measure was recorded as it was and advice for improving that point in the future (Optional for "Satisfactory" result)

The content of this guide includes all assessment categories as well as a short explanation of how to complete the measure by category. If the version of the assessment form the assessor is using is not the complete version, simply skip over the areas in the guide that do not apply to the situation.

Protocols, Records, Best Management Practices (BMPs), procedures or Standard Operating Procedures (SOPs) must be provided and documented for all of the assessed categories and, when specifics are described, that protocol must contain the item(s) noted. If you do not already have one or more of the documents referenced as part of the Feedyard Assessment, you are encouraged to use these provided forms "as-is" or make modifications to fit the operation.

**Protocols, BMPs, procedures or SOPs should be assessed annually, at a minimum, with dated initials or signatures of responsible party confirming the review. Annual review will be necessary when moving to a feedyard audit.**

## Sample Size and Pen/Animal Selection

The number of animals, pens, or trucks to be assessed during an assessment is based on what is available to assess on the day of the assessment and the size of the yard. The goal is to balance sample size and selection with what can be practically and efficiently assessed to ensure representative data for that yard. Attempts should be made to schedule the assessment on a day that active cattle handling in the processing/treatment barn and cattle unloading/loading can be observed.

## Cattle Handling Observations

When observing animals in the processing and treatment barns, the assessor should record the time of the cattle handling assessment when the feedlot is working animals through the handling facility. If the feedlot will be working 100 or less cattle through the chute that day, observe all of those animals at that time. If the feedlot will work over 100 head of cattle through the handling facilities, then select a time that allows observation of 100 cattle handling through the chute to be observed while managing time overall to assess all other parts of the assessment in a time-efficient manner.

## Pen Observations

To determine how many pens of cattle to observe for the pen and individual animal observations, the assessor should ask the feedlot to provide a schematic diagram of their feedlot (i.e., site map) showing which pens contain cattle and type of pen (e.g., home feeding pens and specialty pens like sick, chronic, buller, railer, receiving, and shipping pens). Pens, water troughs, feed bunks, and cattle should be included in the pen assessments.

## Home Pens

Observe at least 5% of the home feeding pens (minimum of 10 pens). All pens observed must contain cattle. If there are less than 10 home feeding pens in the entire feedlot, then assess all pens. To select 5% of the home feeding pens to assess, use a simple random number calculator to identify which pens to evaluate to ensure there is no bias and data are representative of the yard. For example, the feedlot has 300 home feeding pens with cattle in them. Five percent of the 300 pens must be assessed, which is 15 pens. Using a simple random number calculator with no repeats, ask it to select random numbers from 1 to 300. If the feedlot has alleys from A to J with 10 pens per alley (e.g., A1 to A10), then pen 25 would be B5, pen 32 would be C2, pen 46 would be D6, pen 78 would be G8, and pen 85 would be H5. A labeled schematic of the feedyard pens will further assist the assessor in pen selection.

The assessor should ensure the pens to be evaluated are reflective of differing topography across the feedyard. Assess all cattle in each designated home pen observed.

## Specialty Pens

Specialty pens are defined as pens other than the feedyard home pens that are in use or used to contain cattle (e.g., sick/hospital, receiving/shipping, buller, railer). The assessor should evaluate pens, water troughs, feed bunks, and cattle in these specialty areas.

Observe at least 50% of each type of specialty pens (minimum of 3). If some of these specialty pens contain no cattle, then record “not observed” (NO). For specialty pens, systematic randomization will be used to select pens to assess. For example, if there are 5 sick pens (S1, S2, S3, S4, S5), then score every other sick pen (e.g., S1, S3, S5).

## Cattle Observations

Sample size calculations based on feedyard size are recommended by Cannon and Roe (1986) provided in a table<sup>1</sup>. These calculations ensure sufficient animals are sampled in the home pens to be 95% confident to detect a disease (or observation) is present at/or below the specified prevalence of 1% (our lowest target value for animal health that is not 0). Assessors are to observe all animals in the required home pens sampled. If the assessor observes  $\geq 299$  individual animals when observing the minimum 10 home pens, then the individual animal observation sample size has been met, as determined by the sample size calculation table<sup>1</sup>. If the individual animal observation requirement is not met in the required home pens sampled, only animals (no other home pen components - i.e., feed bunks, water tanks, pen facilities) will need to be sampled until the individual animal observations are met. All animals need to be standing and mobile when conducting individual observations of locomotion and mud/manure.

## Unloading/Loading Observations

Assess up to two livestock trucks for unloading/loading practices. If there is only one truck available for observation, then observe that truck and record that no other trucks were available to observe during the assessment. If there are more than two trucks available to observe for either unloading/loading, then select trucks conveniently based on what is most time-efficient overall to observe, while ensuring the rest of the assessment can be completed in a timely manner.

## Completing an Assessment

After all components of the assessment are evaluated, the assessor should conduct a closing meeting with feedyard management. The closing meeting should be used to review the scope of the assessment as well as review the assessment findings and provide a verbal report. This is also a good time to answer any questions regarding how the assessment was scored as well as review any notes that the assessor took during the assessment. The assessor can and should provide counsel or guidance for any assessment areas that did not receive full credit. The assessor should review the names and contact information of the individuals who should receive the full assessment report. This should include feedyard management and feedyard owner. Feedyards are encouraged to keep a record of assessment results indefinitely to reference and compare to in the future, as they track improvement.

## Corrective Actions

Certain assessment criteria may be of such critical importance that corrective actions are necessary. Below are corrective action categories and a timetable recommended by the assessment authors and assessment working group. Criteria for corrective actions to either Mandatory Corrective Action Plans (MCAP) or Continuous Improvement Plan (CIP) will be identified throughout the assessment as either a “MCAP” or a “CIP”.

Feedyard management can determine corrective actions (if any) for the noted section and set the timetable in which those corrective actions must be addressed. In addition, feedyard management may decide on the potential for a re-assessment in consultation with the feedyard.

- Mandatory Corrective Action Plans | MCAP
  - Recommends that the standard is met within six (6) months or less - final determination by the assessment client.
    - » Veterinarian-Client-Patient-Relationship (VCPR)
    - » Handling of Non-Ambulatory Animals
    - » Euthanasia
    - » Residue Avoidance (Withdrawal, Safe-to-ship, Verification)
- Continuous Improvement Plan | CIP
  - Recommends that action has been taken to meet the standard prior to the next assessment or in less time as determined by the assessor client.
    - » BQA Certification and Employee Training
    - » Herd Health Plan
    - » Carcass Disposal
    - » Pen Surface Maintenance

## Feedyard Information

Assessment Date: \_\_\_\_\_

National Premises Identification Number (Prem ID or PIN; request from the office of the State Animal Health Official): \_\_\_\_\_

Premises address:

Address: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_

Zip: \_\_\_\_\_

The Feedyard Manager for this premises and their contact information is as follows:

Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

## Assessor Information

The Feedyard Assessor for this premises and their contact information is as follows:

Name: \_\_\_\_\_

Assessor Affiliation: \_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

## Critical Failures

If a willful act of abuse or egregious act of neglect of an animal is observed, the assessor should immediately report the abuse/neglect to Feedyard Management and appropriate authorities. After corrective actions have been taken by Feedyard Management, an assessment can be rescheduled.

Below, check the box of the willful act of abuse or egregious act of neglect that is observed on the feedyard. Record in detail in the comment box what was witnessed.

### Willful Acts of Abuse

Willful acts of abuse of animals will not be tolerated. Willful abuse is defined as acts that intentionally cause pain, injury, or suffering.

#### ***Willful acts of abuse include but are not limited to:***

- Dragging of conscious animals by any part of their body except in the rare case where a non-ambulatory animal must be moved from a life-threatening situation
- Deliberate application of electric prods to an animal that has no place to go
- Deliberate electric prodding of animals multiple times in an egregious manner
- Deliberate application of electric prods to sensitive parts of the animal such as the eyes, ears, nose, anus, vulva, udder, or testicles
- Deliberate slamming of gates on cattle unless required for human safety
- Malicious hitting/beatings of an animal which includes forcefully striking an animal with a closed fist, foot, and/or handling equipment (e.g., sorting paddle or other hard/solid objects that can cause pain, bruising, or injury)
- Deliberate driving of ambulatory cattle on top of one another
- Tail docking unless on the advice of a licensed veterinarian
- Abdominal surgery (e.g., rumen fistula, cesarean section, spaying, etc.) conducted by an unqualified, untrained person without anesthetic and analgesia
- Rectal/vaginal/uterine prolapse replacements with suture or amputations without anesthetic and analgesia
- Euthanasia by means other than approved methods covered under BQA guidelines<sup>2</sup>
- During euthanasia by gunshot, failing to immediately deliver additional shots if the first shot does not render the animal insensible and then dead (assuming no secondary kill step was used after rendering insensible by gunshot, such as pithing or jugular exsanguination)
- During euthanasia by gunshot, using a caliber that is not appropriate for the class of animal as per BQA guidelines<sup>2</sup>
- Live animal observed on the dead stockpile
- Unchecked dog biting cattle in chute with cattle having nowhere to go
- Live animal frozen to the ground
- Branding wet cattle
- Loading cattle unfit for transport as per BQA Transportation Guidelines<sup>3</sup>

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Egregious Act of Neglect

Egregious acts of neglect will not be tolerated. Egregious acts of neglect are defined as purposely not providing adequate amounts of feed, water or other necessary care, which could result in significant harm, illness, or death of an animal.

***Egregious acts of neglect include but are not limited to:***

- Failing to follow veterinary protocols related to timely euthanasia of critically ill/distressed or injured animals
- Failing to euthanize a chronically diseased or injured animal with a BCS < 2 (on the beef and dairy body condition score card) and according to protocols developed in consultation with a veterinarian
- Failing to follow veterinary protocol related to timely treatment of an injured animal
- Failing to provide daily feed to cattle within a 24-hour period
- Failing to provide ad libitum water to cattle in home feeding pens
- Failing to provide water to non-ambulatory animals
- Failing to assist a known calving heifer in a timely manner
- Failing to assist a newborn calf in distress
- Failing to immediately assist and provide medical care to a non-ambulatory animal
- Failing to provide immediate medical assistance to a “compromised” animal unloaded from a livestock truck, as per BQA Transportation Guidelines<sup>3,4</sup>
- Loading a “compromised” animal without special transport provisions, as per BQA Transportation Guidelines<sup>3</sup>

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Procedures and Records

In the chart below, check the appropriate box. Only the sections labeled with “N/A” may be scored as “N/A”. If N/A is selected for a question, add a note to the corresponding comment section to explain that response.

*\*Records for the last 2 years will be helpful in completing this assessment.*

		SATISFACTORY	NEEDS IMPROVEMENT	N/A
<b>FEEDYARD SELF-ASSESSMENT</b>				
1) Does the feedyard have proof of a completed BQA Feedyard Assessment within the last 3 years of the assessment date?				
Comments: _____				
<b>BEEF QUALITY ASSURANCE CERTIFICATION</b>				
2) Does the feedyard manager or key employee have proof of a current BQA certification? <i>(Recommended Corrective Action: CIP)</i>				
3) Do feedyard employees and/or contractors who transport cattle have proof of a current BQA Transportation certification?				
Comments: _____				
<b>EMPLOYEE TRAINING</b>				
4) Does the feedyard have a documented training program?				
5) Are there records available that verify feedyard employees are trained in their area of work?				
6) Does the feedyard have a documented “Commitment to Animal Welfare Policy” signed and dated by all employees?				
Comments: _____				
<b>HERD CARE/ANIMAL HEALTH</b>				
7) Does the feedyard have a completed Veterinarian-Client-Patient-Relationship (VCPR) form that includes operation manager and feedyard veterinarian contact information and signatures? <i>(Recommended Corrective Action: MCAP)</i>				
8) Are there records available verifying a relationship with a veterinarian exists in some capacity through other documentation such as vet visit reports, billing records, or other proof documents?				
Does the feedyard have a documented “Routine Animal Care” protocol that includes the following:	9) Feed delivery record			
	10) Pen checks/animal pull records			
Are there records available verifying a “Routine Animal Care” protocol is being implemented that includes:	11) Feed delivery record			
	12) Pen checks/animal pull records			
Does the feedyard have a documented “Herd Health Management” protocol that addresses prevention, management, and treatment of infectious diseases, metabolic disorders, toxins, parasites, neoplasia, and injury developed in consultation with a veterinarian? <i>(Recommended Corrective Action: CIP)</i>	PREVENTION 13) Vaccine program			
	14) Parasite prevention program			
	15) Nutrition program			
	MANAGEMENT 16) Observation and disease identification protocol for pen riders			
	17) Protocol for specific diseases common to the feedyard			
	TREATMENT 18) Hospitalization/sick pen monitoring protocol			
	19) Disease specific treatment protocols			
Are there records available that indicate the “Herd Health Management” protocol is being implemented on the following topics: <i>(Recommended Corrective Action: CIP)</i>	PREVENTION 20) Vaccine program			
	21) Parasite prevention program			
	22) Nutrition program			
	MANAGEMENT 23) Observation and disease identification protocol for pen riders			
	24) Protocol for specific diseases common to the feedyard			
	TREATMENT 25) Hospitalization/sick pen monitoring protocol			
	26) Disease specific treatment protocols			

27) Does the feedyard have a documented “Surgical Procedures <sup>5</sup> ” protocol, with documentation that it was developed in consultation with a veterinarian with guidance regarding surgical technique and the availability, advisability, and use of analgesia for all surgical procedures?			
28) Can the implementation of the “Surgical Procedure <sup>5</sup> ” protocol be verified through records, observations, or interviews?			
Feedyards should have a documented comprehensive antibiotic stewardship protocol that addresses animal health, antibiotic resistance, and antibiotic residues <sup>6</sup> available for review. Antibiotic stewardship records should be available to demonstrate the protocol is being followed or, alternatively, an employee in charge of animal treatment should be able to describe their efforts to use antibiotics judiciously.	29) Does the feedyard have a documented “Antibiotic Stewardship” protocol with documentation that it was developed in consultation with a veterinarian?		
	30) Can the implementation of the “Antibiotic Stewardship” protocol be verified through records, observations, or interviews?		

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**CALVING HEIFER AND NEWBORN CALF CARE/MANAGEMENT**

<p>If the feedyard being assessed can verify that they only feed steers/males, this series of questions can be marked N/A. <i>Failing to assist a known calving heifer in a timely manner and/or failing to assist a newborn calf in distress is considered an egregious act of neglect.</i></p> <p><b>Calves born at the feedyard</b>          Heifers who are observed to be calving should be attended to in a timely manner. A protocol should be established in the event a calf is born at the feedyard. This protocol should include procedures that cover viable and non-viable calves.</p> <ul style="list-style-type: none"> <li>• Viable calves born at the feedyard will be cared for in a timely manner according to protocol.</li> <li>• Non-viable calves born that are not fully developed or calves that are non-ambulatory will be moved and euthanized as outlined in the feedyard euthanasia protocol.</li> </ul>	31) Does the feedyard have a documented “Calving Heifer” protocol?			
	32) Can the implementation of the “Calving Heifer” protocol be verified through records, observations, or interviews?			
	33) Does the feedyard have a documented “Newborn Calf Care and Management” protocol?			
	34) Can the implementation of the “Newborn Calf Care and Management” protocol be verified through records, observations, or interviews?			
	35) With calves born on-site and potentially moved to locations off-site, can the protocol be verified through records, observations, or interviews?			

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**CATTLE HEALTH PRODUCT MANAGEMENT**

Does the feedyard have a documented “Cattle Health Product Management” protocol outlining proper:	36) Receiving			
	37) Handling			
	38) Storage			
	39) Inventory <i>*Must include product name, manufacturer, number, lot/serial numbers, expiration dates</i>			
Are there records available verifying a “Cattle Health Product Management” protocol is being implemented for the following:	40) Receiving			
	41) Handling			
	42) Storage			
	43) Inventory <i>*Must include product name, manufacturer, number, lot/serial numbers, expiration dates</i>			
44) Does the feedyard have a documented “Cattle Health Product Disposal” protocol outlining the process of evaluating cattle health product expiration dates and cattle health product disposal?				
45) Are there records available verifying a “Cattle Health Product Disposal” protocol is being implemented in compliance with local regulations?				

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**BIOSECURITY**

Does the feedyard have a documented "Biosecurity Plan" that addresses the following:	46) Visitor logs			
	47) Staff biosecurity training and awareness			
	48) Site security			
	49) Foreign Animal Disease Outbreak Contingency Plan (Secure Beef Supply)			
	50) Cleaning and sterilization of machinery/equipment used for moving non-ambulatory or diseased animals			
	51) Disinfecting veterinary equipment			
Can the implementation of the "Biosecurity Plan" components be verified through records, observations, or interviews for the following topics?	52) Cleaning cattle handling facilities			
	53) Visitor logs			
	54) Staff biosecurity training and awareness			
	55) Site security			
	56) Foreign Animal Disease Outbreak Contingency Plan (Secure Beef Supply)			
	57) Cleaning and sterilization of machinery/equipment used for moving non-ambulatory or diseased animals			
	58) Disinfecting veterinary equipment			
	59) Cleaning cattle handling facilities			

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**COMPROMISED/NON-AMBULATORY CATTLE**

60) Does the feedyard have a documented "Compromised Cattle Evaluation" protocol which includes timely evaluation of compromised animals? <i>*Failing to euthanize a chronically diseased or injured animal with a BCS ≤ 2 (on the beef and dairy body condition score card) is considered an egregious act of neglect.</i>			
61) Can the implementation of the "Compromised Cattle Evaluation" protocol including timely evaluation of compromised cattle be verified through records, observations, or interviews?			
62) Does the feedyard have a documented "Non-Ambulatory Cattle Handling" protocol? <b>(Recommended Corrective Action: MCAP)</b>			
63) Can the implementation of the "Non-Ambulatory Cattle Handling" protocol be verified through records, observations, or interviews? <b>(Recommended Corrective Action: MCAP)</b>			

Comments: \_\_\_\_\_  
 \_\_\_\_\_

**EUTHANASIA**

Does the feedyard have a documented "Euthanasia" protocol that includes the following:	64) Developed in consultation with a veterinarian and includes timely euthanasia decision making which meets BQA guidelines? <i>*BQA euthanasia guidelines follow American Association of Bovine Practitioners euthanasia guidelines.<sup>2</sup></i> <b>(Recommended Corrective Action: MCAP)</b>			
	65) Documented primary personnel responsible for euthanasia decision making			
	66) Documented secondary/additional personnel responsible for euthanasia decision making			
	67) Documented primary euthanasia tool that is functional, in good repair, and accessible for use by trained personnel			
	68) Documented secondary euthanasia tool that is functional, in good repair, and accessible for use by trained personnel			
	69) Can an employee responsible for euthanasia demonstrate the "Euthanasia" protocol via interview records, observations, or interviews?			
70) Can the maintenance* and functionality check of each euthanasia tool be demonstrated via records, observations, or interviews? <i>*Maintenance is when the euthanasia tool is cleaned and maintained to be in good working order.</i>				

Comments: \_\_\_\_\_  
 \_\_\_\_\_

**MORTALITY/CARCASS DISPOSAL**

71) Does the feedyard have documented “Cattle Mortality” records that indicate the cause of death?			
72) Does the feedyard have a documented “Carcass Disposal” protocol that is compliant with local regulations? <i>(Recommended Corrective Action: CIP)</i>			
73) Are there records available verifying a documented “Carcass Disposal” protocol is being implemented in compliance with local regulations? <i>(Recommended Corrective Action: CIP)</i>			

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**FEED QUALITY/MEDICATED FEED**

74) Does the feedyard have a documented “Feed Quality” protocol that includes feed sampling?			
75) Are there records available verifying a “Feed Quality” protocol is being implemented that includes feed sampling/ feed quality records?			
76) Does the feedyard have documentation available confirming that no ruminant-derived proteins were received or fed? <sup>7</sup> <i>If the feedyard feeds beef tallow, analysis of the beef tallow should be reviewed to confirm it is at least 99.85% pure.</i>			
Does the feedyard have a documented “Medicated Feed” protocol that includes:	77) Veterinary Feed Directive		
	78) Mixing		
	79) Feed delivery		
	80) Disposal of excess mixed feed		
Are there records available verifying a “Medicated Feed” protocol is being implemented that includes:	81) Veterinary Feed Directive		
	82) Mixing		
	83) Feed delivery		
	84) Disposal of excess mixed feed		

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**CATTLE HANDLING/PROCESSING**

85) Does the feedyard have a documented “Unloading” protocol that addresses documenting animal condition at receiving?			
86) Are there records available verifying an “Unloading” protocol that addresses documenting animal condition at receiving is being implemented?			
Does the feedyard have a documented “Receiving/Processing” protocol addressing the following:	87) Processing Crew responsibilities		
	88) Number of cattle received		
	89) Administration of implants		
	90) Processing map		
	91) Animal/group ID		
	92) BQA guidelines for injectables <sup>8</sup>		
Can the implementation of the “Receiving/Processing” protocol be verified through records, observations, or interviews for the following topics?	93) Processing Crew responsibilities		
	94) Number of cattle received		
	95) Administration of implants		
	96) Processing map		
	97) Animal/group ID		
	98) BQA guidelines for injectables <sup>8</sup>		

Does the feedyard have a documented "Inclement Weather" protocol that addresses the following:	99) Extreme heat <sup>9</sup> conditions			
	100) Extreme cold <sup>9</sup> conditions			
Can the implementation of the "Inclement Weather" protocol be verified through records, observations, or interviews for the following conditions?	101) Extreme heat <sup>9</sup> conditions			
	102) Extreme cold <sup>9</sup> conditions			
103) Does the feedyard have a documented "Broken Needle" protocol that includes what to do in the instance of a broken needle that remains in the animal when administering injectables, such that the animal does not enter the commercial beef supply?				
104) Can the implementation of the "Broken Needle" protocol including what was done in the instance a broken needle remained in an animal when administering injectables, such that the animal did not enter the commercial food supply, be verified through records, observations, or interviews?				
Does the feedyard have a documented "Shipping" protocol that addresses the following:	105) Residue Avoidance: Withdrawal/safe- to-ship documents/verification <b>(Recommended Corrective Action: MCAP)</b>			
	106) Fitness for transport evaluation/verification <sup>3</sup>			
Are there records available verifying a "Shipping" protocol is being implemented that includes:	107) Withdrawal/safe-to-ship documents/verification			
	108) Fitness for transport evaluation/verification <sup>3</sup>			
109) Does the feedyard have a documented "Loading" protocol? <i>Note in comments if packer employees load cattle.</i>				
110) Are there records available verifying a "Loading" protocol is being implemented?				
Comments: _____				
_____				
_____				
<b>PEN SURFACE MAINTENANCE</b>				
111) Does the feedyard have a documented "Pen Surface Maintenance" protocol? <b>(Recommended Corrective Action: CIP)</b>				
112) Are there records available or a visual assessment verifying a "Pen Surface Maintenance" protocol is being implemented? <b>(Recommended Corrective Action: CIP)</b>				
Comments: _____				
_____				
<b>EMERGENCY ACTION PLAN (EAP)</b>				
Does the feedyard have a documented EAP that is readily accessible by all feedyard employees and, at a minimum, includes the following:	113) Emergency contact phone list			
	114) Loss of utilities plan			
	115) Feed contingency plan			
	116) Water contingency plan			
Comments: _____				
_____				
_____				
<b>RECORD KEEPING</b>				
117) Does the feedyard have records for the last two consecutive years available for review for all areas where records are required and do records have dated initials or signatures of the responsible party confirming the review?				
Comments: _____				
_____				
_____				

## CATTLE HANDLING OBSERVATIONS

	✓	P	M	V	J/R	S	F		✓	P	M	V	J/R	S	F
1	✓	P	M	V	J/R	S	F	51	✓	P	M	V	J/R	S	F
2	✓	P	M	V	J/R	S	F	52	✓	P	M	V	J/R	S	F
3	✓	P	M	V	J/R	S	F	53	✓	P	M	V	J/R	S	F
4	✓	P	M	V	J/R	S	F	54	✓	P	M	V	J/R	S	F
5	✓	P	M	V	J/R	S	F	55	✓	P	M	V	J/R	S	F
6	✓	P	M	V	J/R	S	F	56	✓	P	M	V	J/R	S	F
7	✓	P	M	V	J/R	S	F	57	✓	P	M	V	J/R	S	F
8	✓	P	M	V	J/R	S	F	58	✓	P	M	V	J/R	S	F
9	✓	P	M	V	J/R	S	F	59	✓	P	M	V	J/R	S	F
10	✓	P	M	V	J/R	S	F	60	✓	P	M	V	J/R	S	F
11	✓	P	M	V	J/R	S	F	61	✓	P	M	V	J/R	S	F
12	✓	P	M	V	J/R	S	F	62	✓	P	M	V	J/R	S	F
13	✓	P	M	V	J/R	S	F	63	✓	P	M	V	J/R	S	F
14	✓	P	M	V	J/R	S	F	64	✓	P	M	V	J/R	S	F
15	✓	P	M	V	J/R	S	F	65	✓	P	M	V	J/R	S	F
16	✓	P	M	V	J/R	S	F	66	✓	P	M	V	J/R	S	F
17	✓	P	M	V	J/R	S	F	67	✓	P	M	V	J/R	S	F
18	✓	P	M	V	J/R	S	F	68	✓	P	M	V	J/R	S	F
19	✓	P	M	V	J/R	S	F	69	✓	P	M	V	J/R	S	F
20	✓	P	M	V	J/R	S	F	70	✓	P	M	V	J/R	S	F
21	✓	P	M	V	J/R	S	F	71	✓	P	M	V	J/R	S	F
22	✓	P	M	V	J/R	S	F	72	✓	P	M	V	J/R	S	F
23	✓	P	M	V	J/R	S	F	73	✓	P	M	V	J/R	S	F
24	✓	P	M	V	J/R	S	F	74	✓	P	M	V	J/R	S	F
25	✓	P	M	V	J/R	S	F	75	✓	P	M	V	J/R	S	F
26	✓	P	M	V	J/R	S	F	76	✓	P	M	V	J/R	S	F
27	✓	P	M	V	J/R	S	F	77	✓	P	M	V	J/R	S	F
28	✓	P	M	V	J/R	S	F	78	✓	P	M	V	J/R	S	F
29	✓	P	M	V	J/R	S	F	79	✓	P	M	V	J/R	S	F
30	✓	P	M	V	J/R	S	F	80	✓	P	M	V	J/R	S	F
31	✓	P	M	V	J/R	S	F	81	✓	P	M	V	J/R	S	F
32	✓	P	M	V	J/R	S	F	82	✓	P	M	V	J/R	S	F
33	✓	P	M	V	J/R	S	F	83	✓	P	M	V	J/R	S	F
34	✓	P	M	V	J/R	S	F	84	✓	P	M	V	J/R	S	F
35	✓	P	M	V	J/R	S	F	85	✓	P	M	V	J/R	S	F
36	✓	P	M	V	J/R	S	F	86	✓	P	M	V	J/R	S	F
37	✓	P	M	V	J/R	S	F	87	✓	P	M	V	J/R	S	F
38	✓	P	M	V	J/R	S	F	88	✓	P	M	V	J/R	S	F
39	✓	P	M	V	J/R	S	F	89	✓	P	M	V	J/R	S	F
40	✓	P	M	V	J/R	S	F	90	✓	P	M	V	J/R	S	F
41	✓	P	M	V	J/R	S	F	91	✓	P	M	V	J/R	S	F
42	✓	P	M	V	J/R	S	F	92	✓	P	M	V	J/R	S	F
43	✓	P	M	V	J/R	S	F	93	✓	P	M	V	J/R	S	F
44	✓	P	M	V	J/R	S	F	94	✓	P	M	V	J/R	S	F
45	✓	P	M	V	J/R	S	F	95	✓	P	M	V	J/R	S	F
46	✓	P	M	V	J/R	S	F	96	✓	P	M	V	J/R	S	F
47	✓	P	M	V	J/R	S	F	97	✓	P	M	V	J/R	S	F
48	✓	P	M	V	J/R	S	F	98	✓	P	M	V	J/R	S	F
49	✓	P	M	V	J/R	S	F	99	✓	P	M	V	J/R	S	F
50	✓	P	M	V	J/R	S	F	100	✓	P	M	V	J/R	S	F

### OBSERVATION GUIDANCE

- Count at least 100 head – SCORE DURING ACTIVE HANDLING
- Animal can only be scored once per category.
- Assessment codes – mark in boxes on the right of any observations made

Type of cattle processing: \_\_\_\_\_

Number of animal handlers: \_\_\_\_\_

✓	Cattle were handled with no issue.
P (Electric Prod Use)	Prod Use is defined as discharging electric current while in contact with the animal.* Prod usage ≤ 10% is the goal. If prod usage is 11% - 19%, improvement is needed. If prod usage is ≥ 20%, immediate corrective action is required.
M (Miscatch)	Miscatch is defined as the animal being in any position other than with its head fully outside of the front catch and the balance of the body within the chute (i.e., animals that are caught by the head in front of the ears and not released and/or if an animal is caught in the tail/back gate and not released).**
V (Vocalize)	Any audible vocalization (moo, bellow) during chute handling (not related to a processing activity).
J/R (Jump and/or Run)	Cattle that jump when exiting the chute.*** Cattle that run when exiting the chute.****
S (Stumble)	Cattle that stumble when exiting the chute and the animal's knee or hock touch the ground.
F (Fall)	Cattle that fall when exiting the chute and animal's chest, torso/belly, or rump touching the ground.

\* Due to the nature of an audit or assessment it is to be assumed that a prod touching an animal is being discharged; this information should be relayed to the feedyard management and cattle handlers prior to the observations. Prod use is counted only once per animal even if the prod contacts the animal twice.

\*\* If two animals enter the chute, as long as the tail/back catch is not closed on any of the two animals, it is not counted as a miscatch.

\*\*\* Some chutes contain "brisket bars" that prevent cattle from going down in the chute, do not count animals that are hopping over the brisket bar when exiting the chute.

\*\*\*\* Do not count trotting as running.

	A	B		
Observation	# counted	Total # of head observed	Column A ÷ Column B x 100 = % observed	Target
P				≤ 10%
M				0%
V				≤ 5%
J/R				≤ 25%^
S				≤ 10%
F				≤ 2%

Comments: Record where stumbles and fall occur if they are common, suspected reason for vocalizing (e.g., hydraulic pressure too high in chute), miscatches in chute (with release), reason for jumping/running (e.g., prod use, belly bar in chute, dog biting animal, inappropriate handling equipment or inappropriate use of appropriate handling tools), any electric prod misuse, and patterns of repetitive poor cattle handling behavior.

^ If jumping/running is >25%, then re-evaluate cattle handling process from receiving pens through processing barn system.

## HOME PEN OBSERVATIONS

Number of home pens with cattle the feedyard has: \_\_\_\_\_

\_\_\_\_\_ x .05 = \_\_\_\_\_

Number of home pens the feedyard has with cattle      Number of home pens with cattle to evaluate

\* If the feedyard has ≤ 200 home pens with cattle, evaluate 10 home pens with cattle.  
 \*\* Ensure that pens being evaluated are from areas reflective of the different topography across the feedyard.

PEN OBSERVATION GUIDANCE	
FB Feed Bunks	Feed bunks should be accessible for cattle and they should be clean and free of manure and foreign objects as well as spoiled, moldy, sour, packed, or unpalatable feed. Evaluate the feed bunks of the predetermined "pens to evaluate". ✓ - Clean Bunk X - Dirty Bunk
WT Water Tanks	Fresh, clean, and clear water should be readily available at all times to animals. Water tanks should be easily accessible and free of manure, excessive buildup of algae, or other foreign material. Evaluate the water tanks of the predetermined "pens to evaluate". ✓ - Clean Water Tank X - Dirty Water Tank
SR Stocking Rate	Space should be available for all cattle to stand up, lie down, move freely and allow for feedyard environmental management at any given time. Evaluate the stocking density of the predetermined "pens to evaluate". ✓ - Good Stocking Density X - Crowded Stocking Density
PF Pen Facilities	Pen facilities should be in good working order, with no broken fencing, gates or other equipment, and no sharp protrusions. Evaluate the pen facilities condition of the predetermined "pens to evaluate". If ≥ 70% evaluated home pens that contain cattle are in good working order, with no broken fencing, gates or other equipment, and no sharp protrusions, that is considered satisfactory. If 51% - 69% evaluated home pens that contain cattle are in working order with minor issues in fencing, gates or other equipment that will not cause harm or injury to cattle, appropriate pen improvements should be considered. If ≥ 50% evaluated home pens that contain cattle are not well maintained and have major issues including broken fencing, gates, or other equipment or protrusions that could cause injury to cattle, immediate action to improve these conditions and issues should be taken. ✓ = Pen facilities in good condition ½ = Pen facilities have issues, but none that would cause harm to animals X = Pen facilities in poor condition

Pen Observation					
	Pen #	FB	WT	SR	PF
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

	A	B		
Observation	# counted	Total # of pens observed	Column A ÷ Column B x 100 = % observed	Target
FB Feed Bunks (Dirty)				≤ 30%
WT Water Tanks (Dirty)				≤ 30%
SR Stocking Rate (Crowded)				≤ 30%
PF Pen Facilities	x =			If ≥ 50% of pen facilities are in poor condition (X), this is unsatisfactory and needs immediate action.
	½ =			If 51-69% of pen facilities are in good condition, this needs improvement.
	✓ =			If ≥ 70% of pen facilities are in good condition, this is considered satisfactory.

## INDIVIDUAL ANIMAL OBSERVATIONS

All animals need to be standing and mobile when conducting individual observations of locomotion and mud/manure.

_____ must be $\geq$ _____ Number of cattle observed in home pens evaluated.	Number of cattle observed based on size of feedyard. Reference "Individual Cattle Observation". <sup>1</sup>
---	--

### INDIVIDUAL ANIMAL GUIDANCE

MM Mud/Manure	Using the 5 Point Mud and Manure Score system (Ramsey & Allen <sup>10</sup> ), evaluate all the animals in each evaluated home pen. If all the home pens evaluated have less than the needed individual animal observations required, evaluate additional home pens until the individual animal observation requirement is met. Take the average score of the evaluated animals to be used to assign a pen mud and manure score.
L Locomotion	Cattle should exhibit acceptable locomotion and not exhibit excessive stiffness, shortening of stride, obvious limp, and/or discomfort. Evaluate the locomotion of all the animals in each evaluated home pen. If all the home pens evaluated have less than the needed individual animal observations required, evaluate additional home pens until the individual animal observation requirement is met. Cattle should be moving in pens and scored using the North American Meat Institute (NAMI) 4-point locomotion scale:  1 = Normal, walks easily with no apparent changes in gait 2 = Moderate, exhibits ANY of the following: minor stiffness, shortness of stride, or slight limp, but keeps up with normal cattle in a group 3 = Severe, and is not fit for transport without special provisions, exhibits ANY of the following: obvious stiffness, difficulty taking steps, an obvious limp, or obvious discomfort and lags behind normal cattle in a group 4 = Critical, not fit for transport, extremely reluctant to move even when encouraged by a handler, described as statue-like  *For further explanation, visit the NAMI Animal Welfare Committee's video to assist those who handle cattle in assessing their mobility consistently at <a href="http://www.youtube.com/watch?v=QlslfHCvkpg">www.youtube.com/watch?v=QlslfHCvkpg</a> .

	A	B		
Observation	# of observations counted	Total # of head observed	Column A ÷ Column B x 100 = % observed	Target
L Locomotion Score $\geq$ 3				$\leq$ 20%
MM Mud/Manure Score $\geq$ 3				$\leq$ 30%
<p>If <math>\geq</math> 20% of cattle score a locomotion score <math>\geq</math> 3, strategies should be implemented to improve locomotion.</p> <p>If <math>\leq</math> 30% of the home pens have an average Mud/Manure score <math>\geq</math> 3, this is satisfactory; If <math>\geq</math> 30% of pens have an average Mud/Manure score <math>\geq</math> 3, strategies should be implemented to improve pen conditions.</p>				



## SPECIALTY PEN OBSERVATIONS

Number of each specialty pens with cattle the feedyard has: \_\_\_\_\_

\_\_\_\_\_ x .5 = \_\_\_\_\_

*Number of each specialty pen type (receiving, hospital, buller, railers, etc.) the feedyard has with cattle*      *Number of each specialty pen type (receiving, hospital, buller, railers, etc.) with cattle to evaluate*

*\*If the feedyard has < 3 of each specialty pen type (receiving, hospital, buller), evaluate all specialty pens of each type.*

*\*\*Ensure that pens being evaluated are from areas reflective of the different topography across the feedyard.*

### PEN OBSERVATION GUIDANCE

FB Feed Bunks	Feed bunks should be accessible for cattle and they should be clean and free of manure and foreign objects as well as spoiled, moldy, sour, packed, or unpalatable feed. Evaluate the feed bunks of the predetermined "pens to evaluate." ✓ - Clean Bunk X - Dirty Bunk
WT Water Tanks	Fresh, clean, and clear water should be readily available at all time to animals. Water tanks should be easily accessible and free of manure, excessive buildup of algae, or other foreign material. Evaluate the water tanks of the predetermined "pens to evaluate". ✓ - Clean Water Tank X - Dirty Water Tank
SR Stocking Rate	Space should be available for all cattle to stand up, lie down, move freely and allow for feedyard environmental management at any given time. Evaluate the stocking density of the predetermined "pens to evaluate". ✓ - Good Stocking Density X - Crowded Stocking Density
PF Pen Facilities	Pen facilities should be in good working order, with no broken fencing, gates or other equipment, and no sharp protrusions. Evaluate the pen facilities condition of the predetermined "pens to evaluate". If ≥ 70% evaluated home pens that contain cattle are in good working order, with no broken fencing, gates or other equipment, and no sharp protrusions, that is considered satisfactory. If 51% - 69% evaluated home pens that contain cattle are in working order with minor issues in fencing, gates or other equipment, that will not cause harm or injury to cattle, appropriate pen improvements should be considered. If ≥ 50% evaluated home pens that contain cattle are not well maintained and have major issues including broken fencing, gates, or other equipment, or protrusions that could cause injury to cattle, immediate action to improve these conditions and issues should be taken. ✓ = Pen facilities in good condition ½ = Pen facilities have issues, but none that would cause harm to animals X = Pen facilities in poor condition

	A	B		
Observation	# counted	Total # of pens observed	Column A ÷ Column B x 100 = % observed	Target
FB Feed Bunks (Dirty)				≤ 30%
WT Water Tanks (Dirty)				≤ 30%
SR Stocking Rate (Crowded)				≤ 30%
PF Pen Facilities	x =			If ≥ 50% of pen facilities are in poor condition (X), this is unsatisfactory and needs immediate action.
	½ =			If 51-69% of pen facilities are in good condition, this needs improvement.
	✓ =			If ≥ 70% of pen facilities are in good condition, this is considered satisfactory.

Specialty Pen Observation (Receiving, Hospital, Buller, Railer, etc.)					
	Pen #	FB	WT	SR	PF
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					



## CATTLE HANDLING OBSERVATIONS DURING UNLOADING/LOADING

<b>UNLOADING/LOADING OBSERVATION GUIDANCE</b>	
<ul style="list-style-type: none"> <li>Assess 2 trucks during Unloading/Loading. If there are &lt;2 trucks, observe all trucks. – SCORE DURING ACTIVE HANDLING</li> <li>Animals cannot be scored more than once per category.</li> </ul>	
✓	Cattle were handled with no issue.
P (Electric Prod Use)	Prod Use is defined as discharging electric current while in contact with the animal.*
S (Stumble)	Cattle that stumble when exiting the truck and the animal's knee or hock touch the ground.
F (Fall)	Cattle that fall when exiting the truck and animal's chest, torso/belly, or rump touching the ground.
<i>*Due to the nature of an audit or assessment it is to be assumed that a prod touching an animal is being discharged, this information should be relayed to the feedyard management and cattle handlers prior to the observations. Prod use is counted only once per animal even if the prod contacts the animal twice.</i>	

<b>UNLOADING/LOADING/BOTH</b> - (Circle One)
Number of animal handlers: _____
Number of trucks: _____
Is the trailer properly aligned with the unloading/loading area so that cattle do not risk stepping into the gap and there are no gaps between the back end of the trailer and the side walls of the unloading/loading area where livestock can escape? <b>Truck 1: YES/NO Truck 2: YES/NO</b>
Comments: _____
_____
_____
_____
_____

Tally each time an observation is made for each of the categories.			
✓	P	S	F

	A	B		
Observation	# counted	Total # of head observed	Column A ÷ Column B x 100 = % observed	Target
P				≤ 10%
S				≤ 10%
F				≤ 2%

Comments: Record where stumbles and falls occur if they are common, dog biting animal, inappropriate handling equipment or inappropriate use of appropriate handling tools, any electric prod misuse, and patterns of repetitive poor cattle handling behavior.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## APPENDIX

This feedyard assessment preparation checklist is providing as an *optional* step in preparing for a feedyard assessment.

For the checklist, mark each item as YES (Fully implemented) or NO (Needs improvement).

<b>FEEDYARD ASSESSMENT PREPARATION CHECKLIST</b>	<b>YES</b>	<b>NO</b>
<b>DAY OF ASSESSMENT</b>		
Is the feedyard operating under normal conditions on the day of the scheduled assessment?		
Are you prepared to process a minimum of 100 head of cattle through a chute?		
<b>FOR THE LISTED ASSESSMENT SECTIONS BELOW, DO YOU HAVE A COPY OF THE FOLLOWING:</b>		
<b>FEEDYARD SELF-ASSESSMENT</b>		
A BQA Feedyard Assessment completed within 3 years		
<b>BEEF QUALITY ASSURANCE CERTIFICATION</b>		
The feedyard manager or key employee's BQA certification		
Current BQA Transportation certification for feedyard employees and/or contractors who transport cattle		
<b>EMPLOYEE TRAINING</b>		
The feedyard employee training program		
Feedyard employee training records		
A documented "Commitment to Animal Welfare Policy" signed and dated by all employees		
<b>HERD CARE/ANIMAL HEALTH</b>		
A written and valid Veterinarian-Client-Patient-Relationship (VCPR) form with operation manager and veterinarian signatures and contact information		
Records verifying a relationship with a veterinarian exists in some capacity through other documentation which may include items such as vet visit reports, billing records, or other proof documents		
"Routine Animal Care" protocol which includes BOTH feed delivery AND pen checks or animal pull records		
"Routine Animal Care" records to show the protocol is being implemented		
"Herd Health Management" records to show the prevention, management, and treatment protocols are being implemented which address:		
1) Vaccines		
2) Parasites		
3) Nutrition		
4) Disease ID and protocols		
5) Hospital/sick pen		
6) Disease specific treatment protocols		
"Herd Health Management" protocols		
"Surgical Procedures" protocol		
Implementation of "Surgical Procedures" protocol verified through records, observations, or interviews		
"Antibiotic Stewardship" protocol		
Implementation of "Antibiotic Stewardship" protocol verified through records, observations, or interviews		

<b>CALVING HEIFER AND NEWBORN CALF CARE/MANAGEMENT</b>		
“Calving Heifer” protocol		
Implementation of “Calving Heifer” protocol verified through records, observations, or interviews		
“Newborn Calf Care and Management” protocol		
Implementation of “Newborn Calf Care and Management” protocol verified through records, observations, or interviews		
Protocol for calves born on-site and potentially moved to locations off-site verified through records, observations, or interviews		
<b>CATTLE HEALTH PRODUCT MANAGEMENT</b>		
“Cattle Health Product Management” protocol outlining proper:		
1) Receiving		
2) Handling		
3) Storage		
4) Inventory		
“Cattle Health Product Management” records to show the protocol is being implemented		
“Cattle Health Product Disposal” protocol		
“Cattle Health Product Disposal” records to show the protocol is being implemented in compliance with local regulations		
<b>BIOSECURITY</b>		
“Biosecurity Plan” which addresses:		
1) Visitor logs		
2) Employee training		
3) Site security		
4) Foreign Animal Disease outbreak contingency plan (Secure Beef Supply)		
5) Cleaning/sterilization of equipment used for moving non-ambulatory or diseased animals		
6) Disinfecting veterinary equipment		
7) Cleaning cattle handling facilities		
Implementation of the following “Biosecurity Plan” components verified through records, observations, or interviews including:		
1) Visitor logs		
2) Employee training		
3) Site security		
4) Foreign Animal Disease outbreak contingency plan (Secure Beef Supply)		
5) Cleaning/sterilization of equipment used for moving non-ambulatory or diseased animals		
6) Disinfecting veterinary equipment		
7) Cleaning cattle handling facilities		

<b>COMPROMISED/NON-AMBULATORY CATTLE</b>		
“Compromised Cattle Evaluation” protocol which includes timely evaluation of compromised animals		
Implementation of “Compromised Cattle Evaluation” protocol verified through records, observations, or interviews		
“Non-ambulatory Cattle Handling” protocol		
Implementation of “Non-ambulatory Cattle Handling” protocol verified through records, observations, or interviews		
<b>EUTHANASIA</b>		
“Euthanasia” protocol developed with veterinarian that includes:		
1) Timely euthanasia decision making criteria that meets BQA & AABP guidelines		
2) Primary personnel responsible		
3) Secondary/additional personnel responsible		
4) Primary euthanasia tool		
5) Secondary euthanasia tool		
Implementation of “Euthanasia” protocol demonstrated through records, observations, or interviews		
Demonstrate maintenance and functionality check of each euthanasia tool via records, observations, or interviews		
<b>MORTALITY/CARCASS DISPOSAL</b>		
“Cattle Mortality” records that indicate cause of death		
“Carcass Disposal” protocol that is compliant with local regulations		
“Carcass Disposal” records to show the protocol is being implemented in compliance with local regulations		
<b>FEED QUALITY/MEDICATED FEED</b>		
“Feed Quality” protocol that includes feed sampling		
“Feed Quality” records to show the protocol is being implemented (feed sampling/feed quality records)		
Documentation showing no ruminant-derived proteins were received or fed (beef tallow – confirm it is at least 99.85% pure)		
“Medicated Feeds” protocol that includes:		
1) Veterinary Feed Directive (VFD)		
2) Mixing		
3) Feed delivery		
4) Disposal of excess mixed feed		
“Medicated Feeds” records to show the protocol is being implemented including:		
1) Veterinary Feed Directive (VFD)		
2) Mixing		
3) Feed delivery		
4) Disposal of excess mixed feed		

<b>CATTLE HANDLING, PROCESSING, AND SHIPPING</b>		
“Unloading” protocol that documents animal condition at receiving		
“Unloading” records to show the protocol is being implemented		
“Receiving/Processing” protocol that addresses:		
1) Processing crew responsibilities		
2) Number of cattle received		
3) Administration of implants		
4) Processing map		
5) Animal/group ID		
6) BQA guidelines for injectables (including evaluating SQ/IM injection accuracy)		
“Receiving/Processing” records to show the protocol is being implemented		
“Inclement Weather” protocol		
Implementation of “Inclement Weather” protocol verified through records, observations, or interviews		
“Broken Needle” protocol that includes what to do in the instance of a broken needle that remains in an animal to ensure the animal does not enter the commercial beef supply		
Implementation of the “Broken Needle” protocol verified through records, observations, or interviews		
“Shipping” protocol that addresses:		
1) Residue avoidance withdrawal/safe-to-ship documents and verification		
2) Fitness of transport evaluation and verification		
“Shipping” records to show the protocol is being implemented for the following:		
1) Residue avoidance withdrawal/safe-to-ship documents and verification		
2) Fitness of transport evaluation and verification		
“Loading” protocol (Note in comments if packer employees load cattle)		
“Loading” records to show the protocol is being implemented		
<b>PEN SURFACE MAINTENANCE</b>		
“Pen Surface Maintenance” protocol		
“Pen Surface Maintenance” records or visual assessment to show the protocol is being implemented		
<b>EMERGENCY ACTION PLAN (EAP)</b>		
“Emergency Action Plan” that is readily accessible by employees and includes:		
1) Emergency contact phone list		
2) Loss of utilities plan		
3) Feed contingency plan		
4) Water contingency plan		
<b>RECORD KEEPING</b>		
Records for the last two consecutive years available for review for all areas where records are required and records have dated initials or signatures of responsible party confirming the review		

## REFERENCES

### 1 Individual Animal Sample Size

Cattle on Feed	Individual Animals to Observe	Cattle on Feed	Individual Animals to Observe
100	96	1600	272
200	155	1800	275
300	189	2000	277
400	211	3000	284
500	225	4000	288
600	235	5000	290
700	243	6000	291
800	249	7000	292
900	254	8000	293
1000	258	9000	294
1200	264	10,000	294
1400	269	>10,000	299

\*Cannon RM, Roe RT (1986) Livestock Disease Surveys. A Field Manual for Veterinarians. Pg. 16 Table 1b. 95% Confidence interval with 1% prevalence. Bureau of Rural Science, Department of Primary Industry. Canberra: Australian Government Publishing Service.

### 2 BQA Guidelines for Euthanasia

#### Methods of Euthanasia

- Gunshot
  - If a firearm is used it should be used within three feet of the target when possible and positioned so that the muzzle is perpendicular to the skull to avoid ricochet.
- Penetrating captive bolt with a secondary step to ensure death
  - When using penetrating captive bolt, operators are advised to restrain the head so that the captive bolt may be held flush with the skull.
  - Discuss appropriate secondary steps to ensure cattle death with the veterinarian of record.
- Intravenous barbiturate administration under the guidance of a licensed veterinarian
  - Carcass disposal of these animals must follow local regulations to manage environmental and scavenging concerns.
  - If possible, non-barbiturate euthanasia should be used to prevent environmental contamination.

GUIDELINES FOR EUTHANASIA WITH A FIREARM			
Animal/Firearm	Handgun	Rifle	Shotgun
Calves	.32 to .45 caliber with solid point bullet/full metal jacket (FMJ)	.22 LR caliber or larger with solid point bullet/full metal jacket (FMJ)	.410 to 12 gauge #4 – 6 bird shot or slug
Adult	.38 to .45 caliber with solid point bullet/full metal jacket (FMJ)	.22 magnum or higher caliber* with solid point bullet/full metal jacket (FMJ)	20 to 12 gauge #4 – 6 bird shot or slug

\*.22 LR is discouraged for use in euthanasia of adult cattle because it lacks sufficient ballistic energy to yield consistent results. Higher caliber rifles should be avoided as bullets may exit the body and place by-standers in danger.

### Anatomical Landmarks for Euthanasia

- Current information for adult cattle and calves indicates that the point of entry of the projectile should be at (or slightly above) the intersection of two imaginary lines, each drawn from the outside corner of the eye to the center of the base of the opposite horn.

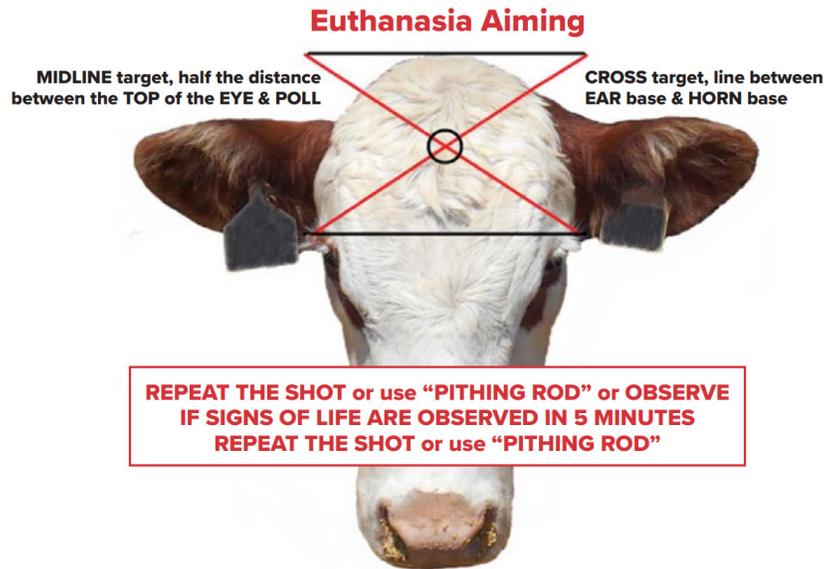
### Indications of Unconsciousness

- Animal collapses immediately when shot and makes no attempt to right itself.
- Body and muscles become rigid immediately upon collapse followed by relaxation of the body, brief tetanic spasms, and eventually uncoordinated hind limb movements.
- An absence of vocalization.
- An absence of eye reflexes and eyelids remain open facing straight forward.
- Immediate and sustained cessation of rhythmic breathing.
- **Animals that attempt to right themselves, vocalize, blink with their eyes, or begin rhythmic breathing are likely returning to a conscious state. In these cases, one should immediately recheck the anatomical site used and reshoot or reapply the captive bolt.**

### Confirmation of Death

- Criteria to be used for confirmation of death include lack of pulse, lack of breathing, lack of corneal reflex, lack of response to firm toe pinch (as with a hoof tester), failure to detect/ hear respiratory sounds or heartbeat by use of a stethoscope, graying of the mucous membranes, and rigor mortis. Other than rigor mortis, none of these signs are reliable indications of death.
- After initial confirmation of death, rechecking of the animal for these parameters after a period of 20 minutes is a very useful method for confirmation of death.

Further information can be found in the BQA National Manual at [bqa.org](http://bqa.org).



### 3 BQA Fitness for Transport Guidelines

- DO NOT move non-ambulatory cattle to market under any circumstances.
- Make the decision to treat, to cull, or to euthanize cattle promptly.
- Delay transport of any cattle that appear to be exhausted or dehydrated until the animal is rested, fed, and rehydrated.
- Use a BQA Transportation certified transport company that is knowledgeable about your cattle care expectations and provides for the safety and comfort of the cattle during transport.
- DO NOT transport cattle to a packing or processing facility until all proper treatment withdrawal times have been followed.
- DO NOT transport cattle with a poor body condition score (i.e., a body condition score of less than 2 on either a beef or dairy scale).
- DO NOT transport heifers or cows where calving is imminent and likely to occur during the transportation or marketing process.
- DO NOT transport cattle that require mechanical assistance (e.g., hip lifts) to rise and walk except for veterinary treatment. When using any handling device, abuse must not be tolerated.
- DO NOT transport cattle with bone fractures of the limbs or injuries to the spine. Cattle with a recent fracture unrelated to mobility should be culled and transported directly to a packing or processing facility if they are ambulatory and can withstand the rigors of transport.
- DO NOT transport cattle with conditions that will not pass pre-slaughter inspection at a packing or processing facility. ([https://www.fsis.usda.gov/wps/wcm/connect/04739d5f-6342-4b24-bcdf-1f55f77a3420/PHVt-Antemortem\\_Inspection.pdf?MOD=AJPERES](https://www.fsis.usda.gov/wps/wcm/connect/04739d5f-6342-4b24-bcdf-1f55f77a3420/PHVt-Antemortem_Inspection.pdf?MOD=AJPERES))
- Further information on transport guidelines can be found in the BQA Transportation manual at [www.bqa.org/resources/manuals](http://www.bqa.org/resources/manuals).

### 4 BQA Handling Non-Ambulatory (Downer) Cattle

- Promptly diagnose non-ambulatory animals and determine whether the animal should be humanely euthanized or receive additional care.
- Provide adequate feed and water to non-ambulatory cattle at least once daily.
- Move downer animals very carefully to avoid compromising animal welfare.
  - Acceptable methods of transporting downers include a sled, low-boy trailer, or in the bucket of a loader.
  - Animals should not be scooped into a front-loader bucket but rather humanely rolled into the bucket by caretakers.
- Humanely euthanize animals that refuse to eat or drink and/or are unable to sit up unaided (i.e., lie flat on their side) when treatment is attempted within 24-36 hours of initial onset.
- Do not send non-ambulatory cattle to a livestock market or processing facility.
- NEVER drag non-ambulatory animals.
- NEVER use an electric prod to stimulate an injured or disabled animal to get up unless essential to prevent further injury or death.
- NEVER use chains, rope, or cables to lift, suspend, or move the animal unless necessary to prevent further injury or death, if allowed by state law.
- NEVER let a non-ambulatory animal remain in any area where they may get walked on or trampled.

## <sup>5</sup> Surgical Procedure Definition

- Surgical procedures are defined as the treatment, through revision, destruction, incision, closure, or other structural alteration of animal tissue. (State of Nebraska, Title 172 Chapter 180, Regulations Governing the Practice of Veterinary Medicine and Surgery, Nebraska Health and Human Services System, Pg. 3. 2005.)

## <sup>6</sup> BQA Judicious Use of Antibiotics in Cattle

1. Prevent Problems: Emphasize appropriate husbandry and hygiene, routine health examinations, and vaccinations.
2. Adhere to FDA Guidance: Follow label instructions and FDA guidance for the use of all antibiotics. The use of antibiotics medically important in human medicine should only be used after careful consideration. If medically important feed grade antibiotics are used, they must be under the guidance of a Veterinary Feed Directive (VFD).
3. Select and Use Antibiotics Carefully: Consult with your veterinarian on the selection and use of antibiotics, under the premise of a valid Veterinarian/Client/Patient/Relationship (VCPR). Have a valid reason to use an antibiotic. Appropriate therapeutic alternatives should be considered prior to using antimicrobial therapy.
4. Use the Laboratory to Help You Select Antibiotics: Culture and sensitivity test results should be used to aid in the selection of antibiotics, whenever possible.
5. Combination Antibiotic Therapy is Discouraged Unless There is Clear Evidence the Specific Practice is Beneficial: Select and dose an antibiotic to affect a cure.
6. Avoid Inappropriate Antibiotic Use: Confine therapeutic antibiotic use to proven clinical indications avoiding inappropriate uses such as for viral infections without bacterial complication.
7. Treatment Programs Should Reflect Best Use Principles: Regimens for therapeutic antimicrobial use should be optimized using current pharmacological information and principles.
8. Treat the Fewest Number of Animals Possible: Limit antibiotic use to sick or at-risk animals.
9. Treat for the Recommended Time Period: To minimize the potential for bacteria to become resistant to antimicrobials.
10. Avoid Environmental Contamination with Antibiotics: Steps should be taken to minimize antimicrobials reaching the environment through spillage, contaminated ground run off, or aerosolization.
11. Keep Records of Antibiotic Use: Accurate records of treatment and outcome should be used to evaluate therapeutic regimens and always follow proper meat and milk withdrawal times. Keep records for a minimum of two (2) years or longer based on state and local regulations.
12. Follow Label Directions: Follow label instructions and never use antibiotics other than as labeled without a valid veterinary prescription.
13. Extra Label Antibiotic Use Must Follow FDA Regulations: Prescriptions, including extra label use of medications, must meet the Animal Medicinal Drug Use Clarification Act (AMDUCA) amendments to the Food, Drug, and Cosmetic Act and its regulations. This includes having a valid VCPR.
14. Medically Important Antibiotic Use Should be Limited to Treat, Prevent, or Control Disease: Medically important antibiotics should not be used if the principle intent is to improve performance. Antibiotics that are medically important to human medicine may not be used for performance.  
*Guidelines developed from American Veterinary Medical Association (AVMA), American Association of Bovine Practitioners (AABP), and Academy of Veterinary Consultants (AVC) guidance on Appropriate Veterinary Antibiotic Use.*

## 7 Animal Proteins Prohibited in Ruminant Feed “Ruminant Feed Ban”

- The FDA adopted the Animal Proteins Prohibited from Ruminant Feed regulation to prevent the establishment of Bovine Spongiform
- Encephalopathy (BSE) in the United States through feed and, thereby, minimize any risk to animals and humans.
- The regulation prohibits the use of protein derived from mammals in
- ruminant animal feed.
- Federal Rule 21 CFR 589.2000 (Accessed: FDA.org, 4/16/2020)
- [https://www.ecfr.gov/cgi-bin/text-idx?SID=9b1f8f7349938eb4bd3dc6d2f8016068&mc=true&node=se21.6.589\\_12000&rgn=div8](https://www.ecfr.gov/cgi-bin/text-idx?SID=9b1f8f7349938eb4bd3dc6d2f8016068&mc=true&node=se21.6.589_12000&rgn=div8)
- [https://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs144p2\\_033674.pdf](https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs144p2_033674.pdf)

## 8 BQA Recommendations on Injection Sites

- Injections should be given in front of the shoulder slope (unless directed otherwise by a veterinarian or per label instruction).
- Never give an injection in the rump or back leg.
- Whenever possible restrict administration of drugs to subcutaneous (SQ), intravenous (IV), intranasal (IN), or oral use.
- BQA guidelines advise against giving SQ injections along the ribs or in the elbow region unless the situation requires the use of an emergency medication.
- If intramuscular medications must be used, administer them in the neck and never exceed 10cc per IM injection site.
- Space each injection 2 to 4 inches apart.
- There are no restrictions to the volume of SQ injections other than as indicated by the product label or as instructed by the herd veterinarian.

## 9 Temperature Conditions

Cattle must maintain normal body temperature to sustain essential physiological processes. Properly caring for and handling cattle includes supporting their temperature maintenance and ability to adapt to their regional environment. Prevent or address environmental conditions that approach cattle’s heat and cold thresholds to maintain optimal performance and health. Additionally, environmental conditions, even if not extreme, should be considered when deciding how and when to handle cattle.

**Beef Cattle Temperature Humidity Index**

		Relative Humidity (%)											
		30	35	40	45	50	55	60	65	70	75	80	85
Temperature (°F)	100	84	85	86	87	88	90	91	92	93	94	95	97
	98	83	84	85	86	87	88	89	90	91	93	94	95
	96	81	82	83	85	86	87	88	89	90	91	92	93
	94	80	81	82	83	84	85	86	87	88	89	90	91
	92	79	80	81	82	83	84	85	86	87	88	89	89
	90	78	79	79	80	81	82	83	84	85	86	86	87
	88	76	77	78	79	80	81	81	82	83	84	85	86
	86	75	76	77	78	78	79	80	81	81	82	83	84
	84	74	75	75	76	77	78	78	79	80	80	81	82
	82	73	73	74	75	75	76	77	77	78	79	79	80
	80	72	72	73	73	74	75	75	76	76	77	78	78
	78	70	71	71	72	73	73	74	74	75	75	76	76
76	69	70	70	71	71	72	72	73	73	74	74	75	
		Temperature Humidity Index (THI)											
		Normal <75		Alert 75-78			Danger 79-83			Emergency >84			

- Extreme Heat

- Extreme Heat is defined as when the Temperature Humidity Index (THI) is > 84.
- Guidelines to minimize the effects of heat stress as cattle are processed and managed include:
  - » Provide adequate water.
  - » Consider heat management tools such as shades.
  - » Avoid handling cattle when the risk of heat stress is high. Decisions to handle cattle must consider temperature, humidity, wind speed, phenotype, and cattle acclimation. If cattle must be handled, a general rule is to work them before the THI reaches 84 (See Beef Cattle Temperature Humidity Index table).
    - ◇ As an example, when the temperature is 98°F and the humidity is 30%, then the THI is 83. At a constant temperature, the THI increases as the relative humidity increases. Each one mile per hour increase in wind speed decreases the THI by approximately one point.
  - » Work cattle more prone to heat stress first, earlier in the day, or later if conditions are moderate; for example, process larger cattle during periods of lower THI.
  - » Limit the amount of time cattle spend in handling facilities where heat stress may be more significant.

Coat Condition	Critical Temperature, Degrees F.
Wet or Summer Coat	59°
Dry, Fall Coat	45°
Dry, Winter Coat	32°
Dry, Heavy Winter Coat	18°

- Extreme Cold

- Extreme cold is defined when cattle are in an environment below the Critical Temperature. Critical Temperature is based on a specified degree of temperature when the cattle's coat is in a specified condition. (See Coat Condition and Critical Temperature table).
- Cattle exposed to cold have increased maintenance energy requirements. Cattle performance will be reduced if action is not taken to maintain or provide for their increased energy requirements in cold weather. Cattle will voluntarily seek available protection from severe weather conditions.
- Any of the following are acceptable management guidelines for reducing winter stress and maintaining performance in cold weather:
  - » Adjust feed and energy rations to match performance requirements when cattle reach low critical temperature.
  - » Provide windbreaks and shelters to reduce wind, moisture, and mud.
  - » Construct feedlots and buildings in a manner that reduces winter stress due to temperature and moisture.
  - » Provide bedding in severe conditions to put a barrier between cattle and the frozen ground.
  - » Provide modest protection by either natural or man-made structures to reduce effects of extreme cold by allowing exposure to be intermittent rather than continuous.

# Mud & Manure Scoring

Adapted from Beth E. Doran, 2016, Iowa State University Extension and Outreach.



**Mud and Manure Score 1**



**Mud and Manure Score 2**



**Mud and Manure Score 3**



**Mud and Manure Score 4**



**Mud and Manure Score 5**

- 1 - No tag, clean hide (0)
- 2 - Small lumps of mud on hide in limited areas of the legs, side and underbelly (5.7)
- 3 - Small and large lumps of mud in large areas of the legs, side and underbelly (12.8)
- 4 - Small and large lumps of mud in even larger areas along the hindquarter, stomach and front shoulder (N/A)
- 5 - Lumps of manure on hide continuously on the underbelly and side of the animal from front to rear. (23.2)

() is pounds of mud on animal, Ramsey & Allen, 1975

IOWA STATE UNIVERSITY  
Extension and Outreach  
Iowa Beef Center







Funded by the Beef Checkoff.



[www.BQA.org](http://www.BQA.org)