



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

National Veterinary Stockpile

** Science-Based Logistics Improving Disease Response **

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Background

- Established 2004 by Homeland Security Presidential Directive 9
- 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.

**Under
Review**

APHIS List of 17 Most Damaging Animal Disease Threats



H5N1 Avian Influenza Virus
Source: PHIL CDC

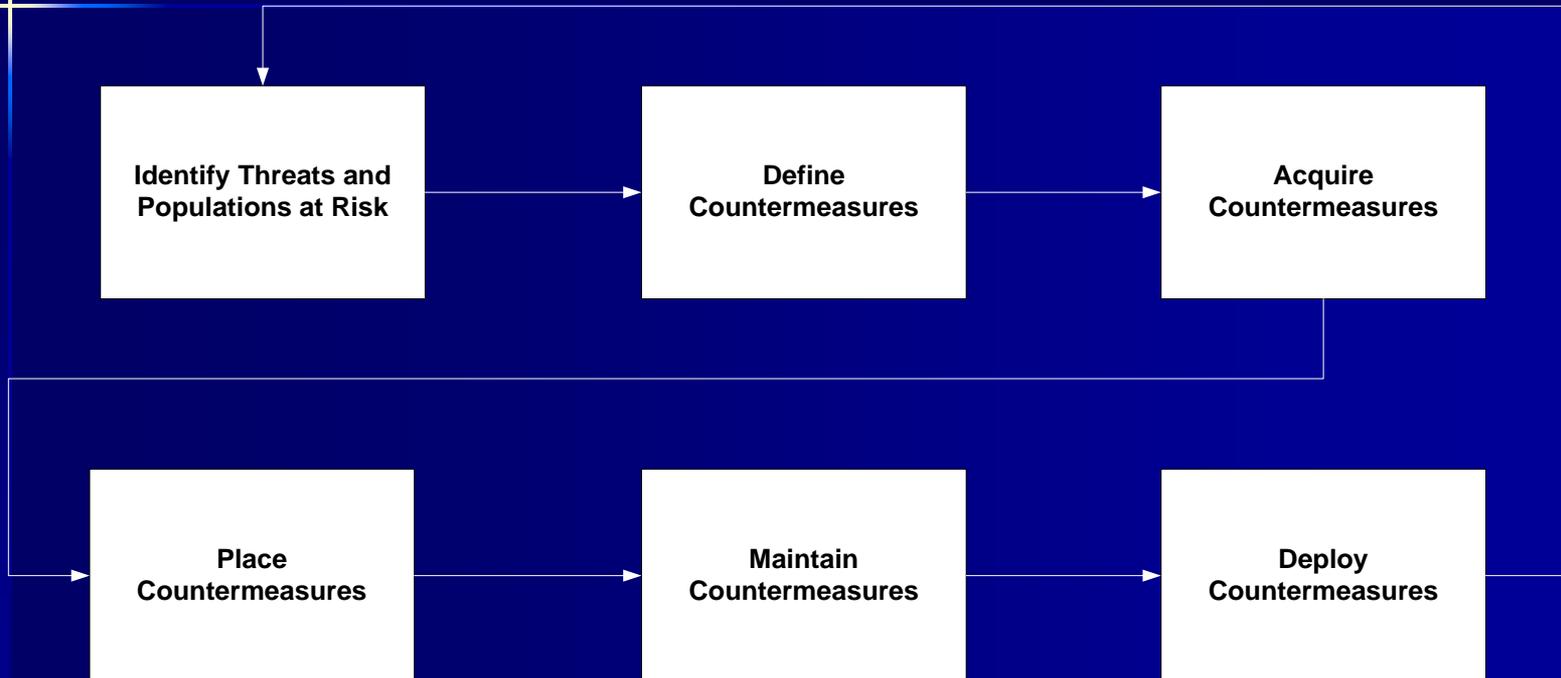
1. **Highly Pathogenic AI** (F)
2. **Foot-and-Mouth Disease**
3. Rift Valley fever (F)
4. **Exotic Newcastle Disease**
5. Nipah and Hendra virus (F)
6. **Classical swine fever**
7. **African swine fever**
8. Bovine spongiform encephalopathy (?)
9. **Rinderpest**
10. Japanese encephalitis (F)
11. African 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



Primary Business Processes



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



Kifco Avi-Foam Guard

- 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

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.



Canada



United States



Mexico

Poultry Depopulation Equipment

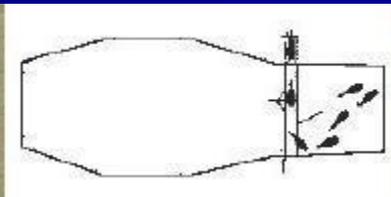
- CO₂ carts, portable foam equipment, and larger Kifco foam units
- Shipped to the State or deployed with 3D contractors



New!

Large Animal Handling Equipment

- Purchase
- Indefinite delivery/indefinite quantity contracts



New!

Vaccination Ancillary Supplies Module 8



FMD Pink Vaccination Ear Tags
Large and Small



Self-Refilling Syringes
2 ml & 5 ml



Pliers 10"



NEW!

Vaccine Shipment

GTS-342 – Kool Temp



Temperature Monitoring Devices



GTS 5420 Pallet Shipper Shipping System



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

Emergency Transportation

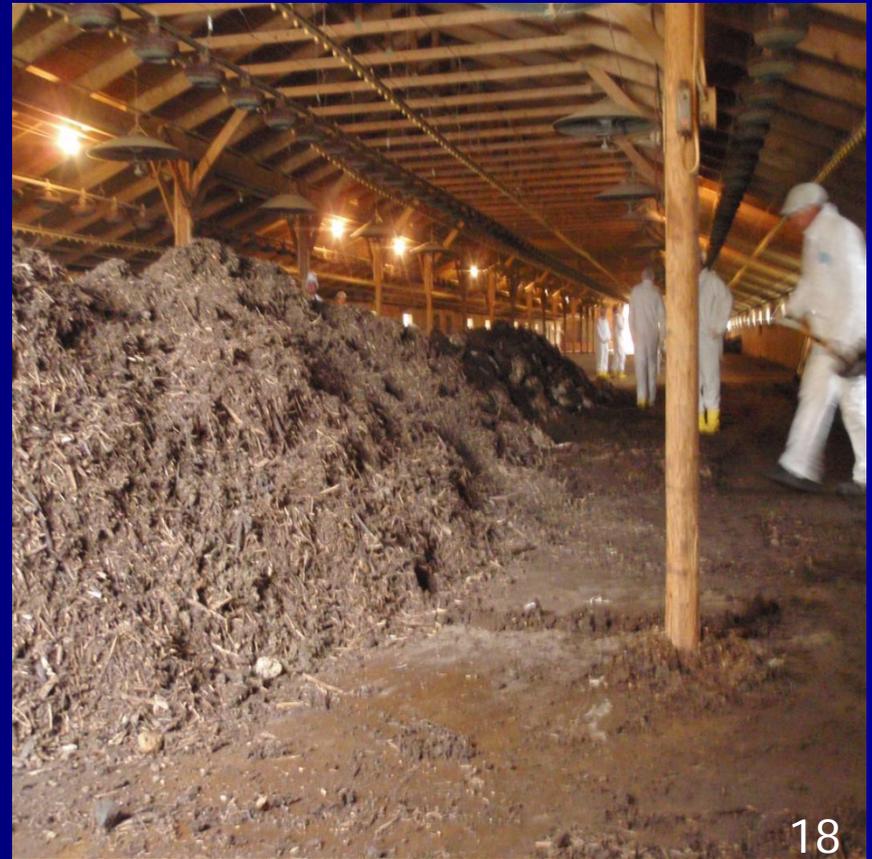
- Samples
 - Supplies
 - Vaccines
-
- Alabama sample to NVSL Ames Iowa, 5 hours
 - Iowa sample to FADDL Plum Island 3.5 hours



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, decontamination₁₇ 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