Avian Influenza Response

Training for Responders
Focus of DHS Programs

Collaborate with State Departments of Agriculture, State Departments of Homeland Security and State Departments of Public Health to deliver training to our response community.

Train Master Trainers in all states that will train Training Officers from all jurisdictions and disciplines.
The U.S. Department of Agriculture (USDA) recognizes that highly pathogenic avian influenza (HPAI) poses a significant threat to agriculture and human health.

The United States is the world's largest producer and exporter of poultry meat and the second-largest egg producer.

An outbreak of HPAI could result in significant poultry production losses.
USDA APHIS Response

USDA with the DOI and HHS has developed a national response plan for rapidly detecting and quickly and effectively responding should HPAI reach the United States.

Internationally, USDA is collaborating with the U. S. Agency for International Development (USAID) and the Department of Health and Human Services (HHS) to prevent and control HPAI (H5N1) where it currently exists.
Responder Groups

Local law enforcement
Local fire departments
Local hazmat teams
Citizen Emergency Response Teams (CERT)
Local Emergency Medical Services (EMS)
Local animal health authorities
Local public health
Local Emergency Management Agency (EMA)
Elected Officials/Board of Supervisors
Agricultural Emergency Responders
Responder Functions

These responder groups may be called upon to assist the State and Federal agencies utilizing the National Incident Management System (NIMS) to:

- Coordinate local efforts
- Establish communication centers
- Disseminate public information if needed
- Maintain public order if needed
- Aid in planning and resource identification
- Establish and enforce animal movement restrictions
- Assist with euthanasia and disposal efforts
- Assist with biosecurity and decontamination procedures
- Aid in recovery efforts
Role of Responders

Local Responders will:

- Establish quarantine around infected premises and contact premises
- Maintain biosecurity and decontamination operations that must be conducted in spite of inclement conditions and time of day
- Support activities during euthanasia and disposal efforts on a potentially large scale
Biosecurity

- First responders should make every effort to avoid transferring H5N1 virus off of the premises in which they have been working.

- All established cleaning and disinfecting procedures must be followed to assure disease in not transferred off the premises on either persons or vehicles.

STOP
KEEP OUT!

BIOSECURE AREA

Trespassing is a violation of Section 602, California Penal Code, and punishable by fine and/or imprisonment.
Local Agencies

- Local animal health personnel and producers are usually the initial line of defense in the event of an HPAI outbreak.
- Prompt detection of unusual animal behavior or clinical signs by the producer or industry is essential.
Components of Animal Disease Response

- Prepare (includes planning and training)
- Prevent (biosecurity)
- Contain
- Euthanize
- Dispose
- Recover
Prepare

Planning

- Local response plans need to be developed and should be consistent and coordinated with State, Federal, and Tribal plans for an AI response under NIMS and ICS
  - Learn the names and duties of other agency’s responders
  - Identify skills and abilities to work collaboratively
  - Determine communication abilities
  - Assess the capabilities to respond
Protecting First Responders

Guidelines for protecting personnel involved in HPAI control and eradication were developed by CDC, WHO and OSHA which include:

- Must not eat, drink, or smoke while culling, transporting, or disposing HPAI virus-infected poultry
- Frequent hand washing
- Wear appropriate PPE
OSHA

Updated guidance document on avian flu issued in 2006 and focuses on the following groups:

- Poultry workers
- Animal handlers other than poultry workers
- Laboratory workers
- Healthcare workers who treat patients with known or suspected AI viruses
- Food handlers
- Airport personnel exposed to passengers suspected of being AI infected
- Travelers on temporary work assignment abroad
- U.S. workers stationed abroad
Training

- Pre-deployment
- JIT
- JET
The DuPont™ Biosecurity Kit contains PPE (Tyvek® Hooded Coveralls, Tychem® QC Bib Style Apron, rubber boots, goggles, gloves and N95 respirator) that meet or exceed the recommendations of World Health Organization (WHO), FAO and the Center for Disease Control (CDC) for avian influenza veterinary surveillance and culling.
PPE for HPAI Response

- APR
- Eye protection
- Coveralls
- Heavy duty rubber gloves
- Rubber or polyurethane boots
Prevent

- Examination and inspection of animals
- Increased border security
- Criticality of early reporting and diagnosis
Contain

- Animal quarantine and isolation are an important part of response to a foreign animal disease outbreak
- Stop movement orders may be initially issued to reduce the further spread of the disease
Euthanasia

Action plan

- All personnel that work with the birds, including transporters, should be trained in appropriate euthanasia methods

Considerations for euthanasia methods:

- Human safety
- Skill
- Aesthetics
- Cost
- Limitations
Culling Methods

- Humane culling methods are recommended in the OIE Terrestrial Animal Health Code:
  - Mechanical methods—captive bolt non-penetrating stunning
  - Electrical methods—electrocution
  - Gaseous methods—CO$_2$ mixed with air, nitrogen or inert gas
  - Water-based foam
  - Others—barbiturate injection, addition of anesthetics to feed or drinking water, followed by one of the above killing methods
Disposal

- Burial in a landfill or on private property or by incineration are examples of preferred or accepted disposal methods.

- In-house composting

  - Disposal methods must comply with both state and federal Environmental Protection Agency (EPA) regulations.
Cleaning and Disinfection (C&D)

- Disinfection protocols (decontamination) for vehicles, equipment, and property (buildings, structures, and grounds) will be implemented.
  - This will serve to eliminate the AI from the infected premises as well as minimize spread of AI to other locations.
C&D Protocols

- Personnel and Vehicles
- Premises
  - Primary
  - Secondary
Recover

- Various local, state, federal and tribal activities and programs will be initiated to assist producers, families, and communities to return to normal

- Some of these activities may include:
  - Reduction of import restrictions
  - Reduction of quarantine areas
  - Assessment of mitigation efforts
  - Sufficient time elapsing to assure control of disease
  - Modification of sanitary practices
  - Ongoing mental health services
Summary

Responders need to realize that:

- They may be called upon to assist state, federal, and tribal agricultural agencies
- Their assistance will be critical for the containment and control of an HPAI outbreak
- The economic impact of an uncontained and uncontrolled outbreak could cost the country billions of dollars
- Control and containment of any disease, through the use of proper PPE and C&D, is vital
Questions?

Ron Snyder MEd., CET
AgPreparedness Center
Kirkwood Community College
Cedar Rapids, IA 52406
ron.snyder@kirkwood.edu
800.464.6874
319.398.5678