

Animal Disease Emergencies

Understanding the Risk and Response



A rapid response to an animal disease emergency is critical to protect animal health, the economics of the producer and the industry, food safety and public health. This Just-in-Time training handout answers common questions on why responses to animal disease emergencies are necessary and briefly overviews steps in the process of a response.

What are Animal Disease Emergencies (ADE)?

Animal disease emergencies involve microorganisms and pests of special concern for livestock and poultry due to their potential to spread rapidly, cause severe illness or death, and serious economic, human health or food safety consequences. These diseases are also called foreign animal diseases (FAD) or reportable diseases. Many of these diseases are not present in the United States, but the movement of animals and products globally means U.S. livestock and poultry are always at risk.

What Diseases Cause Animal Disease Emergency Situations?

Listings of high-consequence diseases are maintained at the state, national, and international level.

- Internationally, the World Organization for Animal Health (WOAH) maintains a [listing of global animal health diseases of concern](#).
- Nationally, the U.S. Department of Agriculture (USDA) maintains a [National List of Reportable Animal Diseases](#).
- Each state also maintains a list of reportable diseases of critical importance for the livestock and poultry in their boundaries.

Why is a Response Needed?

- High-consequence animal diseases significantly affect **animal health**.
 - They may cause high death rates, large numbers of ill animals, loss of production (e.g., poor weight gain, egg or milk production), or reproductive failure or loss. Some diseases may severely debilitate animals and require rapid and humane euthanasia.
- These diseases can have **substantial economic impacts** due to the direct loss of animals from illness, reduction in production, or a need for depopulation to prevent spread to other farms.
 - Most of the listed diseases will also result in reduced or restricted trade or movement of animals or products until the situation is contained.
- Some of these high-consequence diseases have **human health implications** since they may cause illness in people or affect food safety.
 - Certain animal diseases may have the potential for human infection. These are referred to as **zoonotic diseases**. One example is avian influenza.
 - The loss of animals - whether from disease or depopulation - will have a psychological or mental health effect on producers and responders.

Who Responds to ADEs?

- Responses to animal disease emergencies in the U.S. involve the **State Animal Health Official** (e.g., State Veterinarian) and their staff and the **U.S. Department of Agriculture Animal and Plant Health Inspection Service** (USDA-APHIS). Both have legal authority for their involvement.
- When responses are large or occur at multiple locations within a state, responses require collaborative efforts from **other federal, state, and local agencies and responders**, animal industry groups and non-governmental organizations.
- Responders may also include a **wide variety of other disciplines**, including emergency management, environmental health, wildlife management, public safety (e.g., law enforcement), public works, and public health professionals.



Are There Response Plans for ADE?

- A **State's Emergency Operations Plan** outlines state agency roles and responsibilities, and actions needed for a variety of emergencies or disaster events, including animal disease emergencies.
- The USDA-APHIS has developed the **Foreign Animal Disease Preparedness and Response Plan** (FAD PReP) – an extensive collection of documents outlining goals, guidelines, and strategies for animal disease emergencies.
 - These resources serve as a foundation for a coordinated national, regional, and local response. Response plans covering response tasks and standard operating procedures (SOPs) for several high-consequence diseases (e.g., avian influenza, foot and mouth disease) have been developed.

What are the Steps Taken During an ADE?

- During a high consequence animal disease outbreak, the **goal is to detect, contain, and control the disease as quickly as possible**.
- A **series of steps are followed** to ensure an efficient and effective response to return the area and the nation to a disease-free state as soon as possible to allow trade to resume and help the animal industry recover.

DETECT

- The detection of the disease often occurs on a farm when unusual or suspicious clinical signs in animals are noticed by the producer or the local veterinarian. Detection may also occur at a diagnostic lab or processing plant.
- Disease suspicion is reported to the State or Federal Animal Health Officials, who send out a specially trained veterinarian, called Foreign Animal Disease Diagnostician, or FADD, to investigate and collect samples for testing.
- These samples are sent to the USDA National Veterinary Diagnostic Laboratories (NVSL) for analysis.

CONTAIN

- While waiting for laboratory results, specific steps will be taken so that the disease (should it be confirmed) does not spread further.
- The farm is usually quarantined, and the movement of animals (or products) onto or off of the farm is restricted until test results are received.
- Surveillance activities are initiated to determine any movements that may have occurred onto or off of the farm and identify additional cases on neighboring or related farms. Gathering this information helps to determine the extent of the situation.

CONTROL

- Once diagnostic test results are received (e.g., a high-consequence or foreign animal disease is confirmed), activation of the State response plan or USDA plans will occur, and control actions determined depending on the disease identified.
 - Control actions that may be used include the enhanced biosecurity procedures, stop-movement orders, the depopulation of animals (for humane or control purposes), or vaccination (when available or allowed).
 - Some high-consequence diseases are spread by various non-production animal species; in these cases, arthropod or wildlife vector control measures may be needed.
 - Extensive cleaning and disinfection measures will be required, for the site, as well as any vehicles, equipment, and responders participating in the response and exiting the site.
 - When infected animals die, either from the disease, euthanasia or depopulation, carcass disposal procedures, such as on-site composting or other methods will be part of the response activity.

Animal disease emergency responses require quick detection and action to prevent further spread to other locations and animals. Response activities will require support to animal health officials from a wide range of agencies and disciplines. Efficient and effective control and containment procedures are needed to address animal health and welfare and restore trade. These actions also support quicker recovery to provide business continuity.



Additional [Just-In-Time training resources](#) can be found on the CFSPH website.

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