

Secure Beef Supply (SBS) Plan for Continuity of Business



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Introduction

Foot and mouth disease (FMD) is a highly contagious foreign animal disease that affects cattle and other cloven-hooved animals, such as swine, sheep, goats, and deer. FMD is not a public health or food safety concern. FMD has been eradicated from the United States since 1929 but is present in many other countries and causes severe production losses in animals. Industry, state, and federal officials have worked collaboratively with cattle disease experts to develop response plans should FMD virus infect susceptible animals in the United States. Response strategies for controlling and stopping the spread of this animal disease will include stopping movement of susceptible animals and their products, rapid identification of infected animals, strategic depopulation with proper disposal, and vaccination. Responsible Regulatory Officials (local, state, tribal and federal officials, as appropriate) have the authority and responsibility to establish regulatory Control Areas around FMD infected premises and to manage animal and animal product (semen, embryos) movement within, into, and out of the Control Area.

Purpose of the Secure Beef Supply Plan

The Secure Beef Supply (SBS) Plan provides a workable business continuity plan for beef premises **with no evidence of FMD infection** located in a regulatory Control Area and allied industries that is credible to Responsible Regulatory Officials. Continuity of business (COB) for the beef industry revolves around the ability to move animals to slaughter and processing facilities and between production premises. Officials must balance the risks of allowing movement of animals to slaughter and processing facilities and between production premises against the risk of not allowing movement. The initial phase of the SBS Plan focuses on moving feedlot cattle to processing facilities while subsequent phases will include other aspects of beef production.

Participation is voluntary. Having the SBS Plan guidance available prior to an FMD outbreak enhances coordination and communication between all stakeholders. It is intended to speed up a successful FMD response and eventually enable the issuance of movement permits after the extent of the outbreak is understood. This will support COB for beef producers, transporters, packers, processors, and allied industries who choose to participate

The SBS Plan is the result of a multi-year collaborative effort by industry, state, federal, and academic representatives. Funding for its development was provided by USDA Animal and Plant Health Inspection Service (APHIS). The SBS Plan provides guidance only. In an actual outbreak, decisions will be made by the Responsible Regulatory Officials based on the unique characteristics of the outbreak.

The **purpose of this document** is to provide a succinct overview of the SBS Plan and related resources for industry stakeholders and government officials. It facilitates beef industry preparedness for, and response to, an FMD outbreak.

FMD Response Guidance Documents

There are several guidance documents for Responsible Regulatory Officials to use in an FMD Outbreak. The goals of the SBS Plan are aligned with these guidance documents.

- **Strategic guidance** for responding to FMD in the United States can be found in the following *Foreign Animal Disease Preparedness and Response Plan (FAD PRP)* documents:

- *Foot-and-Mouth Disease Response Plan: The Red Book*
www.aphis.usda.gov/animal_health/emergency_management/downloads/fmd_responseplan.pdf
- *Ready Reference Guides*, which accompany many of the detailed documents and materials below, offer quick summaries of the information for training and educational purposes.
www.aphis.usda.gov/aphis/ourfocus/animalhealth/emergency-management/ct_fadprep_readyreferenceguides
- Strategies for a managed response to an FMD outbreak will change as the outbreak progresses (phase) and will depend upon the magnitude (type), location of the outbreak, vaccine availability, and other characteristics. These pre-defined **phases and types of an FMD outbreak** are described in the guideline document *FAD PReP Classification of Phases and Types of a Foot-and-Mouth Disease Outbreak and Response*. This document helps facilitate the development of adaptable emergency response and business continuity plans for the U.S. livestock industry in the event of an FMD outbreak in North America. <http://www.cfsph.iastate.edu/pdf/phases-and-types-of-an-fmd-outbreak>
- **Surveillance, epidemiology, and tracing** techniques will be utilized by Responsible Regulatory Officials during the outbreak to detect new cases, understand and adapt to the outbreak situation, and provide information for decision making and disease control procedures. The USDA has developed the *FAD PReP/National Animal Health Emergency Management System (NAHEMS) Guidelines: Surveillance, Epidemiology, and Tracing*. These activities likely will lead to additional regulatory activities such as quarantine and movement controls.
www.aphis.usda.gov/animal_health/emergency_management/downloads/nahems_guidelines/nahems_sur_epi_trac.pdf
 - **Animal surveillance** methods to demonstrate a lack of evidence of FMD infection to allow animal and/or product movement to support business continuity without spreading infection are described in *Surveillance Guidance to Support the Secure Beef Supply (SBS) Continuity of Business Plan during an FMD Outbreak* at:
http://securebeef.org/Assets/SBS_FMDv-Surveillance-Guidance.pdf.
- **Quarantine and movement controls** are critical activities to control FMD. These approaches include establishing a Control Area around each infected premises and issuing movement restrictions for cattle and other susceptible animals and their products in a Control Area. The USDA has developed the *FAD PReP/NAHEMS Guidelines: Quarantine and Movement Control* to describe these measures.
www.aphis.usda.gov/animal_health/emergency_management/downloads/nahems_guidelines/nahems_qmc.pdf
- **Continuity of business (COB)** activities for premises with no evidence of infection in a Control Area aim to minimize disruptions to commerce caused by quarantine and movement restrictions and decrease the economic consequences of an FMD outbreak. The USDA has developed *FAD PReP/NAHEMS Continuity of Business (COB) Guidelines*. These guidelines provide the basis for managed movement – which is an important component of business continuity – of animals with no evidence of infection and their products from within a Control Area in a foreign animal disease incident.
www.aphis.usda.gov/animal_health/emergency_management/downloads/nahems_guidelines/cob_nahems.pdf.
- **Emergency response management** during an FMD outbreak involves considerable amounts of data, including investigation records, premises identification numbers, individual animal and herd-level laboratory test results, movement permits, and resource allocation information.

Producers in a Control Area may be required to have a National Premises Identification Number (PIN) to request movement permits in an outbreak. PINs are available from the office of your State Animal Health Official. States are encouraged to transfer their premises data into the USDA Emergency Management Response System (EMRS) prior to any outbreak. EMRS is the USDA APHIS official system of record for all animal health incidents; therefore, all data needed to request movement permits will need to be entered into EMRS. This greatly facilitates response efforts. For more information, refer to *USDA Premises Data Transfer to EMRS from External/State-Based Systems, June 16, 2016* at: www.aphis.usda.gov/animal_health/emergency_management/downloads/emrs_premisesdatatransfer.pdf and *Introduction to EMRS 2 Ready Reference Guide, May 2016* at: www.aphis.usda.gov/animal_health/emergency_management/downloads/emrs_rrg_intro.pdf.

Managed Movement of Animals in an FMD Response

An effective strategy for managing FMD in outbreaks involves stopping movement of susceptible animals and their products for a period of time. Movement restrictions may be put in place for the regulatory Control Areas(s) to limit risk of disease spread by animals, animal products, vehicles, and other equipment. Movement will be by permit only which will be issued based on the risk posed by that movement and the premises' ability to meet permit requirements. Beef operations that follow the guidance in this SBS Plan will be better prepared to request a movement permit. At the beginning of an FMD outbreak, several days or weeks may be needed before the livestock industry, federal and state officials have sufficient knowledge of the extent of the outbreak to have confidence that animals with no evidence of infection can be moved safely without contributing to disease spread. A summary of movement permit guidance is provided in Table 1.

It is the Responsible Regulatory Officials' responsibility during an outbreak to detect, control, and contain FMD as quickly as possible with the ultimate goal of eradication. Responsible Regulatory Officials managing the incident will make permitting decisions regarding the movements of animals and animal products (semen, embryos) within, into, out of, and through Control Areas based on the unique characteristics of the outbreak, the status of the premises, and the risks and mitigations involved with the types of movement.

It is the producer's responsibility during an FMD outbreak to protect his/her animals from becoming infected, focusing on what producers can control on their operation. To facilitate business continuity (movement), producers will need to provide assurances to the Responsible Regulatory Officials that they are not contributing to the spread of disease nor putting their own animals at risk of exposure. Some movements carry more risk than others. Biosecurity will be paramount to limiting disease spread. Developing an enhanced biosecurity plan prior to an outbreak and sharing that with State Animal Health Officials builds trust and confidence when requesting a movement permit during an outbreak. Further, an enhanced biosecurity plan increases individual preparedness to maintain COB in the face of an FMD outbreak. Producers should be ready to provide evidence that they have implemented all of the enhanced biosecurity measures recommended in the *SBS Self-Assessment Checklist for Enhanced Biosecurity for FMD Prevention* available at www.securebeef.org. Additionally, producers should be prepared to manage their cattle operations if they are not allowed to move animals for several days or weeks. Such contingency plans will be important to implement during the timeframe Responsible Regulatory Officials are conducting appropriate surveillance to demonstrate a lack of evidence of disease and more confidence that an animal movement does not present a significant risk for disease spread.

Packers and processors are essential to the success of business continuity for the beef industry during an FMD outbreak. FMD is not a public health or food safety concern. Therefore, animals which pass ante-mortem and post-mortem inspection by USDA Food Safety Inspection Service (FSIS) are safe and wholesome for human consumption, even if they are in the pre-clinical or recovery stage of FMD infection. Many packing plants have on-site rendering capacity for non-edible products, so any virus in

those products would be destroyed. Processing all healthy animals in the slaughter facility and in transit to the facility is the fastest way to eliminate virus amplification and further spread of FMD. Processing also preserves high quality protein for human consumption and reduces the need for carcass disposal. Processing healthy animals from a regulatory control area should continue, even if FMD infected animals are suspected or proven to already be in the packing plant. Product that has passed FSIS inspection is safe for human consumption and potentially may be released into commerce for human consumption.

Packing plant employees, truck drivers, and others who contact animals or their bodily fluids must observe proper biosecurity protocols to avoid transmitting the FMD virus to susceptible animals when these individuals leave the plant. All personnel must be instructed on biosecurity steps to follow prior to and after leaving the plant.

For more information about managed movement of animals in an FMD response, please see *Managed Movement of Cattle in the U.S. in a Foot and Mouth Disease Outbreak*, April 2016, available at: http://securebeef.org/Assets/SBS_Managed-Movement_DRAFT.pdf

Participation in the SBS Plan includes guidance for producers and packers (when requesting) and officials (when evaluating requests) for animal and/or animal product movement permits. There may be additional requirements depending on the scope of the outbreak. Following the guidance in the SBS Plan could enable movement sooner, once animal movement is resumed.

Participation in the Secure Beef Supply Plan

During an outbreak, premises in a Control Area that need to move cattle with no evidence of FMD infection may need to comply with the SBS Plan guidelines to request and receive a movement permit, provided their state participates in the SBS Plan. Responsible Regulatory Officials also may implement additional requirements depending on the scope of the outbreak. All interstate movements additionally must meet existing movement/state entry requirements in addition to these outbreak-specific conditions. Implementing the guidance outlined in the SBS Plan before an outbreak decreases the risk of disease spread as well as facilitating the eventual issuing of movement permits, for beef premises with no evidence of infection, and for allied industries.

To Prepare Prior to an Outbreak:

Request a National Premises Identification Number (PremID or PIN) from the office of your State Animal Health Official: Having a PIN facilitates requesting movement permits during an outbreak. A PIN includes a valid 911 address and a set of matching coordinates (longitude and latitude) reflecting the actual location of the animals on the premises. A PIN is required for both the premises of origin and the premises of destination. When a premises becomes infected, all premises with the same PIN number will be considered to be infected. Generally, it is best to have separate PIN numbers for premises with animals that are under the same ownership or management but reared off-site and accessed via a public road. Producers and packers are encouraged to validate their PIN with State Animal Health Officials to ensure their data on file accurately represents the location of the animals and not a mailbox at a residence or business affiliated with the animal premises. Validated PINs speed up communication and response during an outbreak.

Develop an enhanced biosecurity plan: Mitigations are needed to prevent FMD virus spread through the movement of animals. To request an animal movement permit, the beef operation should work with its veterinarian to develop a written, operation-specific biosecurity plan that meets or exceeds the items in the *Self-Assessment Checklist for Enhanced Biosecurity for FMD Prevention* (Biosecurity Checklist). This document describes the mitigations needed to prevent disease exposure from multiple routes (personnel, vehicles, semen, manure, carcasses, etc.) based on known exposure routes for FMD. The Biosecurity Checklist, the *Information Manual for Enhanced Biosecurity for FMD Prevention* (assists in writing a biosecurity plan), biosecurity plan templates, and materials for educating individuals that work on the operation (in English and Spanish) are available on the SBS website: <http://securebeef.org/>.

Implementing all items in the checklist before an FMD outbreak occurs can help prevent animals on the operation from being exposed. However, implementing effective biosecurity to protect animals raised outdoors from FMD can be expensive and inconvenient. Therefore, once the biosecurity plan is written, owners/managers of the beef operation should decide which items from the checklist they will implement in the absence of FMD in the U.S. and which will be suspended until an outbreak occurs. Producers are encouraged to share this plan with State Animal Health Officials prior to an outbreak.

Designate personnel on the beef operation who will conduct FMD surveillance and sample collection: Animal caretakers should be able to recognize abnormal findings (clinical signs and/or changes in production parameters) that may be an early indicator of FMD virus infection, and be able to document that there is no evidence of an FMD virus infection in their herd through Active Observational Surveillance (AOS). Materials include presentations, handouts, and posters that visually depict clinical signs of FMD in cattle. Educational materials (once finalized) are available in English and Spanish on the SBS website: <http://securebeef.org/>. Record keeping templates also are available for operations that do not already use a system to document health observations and feed consumption data. Producers should ask their herd veterinarian if they are accredited by the USDA and if not, they should establish a relationship with one, as they may be a necessary component of surveillance during an outbreak.

Maintain movement records: Premises in a Control Area will be required to provide epidemiological information at the beginning of an outbreak to identify potential previous exposure to the disease. Maintaining accurate records of movement of animals, feed, supplies, equipment, personnel, and visitors enables producers to provide accurate trace-back epidemiological information. In addition, owners/managers should maintain records of the names, addresses, and telephone numbers of animal transporters (truckers), employed personnel, feed suppliers, etc.. Sample movement logs can be found in the *Information Manual for Enhanced Biosecurity for FMD Prevention*. This information will be used to determine the scope of the outbreak but it can be daunting to provide a lot of detail on short notice. Producers can use the *Secure Beef Supply Practice Questionnaire* (coming soon) to get a feel for the information that will be needed in an outbreak.

Once FMD is Diagnosed in the U.S.:

Implement the Operation-Specific Enhanced Biosecurity Plan: If FMD is diagnosed anywhere in the U.S., owners/managers of the beef operation should review, update as necessary, and implement their operation-specific biosecurity plan to minimize the risk of exposing their animals. If the beef operation is located in an FMD Control Area, Responsible Regulatory Officials may require that all of the items on the Biosecurity Checklist, and possibly others, be implemented before animal movement is allowed.

Conduct Surveillance: The document, *Surveillance Guidance to Support the Secure Beef Supply (SBS) Continuity of Business Plan during an FMD Outbreak*, summarizes surveillance options for cattle premises within a Control Area to demonstrate a lack of evidence of FMD virus infection to support continuity of business movements. At this time, the ability to provide a very high degree of confidence that animals are negative for FMD virus using currently available, validated laboratory testing methods, and sample collection protocols for large groups or certain types of animals is limited. Diagnostic tests to be performed and sampling protocols may evolve throughout the outbreak based on new knowledge and technology. Protocols will be determined by Responsible Regulatory Officials and may include:

- Virological surveillance (such as oral swabs)
- Conducting Active Observational Surveillance (AOS) daily by trained Cattle Health Monitors employed by the premises
- Periodic inspection of cattle and AOS records by Accredited Veterinarians under the authority of Responsible Regulatory Officials
- Follow-up laboratory testing for animals with any suspicious clinical signs

Provide epidemiological information: Premises within an FMD Control Area may be required to provide epidemiological information at the beginning of an outbreak to identify potential exposure to the virus. Responses help Responsible Regulatory Officials determine the status of the premises – Contact, At-Risk, or Monitored. These designations guide additional surveillance and permitting decisions.

Requesting a Secure Food Supply Movement Permit during an Outbreak

Before requesting a Secure Food Supply movement permit for beef cattle or cattle products (semen or embryos), both the premises of origin and the premises of destination, including packing plants, need to have a National PIN, and the premises and State of destination needs to be willing to accept the risk of receiving the animals. Each premises requesting a movement permit must be registered through the office of their State Animal Health Official and/or established as a premises in the USDA’s Emergency Management Response System (EMRS) before requesting a permit. For premises participating in the SBS Plan, permits should be requested through the EMRS Customer Permit Gateway or similar State-approved permitting system that is capable of exporting data required for USDA APHIS EMRS during an outbreak, or vice versa. If a State elects to use their own information management system to handle permitting, the information must, in near real-time, be linked into EMRS, especially for interstate movements where approval of both origin and destination State must be granted and Unified Incident Command be informed. EMRS is the USDA APHIS official system of record for all animal health incidents.

Further information on Secure Food Supply permits and permitted movements is available in the document *FAD PReP Manual 6-0: Permitted Movement*, available at https://www.aphis.usda.gov/animal_health/emergency_management/downloads/documents_manuals/fadp_rep_man6-0_permit-mvmt.pdf. It contains detailed information on the different types of permits and movements as well as thorough explanations of the permitting process.

Provide the following information (it will be recorded in EMRS):

- Permit class—where you want to move animals or animal products in relation to the Control Area (such as out of Control Area).
- Permit reason—why you want to move animals or animal products (such as direct to slaughter).
- Origin premises—premises location (physical latitude/longitude) including validated National PIN must be entered in a State information system. For permits issued by EMRS or the EMRS Gateway, the National PIN must be entered into EMRS. (State information systems and EMRS will share data before or during incidents.)
- Destination premises—premises location (physical latitude/longitude) including validated National PIN must be entered in a State information system. The destination premises must sign a statement that they understand the risk of accepting animals from the Control Area. For permits issued by EMRS or the EMRS Gateway, the National PIN must be entered into EMRS. (State information systems and EMRS will share data before or during incidents.)
- Item(s) permitted—category of what you want to move (groups of animals, feed, manure, etc.).
- Item class—specifically what is moving (such as steers to slaughter).
- Duration/span of permit—first movement date, how long the permit is valid, and over what time period movements are expected to occur.

For any permitted movement, the Origin State can request documentation from the premises making the request, and attach that documentation to the permit request in EMRS or make the information available through a workable data management system. This documentation may include:

- Epidemiological information.
- A completed copy of the Biosecurity Checklist and the operation-specific enhanced biosecurity plan.

- Written assurance by the producer of compliance with the Biosecurity Checklist.
- Information demonstrating normal health status for the animals on the production premises involved (such as cattle health monitoring documents and/or Certificate of Veterinary Inspection signed by an Accredited Veterinarian at the time the animals are loaded).
- Diagnostic testing results from samples tested. When submitting samples for testing, it is imperative that the National PIN for the location sampled is always included with the diagnostic submission (the recommended type and number of samples to collect and frequency of collection are being developed).
- For animal movements to another production premises, the destination premises must indicate that they understand and accept the risks associated with receiving the animals.

Completed movement permit requests will be reviewed first by the Origin State. The permit can be recommended for approval to Destination State, not recommended for approval to Destination State, or rejected. If approved, then the Destination State reviews and approves or rejects the permit. The destination premises may also have the ability to reject a permit. If the permit request is not approved, an explanation for denial will be provided in the EMRS Gateway. If approved, the producer will receive the approved permit (likely as an electronic PDF) from the appropriate official working to inform Unified Incident Command; it is also available for download directly from the EMRS Gateway. The permitted movement must comply with all requirements on the permit; all subsequent permitted movements associated with that permit must be submitted to and recorded in EMRS through the permit Gateway or other State-approved data information system for permits.

Table 1. Summary of Movement Permit Guidance for Cattle, Semen and Embryos located within a Control Area during an FMD Response

Permitting Guidance for Movement of Cattle/Semen/Embryos	Condition Met?
1. Traceability information is available (PIN, GPS Coordinates, and information on type and number of animals moved)	Yes
2. Biosecurity measures listed in the Biosecurity Checklist are in place and acceptable to Responsible Regulatory Officials	Yes
3. Epidemiology information is acceptable	Yes
4. Destination premises and State are willing to accept the cattle/semen/embryos	Yes
5. No evidence of infection based on surveillance	Yes
6. Permit guidance to move cattle/semen/embryos if all above responses are “Yes”	Consider Issuing MOVEMENT PERMIT

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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