



# VETERINARIAN-CLIENT-PATIENT RELATIONSHIP VALIDATION FORM

**Owner/Manager Name:** \_\_\_\_\_

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

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Premises ID Number (optional): \_\_\_\_\_

Email: \_\_\_\_\_ Phone Number: ( ) \_\_\_\_\_

**Veterinarian:**

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

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Email: \_\_\_\_\_ Phone Number: ( ) \_\_\_\_\_

YEAR COMPLETED: \_\_\_/\_\_\_/\_\_\_

TO BE REVIEWED: \_\_\_/\_\_\_/\_\_\_

VET SIGNATURE(S): \_\_\_\_\_

PRODUCER SIGNATURE(S): \_\_\_\_\_

## BEEF HERD

### Health Plan

I hereby certify that a valid Veterinarian-Client-Patient Relationship (VCPR) is established for the above listed owner and will remain in force until canceled by either party.

Upon execution of this Agreement and the establishment of the VCPR, Producer, on behalf of himself and his present or past legal representatives, predecessors, successors, assigns, agents and heirs, hereby releases and forever discharges Veterinarian from any and all claims, actions, disputes, damages or demands, at law or in equity, that Producer could or may bring in regard to Producer's participation in, or disqualification from the BQA program. Producer expressly waives any right or claim of right to assert hereafter that any claim in such regard has through ignorance, oversight or error, been omitted from the terms of this Agreement."

"In addition, upon execution of this Agreement and the establishment of the VCPR, BQA, on behalf of itself and its present or past legal representatives, predecessors, successors, assigns, agents and ailiates, hereby releases and forever discharges Veterinarian from any and all claims, actions, disputes, damages or demands, at law or in equity, that BQA could or may bring in regard to Veterinarian's participation in the VCPR; or Producer's participation in, or disqualification from the BQA program. BQA expressly waives any right or claim of right to assert hereafter that any claim in such regard has through ignorance, oversight or error, been omitted from the terms of this Agreement.

Sourced from: <https://www.bqa.org/resources/manuals>

**BROUGHT TO YOU BY:**



Funded by Beef Farmers and Ranchers



This Beef Herd Health Plan (BHHP) booklet was designed and put together for ease of use by producers. Included in the BHHP are guidelines for safe handling, vaccination protocol, mortality, calving and more. This BHHP serves as a tool to guide conversations between you and your veterinarian relative to your operation and protocols.

The cover of the BHHP includes your Veterinary-Client-Patient-Relationship form (VCPR). “Under the veterinarian’s care” means that the veterinarian or one of the veterinarian’s licensed associates has examined the animal or has made medically appropriate and timely visits to the premises where the animal is kept (49 Pa. Code § 31.21). A veterinarian shall only prescribe prescription drugs to animals that are under the veterinarian’s care (49 Pa. Code § 31.21). VCPR must be established in person via any vet in the practice listed on the VCPR. Currently in PA there is no time limit for the VCPR and it will be veterinarian dependent. Including contact information for your veterinarian here allows for easy access when an emergency arises.

Throughout the book, similar topics are grouped together—such as antibiotic use and vaccination guidelines. There are areas within the BHHP to record important information such as treatment for sick cattle, training logs and protocols for events like mortality. See Index below.

At the back of the BHHP, you will find record keeping pages that can be removed (if desired) and kept on file.

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**Page 20-21:** Life Cycle-Young Bulls, Steers, Heifers, Cows, Bulls

**Page 22-25:** Record Keeping Protocols-Fillable Chart

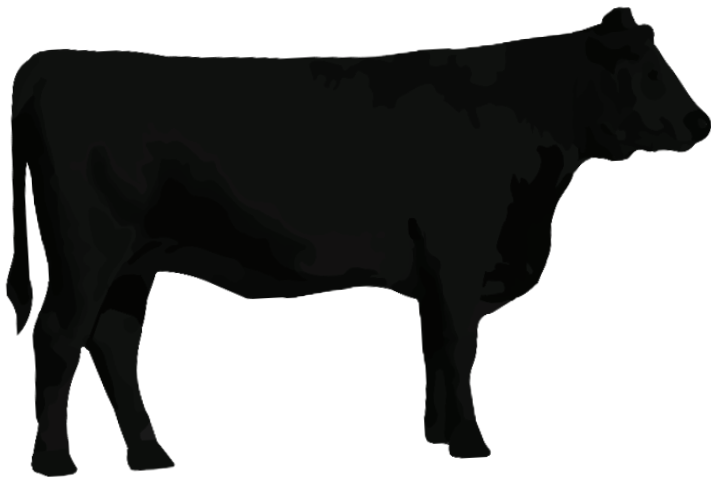
**Page 26-27:** Drug List

**Page 28-29:** Drug Inventory-Fillable Chart

**Back Cover:** Pennsylvania Beef Resource Contacts

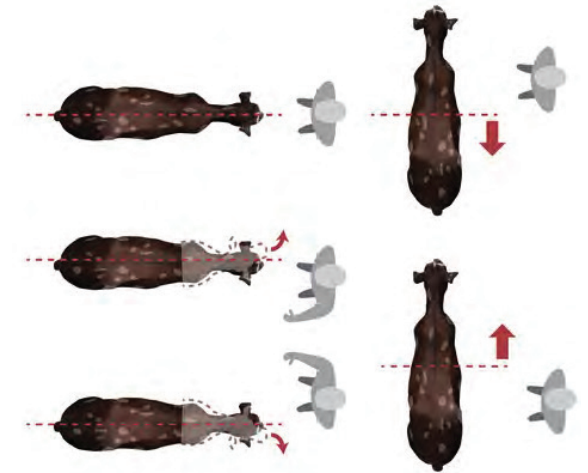
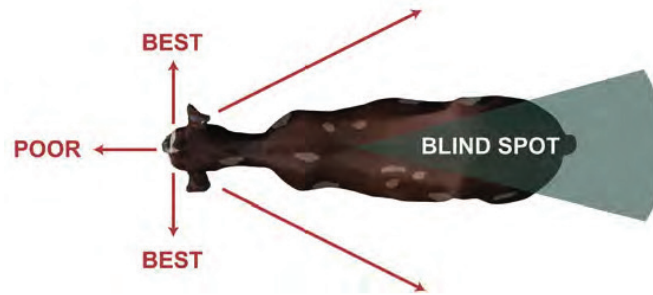
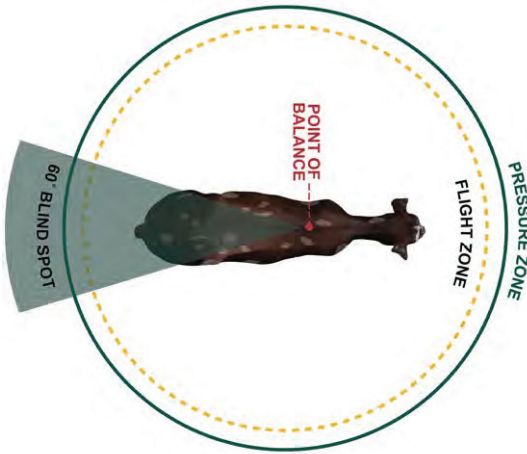
## Cattle Handling Basics:

1. 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), or rubber mats can be used to minimize slipping and falling. Quiet handling is essential to minimize slipping.
2. Always evaluate the handling facilities prior to working cattle to avoid sharp edges, eliminate protruding objects and ensure proper lighting.
3. Sorting and holding pens should be near the loading facility and suitable for herd size.
4. Utilize the cattle's point of balance and flight zone to move them. As prey animals, cattle will react differently when they are approached from different directions. Temperaments and experience with handlers affect flight zones for cattle. On the following page you will find a diagram that outlines a cattle's flight zone. Always remember to be calm and consistent when approaching and handling cattle.
5. Beef Quality Assurance guidelines do not tolerate abuse of cattle. This means cattle should not be whipped or hit with objects that could cause injury, pain, or harm. Kicking, prodding, or any other forceful actions should not be used on non-ambulatory cattle.



For more information visit:

[https://www.bqa.org/Media/BQA/Docs/bqa\\_field-\\_guide.pdf](https://www.bqa.org/Media/BQA/Docs/bqa_field-_guide.pdf)  
(pg. 4)



### Flight Zone:

**What:** Distance from an animal that a handler that controls movement of cattle

**Where:** Varies depending on how accustomed an animal is to human interactions

**Handler Response:** Stand where animal can see you, be aware at what distance animal will begin to move

### Blind Spots:

**What:** Area where animal cannot see surroundings

**Where:** Directly behind cattle

**Handler's Response:** Do not direct cattle from the blind spot

### Points of Balance:

**What:** Imaginary point that serves as an axis of movement between animal and handler

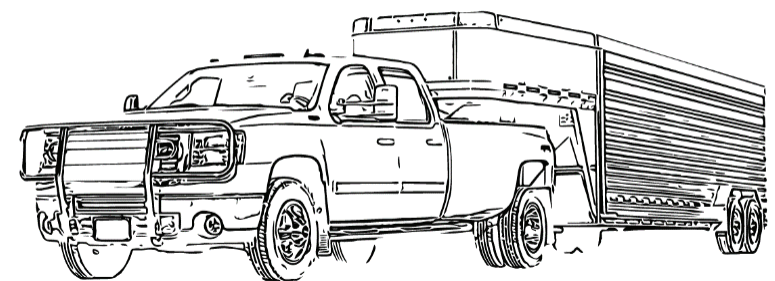
**Where:** At the shoulder on cattle, side to side, and in front of cattle

**Handler's Response:** Standing in front of the point of balance stops forward movement or causes backward movement; standing behind the point of balance causes forward movement

# Fitness for Transportation and Proper Culling Decisions

Making the decision to cull your cattle can be difficult. Maintaining good welfare during the final stages of life for your production animals is important to the value of the product and industry. Poor culling decisions and sending inappropriate cull animals to slaughter can be damaging to the value of the product and create public health concerns, as well as producer and industry liabilities. The simplest way to think about whether or not to send an animal to the sale barn or butcher is appropriate is to ask yourself if this animal represents your farm and your industry well. Would they be something you would be comfortable asking other people to consume. If the answer is no, then euthanasia should be chosen over transporting to a processing facility. Below is a chart highlighting some important considerations when thinking about transporting cull animals. Work with your veterinarian to determine when cattle should leave your farm, making early culling decisions is in the best interest of the producer and the cow.

Fit For Transport	Unfit for Transport
Passed all withdrawals times	During or near calving where birth could happen during transportation
Not exhausted or dehydrated	Needs help getting up and walking
BCS >3	Limb or spine fractures affecting mobility
Walk normally and easily or with minor stiffness	Non ambulatory animals
Fractures not inhibiting mobility	Neurological illness or zoonotic illness
No signs of systemic illness	Signs of cancer in lymph nodes or eyes



**Resources:**

BQA Manual [https://www.bqa.org/Media/BQA/Docs/bqat-manual\\_02-10-2021-91.pdf](https://www.bqa.org/Media/BQA/Docs/bqat-manual_02-10-2021-91.pdf)

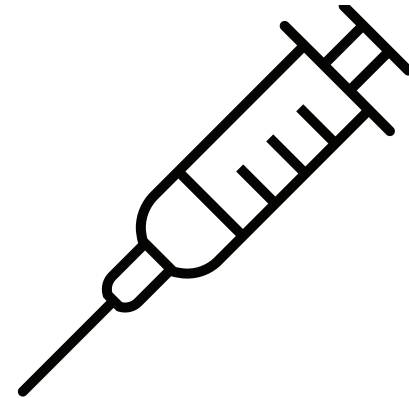
**American Association of Bovine Practitioners (AABP) Guidelines**

[https://www.aabp.org/Resources/AABP\\_Guidelines/transportationguidelines-2019.pdf](https://www.aabp.org/Resources/AABP_Guidelines/transportationguidelines-2019.pdf)

# A Beef Producers Guide For Judicious Use Of Antibiotics In Cattle:

1. 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.
2. Prevent Problems: Emphasize appropriate husbandry and hygiene, routine health examinations, and vaccinations.
3. Follow label instructions and FDA guidance for the use of all antibiotics or according to your valid veterinary prescription.
4. Extra Label Antibiotic Use Must follow FDA Regulations:
  - A. Prescriptions from veterinarian for any Extra Label Usage.
  - B. Withdrawal established by prescribing veterinarian.
5. If medically important feed grade antibiotics are used, they must be under the guidance of a Veterinary Feed Directive (VFD).
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. Treat the Fewest Number of Animals Possible: Limit antibiotic use to sick or at-risk animals.
8. Treat for the Recommended Time Period: To minimize the potential for bacteria to become resistant to antimicrobials.
9. Avoid Environmental Contamination with Antibiotics: Steps should be taken to minimize antimicrobials reaching the environment through spillage, contaminated ground run off or aerosolization.
10. 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 2 years or longer based on state and local regulations.

**PLEASE SEE PAGES 23-26 FOR RECORD KEEPING FORMS**



*Guidelines developed from AVMA, AABP and AVC guidance on Appropriate Veterinary Antibiotic Use from BQA Field Guide*

## Nutrition

Adequate nutrition is critical to cattle health and performance. You should be working with qualified nutritionist to develop protocols for proper nutritional protocols such as a mineral supplement program for grazing cattle and feed protocols for growing/ breeding animals. Feed invoices should contain the location in which feed was made or purchased as well as date and time of delivery. This serves as adequate records for feed record keeping.

Nutritionist name: \_\_\_\_\_ Phone: (    )        -        Email: \_\_\_\_\_

## Veterinary Feed Directive

Certain in-feed animal health products require a written (nonverbal) order by a veterinarian called a veterinary feed directive (VFD) order. To provide a VFD order, the veterinarian must have a valid veterinary client patient relationship (VCPR) with the farm. The VFD order will specify which product can be purchased, what animals it is for, what disease it is intended to treat, and how the product is to be fed. The expiration date on the VFD order is the last day the medicated feed can be fed. If there is remaining feed after this date, the veterinarian would need to issue a new VFD order. Feeding these feeds in an extra-label manner is strictly prohibited.

VFD paperwork provided (your veterinarian) \_\_\_\_\_ is kept for two years and stored \_\_\_\_\_ (location).

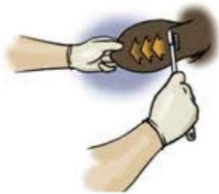
Product (Example-corn, mineral, etc.)	Supplier Contact (Mill/manufacturer name & contact info)	Purchase Date

# Implants

**What are implants:** Food and Drug Administration (FDA) approved treatment that increases the saleable yield by increasing both live weight of the cattle and hot weight of the carcass. Increasing either of these endpoints increases the net return for the beef producer. Consult with a nutritionist, local distributor, or extension team to ensure implants are the best decision for you and your cattle. Discuss the best implant practices for your operation.

## **Implant Procedure:**

1. Implants are given in the ear. First, clean the ear:



Step 1. Scrape surface contamination with serrated tool

Step 2. Using a clean sponge, wash implant site with antiseptic solution (diluted chlorhexidine mixed at recommended dilution rate).

Step 3. Using a brush in clean antiseptic solution, make two to three brush strokes in one direction at site of implantation.

2. Now that the ear is clean you can proceed in implanting.

Step 1. Insert the needle at the outer one-third of ear.



Step 2. Insert needle between the skin and cartilage (avoid digging into cartilage)

Step 3. Deposit implant in the middle one-third of the ear, withdraw needle

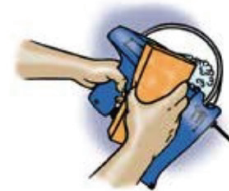
Step 4. Check implant by running thumb over site.

Pinch implant insertion site while giving a gentle push to assure implant is not located at the insertion site

**Implant Quality Control Verification:** Two to three weeks after processing, check ears for defects in a random sample. Conduct regular chute-side evaluations during implanting. Review results with implanting personnel. Implement an ongoing training program for new personnel.

**Training of Operator:** Operator must be trained on proper operation and techniques used with the various implanting devices. Implanting must be restricted to operators who have been given sufficient time to build skill level in the implanting procedure. Back-up implanting operator should be available.

## **Implant Equipment:**



Implanting gun should be cleaned prior to use. Wash the exterior of the gun and flush water through the front gun magazine. Allow the gun to dry thoroughly before use. Do not use disinfectant solution to clean the gun.

Place diluted disinfectant solution in a disinfecting tray with a clean sponge or rollers. Implants should be stored in a clean container. Disinfect the needle between each animal and after 'skips' off the ear by wiping across the sponge or rollers to remove hair and contaminants.

**For more information please visit:** [www.extension.psu.edu](http://www.extension.psu.edu)

Sourced and adapted from Elanco:

*opta33472\_zdi\_ccp\_update\_az.pdf*, Penn State:

<https://extension.psu.edu/implants-used-in-beef-cattle-are-safe-and-efficacious>



# Euthanasia Guidelines:

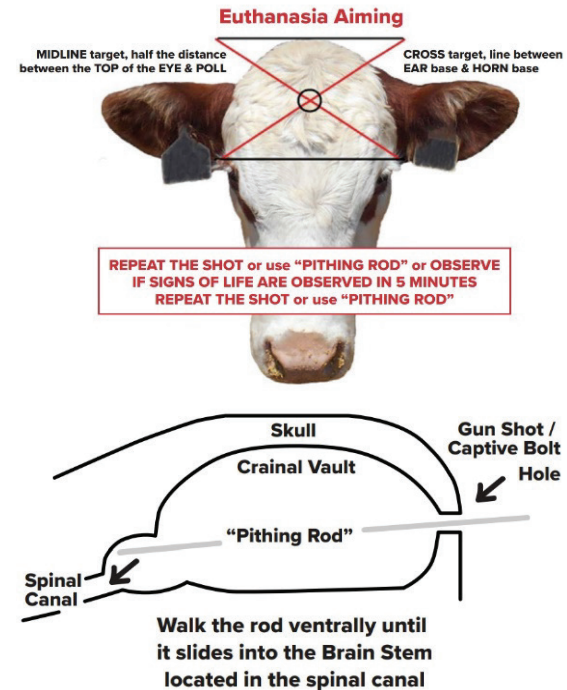
Humane euthanasia is an important practice to end suffering when an animal is sick or injured and not expected to recover. When conducted properly, euthanasia should result in rapid loss of consciousness followed by death. In addition to veterinarian-administered intravenous euthanasia solution, gunshot and penetrating captive bolt are considered acceptable methods of euthanasia for cattle. The choice of euthanasia method will depend on human safety considerations, access to restraint, practicality, level of training, cost, aesthetics, need for diagnostics, and carcass disposal. All individuals who may euthanize cattle should be trained on the topics listed below. This training, ideally, should be conducted by a veterinarian. In addition to euthanasia-specific training, any individuals who may use a firearm for euthanasia should have documented firearm safety training. Many local organizations offer hunter safety programs that include firearm safety training.

## *Euthanasia Training Recommendations:*

- Appropriate method of euthanasia
- Appropriate firearm selection (if applicable)
- Landmarks for shot placement and angle of shot
- Confirmation of loss of consciousness
- Actions to take if animal is still conscious
- Confirmation of death
- Carcass disposal restrictions (if any)

### **For more information please visit:**

[https://aabp.org/Resources/AABP\\_Guidelines/EUTHANASIA-2019.pdf](https://aabp.org/Resources/AABP_Guidelines/EUTHANASIA-2019.pdf)



## **Carcass disposal:**

After euthanasia or death, animal carcasses should be disposed of promptly (within 48 hours). Proper methods of disposal will prevent exposure of the carcass to other animals or the public and will not endanger environmental, animal, or human health. Acceptable methods of disposal include composting, rendering, burial, and incineration. Landfills can be an acceptable method. Contact the landfill to determine if they are licensed. Carcass burial poses the greatest risk to human and environmental health. Local County Conservation Districts, Extension, or USDA Natural Resources Conservation Service can help determine the best burial site(s) to minimize impact on environmental and human health.

### **For more information please visit:**

<https://extension.psu.edu/livestock-and-poultry-mortality-disposal-in-pennsylvania>

## On Farm Protocol:

When beef animal needs to be euthanized, please contact:

Name	Phone	Alternative Phone

**Method(s) this operation will use:**

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## Euthanasia Training Log:

Proper training should be required of at least one employee at your operation.

Name	Date	Trainer	Method(s)

**Carcass disposal plan:**

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# Vaccination Guidelines

Developing a vaccination program for your herd is one of the key elements to protecting and maintaining your bovine investments. The very best vaccination program is the one that you are able to implement successfully. Developing a vaccination program is best done with the help of a veterinarian familiar with your area, operation, animals, and production goals. It should take into consideration what pathogens your herd will most likely be exposed to and when you have the best ability to handle the animals to administer the vaccinations.

## 1. Identify risks specific to your farm (see Table 1.)

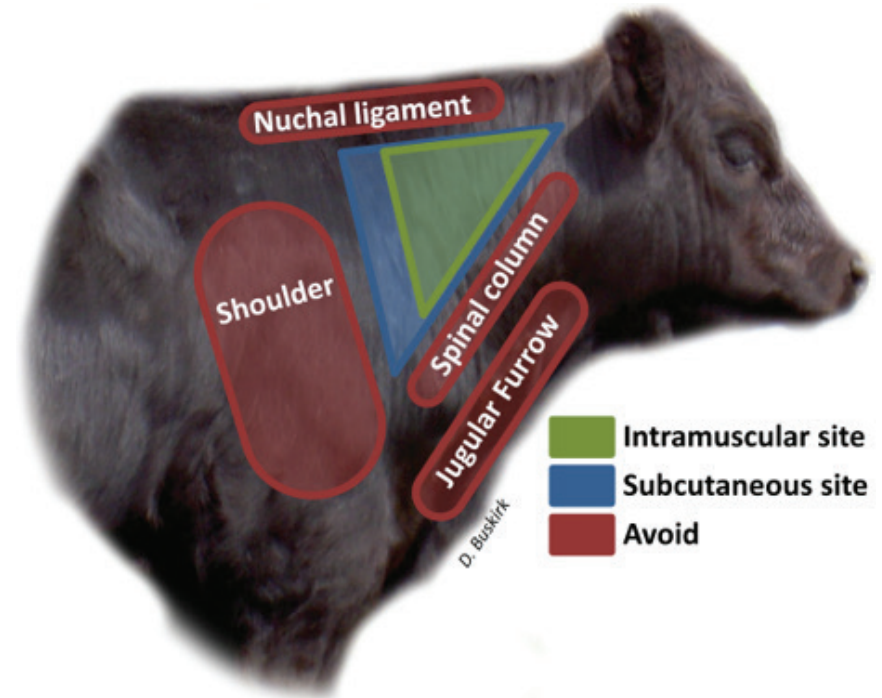
- Pathogens of concern
- Management considerations (open vs. closed herd)
- Disease status of neighboring herds
- Exposure to wildlife
- Other stressors (wind, wet, mud, heat stress, travel)

## 2. Consider vaccine properties

- Modified live vs Killed
- Duration of immunity
- Timing of booster if needed
- Prevention vs control
- Number of antigens (specifically gram negative)
- SQ,IM, or Intranasal administration

## 3. Pair Vaccines with Handling Points

- Calving
- Preweaning/Weaning
- Pre-breeding
- Pregnancy diagnosis
- Departure or Arrival to new location



## INJECTION SITE LOCATION

So, why this location? This location will not damage bones or connective tissues. In addition, this location is a low value cut and easy to trim, should there be any damage to the site. This provides consumers with a safe, quality, and wholesome product.

**Table 1.**  
**Risks to Consider on the Beef Operation**

Low Risk	Medium Risk	High Risk
No new animals	Introduction of bulls for breeding	Introduction of new bulls/cows/calves
AI only	Use of bulls	Use of bulls
Minimal contact with wildlife	Contact with wildlife	Contact with wildlife
No access to natural waterways	Access to wetlands and waterways	Natural water as drinking source
Minimal visitors	Minimal visitors	Many visitors
No shared equipment	Shared equipment	Shared equipment

The AABP considers the following pathogens to be of concern to **ALL cattle** operations and strongly encourages vaccination against:

- Infectious Bovine Rhinotracheitis virus (IBRV) (Bovine herpesvirus 1)
- Bovine Viral Diarrhea Virus (BVDV)
- Parainfluenza Virus (PI3)
- Bovine Respiratory Syncytial Virus (BRSV)
- Clostridial Disease

Use of other vaccinations to manage calf scours, mastitis, pinkeye, abortions, diarrhea and pneumonia should be discussed with your veterinarian.

**BQA guidelines when handling and administering vaccines:**

Do	Don't
Store vaccines at 35-45°F	Store vaccines on the door of the fridge
Use mixed vaccines within 45 minutes	Allow vaccines to freeze
Keep vaccines cool when using	Vaccinate animals when THI is >83°F
Follow label instructions (dosage, route, group)	Vaccinate anywhere other than neck region
Document lots/serial numbers in case of adverse reactions	Use needles more than once
Utilize both sides of the neck when giving multiple injections	Insert used needles into vaccine vials
Follow meat withholds	Vaccinate where neck is heavily contaminated with dirt or manure
Minimize stress when handling animals for vaccination	Use expired vaccines

# Vaccination Protocols

Use the table below to discuss with your veterinarian to determine the best vaccination protocols for your cattle. Use of their life cycles and handling touch points can assist in building these protocols. You should also consider protocols such as fly and tick prevention and deworming.

<b>Animal Group</b>	<b>Product Name</b>	<b>Dose</b>	<b>Timing of Administration</b>	<b>Preventative Measures</b>

# Respiratory Protocols

Respiratory disease is a common and economically devastating disease in beef cattle, often resulting in permanent decreases in average daily gain and lifetime productivity of the animal. Like scours, respiratory disease is more prevalent in calves, youngstock and those stressed (weaned calves, animals moved into new groups or locations, animals that travel frequently).

Respiratory disease can affect the upper airway (nose, throat, and trachea), the lower airway (deep lung tissue) or both.:

- Viruses (IBR, PI3, BRSV, BVD, Coronavirus, Influenza D)
- Bacteria (Pasturella, Mannheimia, Mycoplasma, Bibersteinia)

Identification of the organism that causes the disease can be difficult to figure out without expensive diagnostic testing or testing lungs of dead animals. Work closely with your veterinarian and diagnostic lab if you are having respiratory outbreaks on your farm. The best approach to respiratory disease is prevention. Preventing respiratory disease on your farm starts with the basics of:

- Good ventilation
- Proper nutrition (including minerals)
- A farm specific vaccination program
- Minimization of stress

Occasionally, a veterinarian may recommend antibiotics be added to the feed for disease prevention in high-risk situations. Decisions on antibiotic use need to be discussed with your veterinarian to ensure appropriate and judicious use. Please refer to the VFD section of this book for information on proper record keeping of these feed additive antibiotics. Best practices such as preconditioning calves (see page 20), low stress weaning (page 20) and low stress handling (pg 4-5) all decrease the risk of respiratory disease in calves. A good nutritional program with a robust mineral plan, appropriate stocking densities, and clean and dry areas to rest keep cows in good shape to avoid respiratory disease.

Every farm has different risk factors related to how the animals are managed. Herds that add animals or travel frequently to shows are at high risk. Herds that are closed to new arrivals and have minimal contact with wildlife generally have low risk. Vaccination programs need to address your unique risk factors and consider already existing handling opportunities within your operation.

Use the parameters below to specifically develop a treatment protocol with your veterinarian taking into consideration the most prevalent diseases in your area, your specific risk factors, and the efficacy of products based on the age of the animal.

<b>Parameter</b>	<b>Normal</b>	<b>Abnormal</b>	<b>Severe</b>
Temperature	101-102F	102.5-103F (can be normal during summer)	>103F
Nose	Clean and wet	Cloudy discharge from one or both nostrils	Copious white discharge from both nostrils, caked on
Eyes	Bright with no discharge	Small to moderate amount of discharge	Heavy discharge
Ears	Up and alert	One or both ears drooping	Both ears drooping, head tilt, discharge
Cough	No cough or only after eating	Induced cough (on palpation) or occasional spontaneous cough	Repeated spontaneous coughing
Respiratory Rate/Effort	10-30 breaths/min cow ----- 15-40 breaths/min calf	>35 breaths/min at rest	Open mouth breathing or panting
Appetite	Eats frequently, aggressive, pushes in	Hangs back, waits until others are done, picks	Stands away, appears gaunted
Manure	Brown formed (calf) Brown patty (cow)	Loose but stays on top of bedding	Watery, foul smelling, possibly bloody

# Treatment Protocols

<b>Parameters Triggering Treatment</b>	<b>Treatment of Choice</b>	<b>Duration of Treatment</b>	<b>Dates</b>



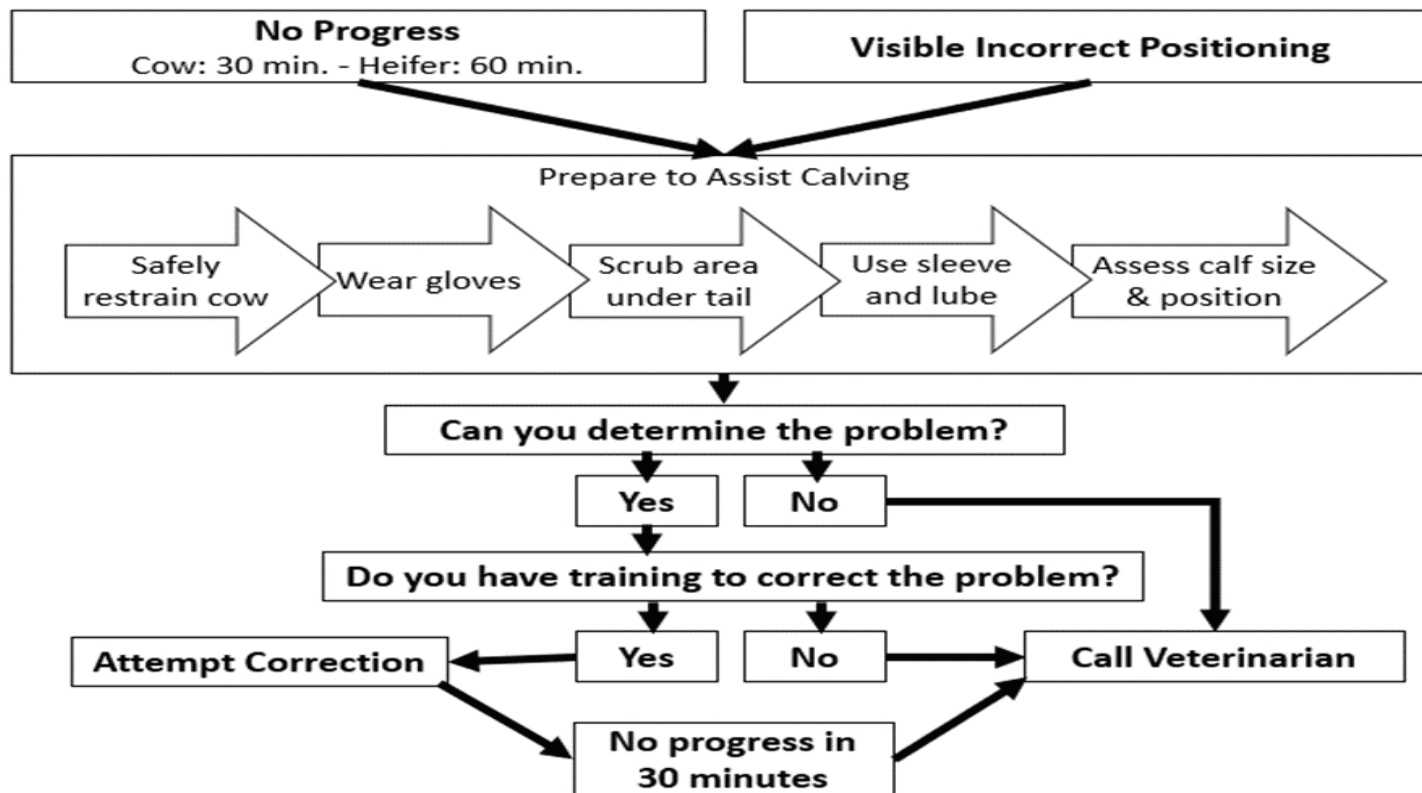
# LIFECYCLE: CALVING & CALVES:

## Stages of Calving:

**Stage 1** – Cervical dilation – During this stage, the cervix dilates and contractions begin. Often this stage will go unnoticed, but cows may raise their tail or have mucous vaginal discharge later in stage 1.

**Stage 2** – Delivery of the calf – This is the active phase of labor when the calf is delivered. This stage typically lasts about 30 minutes in adult cows and 1 hour in first calf heifers. If no progress is noted in 30 minutes for cows and 60 minutes for heifers, or if incorrect positioning is visible, assistance may be necessary (see flow chart).

**Stage 3** – Shedding the Placenta – Delivery of the placenta can take up to 8-12 hours in cattle. A retained placenta occurs when the placenta is not shed within 12 hours. Manual removal of retained placentas is typically not recommended. Your veterinarian may recommend interventions for these cows.



# Newborn Calf Care

Colostrum, which is critical to newborn calf health, is the first milk produced by the cow that is rich in nutrients and antibodies to protect the calf from disease. Ideally, a calf will be up and suckling within an hour of birth, but if the calf is not able to suckle colostrum, it is important to have a plan. If a calf is not able to suckle colostrum from the dam within a few hours of birth, it should be provided with colostrum milked from the dam or a colostrum replacer product. This may be given via a nipple, bottle, or if the calf will not suckle a bottle, colostrum can be given by esophageal tube feeder by a trained individual. If the calf has a temperature of less than 95°F it should be actively warmed to at least 99°F before feeding colostrum. In addition to colostrum, your veterinarian may recommend administering certain animal health products to your calves soon after birth. Work with your veterinarian to develop a plan for routine newborn calf care and a plan to assist calves that do not consume colostrum soon after birth.

## Newborn Calf Health Plan (should include colostrum replacement program)

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## Calf First Aid:

If you find a calf that is cold, dehydrated, and unwilling to rise they will need intervention, so plan on finding a place to move the cow and calf to an area that you and your veterinarian can safely work on the calf without risk of injury from a protective mother or other concerned herdmates. If the calf has a temperature less than 95F, actively warm it up to at least 99F before providing any oral fluids (such as milk or electrolytes). Calves that cannot suckle will require IV fluids to resuscitate. Calves that are weak but still able to stand and have some suckle may be helped with oral and subcutaneous fluids. Use the parameters above to develop a specific protocol with your veterinarian about proper intervention for weak, cold, and scouring calves.

## Identification of the sick calf:

The steps to identifying a sick calf start with spending time with healthy calves to know what normal is. The normal calf is alert, ears up, often has evidence of milk or foam on their mouth and nose, will have a cyclical pattern of nursing, playing and sleeping and minimal manure on tail and rump. Sick calves will spend more time sleeping and often be found sleeping away from the mother or herd, head hanging, ears drooping, cool limbs and ears, manure matted or splashed on hind limbs, rump and tail. Often the mothers will be vocalizing more for the calf to nurse and have a very full bag. When you suspect a sick calf the following parameters should be assessed.



<b>Parameter</b>	<b>Normal</b>	<b>Abnormal</b>	<b>Severe</b>
Rectal Temperature (thermometer)	101-103F	<100 hypothermia >103.5 fever	<94 F >105 F
Ears, limbs, behavior	Warm and standing, ears upright	Cold and unwilling to rise, ears drooped, head hung	Cold or very hot, unable to rise, staggering, ears down
Suckle and mouth temperature	Curled tongue, latches, warm	"chews", rolls nipple or finger in mouth without latch, cool	No response to nipple or finger in mouth, cold
Eye sunkeness	Eyeball flush with eyelid	Eyeball recessed	Eyeball recessed
Skin Tent	Returns to normal in 2 seconds or less	Stays tented for over 2-4 seconds	Does not return to normal for over 4 seconds
Fullness of abdomen	Heaviness without bloat	No heaviness, gauntness, bloat	Gaunt, severely bloated
Consistency of manure	Tan-brown, semi-formed	Puddled, yellow, gray or blood	Watery, lots of blood
Rate of breathing	15-40 breaths/min	Over 40 breaths/min	Open mouth breathing or panting

## **Calf Illness Identification & First Aid Training**

<b>Name</b>	<b>Date</b>	<b>Trainer</b>

## **Life Cycle: Young Bulls, Steers and Heifers**

### **Weaning**

Weaning is a stressful period for calves, and it can have lasting impact on calf health and productivity. Reducing weaning stress can begin before weaning by castrating calves and dehorning any horned calves well ahead of weaning. Vaccination programs may also begin before weaning to assure protection through this stressful period. The method of weaning also impacts calf stress levels. Abrupt separation of calves from cows, especially if paired with immediate marketing of calves is highly stressful and can negatively impact calf health. Lower stress weaning methods, such as fence line weaning, where calves are separated from cows by a fence but still have nose to nose contact, can reduce calf stress during weaning. How calves are managed after weaning also impacts calf health and productivity.

### **Preconditioning**

For some farms, preconditioning is a way to add value to calves. A preconditioned calf is typically held at its home farm for at least 45 days post-weaning. During this time the calf is able to adjust to separation from the cow and can be introduced to feed bunks and waterers to ease transition to the feedlot. Vaccine protocols may also be used during this time to provide additional disease protection. It is important to work with your veterinarian to develop vaccination protocols for calves before and after weaning. Your veterinarian may recommend a separate vaccination protocol for any heifers that will be kept as future brood cows.

## **Life Cycle: Cows**

### **Cow Management**

Healthy cows are critical to a cow-calf operation. Keeping cows in top condition means focusing on more than just vaccination protocols. Hoof health and nutrition are also important aspects of cow health. Routine hoof trimming can help prevent hoof issues and can treat hoof-associated lameness. Preventing hoof issues can also include avoiding rocky pastures, keeping footing as dry as possible and, foot baths can be used to prevent infectious issues. Keeping up with hoof care can help keep productive cows in the herd longer. A good beef cow nutrition program should help cows maintain good body condition but should also assure proper mineral nutrition. Energy needs of the cow vary depending on pregnancy status, lactation, and weather conditions. Supplemental feed can help balance what the pasture provides to assure cows are consuming enough energy. Tracking cow body condition scores is a useful tool to monitor whether cows are receiving enough (or too much) energy in their diet. Although the impacts of energy consumption are relatively easy to measure, assessing mineral nutrition is much more challenging. Over or under supplying minerals can negatively impact productivity, health, and reproductive performance. Working with a nutritionist or veterinarian to determine mineral status of both cows and calves, as well as forages and soil can help build an ideal mineral program. Examine cows with mild lameness, early eye problems such as ocular neoplasia, mastitis, or loss of body condition to determine wellbeing and/or prompt marketing.

# Life Cycle: Bulls

## Receiving & Bulls

Quarantine all cattle entering the herd as needed per veterinarian recommendation. Test all stock entering the herd for diseases that could jeopardize the herd. Breeding options for beef cows can be as simple as having a herd bull or can involve multiple hormone injections and timed artificial insemination (AI). Bringing a new beef bull onto the farm is an important opportunity to bring new and improved genetics to the herd, but it is also important to make sure the bull does not bring along any diseases. Proper biosecurity and pre-purchase testing can help reduce the risk a bull will introduce disease to the herd. Complete breeding soundness exams on all bulls annually, including testing for transmittable diseases such as trichomoniasis.

## Breeding

The use of AI is another option to improve herd genetics and reduce the risk of disease introduction. Cattle may be inseminated on visible heats or using an estrus synchronization program. There are a wide variety of synchronization programs available, but they generally fall into one of three categories: those that breed on heat detection alone, those that use timed AI only, and those that use a combination of breeding on heat detection and timed AI. If using AI for breeding, you will need to work with your veterinarian to determine the best synchronization protocol and which medications will be needed for the protocol. If not using a breeding service, someone on the farm will need to be trained in proper semen handling and AI technique. Maintain cows at a body condition score (BCS) of at least five (out of a nine-point scale) before the calving season.

Examine cows with mild lameness, early eye problems such as ocular neoplasia, mastitis, or loss of body condition to determine wellbeing and/or prompt marketing.

**For more information on management practices, you should consider:**

### Feeding Minerals:

<https://extension.psu.edu/minerals-for-beef-cows>

[https://www.bqa.org/Media/BQA/Docs/bqa\\_field-\\_guide.pdf](https://www.bqa.org/Media/BQA/Docs/bqa_field-_guide.pdf)  
(pg. 30)

### Artificial Insemination:

<https://extension.psu.edu/animals-and-livestock/beef-cattle/reproduction-and-genetics>

### Breeding Soundness Exams:

<https://beef.unl.edu/breeding-soundness-exam-risk-management-tool-for-cow-calf-producers>

### Body Condition Scoring:

<https://extension.psu.edu/learn-to-score-body-condition>  
[https://www.bqa.org/Media/BQA/Docs/bqa\\_field-\\_guide.pdf](https://www.bqa.org/Media/BQA/Docs/bqa_field-_guide.pdf) (pg. 28)

### Deworming:

[www.advancedeworming.com](http://www.advancedeworming.com) <https://extension.umd.edu/resource/best-deworming-practices-cattle>

### Vaccinations:

Guidelines published by the AABP-<http://www.aabp.org/committees/resources/VaccGuidelines2021.pdf>

[https://www.bqa.org/Media/BQA/Docs/bqa\\_field-\\_guide.pdf](https://www.bqa.org/Media/BQA/Docs/bqa_field-_guide.pdf)  
(pg. 30)

# Record Keeping Protocols

<b>Individual ID or Group</b>	<b>Issue Treated</b>	<b>Treatment Date</b>	<b>Name of Person Administering Drug</b>	<b>Weight of Animal or Group</b>	<b>Product Administered</b>	<b>Dose Given</b>	<b>Route of Administration</b>	<b>Withhold Expiration</b>

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<b>Drug Name</b>	<b>Method of Administration</b>	<b>Meat Withhold</b>	<b>Type</b>	<b>Additional Comments</b>
Albon Bolus/Sulfadimethoxine	Oral	7 days	Antibiotic	
Di-Methox	IV	7 days	Antibiotic	
Excede	SQ behind the ear	13 days	Antibiotic	
Excenel	IM or SQ	4 days	Antibiotic	
Naxcel	IM or SQ	4 days	Antibiotic	Lasts 7 days reconstituted in the refrigerator
Nuflor	SQ	28 days	Antibiotic	Not for lactating cows
Penicillin G Procaine	IM	14 days	Antibiotic	Indicated withdrawals are only effective for the 1cc/100 lbs dosage. At higher dosages, residue testing is highly recommended. Use over 1cc is extra label and should only be done with vet recommendation and valid VCPR.
Polyflex	IM	6 days	Antibiotic	Lasts 3 months reconstituted in the refrigerator
Resflor	SQ	38 days	Antibiotic	Not for lactating cows
Oxytetracycline (Liquamycin/ Biomycin 200) IA 200	SQ	28 days	Antibiotic	
Micotil	SQ	42 Days	Antibiotic	
Baytril	SQ	28 days	Antibiotic	Not for lactating cows
Zactran	SQ	35 days	Antibiotic	Not for lactating cows
Zuprevo	SQ	21 days	Antibiotic	Not for lactating cows
Draxxin	SQ	18 days	Antibiotic	Not for lactating cows
Draxxin KP	SQ	18 days	Antibiotic	Not for lactating cows
Banamine	IV	4 days	Anti-inflammatory, Reduce fever	
TD banamine	TD		Antibiotic, Anti-inflammatory	
Recovr	IM or SQ	4 days	Antihistimine	
Dexamethasone	IM or IV		Anti-inflammatory, steroid	

<b>Drug Name</b>	<b>Method of Administration</b>	<b>Meat Withhold</b>	<b>Type</b>	<b>Additional Comments</b>
Flunixinamine	IV	4 days	Anti-inflammatory, Reduce fever	Not for lactating cows
Banamine transdermal	Topically	8 days	Anti-inflammatory, Reduce fever	Not for lactating cows
Meloxicam (15 mg)	orally	21 days	Anti-inflammatory, Reduce fever	
Multimin	SQ	14 days	Trace Mineral	
Mu-se	SQ	30	Vitamin	
Bo-Se	SQ	30	Vitamin	
Iron	IM	30 days	Vitamin	Use AH if allergic reaction
Vitamin AD	SQ	60 days	Vitamin	Use AH if allergic reaction
Corid	Oral	21 days	Anti-Parasitics	24 hrs ruminating calf
Cydectin (Injectable)	IM	21 days	Anti-Parasitics	Not for use in lactating dairy cattle or pre-ruminating calves
Noromectin/Ivermectin	SQ	35 days	Anti-Parasitics	Not for use in lactating dairy cattle or pre-ruminating calves
Safeguard	Oral	13 days	Anti-Parasitics	
Panacur at 5 mg/kg	Oral	8 days	Anti-Parasitics	There is no meat withhold at the indicated dosage
Vaccines	SQ	28-60 days	Most vaccines	Refer to label

# Drug Inventory

Drug Name	Expiration Date	Serial/Lot Number	Place of Purchase

# Drug Inventory

Drug Name	Expiration Date	Serial/Lot Number	Place of Purchase

**Additional Pennsylvania Resources:**



205 South Juliana Street | Bedford, PA 15522

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

<https://www.facebook.com/pabeefcouncil>



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<https://www.pa-bqa.org/>

<https://www.facebook.com/PennsylvaniaBQA>



<https://palivestockassoc.org/index.html>

<https://www.facebook.com/PALivestockAssociation/>



<https://www.pacattlemen.org/>

<https://www.facebook.com/pacattlemenassoc/>



2301 N Cameron St | Harrisburg, PA 17110

<https://www.agriculture.pa.gov/Pages/default.aspx>



<https://www.beefexcellence.com/> ;

<https://www.facebook.com/people/Center-for-Beef-Excellence/100064800367935/>



**PennState Extension**

<https://extension.psu.edu/animals-and-livestock/beef-cattle>