

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Nebraska Beef Quality Assurance Program

Animal Science Department

2006

The Cattle Industry's Guidelines for the Care and Handling of Cattle

Follow this and additional works at: <http://digitalcommons.unl.edu/nbqa>

 Part of the [Agricultural Economics Commons](#), [Dairy Science Commons](#), [Large or Food Animal and Equine Medicine Commons](#), and the [Meat Science Commons](#)

"The Cattle Industry's Guidelines for the Care and Handling of Cattle" (2006). *Nebraska Beef Quality Assurance Program*. 8.
<http://digitalcommons.unl.edu/nbqa/8>

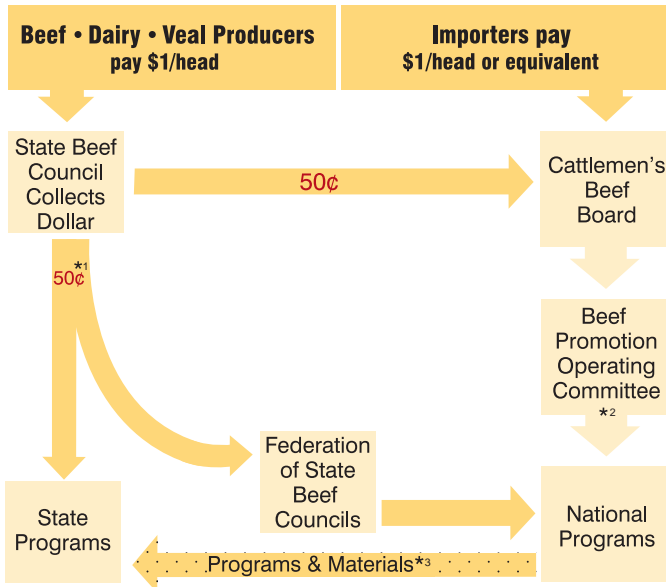
This Article is brought to you for free and open access by the Animal Science Department at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Nebraska Beef Quality Assurance Program by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

THE CATTLE INDUSTRY'S GUIDELINES FOR THE CARE AND HANDLING OF CATTLE





The Beef Checkoff Structure



By law, the Operating Committee reviews and recommends approval of checkoff programs and must contract with national industry-governed organizations to carry them out. Some of the primary contractors are the National Cattlemen's Beef Association (NCBA), American National CattleWomen (ANCW), the National Livestock Producers Association (NLPA), the United States Meat Export Federation (USMEF) and the Meat Importers Council of America (MICA). All programs and budgets must be approved by the United States Department of Agriculture (USDA).

*1 States may invest a portion of their 50 cents in national programs.

*2 The Beef Promotion Operating Committee has 10 members from Cattlemen's Beef Board and 10 members from NCBA's Federation of State Beef Councils.

*3 National programs and materials are used by states to extend national priorities.

The Beef Promotion and Research Act outlines the specific responsibilities of the organizations that comprise the checkoff structure.

Beef Board

Created by the Beef Promotion and Research Act to administer the Beef Checkoff Program, the Beef Board is made up of volunteers nominated by state producer organizations and importers, and appointed by the U.S. Secretary of Agriculture. Duties include certification of state beef councils, evaluation of programs, annual budget approval and overseeing collection of the \$1-per-head beef checkoff. Administrative costs for the Beef Board are capped at 5 percent of projected revenue, and the board has always remained well below this level.

State Beef Councils

State beef councils collect the \$1-per-head checkoff and retain control of 50 cents of every dollar to conduct and implement state-

level programs that are consistent with the Beef Promotion and Research Act. States may invest a portion of their 50 cents in national programs and then elect producers to serve on the Federation of State Beef Councils Division of the NCBA Board to oversee program development and implementation.

Operating Committee

The Beef Promotion Operating Committee reviews and approves national checkoff programs and contracts with national industry-governed organizations to implement programs. The Beef Board selects 10 of its members to serve on the Beef Promotion Operating Committee. Together as the Federation, state beef councils select the other 10 producers to serve on the 20-member committee.

**THE CATTLE INDUSTRY'S
GUIDELINES FOR THE
CARE AND HANDLING OF
CATTLE**

INTRODUCTION

Cattlemen have long recognized the need to properly care for livestock. Sound animal husbandry practices, based on decades of practical experience and research, are known to impact the well-being of cattle, individual animal health and herd productivity. Cattle are produced in very diverse environments and geographic locations in the United States. There is not one specific set of production practices that can be recommended for all cattle producers. Personal experience, training and professional judgment can serve as a valuable resource for providing proper animal care.

PRODUCER CODE OF CATTLE CARE

Beef cattle producers take pride in their responsibility to provide proper care to cattle. The Code of Cattle Care below lists general recommendations for care and handling of cattle:

- Provide necessary food, water and care to protect the health and well-being of animals.
- Provide disease prevention practices to protect herd health, including access to veterinary care.
- Provide facilities that allow safe, humane, and efficient movement and/or restraint of cattle.
- Use appropriate methods to humanely euthanize terminally sick or injured livestock and dispose of them properly.
- Provide personnel with training/experience to properly handle and care for cattle.
- Make timely observations of cattle to ensure basic needs are being met.
- Minimize stress when transporting cattle.
- Keep updated on advancements and changes in the industry to make decisions based upon sound production practices and consideration for animal well-being.
- Persons who willfully mistreat animals will not be tolerated.

FEEDING AND NUTRITION

Diets for all classes of beef cattle should meet the recommendations of the National Research Council (NRC) and/or recommendations of a nutritional consultant.

- Cattle must have access to an adequate water supply. Estimated water requirements for all classes of beef cattle in various production settings are described in the NRC Nutrient Requirements of Beef Cattle.
- Provide adequate feed. Avoid feed and water interruption longer than 24 hours.
- Feedstuffs and feed ingredients should be of satisfactory quality to meet nutritional needs.
- Under certain circumstances (e.g., droughts, frosts, and floods), test feedstuffs or other dietary components to determine the presence of substances that can be detrimental to cattle well-being, such as nitrate, prussic acid, mycotoxins, etc.
- Producers should become familiar with potential micronutrient deficiencies or excesses in their respective geographical areas and use appropriately formulated supplements.
- Use only USDA, FDA and EPA approved products for use in cattle. These products must be used in accordance with the approved product use guidelines.

Feeding Guidelines for Beef Cows

Body condition scoring of beef cows is a scientifically approved method to assess nutritional status. Body condition scores (BCS) range from 1 (emaciated, skeletal) to 9 (obese).

- A BCS of 4-6 is most desirable for health and production. A BCS of 2 or under is not acceptable and immediate corrective action should be taken.
- During periods of prolonged drought and widespread shortages of hay and other feedstuffs, the average BCS of cows within a herd may temporarily decline. This is not desirable, but may be outside the cattle owner's control until drought relief is achieved.
- During periods of decreasing temperature, feeding plans should reflect increased energy needs.



Feeding Guidelines for Stocker Cattle

Stocker cattle are raised on a wide variety of forages (native pasture, annuals, improved pasture) with minimal additional nutrient supplementation.

- On growing forages, stocking rates should be established that meet production goals for growth and performance.
- On dormant pastures, supplement cattle as needed to meet maintenance or growth requirements for the animal's weight, breed, and age as established by NRC guidelines and targeted production goals of the operation.

Feeding Guidelines for Feeder Cattle

Feedyard cattle can eat diverse diets, but the typical ration contains a high proportion of grain(s) (corn, milo, barley, grain by-products) and a smaller proportion of roughages (hay, straw, silage, hulls, etc.). The NRC lists the dietary requirements of beef cattle (based on weight, weather, frame score, etc.) and the feeding value of various commodities included in the diet.

- Consult a nutritionist (private consultant, university or feed company employee) for advice on ration formulation and feeding programs.
- Avoid sudden changes in ration composition or amount of ration offered.
- Monitor changes in feces, incidence of digestive upsets (acidosis or bloat) and foot health to evaluate the feeding program.
- A small percentage of cattle in feedyards develop laminitis or founder. Mild cases do not affect animal welfare or performance; however, hooves that are double their normal length compromise movement. Extreme cases should be provided appropriate care and marketed as soon as possible.



DISEASE PREVENTION PRACTICES AND HEALTH CARE

Like other species, cattle are susceptible to infectious diseases, metabolic disorders, toxins, parasites, neoplasia and injury. Control programs should be based on risk assessment and efficacy of available products. Economic losses are reduced by early intervention through health management programs. Healthy herds are more productive.

The producer should work with a veterinarian and/or nutritionist to determine the risk of infectious, metabolic and toxic diseases and to develop effective management programs when designing a herd health plan.

Producers and their employees should have the ability to recognize common health problems and know how to properly utilize animal health products and other control measures.

When prevention or control measures are ineffective, the producer should promptly contact a veterinarian for a diagnosis and treatment program to reduce animal suffering and animal losses.

Cows

- It is desirable for cows to have a BCS of at least 4 before the calving season.
- During calving season, cows should be checked regularly for calving difficulties. First-calf heifers may require more frequent observation and care.
- Producers should consider contacting a veterinarian for advice or assistance if cows or heifers have calving difficulties that cannot be corrected by the producer within a reasonable amount of time.
- Cows with mild lameness, early eye problems such as ocular neoplasia, mastitis or loss of body condition should be examined to determine well-being and in some cases be promptly marketed.

Calves

- Castration and dehorning are done for the protection of the animal, other cattle in the herd and people who handle the cattle. Castration prior to 120 days of age or when calves weigh less than 500 pounds is strongly recommended.
- When horns are present, it is strongly recommended that calves be dehorned prior to 120 days of age. Dehorning should be done before the diameter of the horn base grows to one-inch in diameter or more.
- Weaning can be less stressful by castrating and dehorning calves early in life, vaccinating against respiratory diseases prior to weaning, and providing proper pre-weaning nutrition.

Stocker and Feeder Cattle

- All incoming stocker and feeder cattle should be vaccinated against Bovine Respiratory Disease (BRD). Stocker cattle that will be grazing rangeland or pasture should be vaccinated against clostridial diseases. The use of other vaccines and parasite control should be based on risk assessment and efficacy of available animal health products.
- **It is strongly recommended that a local anesthetic (cornual nerve block) be used when the horn base is one-inch or more in diameter.**
- A local anesthetic should be used when heifers are spayed using the flank approach.
- High risk cattle should be checked at least daily for illness, lameness or other problems during the first 30 days following arrival.
- Pregnancy in immature heifers can result in calving difficulties and subsequent trauma to the birth canal, paralysis or death of the heifer. For these reasons it is often more humane to abort pregnant heifers. This should be done under the direction of a veterinarian.
- If heifers in the feedyard or a stocker operation deliver a full-term, healthy calf, it should be allowed to nurse to obtain colostrum. At all times, these calves must be handled humanely and provided proper nutrition. Compromised calves or fetuses should be promptly euthanized and disposed of according to local regulations.
- “Bulling” is a term to describe aggressive riding of a steer by one or more penmates. Bullers should be promptly removed from the pen to prevent serious injury.



IDENTIFICATION

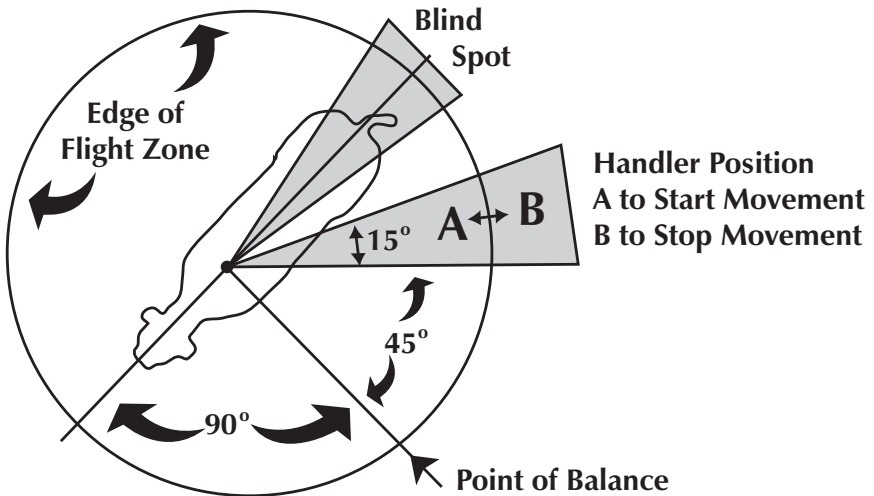
- If cattle are branded, it should be accomplished quickly, expertly and with the proper equipment.
- Feeder cattle should not be re-branded when entering a feedlot unless required by law.
- Brands should be of appropriate size to achieve clear identification.
- Jaw brands should not be used.
- Ear notching may be used to identify cattle.
- Wattling, ear splitting and other surgical alterations for identification are strongly discouraged.

SHELTER AND HOUSING

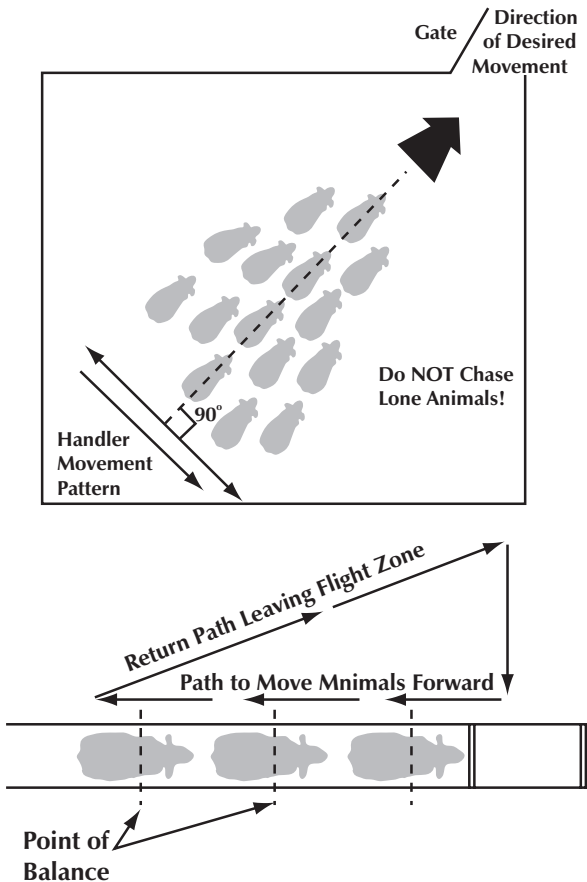
- Cattle in backgrounding facilities or feedyards must be offered adequate space for comfort, socialization and environmental management.
- Pen maintenance, including manure harvesting, will help improve pen conditions.
- Mud is more of a problem in the winter with low evaporation rate or improper drainage conditions. Accumulation of mud on cattle should be monitored as a measure of pen condition and cattle care in relation to recent weather conditions.
- Feedyards should use dust reduction measures to improve animal performance.
- Floors in housing facilities should be properly drained and barns and handling alleys should provide traction to prevent injuries to animals and handlers.
- Handling alleys and housing pens must be free of sharp edges and protrusions to prevent injury to animals and handlers.
- Design and operate alleys and gates to avoid impeding cattle movement. When operating gates and catches, reduce excessive noise, which may cause distress to the animals.
- Adjust hydraulic or manual restraining chutes to the appropriate size of cattle to be handled. Regular cleaning and maintenance of working parts is imperative to ensure the system functions properly and is safe for the cattle and handlers.
- Mechanical and electrical devices used in housing facilities must be safe.

CATTLE HANDLING

- Abuse of cattle is not acceptable under any circumstances.
- Avoid slippery surfaces, especially where cattle enter a single file alley leading to a chute or where they exit the chute. Grooved concrete, metal grating (not sharp), rubber mats or deep sand can be used to minimize slipping and falling. Quiet handling is essential to minimize slipping. Under most conditions, no more than 2% of the animals should fall outside the chute. A level of more than 2% indicates a review of the process may be of value, including asking questions such as: is this a cattle temperament issue, has something in the handling area changed that is effecting cattle behavior, etc.
- Take advantage of cattle's flight zone and point of balance to move them. For safety and welfare reasons, minimize the use of electric prods. Non-electric driving aids, such as plastic paddles, sorting sticks, flags or streamers (affixed to long handles) should be used to quietly guide and turn animals. When cattle continuously balk, cattle handlers should investigate and correct the reason rather than resort to overuse of electric prods.



- Under desirable conditions, 90% or more of cattle should flow through cattle handling systems without the use of electric prods.
- When cattle prods must be used, avoid contact with the eyes, rectum, genitalia and udder.
- Driving aids powered by AC current should never be used unless manufactured and labeled specifically for that purpose.
- Some cattle are naturally more prone to vocalize, but if more than 5% of cattle vocalize (after being squeezed but prior to procedures being performed) it may be an indication that chute operation should be evaluated.
- If more than 25% of cattle jump or run out of the chute there should be a review of the situation and questions asked such as: is this a result from cattle temperament or prior handling issue, was the chute operating properly, etc.
- Properly trained dogs can be effective and humane tools for cattle handling. Insure that barking or impeding cattle flow is minimized.



MARKETING CATTLE

The overwhelming majority of cattle are marketed in good health and physical condition. Some compromised cattle should not enter intermediate marketing channels because of animal welfare concerns. Instead, these cattle should be sold directly to a processing plant or euthanized (see Euthanasia section), depending upon the severity of the condition, processing plant policy, and state or USDA regulations.

TRANSPORTATION

- Cattle sorting and holding pens should allow handling without undue stress, be located near the loading/unloading facility and be suitable for herd size.
- Provide properly designed and maintained loading facilities for easy and safe animal movement. Proper design of loading chutes as well as personnel that are knowledgeable of their proper use can assure the safety of both cattle and cattle handlers. Ramps and chutes should be strong and solid, provide non-slip footing, and have sides high enough to keep cattle from falling or jumping off. A ramp angle of 25 degrees or less will improve cattle movement.
- All vehicles used to transport cattle should provide for the safety of personnel and cattle during loading, transporting and unloading.
- Strictly adhere to safe load levels with regard to animal weight and space allocation.
- Producers hauling cattle in farm and ranch trailers must ensure that adequate space is provided so that cattle have sufficient room to stand with little risk of being forced down because of overcrowding.
- Cattle that are unable to withstand the rigors of transportation should not be shipped.
- When the vehicle is not full, safely partition cattle into smaller areas to provide stability for the cattle and the vehicle.
- Knowingly inflicting physical injury or unnecessary pain on cattle when loading, unloading or transporting animals is not acceptable.
- No gap which would allow injury to an animal should exist between the ramp, its sides, and the vehicle.
- Vehicle doors and internal gates should be sufficiently wide to permit cattle to pass through easily without bruising or injury.
- Cattle should be loaded, unloaded, and moved through facilities with patience and as quietly as possible to reduce stress and injury.

NON-AMBULATORY (DOWNER) CATTLE

- A prompt diagnosis should be made to determine whether the animal should be humanely euthanized or receive additional care.
- Provide feed and water to non-ambulatory cattle at least once daily.
- Move downer animals very carefully to avoid compromising animal welfare. Dragging downer animals is unacceptable. Likewise, animals should not be lifted with chains onto transportation conveyances. Acceptable methods of transporting downers include a sled, low-boy trailer or in the bucket of a loader. Animals should not be “scooped” into the bucket, but rather should be humanely rolled into the bucket by caretakers.
- When treatment is attempted, cattle unable to sit up unaided (i.e. lie flat on their side) and which refuse to eat or drink should be humanely euthanized within 24-36 hours of initial onset.
- **Even though signs of a more favorable prognosis may exist, cattle that are non-ambulatory must not be sent to a livestock market or to a processing facility.**
- Marketing cattle promptly before this issue occurs will promote better quality of life for the animal and economic benefit for the operation.

EUTHANASIA

Euthanasia is humane death occurring without pain and suffering. The decision to euthanize an animal should consider the animal’s welfare. The producer will most likely perform on-farm euthanasia because a veterinarian may not be immediately available to perform the service. When euthanasia is necessary, an excellent reference is the Practical Euthanasia of Cattle guidelines developed and published by the American Association of Bovine Practitioners.

Reasons for euthanasia include:

- Severe emaciation, weak cattle that are non-ambulatory or at risk of becoming downers
- Downer cattle that will not sit up, refuse to eat or drink, have not responded to therapy and have been down for 24 hours or more
- Rapid deterioration of a medical condition for which therapies have been unsuccessful
- Severe, debilitating pain
- Compound (open) fracture
- Spinal injury
- Central nervous system disease
- Multiple joint infections with chronic weight loss



HEAT STRESS PROCEDURES

- During periods of high heat and humidity and little wind, actions should be taken to minimize the effects of heat stress as cattle are processed.
- Provide adequate water.
- If possible, avoid handling cattle when the risk of heat stress is high. The final decision must consider temperature, humidity, wind speed, phenotype and cattle acclimation. If cattle must be handled, a general rule is to work them before the Temperature Humidity Index (THI) reaches 84, if possible. As an example, when the temperature is 98° F and the humidity is 30%, 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. More information can be found in NebGuide G00-1409-A (www.gpvec.unl.edu).
- Work cattle more prone to heat stress first, earlier in the day or later if conditions moderate. For example, larger cattle should be processed during lower stress times of the day.
- Limit the time cattle spend in handling facilities where heat stress may be more significant.
- Heat management tools, such as shades and sprinklers, should be considered if sufficient natural shade is not available.

PASTURE CATTLE HEAT STRESS PROCEDURES

- During the summer the THI in the southeastern United States can be high.
- Breeding programs in the southeast consider cattle's heat tolerance and ability to adapt to their regional environment.
- Trees are abundant on most farms and ranches in the southeast, providing natural shade and relief from heat. Cattle instinctively use shade and ponds for cooling when the THI is high.
- When heat stress is extreme:
 1. Ensure adequate drinking water is available.
 2. Move or process cattle during the cooler part of the day.
- Heat management tools, such as shades and sprinklers, should be considered if sufficient natural shade is not available.

Training and Education for Maintaining and Improving Cattle Care and Handling Implementation and Review Programs

Management practices should be informally assessed every day to ensure that animal welfare is not compromised. Regardless, producers are encouraged to implement a system to verify efforts directed towards animal care and handling. This can be accomplished by:

- Establishing a network of resources on cattle care
- Following the Cattle Care and Handling Guidelines
- Keeping track of training and education activities
- Conducting self-audits or external audits of animal care and handling procedures

Informal self-reviews should be periodically conducted by those involved with cattle feeding and care.

Training of those who handle cattle should include:

- An understanding of the animal's point of balance and flight-zone
- Avoiding sudden movement, loud noises or other actions that may frighten cattle
- Proper handling of aggressive/easily excited cattle to ensure the welfare of the cattle and people
- Proper use of handling and restraining devices
- Recognizing early signs of distress and disease
- How to properly diagnose common illnesses and provide proper care
- Administration of animal health products and how to perform routine animal health procedures
- Recognizing signs associated with extreme weather stress and how to respond with appropriate actions
- Basic feeding/nutritional management of beef cattle

Management programs should be science-based and common-sense driven.



SELF EVALUATION

Cattle Comfort:

- Cattle have free access to feed, water, and space for freedom of movement. Yes No
- During periods of high heat and humidity and little wind, cattle are processed early in the morning. Yes No
- Pens or other housing areas are properly maintained. Yes No

Feeding:

- All cows have a Body Condition Score of 4 or higher. Yes No
- Avoid sudden ration changes. Yes No
- Use only approved feedstuffs and additives. Yes No

Non-Ambulatory (Downer) Cattle:

- Downer cattle are properly moved (i.e., loader, trailer, etc.). Yes No
- Downer cattle responding to treatment are receiving proper care (i.e., feed, water, etc.). Yes No
- Downer cattle unable to eat or drink are humanely euthanized within 24-36 hours of initial onset. Yes No

Cattle Treatment Programs:

- Cattle treatment programs are designed by a veterinarian. Yes No
- Check for sick animals daily. Yes No
- Treatment of animals when found. Yes No

Health Care:

- Castration and dehorning are completed before the bull calf reaches 120 days of age or 500 lbs. Yes No
- Use a local anesthetic when dehorning animals with horn base more than one inch in diameter. Yes No
- Cattle are regularly vaccinated to prevent disease. Yes No

Cattle Handling:

When running cattle through the chute, use the following checklist to evaluate how effective your facilities and staff are at properly working cattle. Assign one or more of the letters below to each cow brought through the chute.

1. Use of electric prods — "E"
2. Cattle that fall when exiting the chute — "F"
3. Cattle that jump or run when exiting the chute — "J"
4. Cattle that vocalize after being restrained in the chute, but before procedures are performed — "V"
5. Cattle observed being handled without issue — "✓"

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

| | Percentage Observed | Maximum Acceptable Percentage | Pass/Fail |
|----------------------------|------------------------|----------------------------------|-----------|
| Electric prods: | ____% | 10 % | P / F |
| Cattle falling: | ____% | 2 % | P / F |
| Cattle jumping or running: | ____% | 25 % | P / F |
| Cattle vocalizing | ____% | 5 % | P / F |

Continued on back

CONTACTS

Name _____ Phone _____

Email _____

Name _____ Phone _____

Email _____

Name _____ Phone _____

Email _____

Name _____ Phone _____

Email _____

Name _____ Phone _____

Email _____

Name _____ Phone _____

Email _____

Name _____ Phone _____

Email _____

Name _____ Phone _____

Email _____

Name _____ Phone _____

Email _____

Name _____ Phone _____

Email _____



© Funded by The Beef Checkoff



For more information call:

Ryan Ruppert,
Director, Quality Assurance
303.850.3369

9110 East Nichols Avenue
Centennial, Colorado 80112

12305