APHIS Factsheet
Animal and Plant Health Inspection Service June 2009

Emergency Preparedness and Response

For nearly 40 years, the central mission of the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) has been to protect the health and value of U.S. agricultural, natural, and other resources. But as America has changed, that mission has expanded and evolved. Today, in addition to protecting the health of livestock, poultry, and crops from foreign diseases and pests, APHIS also works closely with the U.S. Department of Homeland Security's (DHS) Federal Emergency Management Agency (FEMA) to provide assistance and coordination during all-hazards emergencies, including natural disasters such as Hurricane Katrina.

APHIS has a long history of successfully responding to traditional animal and plant health emergencies, such as outbreaks of avian influenza and Mediterranean fruit fly, and it continues to build and refine these capabilities, as well as to conduct test exercises and prepare for all-hazard situations. Safeguarding agriculture is a complex task, and our strategy is divided into three focused areas: prevention, preparedness, and response. In other words, our job is to make sure we have planned and tested our capabilities in advance and that when faced with an emergency, we can swiftly dispatch the right experts to handle the situation.

Partnering for Success

APHIS recognizes the key to effective emergency response is a strong network of people trained and prepared to respond. The agency relies upon and works in close partnership with national and international animal and plant health protection organizations; Federal, State, tribal, and local governments; universities; industries; and private entities. Through these partnerships, APHIS develops strategies and policies for effective incident management and coordinates on-the-ground incident response.

Safeguarding Animal Health

APHIS safeguards U.S. poultry and livestock from the introduction, establishment, and spread of foreign animal diseases. This involves regular health surveillance of our domestic animal herds and flocks, as well as monitoring animal disease outbreaks around the world. APHIS also works with other Federal agencies at airports and maritime ports to inspect and approve incoming shipments of animals and animal products.

After 2001, APHIS created the National Animal Health Surveillance System (NAHSS)—a network of Federal, State, industry, university, and laboratory partners—to provide early detection of diseases that could have a major impact on animal agriculture in the United States. NAHSS has been critical in the development and improvement of surveillance plans for numerous animal diseases, including avian influenza, bovine spongiform encephalopathy, scrapie, and viral hemorrhagic septicemia. NAHSS encourages early detection, which is an important factor contributing to APHIS' ability to successfully eradicate animal diseases.

When an animal health emergency occurs, an immediate response is often necessary to protect the health of animals and, in some cases, to safeguard human health as well. APHIS has created emergency response plans to ensure it is ready to respond quickly and effectively to specific foreign animal disease or pest incidents. These plans include detailed steps concerning how to respond to different phases of an outbreak and the appropriate timelines in which to respond. To see APHIS' emergency response plans, visit the emergency preparedness Web page at http://www.aphis.usda.gov/emergency_response/.

Effective and timely diagnostic testing is another critical part of APHIS' ability to prepare for and quickly respond to an animal health emergency. USDA's National Veterinary Services Laboratories (NVSL) serves as the Nation's veterinary diagnostic reference and confirmatory laboratory and is called upon to verify and test samples from animals during animal disease emergencies. NVSL coordinates simulation exercises, validates diagnostic methods, and provides training, proficiency testing, assistance, and materials to support animal health efforts.

APHIS' Foreign Animal Disease Diagnostic Laboratory (FADDL) is part of NVSL and is where the agency studies certain infectious foreign animal disease agents like foot-and-mouth disease, develops critical vaccines, and validates technologies to be used at other laboratories across the country. USDA and DHS are moving the FADDL facilities to allow for an expansion and biosecurity upgrade that will ensure the country is prepared to respond to an even greater number of emerging foreign animal and zoonotic disease threats (i.e., those diseases affecting both animals and humans), including foot-and-mouth disease, and Nipah and Hendra viruses.

In addition to its diagnostic work, NVSL works on contingency planning for the possibility that during an

emergency, APHIS laboratories may need to process large numbers of test samples. In such an event, NVSL would call upon its partner laboratories in the National Animal Health Laboratory Network (NAHLN) for assistance. NAHLN is a cooperative effort between APHIS, USDA's Cooperative State Research, Education, and Extension Service (CSREES), and the American Association of Veterinary Laboratory Diagnosticians. This multifaceted network is comprised of laboratories that focus on different diseases, promote the use of common testing methods and software platforms, and share information in the event of an animal disease or pest outbreak. These State and university laboratories would be crucial during an emergency. NAHLN laboratories have each taken part in test exercises to ensure they are prepared to respond when needed.

Another essential part of APHIS' emergency response infrastructure is the National Veterinary Stockpile (NVS), a repository of supplies, vaccines, equipment, and other veterinary resources. In an emergency, the NVS provides critical veterinary countermeasures to ensure States and local governments have the resources to fight catastrophic animal disease outbreaks within 24 hours. The NVS staff helps States and local authorities plan, train, and exercise the logistical infrastructure they will need to receive, store, and deliver NVS resources during an emergency.

APHIS' focus on proper planning and the development of emergency response infrastructure has ensured that the agency is prepared to rapidly deploy personnel and equipment and to collect and process large numbers of diagnostic samples during an animal health emergency. In 2003, APHIS undertook a massive deployment of personnel and equipment to respond to a large scale exotic Newcastle disease outbreak affecting 4.5 million birds in five States. Approximately 1,600 animal health officials from Federal, State, and local government, as well as many shipments of equipment and supplies, were utilized during the animal health response effort.

Safeguarding Plant Health

APHIS' Plant Protection and Quarantine program safeguards U.S. agricultural and natural resources from the introduction, establishment, and spread of plant pests and noxious weeds. APHIS combines strong offshore information and preclearance programs, port inspections, and extensive domestic surveillance to prevent, detect, and respond to any plant health emergencies.

One of the first lines of defense against the entry of harmful plant pests and weeds is through the inspection of plants and plant products at the border. APHIS works closely with DHS' Customs and Border Protection (CBP) to ensure they have the training and up-to-date information needed to conduct effective agricultural inspections at seaports, airports, and land-border crossings. APHIS also assists CBP by identifying pests and inspecting certain types of plants and seeds at 17 plant inspection stations across the country.

APHIS conducts extensive surveillance through the Cooperative Agricultural Pest Survey (CAPS), which is managed cooperatively by APHIS and State departments of agriculture. Because early detection is so critical to containing problems, the CAPS program aggressively surveys, identifies, and monitors invasive pests and diseases that can severely harm U.S. agriculture and plant resources, including those that could be spread to the United States intentionally. Located in all 50 States and 3 U.S. territories, the CAPS program conducts more than 200 surveys for pests nationwide. Many of these surveys are for multiple pests.

APHIS uses its network of plant health laboratories, known as the Center for Plant Health Science and Technology (CPHST), to evaluate threats to U.S. plants and natural resources, identify and assess new pests, and develop methods for response. APHIS also depends upon the extra capacity and expertise provided by State and university laboratories, including those that are part of the National Plant Diagnostic Network (NPDN). The NPDN is a USDA-administered network of university laboratories that can rapidly and accurately detect and report high-consequence plant pathogens, insects, weeds, and pests. The NPDN focuses on detecting deliberate acts of agricultural bioterrorism and accidental introductions of exotic pests.

In recent years, APHIS' extensive surveillance and laboratory network has identified several pests and diseases that have required coordinated and effective emergency response capabilities. For example, in 2003 and 2004, APHIS responded to a widespread introduction of *Ralstonia solanacearum*, a bacterial pathogen that affects a wide range of plants. The infestation affected 450 nursery facilities in 41 States, requiring a large-scale response effort that included investigations of facility records, widespread movement restrictions, and destruction of infected shipments and other plants in close proximity. The disease was successfully contained and eradicated from the United States.

More recently, APHIS has quickly responded to a new detection of potato cyst nematode in Idaho, an established infestation of Asian longhorned beetle in Massachusetts, and intermittent outbreaks of Mediterranean fruit fly in California, to name just a few. APHIS has capitalized on its strong emergency response infrastructure and solid relationships with States and industry to address these diverse plant health issues as they emerge.

All-Hazards Response

APHIS' experience in responding to plant and animal health emergencies made the agency a natural choice to assist FEMA as it responds to a wide variety of emergency incidents. The U.S. Government's National Response Framework (NRF) guides how government agencies work together and provide a unified national response to emergencies and disasters. Under this guide, different functions are defined and roles are assigned. APHIS provides support under Emergency Support Function (ESF) #11.

Under ESF #11, USDA and the U.S. Department of the Interior (DOI) address the protection of agricultural and natural resources in a national emergency. Specifically, ESF #11 responsibilities include:

- Monitoring for and responding to animal/plant pest and disease situations;
- Providing for the safety and well-being of household pets;
- Offering nutrition assistance;
- Ensuring the safety and security of the Nation's commercially produced meat, poultry, and egg products; and,
- Protecting natural and cultural resources and historic properties.

APHIS has provided support through ESF #11 during hurricanes, flooding, and similar weather-related events and emergencies. USDA and DOI have responded by providing safe food to people in need, protecting agricultural health across the country, helping pets and pet owners evacuate and find shelter, and preserving a variety of American resources threatened by disaster. Additional information on ESF #11 is available at http://www.aphis.usda.gov/emergency_response/.

APHIS Emergency Support Capabilities

APHIS employees responding to an emergency—animal, plant, or all-hazards—use the Incident Command System (ICS) as a standardized management tool that meets the demands of small or large emergency or nonemergency situations. As an approach and structure for managing personnel, functions, and other resources, ICS is flexible and can be used during incidents of any type, scope, or complexity, including those requiring resources from multiple agencies and from various levels of government and private institutions.

ICS places teams of emergency personnel and managers directly in the field to coordinate response efforts. By virtue of their placement and size, the teams and their commanders have a high level of autonomy, are able to respond quickly to new or evolving situations, and can provide extremely timely information to decisionmakers. In addition, teams from various local, State, and Federal agencies all share a common vocabulary when working an emergency and can tap into a wider network of resources. Many APHIS employees have been trained in ICS and deployed to incidents across the country.

In September 2004, APHIS tested its ICS capabilities in a full-scale emergency response exercise based on a detection of soybean rust. The exercise was done in conjunction with the Minnesota Department of Agriculture, the U.S. soybean industry, and area universities. Two months later, APHIS and its cooperators put the experience they gained from the exercise into practice successfully while responding to detections of soybean rust in Louisiana and other Southeastern States.

APHIS recently released its Emergency Mobilization Guide. This guide was developed to allow the agency to effectively and efficiently respond to any agricultural or homeland security situation by outlining how APHIS personnel will be deployed in an emergency. Under a declaration of "Total Mobility," all APHIS employees are considered available for direct assignment in the event of an emergency. Therefore, they may be called upon to deploy to the site of an emergency and work irregular hours and perform duties beyond their normal job description to support the response effort. The Emergency Mobilization Guide spells out how APHIS employees will be selected for service, and it addresses all issues concerning their deployment from reporting requirements and notifications to the procedures for how an employee will receive mobilization instructions.

APHIS also recently developed and implemented the Resource Ordering and Status System (ROSS), which allows the agency to identify and track resources that are needed to support emergency response. ROSS provides a database of qualified emergency response personnel. The database can be searched according to personnel training levels and subject of expertise, such as procurement, epidemiology, or public information. Being able to quickly identify and dispatch appropriate personnel and supplies is a key component of emergency response, and ROSS facilitates that process.

When there is an emergency, APHIS also uses its Emergency Operations Center (AEOC) as the agency's primary national hub for incident operations support, communications, and information sharing. Located at APHIS' headquarters in Riverdale, MD, the AEOC is used in both routine and emergency situations. The Center can support 40 or more personnel and operate 24 hours a day, 7 days a week. When an emergency operation is not underway, the Center's facilities are used to monitor and report on international and domestic surveillance of pest pathogens and disease conditions of concern and to conduct advanced training for APHIS employees and partners in State government and industry.

Preparing for the Next Emergency

The possibility of an animal or plant health emergency, or another natural or manmade disaster is never far away. APHIS employees around the world continually work to ensure that our Nation's emergency response system is ready to handle the threats or disasters that come our way. APHIS continues to participate in preparedness efforts, ranging from State and regional tabletop and full scale exercises for foot-and-mouth disease or avian influenza, to national bioterrorism and continuity of operations exercises. Together, these efforts help prepare the United States to provide coordinated, uninterrupted public service—at all levels of government—in the event of an emergency.

Additional Information

For more information, contact:

USDA-APHIS
4700 River Road, Unit 41
Riverdale, MD 20737
Telephone: (301) 851-3595
Fax: (301) 734-7817
