

BIOSECURITY RECOMMENDATIONS FOR THE BEEF INDUSTRY

Ron Lemenager¹ and Nick Minton²

**¹Beef Extension Specialist, ²Beef Systems Specialist
Purdue University, Department of Animal Sciences**

Introduction

The term biosecurity is not new, but it's importance to beef farms has increased with the emergence of new strains of diseases. The poultry, swine and dairy industries have been diligent in implementing practices to protect their animals from diseases entering their operations. The beef industry, because of tradition and the more extensive production systems (lower levels of confinement, open air lots and pastures), have sometimes overlooked the risk of biosecurity hazards. With the recent outbreaks of Highly Pathogenic Avian Influenza (HPAI) in the poultry industry followed by an outbreak in dairy cattle has created a reason to rethink our beef industry biosecurity plans. Incorporating biosecurity practices that prevent, or mitigate the impact of not only common diseases such as infectious bovine rhinotracheitis (IBR), parainfluenza-3 (PI3) bovine viral diarrhea (BVD), bovine respiratory syncytial virus (BRSV), brucellosis, leptospirosis, tuberculosis, clostridia, calf scours, Johne's disease, trichomoniasis, anaplasmosis, and hairy heel wart, but also foreign animal diseases such as HPAI and foot and mouth disease (FMD). Fortunately, at this writing, HPAI and FMD have not been detected in the U.S. beef population. However, the risk is ever present. Like Bovine Spongiform Encephalitis (BSE), it is not a matter of if, but when, we will have a foreign animal disease event. The consequences of a trade-limiting disease outbreak on the national cow herd would be economically devastating. It is up to all travelers and producers to follow travel and biosecurity protocols to ensure our country remains free of these diseases.

Recommended biosecurity practices

- A Premise Identification Number (PIN) is used to quickly locate, create a quarantine zone, and contact producers in a geographic area in the event of a disease outbreak.
 - If you don't have a Premise Identification Number (PIN) for your operation, you can obtain one through the Indiana Board of Animal Health (BOAH) website:
<https://www.in.gov/boah/traceability-and-premise-id/indiana-premises-registration/>.
 - If you have lost your number, send an email to: animalID@boah.in.gov and include your name and physical address in the email.

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- PINs are required to purchase official 15-digit, U.S. 840 Electronic Identification (EID) tags that are now required for cattle movement.
 - All ages and breeds used for rodeos, shows, exhibitions, or recreational events
 - All sexually intact animals 18 months of age or older
 - All dairy (including crosses), regardless of age

Exceptions:

- Animals moving directly to slaughter, or directly to a licensed market for resale as direct to slaughter
- Animals moving directly to a licensed market, where the animal will receive official identification
- A Certificate of Veterinary Inspection (CVI) is required for entry into Indiana for all cattle and bison, both domestic and wild, with the following exceptions:
 - Animals traveling directly to slaughter, or directly to a licensed market for resale as direct to slaughter
 - Animals traveling directly to a licensed market that do not leave Indiana
 - Animals traveling to a facility for veterinary treatment that will return to the state-of-origin
 - Animals traveling through the state without being unloaded
- Develop a Veterinary-client-patient (VCP) relationship with your veterinarian to create a vaccination and biosecurity plan for your operation.
 - Some diseases are considered endemic, or common, in the population and they are important to consider in a core vaccination program.
 - If a disease event is identified, isolate, quarantine, and reduce points of direct contact between healthy and sick animals.
 - Consult with your veterinarian regarding sick or dead animals, including wild life, that are out of the ordinary.

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- Follow label directions or instructions from your veterinarian when administering all biologicals and pharmaceutical products.
- Maintain adequate body condition by feeding cattle to meet their nutrient requirements.
- Animals with compromised immune systems (nutrient deficiencies; stresses caused by heat, cold; mud; poor sanitation) are more vulnerable to disease.
- Implement an internal and external parasite control program.
- Implement a protocol for annual disease testing for home herd to actively monitor and document herds health status in regards to common diseases (i.e. anaplasmosis, Johnes, bovine leukosis virus, etc.)
- Maintain accurate, up to date records for animal health (e.g., vaccination, antimicrobial treatment, surgical procedures), feed delivery, and cattle transportation.
 - Records of all animal movements, including purchases, sales, leases and barter agreements must be kept for 5 years.
 - Records must include: name and address of buyer and seller, sale date, animal ID's, breed, sex and reason for movement.
- Know the health status and history of all animals before they enter your operation.
 - Avoid introducing new diseases into the herd by using raw colostrum products, purchasing nurse cows or orphaned calves from other farms.
 - Consider having replacement animals tested for disease prior to their arrival or before comingling with herd.
- Have a plan to isolate and limit direct contact of animals entering the operation with the home herd for a minimum of 21 to 30 days, and monitor the health of incoming animal(s) before commingling them with the existing herd.
- Use clean equipment and tools

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- ❑ Some diseases that affect cattle can also make humans sick, which is why proper personal protective equipment is important when working with animals.
- ❑ Use new needle for each animal when administering injectables, and disinfect surgical equipment between animals to prevent transmission of blood related organisms such as anaplasmosis.
- ❑ Avoid cross contamination of equipment such as calf esophageal feeders. Use one for colostrum and a second one for treating sick calves. Clean between uses.
- ❑ Trucks and trailers transporting cattle should be cleaned and disinfected.
- ❑ Wash hands thoroughly with warm water and soap after being around any sick animal and touching contaminated equipment.
- Control traffic onto and around your farm operation.
 - ❑ Only vehicles/equipment/people essential to operation should be traveling into animal areas.
 - ❑ This includes limiting people's access to cattle pens, feed mixing/storage areas, feed bunks and cattle treatment areas.
- Practice good sanitation and keep facilities well maintained and in good repair.
 - ❑ Have separate equipment attachments to handle feed and manure.
 - ❑ Keep manure from boots and tires out of feed mixing/storage and feeding areas.
 - ❑ Maintain clean feed storage/mixing areas and clean up feed spills.
 - ❑ Routinely clean and disinfect tanks and waterers.
- Implement wildlife and rodent/pest control programs.
 - ❑ Minimize the interaction with wildbirds by incorporating appropriate management practices for wildlife.
 - ❑ Deter wildlife (e.g., birds, raccoons, rodents) from feeding areas by limit-feeding cattle, or feeding multiple times per day.

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- ❑ Secure dumpsters, trash cans, and compost sites.
- ❑ Maintain good fencing for pastures and lots to keep wildlife out.
- ❑ Eliminate fruit trees from animal areas (i.e., pastures) to prevent attracting deer.
- ❑ Remove and dispose of dead animals properly using approved methods as required by each state.

Summary

Routine practices such as shared fence lines, buying replacement breeding heifers and bulls, borrowing livestock trailers, outsourcing farm work, and hosting visitors can bring unwanted diseases into our beef operations. Preventing diseases by implementing robust vaccination and biosecurity plans can reduce the cost of treatment and death loss, improve reproductive performance, as well as increase animal gains and efficiencies. Furthermore, having a PIN registered with BOAH can provide value to the farm operation in the event of a disease outbreak. It will allow rapid notification from BOAH in the geographic area of disease and may prevent all or some of the livestock located outside the quarantine zone to still be eligible for commercial