Animal and Plant Health Inspection Service
U.S. Department of Agriculture

National Veterinary Stockpile

** Science-Based Logistics Improving Disease Response **

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Operational 2006

Coordinate logistics planning, particularly for catastrophic outbreaks

Ensures states have the resources they need to respond to catastrophic outbreaks
NVS Mission/Goals

- To provide the veterinary countermeasures – supplies, equipment, field tests, vaccines, and response support services – that States, Tribes, and Territories need to respond to damaging animal disease outbreaks.

- Deploy within 24 hours countermeasures against the most damaging animal diseases including Highly Pathogenic Avian Influenza, Foot and Mouth Disease, Rift Valley Fever, Exotic Newcastle Disease, and Classical Swine Fever.

- Assist States, Tribes, and Territories plan, train, and exercise for the rapid acquisition, receipt, processing, and distribution of NVS countermeasures during an event.
APHIS List of 17 Most Damaging Animal Disease Threats

1. Highly Pathogenic AI (F)
2. Foot-and-Mouth Disease
3. Rift Valley fever (F)
4. Exotic Newcastle Disease
5. Nipah and Hendra virus (F)
6. Classical swine fever
7. African swine fever
8. Bovine spongiform encephalopathy (?)
9. Rinderpest
10. Japanese encephalitis (F)
11. African horse sickness
12. Venezuelan equine (F) encephalitis
13. Contagious bovine pleuropneumonia
14. Ehrlichia ruminantium (Heartwater)
15. Eastern equine encephalitis (F)
16. Coxiella burnetii (F)
17. Akabane virus

Zoonotic diseases: (F) fatal (?) possible

Yellow text: FBI pathogens of Concern
Science-Based Logistics
Input from Experts

- Technical Requirements Workgroups
- Director NVS Program
- Intra-Governmental Committee Strategic Steering
- Functional Requirements Workgroups
Primary Business Processes

Identify Threats and Populations at Risk ➔ Define Countermeasures ➔ Acquire Countermeasures

Place Countermeasures ➔ Maintain Countermeasures ➔ Deploy Countermeasures
Purchase Countermeasures
Maintain Readiness, Minimize Cost

- **Critical items the NVS holds**: what responders need immediately and are unavailable from the commercial sector
  - Owned by NVS
  - Managed by NVS

- **Critical items that vendors hold**: items vendors must process before use or can rotate to reduce the cost of expiration
  - Owned by NVS
  - Managed by vendors

- **Guaranteed access to critical items**: items that vendors hold, which we buy when we need them to save holding costs of storage, management, and expiration.
  - Owned by vendors
  - Managed by vendors
  - Accessed by NVS

- **Commercial response services**: contracts for indefinite delivery of 1) 3D (depopulation, disposal, decontamination) commercial responders with equipment, 2) emergency transportation of samples, reagents, people
Current Deployable Capabilities

- Push Packs of PPE and decon supplies
- PPE individual kits
- Antivirals
- Vaccine
- Poultry depopulation foaming units, CO2 carts
- Portable vaccine shipment / storage containers
- LAHE
- Response support services
24-Hour Push Package

- Contains Personal Protective Equipment and decontamination supplies
- Arrives within 24 hours of APHIS’ order to deploy
- Precedes additional items necessary to continue supporting the response
Antivirals for Agriculture Responders

- Tamiflu (80% inventory)
- Relenza (20% inventory)
- NVS antivirals dispensed to agriculture responders checked into ICS
- Logistics section medical unit identifies responders to medicate
Vaccine

Support to the North American Foot And Mouth Disease Vaccine Bank

- Animal vaccines will come from multiple locations following APHIS approval to vaccinate.
- The location from which we ship depends on the type and strain of vaccine that APHIS decides to use.
- The time it arrives depends on type of vaccine.
- Coordinate and transport the movement of vaccine antigen concentrate to overseas processors and the return of vaccine to Canada, Mexico, and U.S.
Poultry Depopulation Equipment

- CO2 carts, portable foam equipment, and larger Kifco foam units
- Shipped to the State or deployed with 3D contractors
Large Animal Handling Equipment

- Purchase
- Indefinite delivery/indefinite quantity contracts
Vaccination Ancillary Supplies
Module 8

New!

FMD Pink Vaccination Ear Tags
Large and Small

Self-Refilling Syringes
2 ml & 5 ml

Pliers 10“
Vaccine Shipment

GTS-342 – Kool Temp

GTS 5420 Pallet Shipper Shipping System

Temperature Monitoring Devices

40 bottles, 500 ml
(two layers of 20 bottles)
AI H5 or H7 killed virus vaccine
Emergency Transportation

- Samples
- Supplies
- Vaccines

- Alabama sample to NVSL Ames Iowa, 5 hours
- Iowa sample to FADDL Plum Island 3.5 hours
3D Commercial Partners
Response Support Service

- Depopulation, disposal, decontamination, other services when incident command does not have enough personnel
- Trained and self sufficient personnel with own equipment
- 4-6 selected companies of 80 available through USCG BOA.
- NVS acts as single point of contact to states to select best qualified contractor(s) to support their depopulation, disposal, decontamination efforts
Turkey Depopulation and Disposal Demonstration – Virginia 2009
Boats and Boom to Recover Hogs in Iowa
Outreach and Exercise Support

- State liaison support
- Numerous planning aids for states
- Website information source
  http://nvs.aphis.usda.gov/
- 24/7 emergency hotline access
- Logistics training
- Exercises
Actions States Need to Plan

- **Request** NVS countermeasures
- **Receive NVS** countermeasures and other resources
- **Store receipts** temporarily until responders request them,
- **Manage inventories** for efficacy and replenishment
- **Pick and Stage countermeasures** for delivery to multiple outbreak sites,
- **Deliver countermeasures** to outbreak sites, and
- **Recover unused and reusable** items the NVS and others want returned.
Exercise History

- July 2006  North Carolina HPAI Tabletop exercise (TTX)
- October 2006  Georgia HPAI TTX
- September 2007  Delaware HPAI TTX
- October 2007  Iowa HPAI TTX and Full-scale exercise (FSE)
- March 2008  California HPAI TTX and FSE
- August 2008  South Carolina HPAI TTX
- September 2008  South Carolina HPAI FSE
- November 2008  New England (NH, VT, ME, CT, & NY) FMD TTX
- June 2009  Multi-State Partnership for Security in Agriculture
  (IL, KY, & NE) FMD FSE
- August 2009  Arizona & Navajo Nation RVF TTX
- September 2009  Vermont FMD & HPAI TTX
- April 2010  Southern Agriculture Animal Disaster Response
  Alliance (AL, LA, & MS) RVF FSE
- April 2011  Navajo Nation RVF FSE
- June 2011  NVS FMD Vaccine Shipment TTX
Challenges

- Acquire remaining countermeasures that exist and those that become available; e.g. Pfizer may produce a RVF vaccine,
- Sustain all of the countermeasures we acquire,
- Hire the staff to manage and deploy the countermeasures, and
- Train both staff and 3DCR personnel to ensure they are ready to act.
NVS Summary – A New Weapon for Fighting Disease

- Focus exclusively on the logistics of disease response,
- Coordinate logistics planning, particularly for catastrophic outbreaks,
- Manage large inventories so States have what they need to respond
- Manage time-certain delivery of countermeasures within 24 hours to the continental U.S.
- Help states plan, train, and exercise the rapid delivery of countermeasures (and other resources) to responders.
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Questions: NVS@aphis.usda.gov

Information: http://nvs.aphis.usda.gov/

Emergencies: 800-940-6524