There are a number of federal agencies involved in the surveillance, detection and response of animal disease emergencies at the national level.

The lead federal agency for safeguarding American livestock and poultry health and for responding to a animal disease emergency is the U.S. Department of Agriculture, Animal and Plant Health Inspection Service (USDA-APHIS). There are several divisions of the agency which handle various aspects of surveillance, detection, diagnostics and response. The Veterinary Services division (VS) works to prevent, control and/or eliminating animal diseases, and monitoring and promoting animal health and productivity. The Emergency Management and Diagnostics Division prepares and trains personnel for response to animal health emergencies and oversees the National Center for Animal Health Emergency Management and the National Veterinary Diagnostic Laboratories.

Additional safeguards against the introduction of unwanted pests are government-owned import quarantine stations run by USDA. Livestock and poultry being imported into the U.S. must be accompanied by an official health certificate and must undergo quarantine at one of four facilities: Newburgh, NY; Miami, FL; Los Angeles, CA; Honolulu, HI. Exceptions are those animals coming from Mexico and Canada, which are inspected at the ports of entry. Personally owned pet birds must go through one of six USDA-operated bird quarantine facilities: New York, NY; Miami, FL; San Ysidro, CA; Hidalgo, TX; Los Angeles, CA; Honolulu, HI. Those birds coming from Canada may enter without quarantine due to similar health standards there. Importation of dogs, cats, turtles, and monkeys is overseen by the CDC’s Division of Global Migration and Quarantine. In 2002, the U.S. imported 1.5 million cattle and 5.8 million pigs.

Four USDA-APHIS laboratories comprise the National Veterinary Services Laboratories (NVSL) and provide services for the diagnosis of domestic or foreign animal diseases, import/export testing of animals, training, and testing for eradication or control programs. All suspected foreign animal disease (FAD) outbreaks must be investigated within 24 hours of notification. When a large-scale animal-disease outbreak occurs, tracking its progress and performing diagnostic tests on thousands of diagnostic samples is a big challenge. To get the job done, it is very important that all the parties involved--Federal agencies and laboratories managed by State governments and universities--communicate and collaborate effectively. The National Animal Health Laboratory Network (NAHLN) now forms part of a nationwide strategy to coordinate the work of all organizations providing animal disease surveillance and testing services. (Photo: National Animal Health Laboratory Network (NAHLN). http://www.aphis.usda.gov/animal_health/nahln/downloads/NAHLNUpdateCurrent.pdf)
When a large-scale animal-disease outbreak occurs, tracking its progress and performing diagnostic tests on thousands of diagnostic samples is a big challenge. To get the job done, it is very important that all parties involved. The National Animal Health Laboratory Network (NAHLN) is a nationwide strategy to enhance communication and collaboration between all organizations providing animal disease surveillance and testing services, including Federal, State and University veterinary diagnostic laboratories. Photo: National Animal Health Laboratory Network (NAHLN). http://www.aphis.usda.gov/animal_health/nahln/downloads/NAHLNUpdateCurrent.pdf

There are several USDA personnel based in Iowa and responsible for federal activities in the State. All are trained FADDs.

Just as the state has District Veterinarians, on the Federal side, there are 9 regionally located Veterinary Medical Officers, or VMOs. These veterinarians are all FADDs and work to implement and monitor federal animal health surveillance and control programs. Some of these individuals have dual duties as State district veterinarians as well.

The Department of Homeland Security (DHS), through USDA-APHIS, has the difficult job of protecting our borders and keeping foreign animal and plant pests out of our country. Agriculture border controls were maintained by the USDA-APHIS-Plant Protection and Quarantine, prior to March 1, 2003, when responsibilities were transferred to the Department of Homeland Security (DHS), Customs and Border Protection (CBP). DHS CBP is responsible for monitoring 317 ports of entry into the US and are constantly on the lookout for imported animal and plant material. Under the CBP are the Customs Service, the Border Patrol, Immigration and Naturalization Service, and Agricultural Inspections; more than 40,000 employees working to safeguard our borders and ports. About 3,000 USDA-APHIS agriculture inspectors search baggage at airports and cargo at major ports of entry to ensure compliance with animal and plant import restrictions. In 2004, DHS CBP agriculture specialists inspected nearly 1 million conveyances; 83 million passengers/pedestrians and conducted nearly 3.6 million cargo inspections. An additional part of the CBP is the Beagle Brigade, a team of 141 detector dogs used to sniff out luggage, packages, mail and any other items brought in the U.S. Of the over 2 million interceptions of prohibited agricultural products made each year, detector dogs make 75,000 of them. This photo depicts a beagle sniffing baggage at an airport; the vest he is wearing says “Protecting American Agriculture”. (Photos by Danelle-Bickett Weddle, ISU)
There is a comprehensive all-hazards approach to domestic incident management. This national policy is aimed at defending the nation’s agriculture and food system against terrorist attacks, major disasters and other emergencies. HSPD-9 also suggested the development of a national veterinary stockpile with treatment, vaccinations and other support materials that would be needed in an animal disease emergency.

The National Veterinary Stockpile (NVS) was established following release of Homeland Security Directive #9 on January 30, 2004. The NVS, much like the human version – Strategic National Stockpile, contains critical veterinary supplies in the event of an animal disease emergency. Items include vaccines, antimicrobial medications and other drugs needed for treating ill animals. It also includes PPE kits – Personal Protective Equipment – to ensure those working with animals have the proper gear to prevent exposure to disease agents. The shipment must be requested by the State; the State must then be prepared to receive, stage, store, and manage the inventory. The NVS will be sent within 24 hours of request and is designed to support the response efforts for 40 days. A practice deployment and inventory management scenario was performed in Iowa in 2007.

Originally established by the USDA in 1984, the Beagle Brigade is now part of the US Department of Homeland Security, Customs and Border Protection. There are currently 141 detector dog teams in the US, primarily located in 24 international airports, 9 land border ports of entry, and 9 major international mail facilities. These dogs are used to sniff out luggage, packages, mail and any other items brought into the US. Along with other detector dogs (pedestrian, cargo and maritime teams), during fiscal year 2002, over 8 million passengers, 22,536 vehicles, and 43,641 aircraft were searched. Of the 2 million interceptions of prohibited agricultural products made each year, detector dogs make 75,000 of them. This photo depicts a beagle sniffing baggage at an airport; the vest he is wearing says “Protecting American Agriculture”. The Department of Homeland Security also manages the Bureau of Immigration and Customs Enforcement (ICE) (formerly the U.S. Customs and Immigration). This bureau also helps to protect U.S. agriculture by conducting inspections of persons and luggage and by questioning travelers about their exposures while in another country. In FY2001 they processed 472 million persons entering U.S., and 5.7 million sea containers. Approximately 90% of the world’s cargo moves by sea containers. Lastly, in 2002, the U.S. imported 1.5 million cattle, 5.8 million pigs. There are many porous borders surrounding our country, so increased awareness and mitigation becomes more essential each day.

There are also Federal and Regional veterinary medical assistance teams. National Veterinary Response Teams (NVRT) and Veterinary Medical Assistance Teams (VMATS) are groups of veterinarians and animal health professionals capability of setting up a full field hospital, and can provide medical care for pets, search and rescue dogs, livestock, wildlife and even zoo animals if the need arises. The USDA manages The National Animal Health Emergency Response Corps (NAHERC), a roster of private and state veterinarians and veterinary technicians that can be activated quickly to serve as temporary Federal personnel to help meet emergency staffing needs for the response and control of animal disease outbreaks. (Photo: VMAT members examining a dog. www.fema.gov/storm/charley/photos/h_c_s2_10.jpg)
The USDA also manages the National Animal Identification System (NAIS), a voluntary national program created to identify and track the movement of livestock. This will aid in determining animals in contact with or commingled with diseased or exposed animals during an outbreak investigation. Although most animal industries use some type of identification system for animal identification, the current systems are not consistent from state-to-state. In the event of a disease outbreak, the process of tracing an animal’s movement using the current forms of identification can be a time consuming event, especially if the animal has moved across state lines. Additionally, the maintenance of this information improves the ability to notify states and producers in the event of an animal health emergency. Once the program is fully implemented, a goal of NAIS is to be able to traceback or traceforward exposed animals in 48 hours or less. The first component of the program is premises identification, followed by animal identification and lastly, reporting animal movement.

A number of other Federal agencies may play a role in an animal health emergency depending on the response and personnel needed. The Department of Justice would coordinate law enforcement activities related to terrorist threats and incidents. The Department of Homeland Security (DHS): Coordinates Federal operations within the United States to prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies. The Department of State (DOS): Coordinates international response activities relating to domestic incidents, and for the protection of U.S. citizens and U.S. interests overseas. The Department of Defense (DOD): Authorizes Defense Support of Civil Authorities for domestic incidents. Other Federal departments or agencies may play primary, coordinating, and/or support roles based on their authorities and resources and the nature of the incident.

The National Response Framework (NRF), successor to the National Response Plan (NRP), was released by the Department of Homeland Security in January 2008 and became effective March 22, 2008. This 90 page document specifies how Federal Government resources work with State, local, and tribal governments and the private sector to respond to emergency situations, especially when federal assistance is needed.
The National Response Framework is the primary resource for domestic incident response. The NRF describes roles and responsibilities of Federal agencies in incident management, Federal authority, Federal support to States, coordination between Federal agencies and the structure and coordination of responses.

A basic premise of the National Response Framework is that all incidents are handled at the lowest jurisdictional level possible -- the emphasis is on local response. For animal disease emergencies, local responders such as veterinary and animal health professionals as well as police, fire, public health, medical or emergency management professionals may be called upon to assist in the response. Additionally, the private sector is a key partner, particularly for critical infrastructure protection and restoration of the community.

The National Response Framework is divided into several sections. The Core Document describes the doctrines that guide our national response, roles and responsibilities, response actions, response organizations and planning requirements. The Emergency Support Functions group Federal resources and capabilities into functional areas that are most frequently needed in a national response (e.g., Transportation, Firefighting, Agriculture and Natural Resources). Support Annexes describe essential supporting aspects that are common to all incidents (e.g., Financial Management, Volunteer and Donations Management, Private-Sector Coordination). Incident Annexes describe the concept of operations to address specific contingency or hazard situations or an element of an incident requiring specialized application of the Framework. (e.g., Biological, Nuclear/Radiological, Cyber, Mass Evacuation). Partner Guides provide ready references describing key roles and actions for local, tribal, State, Federal, and private-sector response partners. (http://www.fema.gov/pdf/emergency/nrf/nrf-core.pdf)

Fifteen Emergency Support Functions (ESF) are included in the NRF. These documents describe the grouping of Federal resources and capabilities into functional areas needed in a national response (e.g., Transportation, Firefighting, Agriculture and Natural Resources). Each ESF lists the primary and support agencies involved in various emergency response situations, as well as the Federal resources, policies, concepts of operation, responsibilities and capabilities for a national response. ESF outlines how the Federal government will provide assistance to State, local and tribal governments. For animal disease emergency response, ESF 11: Agriculture and Natural Resource is followed. Depending on the scale of the incident, the response may also involve ESF 8: Public Health and Medical Services and ESF 13: Public Safety and Security. (Slide graphics used with permission from Dr. Dahna Batts, CDC, Clinician Outreach and Communication Activity (COCA). October 2007. www.bt.cdc.gov/coca/ppt/coca_Brief_052207_Final.ppt#264,11,Slide11; Updated ESF info from www.fema.gov/pdf/emergency/nrf/nrf-est-all.pdf.)
Response: Five Key Principles

- Engaged partnership
- Tiered response
- Scalable, flexible and adaptable operational capabilities
- Unity of effort through unified command
- Readiness to act

Response: Five Key Principles define the response actions in support of the Nation’s response mission. Taken together, these five principles of operation constitute the national response doctrine. (Source: National Response Framework http://www.fema.gov/pdf/emergency/nrf/nrf-core.pdf)

Local Roles and Responsibilities

- Chief Elected or Appointed Official
  - Ensure public safety and welfare
  - Provide strategic guidance and resources
  - Coordinate resources within jurisdictions, among adjacent jurisdictions, with private sector
- Emergency Manager
  - Oversees emergency programs and activities
  - Coordinate jurisdiction capabilities
- Department and Agency Heads
  - Perform emergency management functions
  - Local emergency plans, provide response resources

Chief Elected or Appointed Official. A mayor, city manager, or county manager, as a jurisdiction’s chief executive officer, is responsible for ensuring the public safety and welfare of the people of that jurisdiction. Specifically, this official provides strategic guidance and resources during preparedness, response, and recovery efforts. Emergency management, including preparation and training for effective response, is a core obligation of local leaders. Significant incidents require a coordinated response across agencies and jurisdictions, political boundaries, sectors of society, organizations, etc. These incidents will require that publicly elected and appointed officials, as well as business owners and community leaders, make difficult decisions for the benefit of the community as a whole.

Emergency Manager. The local emergency manager has the day-to-day authority and responsibility for overseeing emergency management programs and activities. He or she works with chief elected and appointed officials to ensure that there are unified objectives with regard to the jurisdiction’s emergency plans and activities. This role entails coordinating all aspects of a jurisdiction’s capabilities. The emergency manager coordinates all components of the local emergency management program, to include assessing the availability and readiness of local resources most likely required during an incident and identifying and correcting any shortfalls.

Department and Agency Heads. The local emergency manager is assisted by, and coordinates the efforts of, employees in departments and agencies that perform emergency management functions. Department and agency heads collaborate with the emergency manager during development of local emergency plans and provide key response resources. Participation in the planning process ensures that specific capabilities (e.g., firefighting, law enforcement, emergency medical services, public works, environmental and natural resources agencies) are integrated into a workable plan to safeguard the community. These department and agency heads and their staffs develop, plan, and train to internal policies and procedures to meet response and recovery needs safely. They should also participate in interagency training and exercises to develop and maintain the necessary capabilities. (Source: http://www.fema.gov/pdf/emergency/nrf/nrf-core.pdf)

Individuals and Households. Although not formally a part of emergency management operations, individuals and households play an important role in the overall emergency management strategy. Community members can contribute by reducing hazards in and around their homes (e.g., producers implementing biosecurity), Prepare an emergency supply kit and household emergency plan (e.g., in the event of reduced access); monitor emergency communications carefully (e.g., for information on quarantine areas, or actions needed), Volunteer with an established organization (e.g., help your community to prepare); Enroll in emergency response training courses (e.g. get trained in NIMS and ICS). (Source: http://www.fema.gov/pdf/emergency/nrf/nrf-core.pdf)
Local Roles and Responsibilities

- Private Sector Organizations
  - Welfare and protection of employees
  - Maintain essential services
    - Water, power, communications, transportation, medical care, security
  - Stay involved in local crisis decision making process
- NGO – Nongovernmental Organizations
  - Provide sheltering, emergency food supplies, counseling, etc.
  - Provide specialized services for those with special needs

Private sector organizations play a key role before, during, and after an incident. First, they must provide for the welfare and protection of their employees in the workplace. In addition, emergency managers must work seamlessly with businesses that provide water, power, communication networks, transportation, medical care, security, and numerous other services upon which both response and recovery are particularly dependent. Many private-sector organizations are responsible for operating and maintaining portions of the Nation’s critical infrastructure. During an incident, key private-sector partners should be involved in the local crisis decisionmaking process or at least have a direct link to key local emergency managers.

Nongovernmental Organizations (NGOs) play enormously important roles before, during, and after an incident. For example, NGOs provide sheltering, emergency food supplies, counseling services, and other vital support services to support response and promote the recovery of disaster victims. These groups often provide specialized services that help individuals with special needs, including those with disabilities. NGOs may also need government assistance, and when planning the allocation of local community emergency management resources and structures, some government organizations provide direct assistance to NGOs. NGOs collaborate with responders, governments at all levels, and other agencies and organizations. (Source: http://www.fema.gov/pdf/emergency/nrf/nrf-core.pdf)

The Food and Agriculture Incident Annex

- Detect event
- Establish primary coordinating agency
- Determine source of the incident or outbreak
- Control distribution of the affected source
- Identify and protect the population at risk
- Assess public health, food, agriculture, and law enforcement implications
- Assess any residual contamination and decontaminate and dispose as necessary

The Food and Agriculture Incident Annex is one of seven broad incident categories for response listed in the NRF. It describes how Federal agencies will respond to incidents involving the Nation’s agriculture and food systems. The objectives of a coordinated Federal response to an incident impacting food and agriculture are to: 1) detect the event through the reporting of illness, disease/pest surveillance, routine testing, consumer complaints and/or environmental monitoring; 2) establish the primary coordinating agency; 3) determine the source of the incident or outbreak; 4) control and contain the distribution of the affected source; 5) identify and protect the population at risk; 6) assess the public health, food, agriculture, and law enforcement implications; 7) assess the extent of residual biological, chemical, or radiological contamination and decontaminate and dispose as necessary. US Department of Agriculture. Emergency Support Function #11: Agriculture and Natural Resources: More on the menu than food. Brochure. (PDF, 2 pages). http://www.aphis.usda.gov/publications/aphis_general/content/printable_version/USDA_ESF.pdf. Department of Homeland Security. National Response Plan, Food and Agriculture Incident Annex, July 2006. http://www.dhs.gov/xlibrary/assets/nrp_foodagincidentannex.pdf

For More Information

- NRF Resource Center
- NRF Brochure
- NRF Fact Sheet
- NRF Frequently Asked Questions

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