
Foreign Animal Disease Guidance #3: Foreign Animal Disease Investigation

Section 1: Overview

Beef, pork, and lamb slaughter establishments are unique in FAD detection, as they will operate under the regulations of two federal governmental bodies, the Food Safety and Inspection Service (FSIS) and the Animal and Plant Health Inspection Services (APHIS), if a foreign animal disease is detected. Additionally, State Animal Health Officials (SAHO) have jurisdiction in their state in the event of an outbreak, and will work with APHIS to facilitate response activities. The establishment must work cooperatively with all regulatory agencies to ensure that all necessary steps are taken in the detection and diagnosis of a FAD, and the subsequent steps required to continue normal business operations after test results are acquired.

Any swine, cattle, or sheep having vesicular or unusual lesions are suspects of foreign animal diseases (FAD). Vesicular lesions are fluid-filled pouches (*e.g.*, a cyst) that can rupture and leave open wounds, similar to a blister. These vesicles are symptoms of foot-and-mouth disease, swine vesicular disease, and vesicular stomatitis, where they form in and around the nose and mouth and around the hooves of cattle, sheep, and pigs. Additionally, other foreign animal diseases such as African Swine Fever or Classical Swine Fever do not produce vesicles, but result in high morbidity (illness) and mortality (death) rates in domestic animals.

This guidance document will aid beef, pork, and lamb slaughter establishments on the proper routes to follow if symptoms of foreign animal disease are detected in live or deceased animals at the establishment.

Section 2: Steps to Take During a Foreign Animal Disease Investigations

Clinical signs of foreign animal diseases can be detected by establishment employees and/or FSIS inspection personnel. Establishment employees who handle live animals or heads, hooves, or internal organs of deceased animals can be trained to detect signs of foreign animal diseases using the NAMI FAD Guidance # 2, Clinical Signs of Foreign Animal Diseases. FSIS veterinarians and inspection personnel are also trained to detect signs of foreign animal diseases, and are required to look for such signs as part of their inspection duties.

The steps outlined here are specific to slaughter establishments that have identified animals in lairage displaying clinical signs of FADs or animals that, upon

postmortem exam, display abnormalities consistent with clinical signs of FADs. **It is important to note that the activities outlined here may not occur in a step-wise fashion, but all of the following activities will occur during an outbreak response. Some activities outlined in various steps may occur at the same time, depending upon the facility's operations, the availability of regulatory officials, and the speed at which information can be communicated.**

Step 1: If clinical signs of an FAD are detected by an establishment employee or FSIS Inspector, the individual should notify establishment management immediately and the FSIS public health veterinarian (PHV).¹ Management should communicate the situation to the appropriate contact at the establishment's company headquarters.

Step 2: The lot(s) of animals displaying clinical signs should be separated from lots of animals not showing clinical signs. Establishments should hold the entire lot containing the affected animals and any associated product until they receive further direction from the SAHO, APHIS, and FSIS. Additionally, the establishment should check to see if they currently have other animals from the same producer/farm on establishment premises or en route to the establishment, and notify FSIS, APHIS, and the SAHO.

Step 3: The establishment manager or the PHV will notify the State Animal Health Official (SAHO) and/or the APHIS Area Veterinarian in Charge (AVIC) as soon as possible. The FSIS District Office should also be notified. At this time, the establishment manager or PHV should be able to provide, at minimum, the origin of the affected lot, the time of detection, the severity of the lesions, and the number of animals in the lot.

Step 4: The SAHO or the AVIC will determine how the case should be handled. If an investigation is warranted, a Foreign Animal Disease Diagnostician (FADD) will be sent to the establishment to investigate. If there is strong suspicion of the presence of an FAD, it is likely that the SAHO will quarantine the establishment before test results are available.

Step 5: The plant should notify their procurement, quality control, and other appropriate teams to help gather information on the lot's history. Such information should include:

- Premise ID number

¹ USDA FSIS Directive 6000.1, Rev. 1: Responsibilities related to foreign animal diseases (FADs) and reportable conditions. www.fsis.usda.gov/wps/wcm/connect/2b2e7adc-961e-4b1d-b593-7dc5a0263504/6100.1.pdf?MOD=AJPERES

- Name, address, and phone number of production facility
- Species of animals involved
- Number of animals in the affected lot(s)
- Identification of drivers/trucks delivering the lot(s) to the establishment
- Time of arrival at the plant
- Time at which the trucks carrying the affected animals left the establishment, and any information about the next destination
- Information on other lots from the same live animal production facility arriving at the establishment
- Antemortem pen cards
- Clinical signs present/gross lesions
- Any history of the animals showing clinical signs
- The last 30 days of records for live animal movement to the establishment

The establishment should also notify the dealer and suspend further shipments from the site until all test results are negative, or the disease is determined a non-foreign animal disease.² Ideally, the unloading docks/chutes and weigh scales should be cleaned and disinfected to reduce the risk of contamination of other trailers unloading during the investigation process.

Step 6: When the FADD arrives at the establishment, he/she will gather the information collected (above), and collect samples from the affected animals³ and send them to a National Animal Health Laboratory Network (NAHLN) laboratory for preliminary testing. Samples will also be sent to the National Veterinary Services Laboratory's Foreign Animal Disease Diagnostic Laboratory at Plum Island, NY for confirmation of test results.⁴ Samples may include:

- Tonsils
- Lymph nodes
- Spleen
- Blood for serum

Step 7: Results of testing.⁵ Preliminary results of testing from the NAHLN lab should be available within 24 hours of diagnostic sample submission. If preliminary results are positive, the State will likely put a quarantine in place and await confirmatory test results. If confirmatory tests are:

² *Id.*

³ USDA APHIS Veterinary Services Guidance 12001.2: Policy for the investigation of potential foreign animal disease/emerging disease incidents (FAD/EDI).
www.aphis.usda.gov/animal_health/lab_info_services/downloads/VSG_12001.pdf. Accessed February 9, 2021.

⁴ *Id.*

⁵ *Id.*

- Negative: All animals are released for routine slaughter, and the production facility of origin may ship animals as normal.
- Negative for ASF, but positive for a domestic disease (such as SVV): animals at the establishment are released for slaughter after passing FSIS antemortem inspection, animals at the originating live animal producer facility are held until all symptoms of the disease are gone.⁶
- Positive: FAD Incident Command (SAHOs and/or APHIS) will take over, and all personnel should follow the direction of Incident Command.

Section 3: Holding of Animals and Product During an Initial FAD Investigation

When clinical signs of a foreign animal disease are detected in animals at an establishment, the animal(s) displaying clinical signs will be identified as U.S. Suspects by FSIS. If the clinical signs are detected on the processing line, the carcasses will be retained by FSIS, pending testing.⁷

If this is the first time an establishment has held animals with clinical signs of a FAD, it is likely that all animals in the same lot as the FAD suspects will be located and held for further testing. This includes all same lot product previously harvested prior to clinical sign detection.

The detection of clinical signs of FAD may result in the complete shut-down of a slaughter establishment until negative preliminary test results are obtained. The establishment should be able to slaughter all healthy animals still in lairage, while only holding the affected lot(s). Additionally, establishments will likely be able to slaughter animals that arrive during the investigation process, provided they are healthy and pass ante- and postmortem inspection.

⁶ If official lab results have been communicated to FSIS personnel assigned to the official establishment and acute signs are no longer observable in livestock at the live animal producer facility, that live animal producer facility can resume sending livestock for harvest (however, this is subject to FADD observations; USDA APHIS Veterinary Services Guidance 7406.2, dated 04/06/16).

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⁷ USDA FSIS Directive 6000.1, Rev. 1: Responsibilities related to foreign animal diseases (FADs) and reportable conditions.

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While none of the diseases discussed in this guidance document pose a risk to human health or food safety, the product from these animals may be held due to biosecurity concerns, and the SAHOs and APHIS representatives will make the final decision about when and how the product is released. A permit, issued by the State, will likely be needed to move product if testing yields positive results for an FAD.

The establishment should cooperate with the State, APHIS, and FSIS officials to make sure all necessary biosecurity and containment procedures are followed so that as soon as negative test results are obtained, business can continue as usual. In the event of a positive test result, the establishment will follow all instructions from the SAHO and APHIS.

Section 4: Conclusion

This guidance document will aid beef, pork, and lamb slaughter establishments on the proper routes to follow if symptoms of foreign animal disease are detected in live or deceased animals at the establishment. If you have questions or concerns about this document or anything else regarding foreign animal disease, please contact the North American Meat Institute at 202-587-4200.

Section 4: Investigation Flow Chart

