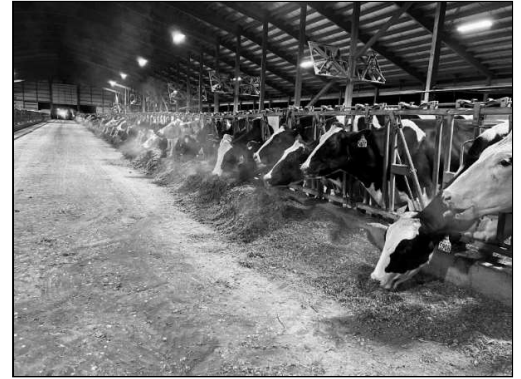


Biosecurity for dairy and beef cattle farms

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Why is Biosecurity Important?

Protecting your herd from disease and illness is always important. Preventive practices and early identification of sick cattle are essential to minimizing the spread of disease amongst individual animals and across herds. If signs of disease are observed in cattle, producers should isolate the animal(s) and immediately communicate with their herd veterinarian.



Farms should develop and implement a biosecurity plan and complete a regular review of their farm's biosecurity practices that focus both on cattle and human health and safety. Proactive implementation of biosecurity measures could reduce the risk of a disease outbreak in your herd, along with its negative economic impact, and protect animal agriculture in the state. Recommended biosecurity practices for cattle farms (dairy and beef) are summarized below.

Human Health and Hygiene

- Wear clean clothes and shoes to the farm.
 - If you have had contact with other livestock, clothing and footwear should be changed before coming to the farm.
- Practice good hygiene, wash hands frequently.
 - Some pathogens are highly sensitive to soap and hot water. Others require strong disinfectants.
- Have dedicated footwear for the farm.
 - All staff should leave boots and footwear used on the farm in a location indicated by the farm for safe storage.
 - All footwear used on the farm must be cleaned and disinfected, including sides and bottoms, prior to storing them.
- Do not eat or drink around animals or in the barn.
- Pasteurized milk and dairy products remain safe, however do not drink raw milk.
- In the case of zoonotic diseases (diseases that can be shared from animals to people), monitor people with access to cattle for potential symptoms of illness.
- People who handle cattle should be aware of clinical signs to help monitor for disease.

Cattle Farm Biosecurity

Introduction of Animals to the Herd

- Prior to transporting cattle to your farm, know the health history of the herds from which cattle are purchased.
 - All cattle shipped across state lines must have official interstate certificate of veterinary inspection (CVI) filled out by a United States Department of Agriculture (USDA) accredited veterinarian.
- Before introducing new animals, have a plan to isolate and limit direct contact with the home herd for a minimum of two weeks. Monitor incoming animal(s) health before commingling them with the existing herd.
- Trucks and trailers transporting cattle should be cleaned and disinfected. Implement disinfection protocols on all farm and transport equipment.
- Be conscientious of when you care for newly acquired or sick animals, completing tasks for them after the home herd and healthy animals so as not to spread disease to healthy animals.

Farm Traffic, Visitors & Service Providers

- Have a designated parking location for all visitors and service providers.
- Try to reduce the flow of people between farm sites and the commingling of people from multiple production sites in common places.
 - If employees move between sites, change, or disinfect footwear, (clothing, if possible) and wash hands.
- 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.
- Maintain a visitor log for all farm locations, collect contact information.
 - Employees
 - Visitors
 - Non-farm employed service providers: hoof-trimmers, nutritionists, breeding technicians, veterinarians, etc.
- Ask all visitors and service providers to employ biosecurity practices:
 - Contact visitors before they arrive at the farm. Signage may be helpful.
 - Use disposable footwear, or completely disinfect their footwear.
 - Utilize single use coveralls or clean clothing than be washed after farm visit.
 - Clean and disinfect equipment and tools used on other farms prior to bringing it on the farm.

General Facilities Management

- Keep facilities well maintained and in good repair.

- Maintain up to date, accurate records for animal health (e.g., vaccination, antimicrobial treatment, surgical procedures), feed delivery, and cattle transportation.
 - Use a new needle for each animal when administering injectables.
 - Use a new needle and syringe for each animal when drawing blood.
 - Follow injectable label use information or instructions from your veterinarian.
- Wear the proper Personal Protective Equipment (PPE) when working with or handling cattle.
 - Non-slip steel toed boots
 - Gloves
 - Eye protection
 - Ear protection when using equipment.
- Implement a rodent/pest control program.
 - Minimize the interaction with wild birds by incorporating management practices for wildlife.
 - Secure dumpsters, trash cans, and compost sites.
- Be aware that wet weather conditions and standing water have the potential to increase pathogen transfer.
- If composting, dead animal management should be the last task of the day.
 - If rendering, locate the dead animal pick-up away from all animal spaces and facilities.
- Have separate equipment attachments to handle feed and manure.
- Maintain clean, dry, and well-bedded cattle pens.

Feed Areas and Feed Management

- 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.
- Maintain adequate body condition by feeding cattle to meet their nutrient requirements.
 - It is illegal to feed ruminant-derived proteins to ruminants (i.e., cattle, sheep, goats).
- Limit-feeding cattle or feeding multiple times per day can teach cattle to clear feeding areas to deter wildlife (e.g., birds, raccoons, rodents) from feeding areas.
- Maintain good fencing for pastures to keep wildlife out.
 - Eliminate fruit trees from animal areas (i.e., pastures) to prevent attracting deer.

Milking Parlor Biosecurity with Dairy Cattle

- Follow recommended milking practices, wear disposable gloves while milking cows.
- Milk and handle suspected or confirmed sick animals last.
 - Switch into a new pair of gloves before milking sick cows to protect yourself from exposure.
- Some diseases require extra precautions. When working with a farm with an active disease outbreak:
 - Identify the contagious pathogen(s) that are on the farm.
 - Wear eye coverings while in the milking parlor to reduce the risk of exposure.

- If working near the mouth and nose of a cow, wear a mask, preferably N95, to reduce the risk infection.
- Do not eat or drink in the milking parlor or while handling cattle.
- Take extra precautions to clean and disinfect all milking equipment after milking cows suspected or confirmed ill.

Reporting Cattle Disease

- When identified, isolate, segregate and reduce points of direct contact between healthy and sick animals.
- Be in frequent communication with your herd veterinarian regarding sick cattle, they will help you determine if a farm visit and further action is warranted.
- Your herd veterinarian will help determine if sampling and confirmatory testing is necessary.

Safety of Dairy and Beef Products

- Pasteurized milk and dairy products and properly prepared and cooked beef and dairy products remain safe to consume.

Additional Resources

MSU Extension dairy team and beef team educators can help you discuss biosecurity on your farm. Additionally, example biosecurity plans, practices and resources for cattle can be found by visiting the Secure Milk Supply, Secure Beef Supply, or Beef Quality Assurance websites. These resources can help you develop your own farm biosecurity plan and include information on proper cleaning and disinfection processes which have the potential to help stop the spread of zoonotic diseases.

Farm Stress Program Resources

Dealing with animal health issues can be stressful for many people. MSU Extension has partnered with a mental health services provider to provide farmers and farm employees with free teletherapy services that can be used at any time. If you wish to access immediate resources, MSU Extension has compiled a list of resources for you.

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