Self-Assessment Checklist for Enhanced Biosecurity for FMD Prevention: Cattle on Pasture

SBS SECURE BEEF SUPPLY
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Target Audience

This checklist and corresponding Information Manual apply to:

- Cattle operations, of all sizes and management types that raise cattle on pasture, including operations that raise cattle from multiple or single sources on grass or other forages (cornstalks, wheat stubble, etc.) with or without supplemental grain. This includes, but is not limited to, stockers, backgrounders, seedstock operations, cow/calf operations, and dairy cattle on pasture.
- Operations with other susceptible animals (e.g., cattle in confinement, pigs, sheep, goats) kept on the premises in addition to cattle on pasture.
- All individuals delivering to, servicing, or working on the cattle operation (family members and/or non-family employees working on or visiting the operation).
- Cattle on operations that have **never been infected with or vaccinated for** foot and mouth disease (FMD).

Cattle grazed on public lands have some unique FMD exposure risk challenges. Public land grazers need to be aware of the exposure risks and implement strict, enhanced biosecurity procedures wherever possible to protect the flock. In addition to this checklist, please refer to the document: *Considerations for Enhanced Biosecurity for Cattle Grazing on Public Land Allotments* at: https://securebeef.org/Assets/SBS_Enhanced-Biosecurity-Considerations-Public-Lands.pdf

Introduction

In the event of a foot and mouth disease (FMD) outbreak in the United States (U.S.), maintaining business continuity for the beef industry is critical to the agricultural economy, food security, as well as animal health and well-being. The goal of the Secure Beef Supply (SBS) Plan is to provide a workable business continuity plan for beef producers that have cattle with no evidence of FMD infection and associated industries that is credible to Responsible Regulatory Officials (local, state, tribal, and federal officials, as appropriate). In an actual FMD outbreak, decisions will be made by the Responsible Regulatory Officials based on the unique characteristics of each outbreak.

During an FMD outbreak, it is the producer's responsibility to keep their animals from becoming infected, focusing on what they can control on their operation. Biosecurity approaches are both structural and operational. Structural biosecurity is built into the physical construction and maintenance of a facility. Operational biosecurity involves management practices designed to prevent the introduction and spread of disease agents onto or off of the premises. FMD will test the effectiveness of operational biosecurity because the FMD virus is highly contagious. Successful implementation of the biosecurity practices depends on the awareness level and behavior of individuals on the operation. **Implementing effective biosecurity measures to protect cattle raised on pasture from FMD can be expensive and inconvenient. However, a failure of biosecurity resulting in FMD infection of the herd can be devastating.**

FMD is highly contagious and has a major impact on animal health and international trade; however, it does not pose a food safety or public health concern. Existing biosecurity plans may offer protection against endemic diseases but heightened precautions are needed for FMD. The enhanced biosecurity recommendations outlined in this document are based on the known exposure routes for FMD. Operations with susceptible species raised outdoors (on pasture, dry lots) may have more difficulty preventing FMD exposure depending on their proximity to infected premises and the presence of wildlife in the area. More information on strategies for a managed response to an FMD outbreak, including use of Control Areas, is available in the Secure Beef Supply Plan for Continuity of Business (www.securebeef.org).

This document emphasizes three concepts that all operations raising cattle on pasture should be ready to implement prior to an FMD outbreak in the U.S.:

1. A Biosecurity Manager,
2. A written operation-specific enhanced biosecurity plan, and
3. A Line of Separation.

This checklist for enhanced biosecurity and the corresponding Information Manual for Enhanced Biosecurity: Cattle on Pasture can be used to develop an operation-specific, written, enhanced biosecurity plan prior to an FMD outbreak.

All operations should designate a Biosecurity Manager; this is item number 1 in the checklist below. The Biosecurity Manager develops the biosecurity plan PRIOR TO an outbreak; the plan should address items 2-11 on this checklist. The biosecurity plan should describe the scope of the operation, contain forms for documentation of training and signatures, explanations of procedures and signage used on the operation, and protocols written and communicated effectively in languages that are fully understood by the individuals responsible for implementation.

Implementing the biosecurity plan, including training of individuals, before an FMD outbreak occurs provides the best chance to prevent animals on the operation from being exposed. Once the biosecurity plan is written, operation owners/managers may use the checklist in one of the following ways:

- **In the absence of FMD in the United States**, operation owners/managers should decide which items (#2-11) they will implement. The biosecurity plan should describe the strategy for how each item could be implemented (supplies needed, changes in management practice, etc.). These items may supplement or replace measures included in the operation's everyday biosecurity plan.
- **If FMD is diagnosed anywhere in the U.S.,** operation owners/managers should immediately implement ALL of the items on the checklist to minimize the risk of exposing their animals.
- **If the operation is located in an FMD Control Area,** Responsible Regulatory Officials may require that all of the items on the checklist, and possibly others, be implemented before animal movement is permitted.

Scope of Biosecurity Plan

Each location (premises) should have its own biosecurity plan. Generally, it is best to consider each operation that raises animals at non-adjacent locations or multiple locations that must be accessed via a public road as a separate premises, have a separate Premises Identification Number, and therefore, a separate biosecurity plan. Begin by defining your premises, clearly describing the animals (all species) and animal housing (buildings, pastures, and dry lots) associated with the operation. Additionally, other businesses operated from the same premises will need to be accounted for in the biosecurity plan (e.g., distribution or sales of feed, mineral, fertilizer, compost, seed, or equipment; livestock sales; hosting farm tours; etc.). Biosecurity plans for premises owned/managed similarly may have significant overlap. When a premises becomes infected, all locations with the same PIN number will be considered to be infected. Having a PIN may be required to request movement permits during an outbreak. A PIN includes a valid 911 address and a set of matching coordinates (latitude and longitude) reflecting the actual location of the animals on the premises. Request a PIN from the office of your State Animal Health Official.

Acknowledgments

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Recommendations for Biosecurity

Each self-assessment checklist item has three possible responses, described below. Implementation of each component is essential to prevent virus entry and protect the health and well-being of the animals on the operation.

- **In place**: All items are addressed in the biosecurity plan and are implemented on the operation as evidenced by visual inspection or by signed and/or dated documentation, as applicable.
- **In progress**: Some, but not all, of the items are addressed in the biosecurity plan and are, or are capable of being, implemented on the operation as evidenced by visual inspection or by signed and/or dated documentation, as applicable.
- **Not in place**: The items have not been addressed in the biosecurity plan or are not capable of being implemented on the operation.

1. Biosecurity Manager and Written Plan

A Biosecurity Manager is identified for the operation. This individual is responsible for developing the biosecurity plan with the assistance of a veterinarian (if they are not a veterinarian) and ensuring biosecurity training of, or communicating biosecurity measures with, all individuals who enter the operation. The Biosecurity Manager has the written authority to ensure compliance with biosecurity protocols and take corrective action as needed.

☐ In place ☐ In progress ☐ Not in place

An operation-specific, written, enhanced biosecurity plan has been developed by the Biosecurity Manager. The plan is reviewed at least annually and whenever the operation goes through a change that affects biosecurity (expands, adds a new aspect of the business, etc.). The biosecurity plan clearly defines the scope of the operation, and includes biosecurity for other susceptible species kept on the premises. The biosecurity plan includes a map of the operation indicating the Line of Separation (LOS), LOS Access Point(s), cleaning and disinfection (C&D) station(s), designated parking area, and carcass disposal/pickup location. The map indicates vehicle movements (animal transport vehicles, deliveries, etc.) and carcass removal pathways. The Biosecurity Manager ensures that all individuals entering the operation frequently (weekly or more often) have access to a copy of the biosecurity plan. The Biosecurity Manager is capable of implementing the written plan if FMD is diagnosed in the U.S.

☐ In place ☐ In progress ☐ Not in place

2. Training

The Biosecurity Manager and essential personnel are trained at least annually about the biosecurity measures necessary to keep FMD out of the herd; training is documented. The Biosecurity Manager informs individuals entering the operation of biosecurity measures they are to follow in a language they understand. Individuals are aware of the biosecurity concepts and procedures that apply to their specific areas of responsibility. The biosecurity plan describes training required before entering this operation.

☐ In place ☐ In progress ☐ Not in place

3. Protecting Your Cattle

Line of Separation (LOS)

The biosecurity plan includes an LOS, which is established as an outer control boundary around, or within, the premises to limit movement of virus into areas where susceptible animals can be exposed.

The LOS is clearly defined in the biosecurity plan and is clearly marked on the premises. Animals, vehicles, people or items only cross the LOS through clearly marked and controlled LOS Access Point(s), following appropriate biosecurity measures. Cattle are prevented from nose-to-nose contact with livestock on adjacent premises. Cattle do not have access to streams, waterways, or run-off water that may have come from other premises.

☐ In place ☐ In progress ☐ Not in place

LOS Access Point(s)

Entry to the operation is restricted to a limited number of controlled LOS Access Points. These LOS Access Points are protected with a suitable barrier (e.g., gate, cable, rope) to prevent unauthorized vehicles from entering. Each LOS Access Point is clearly marked with a sign in a language understood by all entering. Vehicles moving through an LOS Access Point are cleaned to remove visible contamination and then disinfected. People and items crossing through LOS Access Points follow appropriate specific biosecurity steps. The animal loading/unloading area does not serve as an entry point for people entering the operation. All movements (animals, vehicles, equipment, people) across the LOS are recorded and are available for review upon request. Deliveries not essential to the operation are made outside the LOS at a designated area indicated on the premises map.

☐ In place ☐ In progress ☐ Not in place

Cleaning and Disinfection (C&D) Station

There is an operational, clearly marked, and equipped C&D station ready to be used in the event of an FMD outbreak. The C&D station has the means to remove visible contamination and then disinfect vehicles, equipment, and items needing to cross the LOS. The C&D station is operated by individuals who have received documented training in proper selection and use of personal protective equipment and the principles of C&D. Runoff from the C&D station is managed in a manner that prevents exposure of susceptible animals (either on or off the premises of origin) to disease agents and meets state, local, and Responsible Regulatory Officials' regulations. Care should be taken to ensure it does not enter waterways, animal housing, or on-farm traffic areas. The biosecurity plan contains contingency plans for vehicle and equipment C&D in inclement weather.

☐ In place ☐ In progress ☐ Not in place

Designated Parking Area

There is a clearly marked, designated parking area outside of the LOS, away from animal areas, for vehicles that will not enter the LOS and have not been cleaned and disinfected.

☐ In place ☐ In progress ☐ Not in place

Maximize Distance between Susceptible Livestock on Adjacent Premises

The distance is maximized between susceptible livestock on adjacent premises, and steps to do so have been coordinated with owners/operators of these premises.

☐ In place ☐ In progress ☐ Not in place

4. Vehicles and Equipment

Vehicles and Equipment (non-animal transport)

All vehicles and equipment (not containing live animals) are cleaned and effectively disinfected prior to crossing the LOS, otherwise entry is prohibited.

☐ In place ☐ In progress ☐ Not in place

Livestock Trucks/Trailers (animal transport vehicles)

All empty animal transport vehicles that cross the LOS are cleaned and effectively disinfected prior to arrival at the operation (outgoing loads) or before animals were loaded for delivery to the operation (incoming loads).

☐ In place ☐ In progress ☐ Not in place

5. Personnel

Prior to Arriving at the Operation

Access is limited to individuals who are essential to the operation of the premises. Everyone crossing the LOS on foot or exiting their vehicle inside the LOS arrives at the operation having showered and wearing clean clothing and footwear since last contacting susceptible animals. All individuals crossing the LOS have a signed agreement on file agreeing to follow these instructions.

☐ In place ☐ In progress ☐ Not in place

Entry Log

Everyone crossing the LOS Access Point(s) completes the entry log, unless they are a scheduled worker. The entry log is monitored by an individual working on the operation to ensure accurate completion. The contact information and work schedule records for all workers are maintained.

☐ In place ☐ In progress ☐ Not in place

Biosecure Entry/Exit Procedure

All individuals who cross an LOS Access Point on foot or exit their vehicle inside the LOS ensure that visible contamination on their footwear, clothing or exposed skin does not enter or exit the operation, following the biosecure entry and exit procedure as specified in the biosecurity plan.

☐ In place ☐ In progress ☐ Not in place

6. Animal Movement

Incoming Animals

Animals come only from sources with documented enhanced biosecurity practices and no current or previous evidence of FMD infection.

☐ In place ☐ In progress ☐ Not in place

Pre-movement Isolation Period

No animals from an FMD Control Area are introduced onto the operation for at least 7 days prior to moving animals to another production site with susceptible animals.

☐ In place ☐ In progress ☐ Not in place

Contingency Plan for Interrupted Animal Movement

A plan exists to manage animals in a biosecure manner on-site in the event animal movement is stopped for several weeks.

☐ In place ☐ In progress ☐ Not in place

Loading/Unloading Animals

The biosecurity plan describes whether or not the livestock truck crosses the LOS, the drive path to the animal loading/unloading area(s), and the capabilities to clean and disinfect between animal loading and unloading OR there are separate and dedicated animal loading and unloading areas that prevent cross-contamination. The animal loading/unloading area(s) is NOT a people entry point. These details are labeled on the premises map. Animals load-out using a staged procedure.

☐ In place ☐ In progress ☐ Not in place

7. Animal Product Movement

Semen, Embryos

Semen and embryos collected after FMD has been diagnosed in the United States come from sources with documented, enhanced biosecurity practices and no current or previous evidence of FMD infection. Semen and embryos are transported in containers whose exteriors can be cleaned and effectively disinfected to minimize the risk of virus contamination.

☐ In place ☐ In progress ☐ Not in place
☐ Does not apply (explanation included in the biosecurity plan)

Feeding Dairy Products

If cattle on the operation are fed dairy products, these products have been treated to World Organization for Animal Health (OIE) recommendations for inactivation of FMD virus for animal consumption (see the biosecurity manual).

☐ In place ☐ In progress ☐ Not in place
☐ Does not apply (explanation included in the biosecurity plan)

8. Carcass Disposal

Dead animals are disposed of in a manner that prevents the attraction of wildlife, rodents, and other scavengers. Rendering trucks and other vehicles hauling dead animals to a common disposal site do not cross the LOS.

☐ In place ☐ In progress ☐ Not in place

9. Manure Management

Manure is stored and removed in a manner that prevents exposure of susceptible animals (either on or off the premises of origin) to disease agents and meets state, local, and Responsible Regulatory Officials' regulations.

☐ In place ☐ In progress ☐ Not in place

A plan exists for storing manure on-site in the event it cannot be permitted to move off-site during an outbreak.

☐ In place ☐ In progress ☐ Not in place

10. Wildlife, Rodent and Other Animal Control

Control measures are in place to minimize interaction between cattle and other animals (deer, feral pigs, rodents, dogs, cats, etc.).

☐ In place ☐ In progress ☐ Not in place

11. Feed

Feedstuffs are delivered, stored, mixed, and fed in a manner that minimizes contamination, and feed spills are cleaned up promptly to avoid attracting wildlife.

☐ In place ☐ In progress ☐ Not in place

Comments

Please send comments or suggested edits for improvement to: sbsinfo@iastate.edu

Additional Resources

The Secure Beef Supply website has additional resources available at: www.securebeef.org