Secure Goat, Milk & Mohair Supply Plan (SGMMS) for Continuity of Business

SGMMS
SECURE GOAT, MILK & MOHAIR SUPPLY
https://securegoat.org

MILK PRODUCTS Section

Introduction

Foot and Mouth disease (FMD) is a highly contagious foreign animal disease that affects goats as well as other cloven-hooved animals, including cattle, sheep, deer and swine. FMD is not considered to be a zoonotic disease (a disease that can cause infection in humans) and is not a public health or food safety concern. FMD was eradicated in the United States U.S. in 1929, but this animal disease is still present in many other countries and continues to pose a serious threat to U.S. producers. Because it causes major animal production losses, State and Federal officials have worked collaboratively with goat and other animal disease experts to develop response plans should FMD virus infect susceptible animals in the U.S. The Secure Goat, Milk & Mohair Supply Plan (SGMMS) was developed to provide **guidance** for goat owners and producers (hereinafter referred to as producers) on continuity of business (COB) in the event of a foreign animal disease incursion into the U.S.

The SGMMS Plan Milk Goat Section (MIGS) provides specific guidance for the Milk Goat Industry on continuity of business (COB) in the event of an outbreak of FMD in the U.S. It includes all the applicable information found in the main SGMMS Plan Overview outlining effective response strategies for controlling and stopping the spread of FMD. Responsible Regulatory Officials (RROs), including local, State, tribal and Federal officials, as appropriate, as well as private veterinarians have the authority and responsibility to establish Regulatory Control Areas (Control Areas) around FMD infected premises. Response strategies to control and stop an outbreak include stopping movement of susceptible animals, germplasm[1], carcasses, and certain products, rapid identification of infected animals, strategic depopulation with proper disposal, and vaccination. The RROs can also regulate animals, animal products, and other movements that pose a risk of virus spread into, within, and out of these Control Areas.

Purpose

The MIGS provides guidance for a workable (COB) plan for dairy goat premises **with no evidence of FMD infection** in a Control Area to move raw milk to processing, milk products to market, goats and goat products to slaughter and/or processing facilities, and to and from production phases and premises that is credible to RROs. RROs must balance the risks of allowing movement of raw milk and milk products against the risk of not allowing movement and thus the necessity for on farm disposal of raw milk and goats. In addition, RROs must also evaluate the risk of allowing direct sales of milk pasteurized at the premises to consumers either at the premises, or off premises. While producers are not required to have their own plan, if authorities identify an FMD or other highly contagious disease infection threat, having a plan in place will help lessen the detrimental effects and allow them to continue their business as soon as practical. FMD is not a public health or food safety concern.

1 Germplasm is defined here as animal material (such as semen, ova, or embryos) that is collected and stored chiefly for future use in breeding, conservation, or research.

Participation in the SGMMS Plan and this Section is voluntary. However, in the event of an outbreak of FMD, having a SGMMS Plan in place prior to a disease outbreak will provide the best option to protect the producer's premises, goats and ability to conduct business. The intent of the SGMMS Plan is to enhance coordination and communication between all stakeholders, expedite a successful response and eventually enable the issuance of movement permits after the extent of the outbreak is determined. This will support COB for goat producers, transporters, packers, processors, and allied industries who choose to participate.

The SGMMS Plan includes guidance for producers and officials when requesting or evaluating requests for animal and/or animal product movement permits. There may be additional requirements depending on the type or scope of the outbreak. If permits are required, following the guidance in this Section could enable movement of goats and goat milk sooner.

The SGMMS Plan and all Sections are the result of a collaborative effort by goat industry stakeholders, State, Federal and academic representatives. The project is funded by a cooperative agreement between the American Goat Federation (AGF) and the United States Department of Agriculture, Animal and Plant Health Inspection Services, Veterinary Services (USDA/APHIS/VS). While it helps the industry prepare for an outbreak, the plan is designed to provide guidance only. During an actual outbreak, decisions will be made by the RROs, based on the unique characteristics of the outbreak.

Response Guidance Documents

There are several guidance documents for RROs to use in an FMD Outbreak. The goals of the SGMMS Plan aligns with these guidance documents.

Strategic guidance for responding to FMD and other highly contagious animal disease outbreaks in the USA can be found in the following resources:

- *Animal Health Emergency Management:* https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/emergency-management
- *Foot-and-Mouth Disease Response Plan: The Red Book*: https://www.aphis.usda.gov/animal_health/emergency_management/downloads/fmd_responseplan.pdf
- *Ready Reference Guides, that offer quick summaries of the information for training and educational purposes*: https://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 disease outbreak progresses (phases) and will depend on the magnitude of the disease outbreak (type), location of the outbreak, availability of vaccine, and other characteristics. **Pre-defined phases and types of an FMD outbreak** that can be applied to any highly contagious animal disease are described in:

- *Classification of Phases and Types of a Foot-and-Mouth Disease Outbreak and Response:* https://www.aphis.usda.gov/animal_health/downloads/sacah/2016/fmd_phases&types.pdf

This document helps facilitate development of adaptable emergency response and COBs for the U.S. livestock industry in the event of an FMD outbreak in North America.

Surveillance, epidemiology, and tracing techniques will be utilized by RROs during the outbreak to detect new cases, understand and adapt to the outbreak situation, and provide information for decision making and disease control procedures such as quarantine and movement controls. USDA has

developed the following documents to provide details on these efforts:

- *FAD PReP/National Animal Health Emergency Management System (NAHEMS) Guidelines: Surveillance, Epidemiology, and Tracing:* to provide details on these efforts: https://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 COB without spreading infection are described at: https://SecureGoat.org/producers/. They include current limitations of testing individual goats to provide a high degree of confidence that herds are not infected. These limitations will likely to slow the movement of goats in a Control Area at the beginning of an outbreak. It is not possible to prove that an animal is not infected with FMD. It is only possible to establish the lack of evidence of infection.
- **Bulk-tank Milk Surveillance:** While FMD is not a public health or food safety concern, goats can shed FMD virus in their milk 2-4 days prior to the onset of clinical signs. If it is approved for use in testing goat milk, identifying infected premises during the subclinical phase could be done by testing bulk-tank milk using real-time reverse transcription polymerase chain reaction (rRT-PCR). Bulk-tank milk samples must be transported to a National Animal Health Laboratory Network lab for testing; commercial milk testing labs have not been proficiency tested or USDA approved to perform this test. This screening test is not designed to be a just-in-time test for permitting daily milk movement (raw or pasteurized) during an outbreak due to the length of time required for sample delivery and testing (minimum of 8 hours). Rather the test can identify FMD virus in the milk sample, indicating one or more lactating does that contributed to the bulk-tank milk sample are shedding virus, helping to identify newly infected dairy herds. More information is provided in *Potential uses of a rRT-PCR assay for FMD in bulk-tank milk in the United States*: https://www.aphis.usda.gov/animal_health/downloads/CEAH-BTM-Evaluation-FMD_9292017.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[2] for goats and other susceptible animals and their products in a Control Area. Due to the highly contagious nature of the FMD virus, these Control Areas will be at a minimum 10 km (6.2 miles) beyond the perimeter of the infected premises. USDA has developed the *FAD PReP/NAHEMS Guidelines: Quarantine and Movement Control* to describe details and application of these measures during an outbreak: https://www.aphis.usda.gov/animal_health/emergency_management/downloads/nahems_guidelines/nahems_qmc.pdf

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 a highly contagious animal disease outbreak. The USDA *FAD PReP/NAHEMS*

[2] In this document the term "movement restrictions" will be used as a general term to encompass the language and implementation differences among federal movement recommendations and individual State.

Continuity of Business (COB) Guidelines provide the basis for managed movement of animals with no evidence of infection and their products from within a Control Area in a highly contagious animal disease incident. This is an important component of business continuity.
https://www.aphis.usda.gov/animal_health/emergency_management/downloads/nahems_guidelines/fadprep_nahems_tactical_topics_cob.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 will be required to have a National Premises Identification Number (PIN) in order to request movement permits during an outbreak. **This number is different from the Scrapie Flock ID that goat producers are familiar with**. PINs are available from the producer's State Animal Health Official (SAHO):
https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/traceability/state-pin.

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, and 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:* https://www.aphis.usda.gov/animal_health/emergency_management/downloads/emrs_premisesdatatransfer.pdf
- *Ready Reference Guide – Introduction to EMRS2*: https://www.aphis.usda.gov/animal_health/emergency_management/downloads/emrs_rrg_intro.pdf.

Managed Movement of Goats and Milk in an FMD Response

An effective strategy for managing an FMD outbreak involves restricting movement of susceptible livestock, germplasm, and certain livestock products with a risk of spreading FMD such as mohair, cashmere, or wool into, within and out of Control Areas for a defined period of time. Prolonged movement restrictions will negatively impact the livestock industry and animal welfare.

Goat operations **affected** by movement restrictions but **not infected with FMD** will need to restart movement as soon as possible to support business continuity in a way that is consistent with mitigating the risk of spreading FMD. Movement permits, if required, will be issued based on the risk posed by movement of the item and the goat operation's ability to meet permit requirements.

USDA recommends a 24 to 72-hour national movement standstill of susceptible animals and germplasm when FMD is first confirmed in the U.S. A national movement standstill does not affect movement of milk or other products; premises may continue moving milk to processing. After this time period, the standstill may be lifted, extended, or modified (e.g., applied to a smaller geographical area or only certain animal production types). When the national movement standstill is lifted, national guidance for the resumption of movement of livestock and germplasm will be provided. All premises with susceptible animals should continue to implement enhanced biosecurity.

For more information, please see *Managed Movement of Susceptible Livestock Species in the U.S. during a Foot and Mouth Disease Outbreak, August 2019*:

- *Overview (two page):* https://www.cfsph.iastate.edu/pdf-library/FMD-Resources/disease-fmd-sfs-managed-movement-overview.pdf
- *Considerations for Regulatory Officials (six-pages)*: https://www.cfsph.iastate.edu/pdf-library/FMD-Resources/disease-fmd-sfs-managed-movement-regulatory-officials.pdf

Dairy goat operations that follow the guidance in this SGMMS Plan will be better prepared to request a **milk** movement permit in the event permits are required by RROs. 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 goats and goat products with no evidence of infection can be moved safely without contributing to disease spread. Based on risk, permitting movement likely will be delayed.

Milk Movement at the Beginning of an FMD Outbreak

In an FMD outbreak, Responsible Regulatory Officials (RROs) have the authority and responsibility to establish Control Areas around FMD Infected Premises and to manage animal and animal products (such as milk) movement within, into, and out of the Control Area. Decisions on raw milk movement will depend on factors unique to each outbreak and Control Area. Processing of milk from a Control Area always must include pasteurization. Dairy premises in a Control Area that need to move milk may need to comply with the SGMMS Plan guidelines to request and receive a milk and/or milk product movement permit, if required by RROs. These officials may also implement additional requirements depending on the scope of the outbreak.

All interstate movements must meet normal movement/state entry requirements and outbreak-specific conditions. Implementing the guidance outlined in the SGMMS Plan before an outbreak decreases the risk of disease spread and facilitates issuing milk movement permits for premises with no evidence of infection and allied industries.

Goat premises in any FMD Control Area that are designated as **Infected**, **Suspect**, or **Contact Premises** will not be allowed to move milk until a permit is issued by the RROs. They will not be allowed to move goats or certain other goat products until they no longer have this status.

1. **Infected Premises (IP):** Premises where a presumptive positive case or confirmed positive case exists based on laboratory results, compatible clinical signs, case definition, and international standards.
2. **Suspect Premises (SP):** Premises under investigation due to the presence of susceptible animals reported to have clinical signs compatible with the FAD. This is intended to be a short-term premises designation.
3. **Contact Premises (CP):** Premises with susceptible animals that may have been exposed to the FAD, either directly or indirectly, including but not limited to exposure to animals, animal products, fomites, or people from Infected Premises.

Goat premises in any FMD Control Area that are NOT designated as **Infected**, **Suspect**, or **Contact Premises** will be able to request permits from RRO's to move goats or certain goat products out of the

Control Area if they meet specified criteria. Dairy goat premises will be informed by RROs when they can:

1. Continue moving milk to processing (when State-licensed to process milk on premises, continue to do so) with or without additional requirements (such as National Premises ID Number (PIN)), increased premises biosecurity, truck and driver biosecurity, written biosecurity performance standards for processing and assuring that no cross-contamination occurs between raw milk and finished product, clear boundaries for outside buyers that keep them outside the established line of separation (LOS) and/or some form of pre-certification by their State, depending on the characteristics of the outbreak.

OR

2. For State-licensed and inspected on-premises processors, stop selling milk and/or milk products from their premises, become a Monitored Premises (which requires having a valid PIN, increased premises biosecurity, written biosecurity performance standards for processing and assuring that no cross-contamination occurs between raw milk and finished product, clear boundaries for outside buyers that keep them outside the established LOS, and/or some form of pre-certification by their State) and obtain a permit to sell processed pasteurized milk or milk products direct to consumers from the premises. In such cases, sale of raw milk and/or raw milk products will be strictly prohibited due to the risk of spreading the virus to other geographic areas or animals (FMD does *not* pose a public health risk).

OR

3. Stop movement of milk, become a Monitored premises (which requires having a valid PIN, and be inspected to ensure adequate biosecurity and surveillance) and obtain a permit to move milk to processing.

Goat premises in an FMD Control Area must immediately increase biosecurity as recommended in this SGMMS Plan in order to best protect their goats from infection and their ability to conduct their business.

Rationale for allowing continued movement of milk from dairies in Control Areas under certain circumstances

FMD is not a food safety or public health concern. Dumping milk presents hazards for FMD virus spread and environmental concerns.

- In a large outbreak, dumping excessive amounts of milk could lead to shortages of milk and milk products for consumers.
- Indemnity for dumped goat milk is unlikely to be available.
- Dumping milk at the start of the outbreak sends the erroneous message that the milk is not safe and wholesome for human consumption. This message will be hard to change if the outbreak expands and the milk is later allowed to move for processing and to market.
- RROs will be focusing on critical response activities with competing priorities, such as:
  - Trace back/trace forward of all movements from Infected Premises (Goats, swine, sheep, and cattle).
  - Rapid investigation of Suspect and Contact Premises
  - Quarantine, stop movement, and biocontainment on Infected Premises.
  - Any necessary depopulation, disposal, and virus elimination activities as dictated by the response strategy.
  - Surveillance in and around the Control Area(s).
  - Permitting critical/essential movements such as feed, equipment, etc.

Once the national movement standstill lifts, movement restrictions may remain for Control Areas(s) to limit risk of disease spread by animals, animal products, vehicles, and other equipment. Movement into, within, or out of Control Area(s) will be by permit only and based on the risk posed by that movement and the premises' ability to meet permit requirements. There are two types of permits in an FMD outbreak, Specific and COB. Both are based on risk and meeting certain criteria. Goat operations that follow the guidance in this SGMMS Plan will be better prepared to request a movement permit once movement restarts. The Summary of Movement Permit Guidance is shown in the following table.

Summary of Secure Food Supply COB Movement Permit Guidance for Goats, Semen, Embryos and Goat Products located within a Control Area during a Highly Contagious Animal Disease Response	
Permitting Guidance for Movement of Goats/Semen/Embryos or Goat Products	**Conditions have been Met**
1. Traceability information is available (PIN, GPS Coordinates and information on type and number of goats/semen/embryos/products to be moved).	Yes
2. Biosecurity measures in the Biosecurity Checklist are in place and acceptable to RROs.	Yes
3. Epidemiology information is acceptable.	Yes
4. Destination premises and State are willing to accept goats/semen/embryos.	Yes
5. No evidence of infection based on surveillance.	Yes
6. Permit guidance to move goats, semen or embryos, or goat products if all above responses are "Yes."	Consider Issuing MOVEMENT PERMIT

The following USDA documents contain information about permits.

- *Ready Reference Guide – Defining Permitted Movement, February 2017*: https://www.aphis.usda.gov/animal_health/emergency_management/downloads/documents_manuals/rrg_definingpermittedmovement.pdf
- *Ready Reference Guide – Permitting Process, February 2017*: https://www.aphis.usda.gov/animal_health/emergency_management/downloads/documents_manuals/rrg-permittingprocess.pdf
- *Foreign Animal Disease Preparedness and Response Plan (FAD PReP) Permitted Movement (Manual 6-0)*: https://www.aphis.usda.gov/animal_health/emergency_management/downloads/documents_manuals/fadprep_man6-0_permit-mvmt.pdf

In the absence of biosecurity performance standards for raw goat milk collection, if a milk movement permit is required, producers should be ready to provide evidence that they have implemented the SMS Secure Milk Supply Plan Biosecurity Performance Standards for Raw Milk Collection and Transport available at www.securemilksupply.org. Milk permit guidance that dairy goat operations can use is included in Table 1 above.

When requesting an animal movement permit, dairy goat producers should be ready to provide evidence that they have implemented all of the enhanced biosecurity measures recommended in the SGMMS Self-Assessment Checklist for Enhanced Biosecurity for FMD Prevention available at https://SecureGoat.org.

RROs are responsible for detecting, controlling, and containing FMD as quickly as possible during an outbreak, with eradication being the ultimate goal. RROs managing the incident will make permitting decisions regarding the movements of goats and goat products within, into, and out of Control Areas based on the risk of virus spread, the status of the premises, and the risks and mitigations involved with the types of movement. Officials must balance the risks of allowing movement of raw milk against the risk of not allowing movement and thus the necessity for on-farm disposal of raw milk. They may or may not require milk movement permits.

Producers are responsible for protecting their goats from becoming infected during an outbreak by focusing on what they can control on their operations. To facilitate business continuity (movement), producers will need to provide assurances to the destination premises as well as the RROs that they are not contributing to the spread of disease nor putting their own goats at risk of exposure. Some movements (live animals) carry more risk than others (packaged products or raw milk to processing).

Enhanced biosecurity will be paramount to limiting disease spread. A written enhanced biosecurity plan that is ready to implement during an outbreak increases the producer's preparedness to prevent disease exposure and maintain the COB. Sharing the plan with SAHOs prior to an outbreak of FMD builds trust and confidence when requesting a movement permit during an outbreak. Producers should be ready to provide evidence that they have implemented all of the enhanced biosecurity measures recommended in the *SGMMS Self-Assessment Checklist for Enhanced Biosecurity for FMD Prevention*: https://SecureGoat.org/producers/biosecurity.

Additionally, producers should be prepared to manage their dairy goat premises if they are not allowed to move goats or goat products for several days or weeks. Contingency plans that the producer has already developed will be important to implement during the timeframe RROs are conducting surveillance needed to demonstrate a lack of evidence of disease and more confidence that an animal movement does not present a significant risk for disease spread. Review the *Contingency Planning Considerations for Producers Prior to an FMD Outbreak*: https://securegoat.org/producers/steps-to-move/ for guidance.

Meat and Milk Products from goats that 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 because FMD is not a public health or food safety concern. Processing healthy animals preserves high quality protein for human consumption and reduces the need for carcass disposal. Product that has passed FSIS inspection is safe for human consumption and potentially may be released into commerce for human consumption

Meat Packers and Milk processors are essential to the success of business continuity for the dairy goat industry during an FMD outbreak. Participation in the SGMMS Plan includes guidance for packers and processors, and RROs (when requesting or evaluating requests) for animal and/or animal product movement permits. Processing healthy animals from a regulatory control area could continue, even if FMD infected animals are suspected or proven to already be in the packing plant. However, since goats may shed FMD virus in the milk before they show clinical signs, it must be assumed that, in some cases, milk from infected and undetected herds will enter the human food chain.

Many packing plants do not have on-site rendering capacity for non-edible products, so any virus in those products would need to be destroyed or transported in a bio-secure manner. Following the announcement of an FMD outbreak, processing all healthy animals already at a slaughter facility as well as those in transit to the facility is the fastest way to eliminate virus amplification and further spread of FMD.

Processing healthy animals preserves high quality protein for human consumption and reduces the need for carcass disposal. Processing healthy animals from a regulatory control area could 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

Although almost all goat milk is processed as "Grade B," Milk processing per the following guides assures milk and milk products are safe and wholesome for human consumption. These same principles apply to milk that meets all quality PMO standards from an FMD affected herd.

- Food and Drug Administration (FDA) *Grade "A" Pasteurized Milk Ordinance (PMO)*, https://www.fda.gov/media/99451/download, or the
- USDA Agricultural Marketing Service's recommended requirements for *Milk for Manufacturing Purposes and its Production and Processing* (also known as Grade B Milk),
- It is not necessary to recall from commerce pasteurized milk or milk products for human consumption. This and additional recommendations for products for animal consumption are included in SGMMS Plan Recommendations for Processors during an FMD Outbreak, available at: https://SecureGoat.org
- A review of inactivation of FMD virus in milk products was completed in 2012 and is available at: http://www.cfsph.iastate.edu/pdf/inactivation-of-foot-and-mouth-disease-virus-in-milk-products

Processing plant employees, milk haulers, truck drivers, and others who contact animals, raw milk or raw milk products 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.

- Biosecurity guidance for plant employees, milk haulers, and truck drivers is provided in the *SGMMS Biosecurity Performance Standards for Raw Milk Collection and Transport* that will be available at: https://SecureGoat.org/producers/milk-products-section in late 2022.
- More information about managed movement of livestock during an FMD response is available in: *Managed Movement of Susceptible Livestock Species in the U.S. in a Foot and Mouth Disease Outbreak*: https://www.cfsph.iastate.edu/pdf-library/FMD-Resources/disease-fmd-sfs-managed-movement-overview.pdf
- **Mohair and Cashmere Fiber** can harbor FMD virus for a period of time. Fiber harvested during, or just before a US FMD outbreak should be handled in a biosecure manner at the herd of origin so it does not contribute to disease spread. FMD is not a public health concern, but can be carried on clothing, footwear, and personal items. Fiber handlers and processors must be instructed on biosecurity steps to follow prior to leaving the processing facility.

Producer Preparations Prior to an Outbreak

Request a National Premises Identification Number (PremID or PIN) from the office of your SAHO: SAHO information for each State is available at: https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/traceability/state-pin.

PINs are required for movement permits, and having one facilitates requesting a movement permit 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 goats on the premises, and is required for both the premises of origin and premises of destination. **This number is different from the Scrapie Flock ID goat producers are familiar with.**

Producers may already have a national PIN assigned if they have received official RFID goat ID tags or implants (a 15 digit "840" tag or implant, sometimes referred to as EID Scrapie Tags), as part of the National Scrapie Eradication Program. Producers may also have a livestock ID (LID) or herd identification number, often referred to as the Scrapie flock/herd ID. LIDs start with the State's numeric code. Scrapie flock/herd IDs start with the State postal abbreviation where the premises is located. **Neither LIDs nor HIDs are allowed to be used in place of a PIN in foreign animal permits.**

The PIN is site-specific and producers who already have one are encouraged to validate their PIN with their SAHO 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 and help prevent unnecessary restrictions in the event of an outbreak. Producers who don't have one will need to get a PIN from their SAHO: https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/traceability/state-pin

The National Pork Board provides an online premises verification resource for all species at: https://lms.pork.org/Premises.
A producer or packer who finds errors should submit corrections to their SAHO office.

When animals on a premises become infected, all premises (locations) with the same PIN number will be considered to be infected. Generally, it is best to have separate PINs for premises with goats that are housed/located off-site and accessed via a public road, even if managed or owned by same producer or operation.

Producers who use public (US Forest Service, Bureau of Land Management, etc.) or private rangeland for browse are encouraged to record their location throughout the year using the coordinates (latitude and longitude) for the entrance to the location. If regulatory action is needed during an outbreak (testing or movement permit), USDA and the SAHO will work closely with agencies that oversee the land if public land is involved, or the property owner if privately owned land is involved, and the producer to determine the PIN and whether one has already been assigned.

Develop an enhanced biosecurity plan: Mitigation is needed to prevent the spread of FMD virus through the movement of raw milk and animals. Stringent biosecurity measures are essential for a producer to protect their herd from virus exposure. Additional mitigations are needed for animal movement or if the public will be visiting areas of the premises for commercial purchase of milk or milk products, or for agritourism.

Goat operation owners/managers should work with their herd veterinarian to develop a written, operation-specific biosecurity plan that meets or exceeds the items in the Self-Assessment Checklist for their segment of the goat industry. When the biosecurity plan is written, owners/managers of the goat operation are encouraged to implement as much of the plan as practical in the absence of FMD in the U.S. with plans for implementing the remainder of the plan when an outbreak occurs.

Implementing the items in the checklist before an FMD outbreak occurs can help prevent animals on the operation from being exposed. Producers are encouraged to share their plan with SAHOs as soon as it is written. In addition, producers should include in their plan contact information for State veterinary authorities in States where their goats will be.

Effective biosecurity to protect animals from FMD that are raised outdoors on range, and used in situations where they are regularly in multiple locations off premises can be expensive and difficult. Producers are encouraged to review the following documents:

- *Considerations for Enhanced Biosecurity for Livestock Grazing on Public Land Allotment document*: https://SecureGoat.org./Biosecurity-Public-Land/.
- The *Self-Assessment Checklist for Enhanced Biosecurity for FMD Prevention: (Biosecurity Checklist:* https://SecureGoat.org/biosecurity/
- The *Information Manual for Enhanced Biosecurity for FMD Prevention,* available at: https://SecureGoat.org/biosecurity/

They describe the steps needed to prevent disease exposure from multiple routes (personnel, vehicles, semen, manure, carcasses, etc.) based on known exposure routes for FMD. They provide assistance in writing a biosecurity plan, biosecurity plan templates, and materials for educating individuals who work on goat operations and will be available in English and Spanish. See *Table 2* below, *SGMMS Resources for Milk and Animal Movement*, for links to this information.

- If a milk movement permit is required, the dairy operation should work with its veterinarian to develop a written, operation-specific enhanced biosecurity plan that meets or exceeds the Biosecurity Performance Standards (BPS) for Raw Milk Collection and Transport. This document describes the mitigations needed for the dairy operation, milk hauler/truck driver, and the milk truck/tanker to limit FMD virus spread.
- For on-farm milk processing, if a permit is required the dairy operation should work with its veterinarian to develop a written, operation-specific enhanced biosecurity plan that meets or exceeds standards for preventing cross contamination of product and ensures that individuals coming to the farm for commercial trade do not cross the LOS.
- To request an animal movement permit, the dairy operation should work with its veterinarian to develop a written, operation-specific enhanced biosecurity plan that meets or exceeds the items in the Self-Assessment Checklist for Enhanced Biosecurity for FMD Prevention: Dairy (Biosecurity Checklist). This document addresses the BPS along with other prevention practices designed to prevent disease exposure from multiple routes (personnel, vehicles, semen, manure, carcasses, etc.).
- Producers are encouraged to share their enhanced biosecurity plan with SAHOs prior to an outbreak.

Table 2: Summary of Resources for Milk and Animal Movement
Biosecurity Performance Standards (BPS) for Raw Milk Collection and Transport: Recommended BPS for dairy premises, milk haulers, and dairy processing plants to implement to reduce the chance of spreading FMD via milk trucks/tankers and haulers/drivers. https://SecureGoat.org/producers-biosecurity/ Traceability information is available (PIN, GPS Coordinates, information on type and number of animals/quantity of goats/semen/embryos to be moved.
Risk Assessments for Raw Milk Movement: Two proactive risk assessments were conducted that evaluated the movement of raw milk from an FMD infected, but undetected, dairy premises during an outbreak. The first report identified areas of risk that could result in further spread of FMD virus under current industry standards (no additional mitigations or restrictions in place). The second report evaluated the effectiveness of the BPS for Dairy Premises, Milk Haulers, and Dairy Processing Plants to mitigate the risk. A Secure Milk Supply (SGMMS) Plan 10 Milk Animal Resource summary of results is available at: https://SecureGoat.org/regulatory-officials/
Animal Disease Monitoring (Surveillance): Designated dairy operation personnel should be trained in Active Observational Surveillance (AOS) for routinely monitoring Goats for potential signs of early FMD virus infection during an outbreak. This is another assurance to other producers, processors, and RROs that they are not contributing to the spread of disease nor putting their own animals at risk of exposure. AOS training materials and a record keeping system to track observations, milk production, and feed consumption data are available in English and Spanish at: https://SecureGoat.org
Enhanced Biosecurity: Existing biosecurity plans for dairies may offer protection against endemic diseases but heightened precautions are needed for FMD. Enhanced biosecurity recommendations in the Self-Assessment Checklist for Enhanced Dairy Biosecurity are based on the known exposure routes for FMD. Writing an operation-specific enhanced biosecurity plan and training individuals before an FMD outbreak occurs provides the best chance to prevent animals on the operation from being exposed once fully implemented. • Self-Assessment Checklist for Enhanced Biosecurity for FMD Prevention • Information Manual for Enhanced Biosecurity for FMD Prevention • Enhanced Biosecurity Plan Customizable Templates, Creating a Premises Map, and Logs, Forms, and SOPs available at: https://SecureGoat.org/producers/milk-products/section/biosecurity
Permit Guidance: In the event permits are needed to move milk, documents are available for those needing to navigate the permit requesting or issuing process.

Designate dairy premises personnel who will conduct FMD surveillance: FMD lesions are typically mild or not apparent in adult goats while death rates in kids can be high. Animal caretakers should know what to look for in order to identify infected animals in the herd. This will enable them to recognize abnormal findings (clinical signs and/or changes in production parameters) that may be an early indicator of FMD virus infection, and document when there is no evidence of an FMD virus infection in their herd through Active Observational Surveillance (AOS). Materials that include presentations, handouts, and posters that visually depict clinical signs of FMD in goats are available in English and Spanish on the SGMMS Plan website: https://SecureGoat.org/. Record keeping templates are also available for dairies that do not already use a system to document health observations, milk production, and feed consumption data.

Producers should ask their herd veterinarian if they are accredited by USDA. If not, they should establish a relationship with a USDA Accredited Veterinarian as they may be a necessary component of disease monitoring and sample collection (surveillance) during an outbreak. USDA provides an Accredited Veterinarian locator at:
https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/nvap/ct_locate_av/

Producers should report suspicious clinical signs to their veterinarian, or State or Federal animal health official, if they have been unable to find a veterinarian in their area to work with. Contact information for SAHOs can be found at: https://SecureGoat.org.

The document, *Factors to Consider Regarding Surveillance, Biosecurity and Movement Permitting of Goats in a Foot and Mouth Disease Outbreak*, available at: https://SecureGoat.org summarizes challenges in surveillance options for goat premises within a Control Area to demonstrate a lack of evidence of FMD infection to support continuity of business movements

Maintain movement records: Premises in a Control Area will be required to provide epidemiological information at the beginning of an outbreak to identify the possibility of previous exposure to the disease. Maintaining accurate records of movement of animals, product, feed, supplies, equipment, personnel, and visitors enables producers to provide accurate trace-back epidemiological information.

Movement records should include the names, addresses, and telephone numbers of animal or product transporters (truckers), employed personnel, feed suppliers, etc. When possible, electronic records are preferred, but paper records may also be acceptable. Although complex, this information will be critical for determining the scope of an outbreak, and it is important for goat producers to be able to provide accurate information in a timely manner.

- Sample movement logs can be found at: https://SecureGoat.org/producers. This information can help determine the scope of an outbreak but it can be difficult to provide needed detail on short notice.
- To see the information that will be needed in an outbreak, producers can use the *Secure Goat Supply Practice Questionnaire:* https://SecureGoat.org/producers/.

Plan to be able to care for your animals in the event of a 72-hour national movement standstill: Because USDA recommends a 24 to72-hour national movement standstill of susceptible animals when FMD is diagnosed, producers should have a plan to allow for feeding, watering, and providing other necessary care of their animals in the event that movement of susceptible animals is not possible. Producers should also be prepared to extend the plan in the event that the movement standstill is extended. Animals that are in transit will likely be allowed to continue to their destination but may be stranded there until the movement standstill is lifted.

If FMD is Diagnosed in the U.S.

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

- If a milk movement permit is required, the dairy operation should, at a minimum, implement the portions of its enhanced biosecurity plan that meet or exceed the Biosecurity Performance Standards (BPS) for Raw Milk Collection and Transport: https://SscureGoat.org/producers/secure-milk-products-section.

Conduct Surveillance: The document, *Surveillance Guidance to Support the SGMMS Continuity of Business Plan during an FMD Outbreak*, summarizes surveillance options for goat premises within a Control Area to demonstrate a lack of evidence of FMD virus infection to support COB movements. It will be available in late 2022. 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 have not yet been established, but will be determined by RROs and are expected to include:

- Virological surveillance (e.g., oral swabs, bulk-tank milk)
- Conducting Active Observational Surveillance (AOS) daily by trained Goats Health Monitors employed by the premises
- Periodic inspection of goats and daily AOS records by Accredited Veterinarians under the authority of RROs
- Follow-up laboratory testing when available for goats with any suspicious clinical signs.

Provide epidemiological information and movement records: Premises within an FMD Control Area will be part of the disease investigation and may be required to provide information about past and present disease events to identify potential exposure to the virus by contact with Infected, Suspect or Contact Premises within the Control Area. Accurate records will help RROs determine the status of the premises and help guide additional surveillance and permitting decisions. Additional guidance regarding disease monitoring and sample collection have not yet been determined; however, animal movement permits will not be issued to Infected, Suspect, or Contact Premises due to the risk of disease spread.

USDA definitions for traceability and premises designations

- Animal disease traceability: knowing where diseased and at-risk animals are, where they've been, and when it is important to ensure a rapid response when animal disease events take place.
- Infected Premises (IP): Premises where a presumptive positive case or confirmed positive case exists based on laboratory results, compatible clinical signs, case definition, and international standards.
- Contact Premises (CP): Premises with susceptible animals that may have been exposed to FMD, either directly or indirectly, including but not limited to exposure to animals, animal products, fomites, or people from IP.
- Suspect Premises (SP): Premises under investigation due to the presence of susceptible animals reported to have clinical signs compatible with FMD. This is intended to be a short-term premises designation.
- At-Risk Premises (ARP): Premises that have susceptible animals, but none of those susceptible animals have clinical signs compatible with FMD. Premises objectively demonstrates that it is not an IP, CP, or SP. ARP seek to move susceptible animals or products within the Control Area by permit. Only ARP are eligible to become MP.
- Monitored Premises (MP): Premises objectively demonstrates that it is not an Infected, Contact, or Suspect Premises. Only ARP are eligible to become MP. Monitored Premises meet a set of defined criteria in seeking to move susceptible animals or products out of the Control Area by permit.

Preparation for movement restrictions while at Off-Site Locations

- Record and have with you the Premises ID for your location, as well as the PIN for your home operation if you have goats attending a show or a production sale at an off-site location, or fulfilling a brush control contract or packing.

- Many brush control locations and areas where pack goats are used will not have PINs. For these locations it is recommended that you have the coordinates (latitude and longitude) for the location.
- Most show and sale facilities will already have a PIN and you can contact the show secretary or sale manager to get that information prior to leaving for the event.
- Record and have with you contact information for State officials for your location as well as your home premises.
- Have a contingency plan for care for your goats if placed under movement restrictions for an extended period of time if they are at an off-site location. This could be a minimum of 72 hours up to several days or weeks.
- Check with the show secretary or the sale clerk to make sure they have a contingency plan in case of a sudden quarantine of that location.

Requesting a Secure Food Supply Movement Permit During an Outbreak

Before requesting a Secure Food Supply movement permit for dairy goats or milk (if required) to move out of, within, or into a Control area, both the premises of origin and the premises of destination, including processors and packing plants, need to have a National PIN. In addition, both the SAHO of the State of destination as well as the destination premises must be willing to accept the risk of receiving the animals, animal product or milk.

Each premises requesting a movement permit must be registered through the office of their SAHO and/or established as a premises in the USDA's Emergency Management Response System (EMRS) before requesting a permit. EMRS is the USDA/APHIS official system of record for all animal health incidents. For premises following the guidance in the SGMMS Plan, permits should be requested through the EMRS Customer Permit Gateway or similar State-approved permitting request system that is capable of exporting data required for EMRS during an outbreak.

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.

Further information on Secure Food Supply permits and permitted movements is available in the document: *FAD PReP Manual 6-0: Permitted Movement*:
https://www.aphis.usda.gov/animal_health/emergency_management/downloads/documents_manuals/fadprep_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 required 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 or raw milk to processor).
- 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 or animal products 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 (animals, products, manure, etc.).
- Item class—specifically what you want to move (such as goats to slaughter, breeding does, pre-weaned/growing kids, feed, raw milk).
- 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. Showing that the premises is not Infect, not Suspect, and not a Contact Premises.
- Enhanced Biosecurity Plan and a completed copy of the Biosecurity Checklist
  - For milk movement, a written plan that describes the operation-specific biosecurity performance standards (BPS) for raw milk collection and transport. This could be included in the operation specific enhanced biosecurity plan or kept separate.
  - For animal movement, a completed copy of the Biosecurity Checklist and the operation-specific enhanced biosecurity plan.
- Written assurance by the producer of compliance with the BPS (milk) and Biosecurity Checklist (animals, animal products other than milk).
- Information demonstrating normal health status for the animals on the production site involved (such as goat 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 and may change as the outbreak progresses).
- For animal movements to another production premises, the destination premises must indicate that they understand and accept the risks associated with receiving the animals. States may require that a signed form be submitted with the permit request.

Completed movement permit requests will be reviewed first by the Origin State. The Origin State can recommend that the permit 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 will also be available for download directly from the EMRS Gateway, if used. 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.

Terms

A Glossary of Terms used in this document as well as in all others that are part of the Secure Goat, Milk & Mohair Supply Plan is available at: https://SecureGoat.org/Glossary/

Additional Resources

The Secure Goat, Milk & Mohair Supply Plan website has additional resources available at: https://SecureGoat.org.

Comments

Please send comments or suggested edits for improvement to: office@AmericanGoatFederation.org

Acknowledgments

This Secure Goat, Milk & Mohair Supply Plan for Continuity of Business (SGMMS) was developed by the American Goat Federation using information from USDA and other Secure Product Supply Plans developed by Iowa State University and the American Sheep Industry Association. Goat Industry specific details and review were provided by goat industry stakeholders, State veterinarians, USDA representatives, university personnel, allied livestock industries, and knowledgeable individuals from AGF Member Organizations. This SGMMS Plan was funded by the United States Department of Agriculture's Animal and Plant Health Inspection Service (USDA/APHIS).