



# ASSESSOR'S GUIDE TO A BEEF QUALITY ASSURANCE COW-CALF ASSESSMENT



**A SAFE, WHOLESOME AND  
HEALTHY BEEF SUPPLY**



## Assessor's Guide to a Beef Quality Assurance (BQA) Cow-Calf Assessment

### The BQA Cow-Calf Assessment

The BQA Cow-Calf Assessment is an on-site educational tool that allows for assessing and benchmarking key indicators of animal care and well-being as well as operational conditions. The Cow-Calf Assessment focuses on three main areas – Animals, Records and Best Management Practices (BMP), and Facilities and Equipment.

The Cow-Calf Assessment may be utilized as a self-assessment 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 operational efficiency.

The Cow-Calf Assessment consists of multiple assessment points grouped into three “tiers”, tiers are most easily defined by management level and effort. This assessment is about continuous improvement. However, it can help identify items and create benchmark points that may need to be improved including animal handling, facility/equipment maintenance, and recordkeeping/BMPs among other items. Repeating the assessment on a regular basis can help an operation identify trends and take appropriate management action as necessary. The three-tiered system allows the cow-calf producer to master the points in tier one, and move on to the next management level by adding tier two then tier three components to their assessment schedule.

### Assessor's Guide

This Assessor's Guide is written to help the individual(s) conducting a cow-calf assessment complete the assessment and associated assessment form(s) accurately and efficiently. The complete assessment form is included in this guide; however due to individual operational needs there may be multiple variations of the assessment form available. The form(s) used depends upon the individual assessor and the operation being assessed. All forms have a common framework, they list the following:

- Category/Point – a specific component to evaluate, (ex: Training)
- Measure – how the category point is evaluated (ex: Is there a protocol in place?)
- Result – (3 choices, select one)
  - Acceptable/Yes – This point/measure was satisfied appropriately
  - Needs Improvement – This point/measure was somewhat satisfied but could use improvement, and it requires the comment field to be filled out
  - Not Applicable – This point does not apply in this operation/situation, comment section may 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 “Acceptable” result)

The content of this guide includes all assessment categories and points as well as a short explanation of how to complete the measure for category points. 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.

## **When should operations be assessed?**

An assessment should only be conducted when the site is operating under normal conditions. For example, do not perform an assessment during a period of disease-outbreak or when another serious factor or factors may be impacting the operation creating “abnormal” conditions whereas the cow-calf operation is not exhibiting “normal” operational conditions (ex: extreme weather conditions, natural disaster, etc.). Additionally, an assessment should not be conducted if doing so would force animals to be handled or moved during conditions which may be detrimental to animal well-being.

## **Forms**

The forms have been designed in an assessment-flow pattern to help the assessor eliminate backtracking and/or moving inside/outside/inside, etc. However, these forms cannot account for all situations and the assessment-order is only a suggested order, the assessment may be completed in any order as deemed appropriate by the assessor.

## **Emergency Action Plan**

In case of an emergency it is important for communication to occur quickly and efficiently. The operation should have a written emergency action plan (EAP) that can be implemented for a variety of situations. The EAP should be posted at various locations throughout the operation and include, at a minimum, telephone numbers of the owner, veterinarian, extension personnel, equipment suppliers, and fire and police departments.

## **Recordkeeping and Documentation**

The Cow-Calf Assessment guide contains references to many types of records including documentation of best management practices (BMPs). You may call BMPs standard operating procedures (SOPs) or protocols. A set of customizable, fill-in-the-blank, sample/template forms is provided as part of this guide. If you do not already have one or more of the documents referenced as part of the Cow-Calf Assessment, you are encouraged to use these provided forms “as-is” or make modifications to fit your operation. Sample content is provided in light gray font to help you understand the type of content that you should enter to complete each blank of the customizable forms. (They can be found on pages 8-25)

## **Background information**

Please refer to The Cattle Industry’s Guidelines for the Care and Handling of Cattle as well as the national BQA program materials to provide additional background material for the assessor and/or assessment team as well as a reference and review opportunity for interactions with the cow-calf operator(s).

*The following templates/samples are provided for an operation to use as their own or to use as a base document to develop customized versions of their own. These templates/samples may be appropriate for one or more classes of cattle/types of operations.*

## BQA Cow-Calf Assessment Form

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

Operation name and contact name: \_\_\_\_\_

Address/location (use one form per location): \_\_\_\_\_

Operation contact phone: (\_\_\_\_) \_\_\_\_\_ e-mail: \_\_\_\_\_@\_\_\_\_\_

Assessor name: \_\_\_\_\_

Assessor phone: (\_\_\_\_) \_\_\_\_\_ e-mail: \_\_\_\_\_@\_\_\_\_\_

**Note:** Each category/point that refers to a protocol/plan/record also includes a page number reference for a sample/template found in the training manual. Example: (page \_\_)

### Foundational knowledge and application of BQA principles.

Category/ Point	Measure “Needs Improvement” items require a description to be placed in the “Comments” field (Comments are optional for “Acceptable” markings.)	Acceptable/ Yes	Needs Improvement*	Not Applicable
<b>Water</b>	There is an adequate water supply available and a plan in place to ensure water availability. (page 25)			
<b>Feed</b>	There is adequate quantity and quality of feed available and a plan to ensure adequate feed availability.			
<b>Salt/Minerals</b>	There is an appropriate salt or salt/mineral source available.			
<b>Withdrawal/ Residue Avoidance</b>	Procedures are in place to observe withdrawal times and avoid residues when antibiotics or other drugs are used for therapy of sick cattle. [Including required treatment records.] (pages 9-10)			
<b>VCPR</b>	Documentation of a Veterinarian/Client/Patient Relationship (VCPR) is available if prescription medication are in use.			
<b>Handling</b>	Cattle are handled appropriately and safely, including restraint. There is no abuse observed and abusive behavior is not tolerated.			
<b>Animal Care</b>	All BQA guidelines related to animal care are in place and are being followed and there is no evidence of neglect.			
<b>Supplemental Feeds</b>	Any supplemental feeds are handled in accordance with BQA guidelines. All medicated feeds are used according to accepted guidelines, and protocols are in place to prevent the use of ruminant-derived protein. (page 18)			
<b>Restraint Facilities</b>	There are appropriate and safely maintained sorting, loading, and/or restraint facilities in place for the operation.			
<b>Animal Therapy</b>	There are appropriate treatments used with any sick cattle and a protocol in place to deal with non-ambulatory cattle.			
<b>Record Keeping</b>	Record keeping procedures are in place that meet treatment records and herd health protocol.			
<b>Comments:</b>				



## BQA Documentation and Best Management Practice (BMP)

Category/ Point	Measure “Needs Improvement” items require a description to be placed in the “Comments” field (Comments are optional for “Acceptable” markings.)	Acceptable/ Yes	Needs Improvement*	Not Applicable
<b>Herd Health Plan/ Program</b>	A herd health plan is in place that includes documented health protocols that address disease prevention, management, treatment, and euthanasia. (page 13)			
<b>Medication</b>	Documented medication BMPs are in place. (pages 9-10)			
<b>Carcass/Mortality Disposal</b>	A documented dead animal/carcass/mortality disposal protocol and supported by records is in place. (page 15)			
<b>Weaning</b>	A documented weaning BMPs and record system is in place.			
<b>Feed Quality and Analysis</b>	A documented feed sampling BMPs and records are in place. (page 19)			
<b>Training</b>	A documented training plan and records are in place, including new-hires and part-time help, that follows the BQA Animal Care and Handling Guidelines and includes (at a minimum): Animal handling, non-ambulatory animals, euthanasia, medication and treatment, castration, dehorning, and residue avoidance.			
<b>Emergency Action Plan</b>	A documented emergency action plan is in place. (page 25)			
<b>Biosecurity</b>	Is a documented biosecurity BMPs in place that addresses: visitor logs, staff training, physical security and a current biosecurity plan? If documentation of a biosecurity protocol is available, mark Acceptable/ Yes. If not, make an appropriate mark and fill out the comments section.	Acceptable/ Yes	Needs Improvement*	Not Applicable
	A documented biosecurity protocol and records are in place. (page 14)			
	Comments:			
<b>Comments:</b>				

## BQA Cattle Handling Practices

Category/ Point	Measure "Needs Improvement" items require a description to be placed in the "Comments" field (Comments are optional for "Acceptable" markings.)						
<b>Animal Handling Scoring - Driving Aides</b>	Use* of electric prods should be minimized. Record the number of cattle on which an electric prod is used. Calculate the percentage that are prodded and record the percentage. <b>Number of cattle prodded ÷ Total cattle observed x 100 = ____% prodded</b> <i>*Use is defined as discharging electric current while in contact with the animal.</i> If 10% or more of the cattle are prodded, mark Unacceptable/No and complete the comments section.	Acceptable/ Yes	Needs Improvement*	Not Applicable			
	Is an electric prod used on < 10% of cattle? ____% (Acceptable is <10.0%)						
	Comments:						
<b>Animal Handling Scoring - Chutes/Restrains - Falling</b>	Cattle should not fall* upon release from the chute. Record the number of cattle that fall. Calculate the percentage that fall and record the percentage. <b>Number of cattle that fall ÷ Total cattle observed x 100 = ____% falling</b> <i>*Falling is defined by the animal's torso/belly touching the ground.</i> If 2% or more of the cattle fall, mark Unacceptable/No and complete the comments section.	Acceptable/ Yes	Needs Improvement*	Not Applicable			
	Falling ____% (Acceptable is <2.0%)						
	Comments:						
<b>Animal Handling Scoring - Chutes/Restrains - Stumbling / Tripping</b>	Cattle should not stumble/trip* upon release from the chute. Record the number of cattle that stumble following release from the chute. Calculate the percentage that stumble/trip and record the percentage. <b>Number of cattle that stumble ÷ Total cattle observed x 100 = ____% stumbling/tripping</b> <i>*Stumbling/tripping is defined as an animal contacting the ground with a knee.</i> If 10% more of the cattle stumble/trip, mark Unacceptable/No and complete the comments section.	Acceptable/ Yes	Needs Improvement*	Not Applicable			
	Stumbling/Tripping ____% (Acceptable is <10.0%)						
	Comments:						
<b>Animal Handling Scoring - Chutes/Restrains - Vocalizing</b>	Most cattle will not vocalize when in the chute, following restraint but prior to occurrence of a procedure. Record the number of cattle that vocalize following improper restraint but prior to occurrence of a procedure. Calculate the percentage that vocalize and record the percentage. <b>Number of cattle that vocalize ÷ Total cattle observed x 100 = ____% vocalizing</b> If 5% or more of the cattle vocalize following restraint, associated with improper restraint, but prior to occurrence of a procedure mark Unacceptable/No and complete the comments section.	Acceptable/ Yes	Needs Improvement*	Not Applicable			
	Vocalizing ____% (Acceptable is <5.0%)						
	Comments:						

## BQA Cattle Handling Practices – Cont’d.

Category/ Point	Measure “Needs Improvement” items require a description to be placed in the “Comments” field (Comments are optional for “Acceptable” markings.)						
<b>Animal Handling Scoring - Chutes/Restraints - Running / Jumping</b>	Most cattle will not jump or run* out of the chute following release. Record the number of cattle that jump or run upon release. Calculate the percentage that jump or run and record the percentage. <b>Number of cattle that jump or run ÷ Total cattle observed x 100 = ____% jumping or running</b> <i>*Do not count a trotting/loping as running.</i> If 25% or more of the cattle jump or run upon release from the chute, mark Unacceptable/No and complete the comments section.	<b>Acceptable/ Yes</b>	<b>Needs Improvement*</b>	<b>Not Applicable</b>			
	Running/Jumping ____% (Acceptable is <25.0%)						
	Comments:						
<b>Animal Handling Scoring - Chutes/Restraints - Miscaught</b>	Chutes should be operated such that the position of the animal is readjusted if it is improperly caught*. Record the number of cattle that are miscaught. Calculate the percentage that are miscaught and record the percentage. <b>Number of cattle that are miscaught ÷ Total cattle observed x 100 = ____% miscaught</b> <i>*Miscaught is defined as the animal being in any position other than with its head fully outside of the chute and the balance of the body within the chute, or if an animal is caught in the tail/back gate and not released.</i> If any cattle are miscaught and not readjusted, mark Unacceptable/No and complete the comments section.	<b>Acceptable/ Yes</b>	<b>Needs Improvement*</b>	<b>Not Applicable</b>			
	Miscaught ____% (Acceptable is <0.0%)						
	Comments:						



Each box represents 1 observed animal. If a “criteria” item listed is observed, place each corresponding letter in the box for that animal. If none are observed the box will remain blank. For example, if the 5th animal observed is prodded with an electric prod and the animal jumped when exiting the chute, then Box 5 would have an “E” and “J” entered in it.

### Cattle Handling Observation Scoresheet

TO - Total Observed _____						<b>Max. less than</b>	<b>P / F</b>
E - Electric Prod used ___ / TO x 100 = %						10%	P / F
F - Fell upon release from chute ___ / TO x 100 = %						2%	P / F
S - Stumbled / Tripped when released ___ / TO x 100 = %						10%	P / F
V - Vocalized in chute before procedures ___ / TO x 100 = %						5%	P / F
J - Jumped or Ran when released ___ / TO x 100 = %						25%	P / F
M - Miscaught and not readjusted ___ / TO x 100 = %						0%	P / F

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
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

Comments

---

# **BEST MANAGEMENT PRACTICES** **TEMPLATES**

## Antibiotic Residue Avoidance Strategy

1. Identify all animals treated.
2. Record all treatments: Product, date; animal ID; dose given; route of administration; the person who administered the treatment; withdrawal time (WD).
3. Strictly follow label directions for product use.
4. Use newer technology antibiotics when possible.
  - A. Reduce unwanted depot effect. Select low volume products when available.
  - B. Select generic medications and vaccines with EXTREME CAUTION.
  - C. Avoid inferior products. They may cause performance loss or damage quality.
5. Select with short WD when antibiotic choice is equivalent.
6. Never give more than 10 cc per IM injection site.
7. Never give subsequent SQ or IM doses closer than 4 inches from previous medication doses.
8. Avoid Extra-Label Drug Use (ELDU) of antibiotics.
  - A. Use label dose and route of administration.
9. Avoid using multiple antibiotics at the same time.
10. Don't mix antibiotics in the same syringe, especially if given IM or SQ.
11. Check ALL medication/treatment records before marketing cattle.
  - A. Don't market cattle with less than 60 days WD without examining the treatment history.
  - B. Extend the WD time if the route or location of administration is altered.
    - i. Example; the WD for ear route of administration ceftiofur will be over 120 days if given SQ in the neck.
    - ii. Example; tissue irritation will cause the WD for Banamine® to be over 30 days if given IM or SQ instead of IV.
  - C. Withdrawal time set for the longest time of the last day treated given by summing their label recommended WD.
  - D. Extend the WD for all penicillin given at doses which exceed the label dose.
    - i. Example; the WD for Procaine Pen G given at 3 cc per CWT IM or SQ is over 30 days
    - ii. Example; the WD for Procaine Pen G given at 4 cc per CWT IM or SQ is over 30 days
    - iii. Example; the WD for Long Acting Pen G given at 3 cc per CWT IM or SQ is over 120 days
    - iv. Example; the WD for Long Acting Pen G given at 4 cc per CWT IM or SQ is over 180 days
  - E. Never inject gentamicin or neomycin. The estimated WD is longer than 24 months.
    - i. Testing urine may not detect a kidney that may test positive by the USDA-FSIS in these products.
  - F. Don't market cattle that have relapsed without examining the treatment history.
  - G. Don't market cattle with suspected liver or kidney damage without examining the treatment history.
  - H. Don't market cattle with antibiotic injection site knots without examining the treatment history.
  - I. Screen the urine for antibiotics of all cattle identified in steps A-D above. It is best to use a broad spectrum microbial inhibition test such as the Pre-Harvest Antibiotic Screening Test (PHAST), a microbial growth inhibition test which uses *B. megaterium* as the test organism. Test sensitivity relative to FDA-CVM violative residue tolerances (Maximum Residue Limit or MRL)

Note: Testing urine may not detect injection site residues that may test positive by the USDA-FSIS.

## **BQA: All injections should be given in front of the shoulder slope and if possible avoid products that require IM use**

Intramuscular (IM) injections not only increase soreness compared to subcutaneous (SQ) injections, many of the products given IM cause significant muscle damage which subsequently causes a significant amount of expensive carcass trim. Knots or blemishes from SQ injections are much easier to find, examine and remove at the packers. Because of these, the national Beef Quality Assurance program adopted a policy that ALL injections (antibiotics, vaccines, parasiticides, vitamins, prostaglandins, hormones, and all other injectables) be given in front of the slope of the shoulder, that products with SQ labeling be selected in preference to products labeled for IM use only, and that IM injections if required, be limited to not more than 10 cc per injection site. These injection site guidelines have been adopted

by all state BQA programs. Almost all of our pharmaceutical and biological product suppliers and government agencies responsible for those product approvals have worked diligently to design and label products to meet the national BQA program injection guidelines. Every antibiotic developed and approved by the FDA-CVM for our use in the last two decades has included use approval other than for IM, including the development of injectables that may be given in the SQ space of the ear and around the head. It is important to remember the safety of the operator, other bystanders, the animal and the food supply must never be jeopardized. Change the injection needle between every 15 animals maximum or if it becomes contaminated, or damaged. **Never, never, never straighten a bent needle and use it again.** Animals that have an un-retrieved injection needle broken off in them CANNOT be marketed through normal market channels.

### **A Producer's Guide for Judicious Use of Antimicrobials in Cattle**

1. **Prevent Problems:** Emphasize appropriate husbandry and hygiene, routine health examinations, and vaccinations.
2. **Select and Use Antibiotics Carefully:** Consult with your veterinarian on the selection and use of antibiotics. Have a valid reason to use an antibiotic. Therapeutic alternatives should be considered prior to using antimicrobial therapy.
3. **Avoid Using Antibiotics Important In Human Medicine As First Line Therapy:** Avoid using as the first antibiotic those medications that are important to treating strategic human or animal infections.
4. **Use the Laboratory to Help You Select Antibiotics:** Cultures and susceptibility test results should be used to aid in the selection of antimicrobials, 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 antimicrobial 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 withdrawal times.
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 Veterinary/Client/Patient Relationship (UCPR).
14. **Subtherapeutic Antibiotic Use Is Discouraged:** Antibiotic use should be limited to prevention or control disease.

### **Withdrawal (WD) Time Considerations-Cattle Animal Health Products**

- ✓ All WD times must be calculated from the last day of treatment and for the longest WD of the list of products used.
- ✓ If multiple doses of a single product are given the WD time should be the sum of the WD days for each administration. Example; Consider an antibiotic intended for a single application that has a 28 day WD. If a 2nd dose is given 3 days after the 1st dose, the WD would be  $(28 - 3) + (28) = 53$  days from the last injection.
- ✓ Injecting greater than 10 cc per IM site will increase the potential for a violative residue.
- ✓ Off-label use of non-feed medications requires a veterinary prescription and the withdrawal time must be extended to ensure no violative residues will be present at the time of harvest.
- ✓ Generally, the extended withdrawal a veterinarian may assign will be at least an additional 60 days greater than the label withdrawal.
- ✓ Off-label use of medicated feed additives violates federal law and is strictly forbidden.

## Humane Euthanasia of Cattle

Euthanasia should be utilized when an animal's condition is such that additional treatment options are unlikely to offer sufficient remedy for recovery. Euthanasia is used to prevent unnecessary suffering. To that extent, it is the responsibility of all who own or work with livestock to have the proper equipment and knowledge to conduct euthanasia effectively.

“Euthanasia” is a Greek term meaning “good death”. In this context, its objectives are met when death is induced which causes a minimum of pain and/or distress to an animal. Avoidance of pain and distress requires that euthanasia techniques cause immediate loss of consciousness followed by cardiac and respiratory arrest that ultimately results in loss of brain function.

Persons who perform this task must be technically proficient, trained and have an understanding of the relevant anatomical landmarks and the protocols used for humane euthanasia of animals.

### Protocol for the Humane Euthanasia of Cattle

1. (Specific Names) \_\_\_\_\_ is/are the person(s) responsible for the euthanasia of any cattle, and making the final determination of the need to euthanize a particular animal.
2. (Specific Names) \_\_\_\_\_ has/have been trained in proper euthanasia techniques by (BQA Euthanasia Training Module/ Dr. Joe Smith/ Other).
3. Our operation will utilize (.357 Magnum/penetrating captive bolt/other firearm) for euthanizing cattle. The (gun or penetrating captive bolt) is stored in locked box in (office or in doctoring shack XYZ). Maintenance of the euthanizing equipment is done by (Owner or Cattle Manager).
4. (Specific Names) \_\_\_\_\_ has/have been shown by (Dr. Veterinarian or Euthanasia Training Modules) the anatomical landmarks used for proper euthanasia and have demonstrated this competence on cadavers.
5. (Specific Names) \_\_\_\_\_ has/have been trained on the signs used for confirmation of the death of cattle by (Dr. Veterinarian).
6. (Specific Names) \_\_\_\_\_ has/have been informed that if they are unable to complete this task for any reason to contact management immediately.

## Handling of Non-Ambulatory Cattle (Downers)

All procedures conducted at (Operation Name) will be designed to prevent cattle from becoming injured; however in the event that any livestock becomes non-ambulatory, the cattle will be handled and cared for in a humane manner.

A non-ambulatory animal (commonly referred to as a “downer”) is unable to stand up or walk, even if assisted. A “cripple” is an animal which is obviously lame on one or more limbs but still able to get up unassisted and move about. Animals become downers or cripples due to events such as broken limb(s), back injury, calving paralysis, or metabolic/infectious conditions.

### Protocol for Handling of Non-ambulatory Cattle

1. Assess whether the animal is in a safe place or needs to be moved. If moving is required move it to (hospital pen). Movement will be facilitated via use of the (“Yellow loader with dirt bucket”).
2. If you are not trained to use the (“Yellow loader”), ask your supervisor or find someone in the (maintenance) department to assist you and to drive the (“Yellow loader”).
3. Once the (“Yellow loader”) is by the down animal, the bucket will be placed on the ground.
4. The animal will be gently rolled into the bucket, being careful to not get kicked while rolling the animal into the bucket. Do not scoop, force against a fence/gate, or drag the animal into the bucket.
5. Move the non-ambulatory animal to (the pen next to the barn) and gently roll the animal out of the bucket. If weather conditions are adverse (snow, very cold or wet), place the animal on a (large pile of straw or other bedding).
6. Feed and water will be supplied once the animal is moved to the hospital pen. A adequate supply of fresh water and feed should be supplied every 24 hours.
7. Have (treatment crew) evaluate the animal and provide proper treatment. Herd health plan treatment protocol (“# ”) is recommended.
8. Reevaluate the non-ambulatory animal in 24 hours. If improvement is noted, continue to follow treatment (“# ”) or contact veterinarian and be sure feed and water is being supplied. If not significantly improved and the chance of recovery is very low, or the condition worsened at any time, the animal may require euthanasia. Follow the Euthanasia protocol to humanely conduct this process.

### **DO NOT DO ANY OF THE FOLLOWING AT ANY TIME TO A NON-AMBULATORY ANIMAL!**

1. NEVER use an electric prod to stimulate the animal to get up. (Unless its use is to prevent eminent death from suffocation or to prevent other injury. Example: An animal goes down in a chute and is choking/breathing restricted; an electric prod may be a life-saving device.)
2. NEVER use chains or cables to pick up or suspend the animal. DEFINITELY, DO NOT USE CHAINS OR CABLES TO PICK UP AND MOVE THE ANIMAL.
3. If animals are weak and are having trouble walking, provide supportive care and isolate them from other animals if practical. Never attempt to send these weak or severely lame animals to harvest/ slaughter.
4. NEVER let a non-ambulatory animal go without feed, water, and proper shelter.

5. NEVER let a non-ambulatory animal stay in any area where they may get walked on or trampled.

## Preventive Herd Health Plan

Every effort should be made to prevent disease and infection in the cattle herd. An additional benefit from disease prevention, in addition to healthy cattle, is that the most effective way to reduce the potential for antibiotic residues is to control the need to use antibiotics – and healthy cattle do not need antibiotics.

Preventive herd health plans will consist of herd management and immunization recommendations. One herd health plan will not fit every operation; a herd health plan needs to be developed for each individual operation. Work with the herd veterinarian to develop a herd health program and review/revise it at least annually.

### **A preventive herd health plan should include:**

1. Target pathogen(s)/disease complexes
2. Recommended vaccine(s)
3. Recommended feed additives (if any)
4. Appropriate time frame to protect (vaccinate) against targeted pathogens
5. Management considerations to aid in the prevention or reduce the spread of target pathogens
6. Management and treatment protocols for use if prevention efforts fail, including an outline of treatment protocols specified by the herd veterinarian

Management and treatment considerations will need to be discussed and developed for each operation. The herd veterinarian will need to develop the treatment protocols with the operation's management so that both are comfortable with the recommendations.

The preventive herd health plan, treatment protocols, and veterinary drug orders need to be developed together to complete a herd health program.

Some sample information that may be used on a heard health plan, as developed with your herd veterinarian, is shown here:

For all cattle and production segments

- Provide appropriate nutritional feedstuffs
- Handle cattle according to BQA guidelines to minimize stress and bruising
- Always read and follow medication label directions
- All injections administered in front of the shoulder
- Identify any animals treated to ensure proper withdrawal time prior to marketing
- Keep records of all products administered including: date, animal identification, product used, serial/lot number, amount administered, route of administration, person administering, and withdrawal time
- Make records available to the next production sector
- Consult with herd veterinarian for additional health procedures appropriate to your area

## Protocol for Security, Biosecurity, and Biocontainment

Security practices in livestock operations are aimed at controlling access to the operation in an effort to protect everything within it from theft, damage, or contamination. Biosecurity refers to reducing risk associated with the entry of disease causing agents to a particular operation and biocontainment is used to reduce the transmission of disease causing agents among cattle within an operation. These practices attempt to control risk from intentional and unintentional introduction of disease agents or toxins as well as the risk of an individual or group carrying out an act of terrorism or vandalism against the operation.

### Security and Biosecurity SOP

#### General

1. A Security, Biosecurity and Biocontainment plan will be reviewed by (management and Veterinary staff) on a (yearly) basis.
2. All employees will be trained in aspects of the Security, Biosecurity, and Biocontainment plan when hired.
3. Update/refresher training on the Security, Biosecurity, and Biocontainment plan will be provided to employees at least every (12 months).

#### Security

1. The (fencing crew) will be responsible for maintaining the perimeter fence.
2. All visitors must sign in. Visitor logs will be kept with the name, address, company, and date of visit.
3. **Background checks will be performed on all new hires prior to their start date.**
4. Employees will be trained to politely confront all unknown visitors, inquire regarding their business on the property and properly respond.
5. Employees will be able to recognize and report all suspicious behavior to (the manager) or law enforcement.

#### Biosecurity

1. Unload and visually inspect any incoming cattle during daylight hours, if possible. Maintain isolation until inspection is completed. If cattle are unloaded at night they should be maintained in the receiving area and inspected the following morning.
2. Cattle delivery trucks should be washed and disinfected, inside and out, prior to pick-up of cattle for delivery to the operation.
3. All pickups by a rendering company should be at the periphery of the operation and rendering trucks should not drive through areas where cattle have access or contaminate the path of feed trucks.



## **Animal (Carcass/Mortality) Disposal**

Carcass disposal for dead cattle is an important, and legal, consideration for any enterprise. Federal, state and local regulations concerning the disposal and handling of the carcasses from animal mortalities should be reviewed as they vary between locations. An often overlooked aspect of carcass disposal is employee safety. Employees should be familiar with equipment used to move a carcass. If possible, do not use the same loader for carcass disposal as you use for feed. If this is unavoidable, the carcass should be moved without use of the bucket (as possible) and the loader should be washed and disinfected immediately after moving the carcass.

### **Protocol for Animal Disposal**

1. The (herd veterinarian) should be notified as soon as a mortality (dead animal) is found.
2. Be prepared to record the individual identification information of the deceased animal.
3. If the dead animal will be moved, it should be done in the loader bucket or by using a chain that is wrapped around both hind legs between the ankle and the hock.
4. If the mortality is to be hauled, move it to (the dead pile or compost pile) located (on the Southwest corner) of the operation.
5. (The manager) will be responsible for recording the animal identification and description/cause of death of the animal in the operation's animal health records.
6. Contact the rendering service for final removal for rendering or burial/composting of the mortality. The contact information is (Render Co. 555-555-0987).

### **Remember**

1. Safety first when operating large equipment. Know your equipment and what is around you.
2. When animals have been dead for a prolonged period of time, especially during warm weather, carcasses can decompose rapidly and become fragile to move.
3. Do not use the same loader to move carcasses that is used for feed if possible.

## Medication Receiving, Storage, and Handling Protocol

Medications and vaccines utilized to protect and improve the health of cattle are vital to cow-calf operations. It is important to record information that describes how and when products were received by the operation.

It is important to maintain a record of lot numbers of products received in the event of recall or holding of cattle if a problem arises resulting from a quality failure by the manufacturer. Proper storage and handling are also important to insure that the viability and effectiveness of the products are not compromised. Also, it is important for producers to make sure that all products utilized are in date (not expired) and return or properly discard products that are out of date. Through proper recordkeeping, storage and handling, animal health products remain an important piece of a comprehensive cattle health and well-being program.

1. (Operation XYZ) has a Veterinary/Client/Patient Relationship (VCPR) established with (Dr. Joe Smith, DVM from Smithville, KS). (Dr. Smith) is responsible for writing our treatment guidelines and protocols, processing protocols, prescriptions and a list of withdrawal times for products used in our cattle health program.
2. (Operation XYZ) receives biological and pharmaceutical products from (Distributor XYZ or Smithville Veterinary Clinic). List all distributors.
3. When products arrive they are entered (into an inventory log book, the animal health computer or both) by (person in charge at operation), record date product was received, quantity of product received, unit size that products are packaged, lot/serial numbers for each product and the **date in which the products become out of date**. These data are kept in a (file, log book, other permanent file besides animal health computer which is located in the manager's files).
4. All products are stored as recommended by the manufacturer.
5. Inventory of products is taken every (day, week, month) by (the person in charge at Operation XYZ).
6. (Dr. Joe Smith and Cattle Manager) work together to insure proper handling of biological and pharmaceutical products during day to day activities through employee training. It is important to the operation that products are protected from high/low ambient temperatures and UV light, such as direct sunlight, during the working day and at all other times.
7. Out of date products are (returned to distributor/veterinary clinic or appropriately discarded).
8. Refrigerator is monitored to maintain proper temperature for animal health products and is verified on a regular basis.

## Broken Needles

Broken needles are classified as an emergency event. Broken needles can migrate very quickly and are considered an adulterant of the beef product. A broken needle found in a beef product could cause serious repercussions for the operation and the beef industry. The most common cause of broken needles is improper animal restraint. Proper animal handling is necessary to ensure the safety of beef products.

### Protocol for Broken Needles

1. As soon as a needle breaks off in an animal STOP all other procedures and attempt to locate and remove the needle.
  - a. Firmly, but carefully, rub your hand over the injection area to locate the needle. If it is found remove it ensuring that the entire needle is retrieved.
2. If the needle is not immediately located, immediately mark and record the area where the injection was given with paint or by clipping the hair in that area, sort the animal off by itself, and contact (veterinary services) immediately. The contact information is: (Dr. Joe Smith 555-123-9999).
3. If (veterinary services) cannot remove the needle surgically then the animal will be identified by (a red eartag in both ears) and placed (in Pen "x") and should not be marketed commercially.
4. At the time of harvest this animal should be processed by a small processor that has been made aware of the presence of a needle and where it is located and is able to trim a large area of that meat to ensure the needle is retrieved.

### Remember

1. Restrain Animals Properly.
2. A Bent Needle is a Broken Needle.
3. Replace Bent or Damaged Needles Immediately.

## Medicated Feed Additives Protocol

*Only where applicable*

The term “medicated feed” includes all medicated feed included in the diet of an animal. The term includes products commonly referred to as supplements, concentrates, premix feeds, and base mixes, and is not limited to complete feeds.

An important responsibility of feed manufacturers is to ensure that the feed produced - whether medicated or non-medicated - meets all legal and intended specifications.

Medicated feeds must contain the proper drug level and be fed at appropriate levels.

### Product Use

1. Only FDA-approved medicated feed additives can be used in rations. In the case of an improper drug being added to the incorrect ration, contact (veterinarian; phone, & feedmill manager; phone). If improper diet has NOT yet been fed, dispose of feed in accordance with label instructions. If improper diet HAS been fed, contact (operation manager, phone).
2. Feed only at recommended rates. Exercise caution when calculating rates for medicated feeds. If drugs have been fed at an improper rate, contact (veterinarian; phone).
3. All medicated feed additives will be used in accordance with the FDA-approved label. If a medicated feed additive arrives at the feed mill without a label, request one immediately from the drug supplier. Extra-label use of feed additives is strictly prohibited by federal law. No one has the authority to adjust the dose as labeled, including veterinarians. All directions for the use of a medicated feed additive will be on the label attached to the bag or will be supplied with a bulk order.
4. Ensure that all additives are withdrawn at the proper time to avoid a violative residue. If cattle are shipped prior to the proper withdrawal time as stated on product label, contact (operation manager; phone). The sale facility and/or buyer should be contacted as soon as possible, to avoid the possibility of improperly treated cattle entering the food chain.
5. For operations formulating and mixing rations on site, medicated feed additives will be used in accordance with the FDA current Good Manufacturing Practices (cGMPs). These include a formula record of all medicated feed rations produced and production records of all batches of feed produced that contain medicated feed additives. Production records must include additive used, date run, ration name or number, the name of the person adding the additive or responsible for mixing the feed and amount produced. Records must be kept for a minimum of one year. Use separate mixers for mixing medicated feeds and non-medicated feeds, or clean mixers between batches of each.
6. Pre-mixed or formulated supplements typically used by many smaller beef operations and most cow-calf operations do not require FDA registration of any type. Larger beef operations that use certain highly concentrated medications may be required to register with the FDA via a FD-1900 permit.
7. Identify individual animals, or groups of animals, which are being fed medicated feed, particularly if the medication requires a period of withdrawal prior to harvest/slaughter. Groups in pens or pastures can be flagged with colored ribbon to avoid shipping cattle prior to appropriate, required, withdrawal period. In the case of an improper medicated ration being fed to the incorrect group, contact (veterinarian; phone & feedmill manager; phone). If cattle are shipped prior to the proper withdrawal time as stated on the product label, contact facility and/or buyer.

## Feed Sampling SOP

Feed sampling is critical to proper nutritional management of cattle. The following is a list of standard practices to ensure an accurate, representative sample of stored forages and mixed diets.

### Sampling Requirements

- Forage probe/silage probe (silage probe requires greater diameter than hay probe)
- Clean five gallon bucket
- Heavy plastic, sealable one gallon-size bags
- Permanent marker

### General recommendations:

- Keep different kinds of feed separate for analysis and label bags clearly so that the laboratory can identify samples for the final report.
- Label sample bags prior to sampling so writing is legible for the laboratory.
- After sampling, squeeze excess air from bags prior to sealing to reduce shipping volume.
- Sample and store “high risk feedstuffs” until after cattle have shipped. High risk feedstuffs are those that contain any ingredient such that a single delivery could contaminate a large number of cattle over a significant part of the feeding period if it contained toxic or violative compound(s). Examples would include “tallow or fat”. Visit with your nutritionist about these type feeds.

### Hay

When sampling from bales, it is best to use a commercially-available forage probe which will reach the center of the bale. Sample large round bales from the curved side of the bale. This ensures an even distribution of hay from the entire length of field the bale came from. When sampling large or small square bales, insert the probe into the end of the bale for the same reasons.

Sample a minimum of 20% of the hay area. Make sure to sample bales which represent the total area of the hay field or fields. Bale cores from a given hay area should be composited into a single sample. But if different sources of feed will be used for different animals, different times of the year, or different stages of production, make sure to analyze the samples separately.

### Silage

A silage bunker does not lend itself to accurate, representative sampling as well as hay bales. Typically the easiest and most expedient way to get an accurate sample of forage quality throughout the bunker is to get samples from each load when it is unloaded from the field, prior to packing. Take 4-6 handfuls of greenchop material from each load and composite, either across the entire bunker, or by longitudinal area (front to back of bunker) within the bunker.

If silage has already been packed and sealed, a commercially-available silage probe can be used to core the bunker (or silage bags). This is more appropriate for sealed bunkers than open bunkers or piles. In open bunkers, the exposed, spoiled surface of the silage will make up a disproportionately large percentage of the total core sample. Take 6 – 12 cores from the top of the bunker, depending on the size of the bunker. These cores should be composited across the entire bunker if all silage came from a similar crop, field, and stage of maturity. If silage is taken from different crops or stages of maturity from front to back of the bunker, it may be necessary to composite within a silage type. Also, silage samples should be kept cool to avoid spoilage.

## Receiving Cattle (New Breeding Stock) Protocol

Receiving cattle is a key component in the life and management of beef cattle. Cattle are going through many adjustments during this period. Many times cattle are transitioning from one diet to another along with changing their social structure by gaining and losing herd mates. This is a stressful period both psychologically and physically. The protocols for receiving should be reviewed regularly by your veterinarian and animal health teams.

### Receiving Cattle SOP

1. Cattle will be unloaded once the loaded truck has been weighed and proper health papers or shipping orders have been received by (manager).
2. All cattle will be inspected for disease or injury as they are unloaded from the (truck/trailer) by (designated person).
3. Cattle will be allowed to rest (1 hour for every hour they were in transit prior to processing).
4. Cattle will be placed in a receiving pen that meets their well-being requirements while resting. In times of rain, snow or extreme cold, bedding will be placed in the receiving pens for the cattle to lie down and rest.
5. Cattle will have free access to water immediately after being unloaded.
6. Cattle will have free access to (good quality hay or milled ration) that has been placed in the bunk or hay ring just prior to the cattle entering the pen.
7. All processing activities (branding, vaccinations, etc.) will be delayed until after the rest period has elapsed except for in the case of impending weather conditions which may decrease cattle well-being. Care will be taken to prevent cattle from slipping due to ice. Also, cattle will not be processed during times of extreme heat to help prevent heat stress in the cattle.
8. It is recommended to quarantine these cattle for 30 to 60 days.

## Working/Processing Cattle SOP

1. **Processing is a quality, not quantity, driven task.**
2. Proper cattle handling and facilities are imperative to assuring cattle health and performance.
3. (The maintenance crew) will inspect the working facilities prior to use to ensure proper and safe operability.
4. Any processing equipment malfunctions or issues that may cause animal or human injury should be reported to (operation manager) immediately.
5. The (manager or trainer name) will be responsible for ensuring that all employees have been properly trained on the operation of the equipment and/or instruments that they are using.
6. Cattle are much more susceptible to heat stress than cold stress. Processing cattle increases body temperature. It is best to work cattle in the cool portion of the day, and to avoid days in which a large increase in temperature is expected (especially days preceding extremely warm nights).
7. Electric prods will not be used unless the animal is extremely resistant. If the electric prods are used (on greater than 10%) of the cattle (the manager) will be required to (inspect the facilities for physical objects or other conditions that are impeding the cattle, or to retrain the employees on proper cattle handling, or remove those employees are contributing to cattle handling challenges).
8. **All crew members will be trained by the (trainer and/or the veterinarian) on the proper Beef Quality Assurance guidelines on injections, injection techniques, and injection locations.**
9. No injections will be given anywhere but in the neck of cattle except by order of the herd veterinarian or as directed by the medication label.
10. All processing tasks will be recorded (on a processing map sheet).
11. Each lot of cattle will be worked according to instructions given (by the operation manager to the head processor). Instructions will be adjusted according to the risk status of each lot of cattle.
12. A protocol for the processing of high- and low-risk cattle will be established by (the herd veterinarian) and applied accordingly to the cattle.

## Processing Map & Vaccination Log

Date: \_\_\_\_\_ Cattle Lot #: \_\_\_\_\_ Number of Head: \_\_\_\_\_

Pen #: \_\_\_\_\_ Signature of Processing Foreman: \_\_\_\_\_



Side of Injection L or R	Product and Manufacturer	Lot/ Serial # Exp date	Dose in cc	Route of Administration	Person Administering	Date of Treatment	Slaughter Withdrawal



## Protocol for Shipping Cattle

Two factors determine the effectiveness of cattle transport – qualification and quiet. Qualified cattle are ones that have been purchased and that are free of any drug or vaccination withdrawal times. Quiet describes the desired approach to handling cattle during the shipping process. It has been documented that 50% of stress from transporting animals occurs during loading. Proper cattle handling at this time will reduce stress which will improve the quality of the beef products produced from cattle headed to harvest or the well-being of cattle in a breeding herd.

### Shipping Cattle SOP

1. Examine pens, corrals, loading chute, etc. for loose boards, sharp objects, etc. prior to gathering and loading cattle.
2. **Examine all treatment and processing records to insure that all cattle to be shipped are free from any withdrawal periods.**
3. Identify pen/pasture location of any animals that are not free of drug or processing withdrawal times so the animals can be removed from the pens/pastures of cattle being shipped and placed into another pen/pasture.
4. The (manager) will be responsible for recording the lot and pen/pasture numbers, head count of cattle, time, date, number of trucks and trucking company after shipping the cattle.
5. Refer to the Transportation BQA Program for additional information. DO NOT overload trailers or trucks. (Materials at [www.BQA.org](http://www.BQA.org) for tractor trailers and stock trailers)
6. All feeder cattle and market (cull) cows/bulls will be shipped quietly yet efficiently to avoid undue stress and potential injury such as muscle bruising.
7. Electric prods should not be used on cattle (except for very resistant animals at the point of the load out chute).
8. The (crew) is responsible for ensuring that only healthy cattle are transported and that any cattle that are not healthy enough to be shipped be removed and placed in (pen B-27).
9. Cattle are much more susceptible to heat stress than cold stress. Processing cattle increases body temperature. It is best to work cattle in the cool portion of the day, and to avoid days in which a large increase in temperature is expected (especially days preceding extremely warm nights).
10. The (maintenance crew) will be responsible for inspection of all load out facilities at least (once per “x”) to ensure the safety of the employees and animals and to help ensure no facility-induced hide or carcass defects occur.
11. The (manager) will be responsible for ensuring that all members of the cowboy crew have been trained in and demonstrate proper cattle handling.



## Emergency Action Planning

The threat of emergencies has always existed in agriculture – everything from a severe weather event, to an animal disease outbreak, to accidents involving fire or machinery.

Beef producers have, intuitively and with direction from a multitude of agencies, generally prepared themselves well to deal with these infrequent but often dangerous situations.

Operations should have a written emergency action plan. It doesn't have to be a set of complex documents – depending on the size of an operation; it could be as simple as filling out this form.

Some operations, especially the larger ones, may choose to add some additional information such as a site map/layout of the operation and a diagram that shows where equipment, controls, and potentially hazardous items such as medicines and chemicals are located.

A more comprehensive plan will include information about the buildings and areas of the farm where livestock are kept (and the purpose of that location, such as receiving or processing). This level of detail will be invaluable to emergency response teams should they be required to come to your site.

### Emergency Action Information

Site Name: \_\_\_\_\_ Premises ID Number (PIN): \_\_\_\_\_

Owner/Operator Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Site Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

Other Emergency Contact: \_\_\_\_\_

Site Physical Address (Including 911 \_\_\_\_\_

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

Directions to Site: \_\_\_\_\_

### Important Telephone Numbers

<b>Organization/Person</b>	<b>Name/Notes</b>	<b>Number</b>
Rescue/Ambulance:	_____	_____
Fire Department:	_____	_____
Sheriff:	_____	_____
Highway Patrol:	_____	_____
Police:	_____	_____
Hospital/Clinic:	_____	_____
County Emergency Management Coordinator:	_____	_____
Local Poison Control Center:	_____	_____
Center for Agricultural Security:	_____	_____
Herd Veterinarian:	_____	_____
State Veterinarian:	_____	_____
Extension Personnel:	_____	_____
DNR:	_____	_____
Manure Applicator:	_____	_____
Equipment Dealer:	_____	_____
Agrichemical Dealer:	_____	_____
Electric Company:	_____	_____
Water Company:	_____	_____
Natural Gas/Propane Supplier:	_____	_____
School(s):	_____	_____
County road department:	_____	_____
Other county/township offices:	_____	_____
Other:	_____	_____
Other:	_____	_____

## Water Tanks and Ponds

Water is the most important nutrient for general animal well-being. If water or water tanks/sources are not clean cattle may refuse to drink from them. Cattle that don't use the water tank/source will be stressed, dehydrated and have decreased feed intakes. This is a preventable problem through the regular monitoring and cleaning of water tanks/sources. The receiving period is often a critical time to ensure the adequate supply of fresh water as cattle/calves may be dehydrated when they arrive.

### Water Tank Protocol

1. (Manager) will ensure that pens/pastures have water tank space that is sufficient and with adequate water flow rate to supply the cattle's daily water requirement, or that the cattle have ample access to water from a pond/stream/other source.
  - a. Ensure that the water in the tank is accessible by calves (ex. Too tall of sides on tank for baby calves to reach the water)
2. (The manager) will make sure that water tanks are functional and filled with water before cattle are placed in any pen or pasture.
3. (Watertank Cleaner) will be responsible for cleaning all permanent tanks at least every (two weeks) and before a new set of cattle are placed in a pen or pasture.
4. ("X" crew) will monitor water tank function and cleanliness daily by visually inspecting the tanks and reporting any problems immediately to (the operation's manager).

