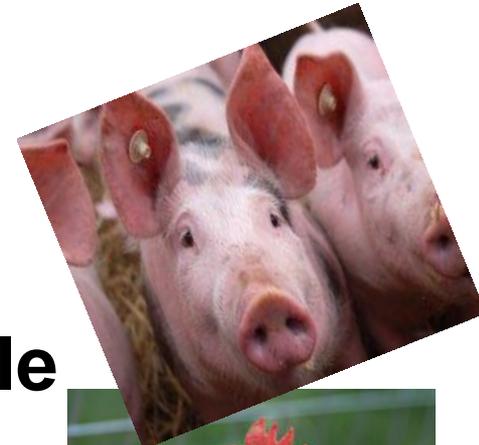
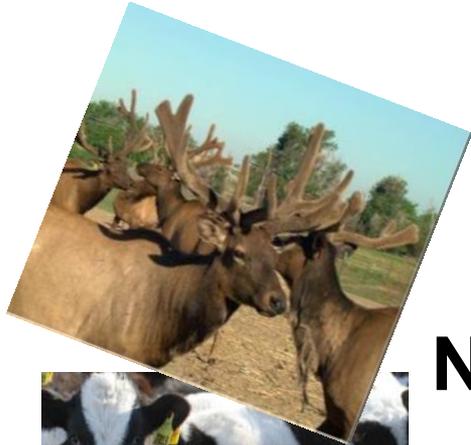


# Veterinary Services

## FiOps Logistics Center National Veterinary Stockpile Overview

Andy Titsworth

NVS Training & Exercise Coordinator  
Field Operations Logistics Center  
USDA, APHIS, Veterinary Services





# **History, Mission, Goals and Organization**



United States Department of Agriculture

# National Veterinary Stockpile

National repository of critical veterinary supplies, equipment, animal vaccines, and response support services.



*Ready for Animal Disease Emergencies*

# NVS Mission and Goals

Provide veterinary countermeasures – supplies, equipment, vaccines, and response support services – that States, Tribes, and Territories need to respond to damaging animal disease outbreaks.

1. Deploy within 24 hours countermeasures against damaging animal diseases and during natural disasters.
2. Assist Federal Officials, States, Tribes, and Territories plan, train, and exercise for the rapid acquisition, receipt, processing, and distribution of NVS countermeasures during an event.



# High-Consequence Foreign Animal Diseases and Pests

## Tier 1 – national concern:

- African swine fever\*
- Classical swine fever\*
- Foot-and-mouth disease\*
- Avian influenza (any strain that is highly pathogenic or has zoonotic significance)\*
- Virulent Newcastle disease\*

## Tier 2 - transmitted primarily by pests:

- Heartwater
- New World screwworm
- Rift Valley fever\*
- Venezuelan equine encephalitis\*

## Tier 3 - less risk and fewer consequences:

- African horse sickness
- Contagious bovine pleuropneumonia and contagious caprine pleuropneumonia
- Glanders and melioidosis
- Henipaviruses (Hendra and Nipah)\*
- Rinderpest\* and peste des petits ruminants\*
- Tropical Bont Tick

Source: APHIS Fact Sheet July 2013

\* APHIS identifies as biological threats that need to be considered in program priorities and countermeasure stockpile requirements.



# Deployable Countermeasures

# Deployable Countermeasures



- 24 Hour Push Packs of PPE
  - Bulk PPE
  - Decon supplies
- Animal Vaccines
- Vaccine shipping and portable storage containers
- Antiviral medications
- Poultry depopulation foaming units, CO2 carts, Whole House CO2
- Captive Bolt
- Animal handling equipment
- Response support services

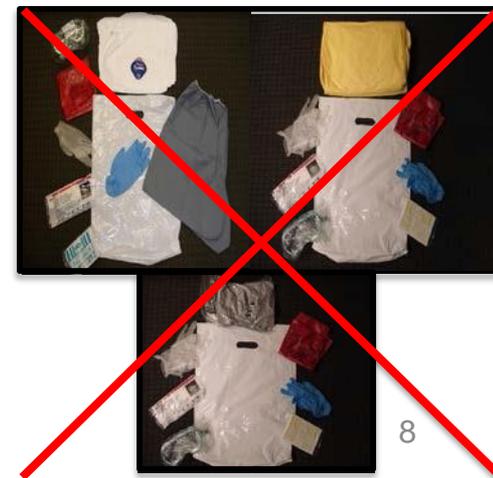
# 24 Hour Push Pack

- Contains PPE and decontamination supplies.
- Deploys within 24 hours of APHIS' approval.
- Arrival will precede additional items necessary to continue supporting the response.

## Bulk



## Kits



# Decontamination Module



- Bags, Ziploc (10/Bx)
- Brush, Long Handle, Car
- Bucket w/ Cover, 5 Gal
- Pool, Pop Up, Ultra
- Scraper, Shoe and Boot (4/Bx)
- Shears, EMS, 7 ¼" (3/Bx)
- Sprayers, 2 Gal
- Tape, Chem (12/Bx)
- Tape, Yel, Caution-black (15/Bx)
- Test Strips, Virkon
- Virkon S, 2 Bx with four 10 lb buckets ea (total 80 lbs)

# Animal Vaccines

## Maintained by the NVS

- Vaccines are shipped from multiple locations following APHIS approval to vaccinate.
- The vaccine shipped depends on the type and strain of vaccine that APHIS decides to use.
- The time of arrival varies according to vaccine type. Some may arrive within 24 hours of request. Others take longer.

## North American Foot and Mouth Disease Vaccine Bank

- If requested, the NVS may assist in the coordination of transporting vaccine.



Canada



United States



Mexico

## National Animal Vaccine and Veterinary Countermeasures Bank

- The NVS will serve as the Logistics arm of the National Bank

# Mobile Refrigeration Units



8' x 20' Unit



8' x 12' Unit

For Use in Non-Contaminated Areas

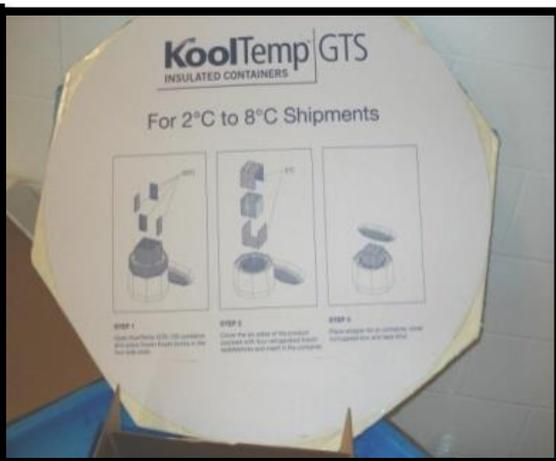
# Thermal Packaging Solutions



GTS 5420 pallet shipper will deliver animal vaccines to the State/Tribe/Territory and maintains 2-8 degrees C for at least 120 hours.

# Thermal Packaging Solutions

GTS-342 – Kool Temp



Maintains 2-8 degrees C for at least 72 hours

Improved Temperature Monitoring Devices



40 bottles, 500 ml  
(two layers of 20 bottles)

# Thermal Packaging Solutions

GTS 35



Holds 20, 50ml bottles

HP 76



Holds 5, 500ml bottles

GTS 35 and the HP 76 maintain 2-8 degrees C for at least 72 hours

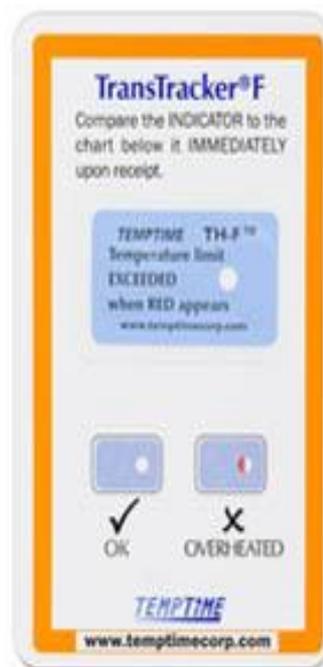


Insulated shipping envelope

# Temperature Data Loggers

## Temperature Chemical

### Monitors



# Antiviral Medication for Agriculture Responders

- Tamiflu (80% inventory)  
Relenza (20% inventory)
- NVS antivirals dispensed to agriculture responders are checked into incident command.
- Safety Officer and logistics medical unit collaborate to identify responders that require medication.



***For Prophylactic Use***



# Antiviral Medications for Agriculture Responders

State NVS plans should include  
State pharmaceutical  
requirements for:

- Receiving
- Storing
- Prescribing
- Dispensing





# Poultry Depopulation Equipment

- Kifco Avi-FoamGuard units
- NC FoamPro unit
- Whole House CO<sup>2</sup> unit
- TEDs
- CO<sup>2</sup> carts
- Poultry CO<sup>2</sup> Trailer

# 1<sup>st</sup> Generation Foam Depopulation Equipment

## North Carolina Foam Unit

Kifco AV-ST3 Foam Unit



# Kifco AV-ST3 Foam Unit



# Kifco AV-ST3 Foam Unit



# North Carolina Foam-Pro Unit

- Designed as a simple system
  - Operate two devices at a time
  - Variations exist on when purchased
- Same pump and motor as AV-ST3



# North Carolina Foam-Pro Unit



# Kifco AV-STC Foam Units

- Kifco AviGuard AV-STC and AV-STC AW
- Upgraded nozzle-based system
  - Designed for up to 4 nozzles at a time
- AV-STC
  - Open trailer
- AV-STC AW
  - Enclosed trailer designed for cold weather use



AV-STC



AV-STC AW

# Kifco AV-STC/AW Foam Unit

- Four nozzles per trailer
- Based on fire style attack lines



# Kifco AV-STC Foam Unit



# Kifco AV-STC AW Foam Unit



# Differences in Projection - Generator



# Differences in Projection - Nozzle





# CO2 Cart



# Poultry CO2 Trailer



- Portable gassing system for small flocks
- Capacity 300 broilers; 440 layer hens; 80 turkey (hens)

- Stainless steel construction
- Transport by half-ton vehicle
- Dynamic top loading
- Dumping capability for easy disposal

# Whole House CO2



## Distribution Manifold

- Liquid CO2 delivered from tanker to this manifold
- Connects to 4 dosing manifolds



## Dosing Manifold

- Deliver CO2 gas to poultry barn
- Four manifolds spaced throughout the barn



## CO2 LogPac Trailer



# Other Equipment

- Captive Bolt
- Animal Handling Equipment

# Captive Bolt Depopulation Equipment



Pistol-grip for Livestock Depopulation

- Supplied as kits
- Include extended bolt for cattle
- Penetrating and non-penetrating
- Rod sizes and charge colors vary by species



# Turkey Euthanasia Device (TED)



# Animal Handling Equipment

- Equipment in storage and ready to deploy
- Additional types of equipment available through contracts

Cattle  
Gates and Panels



Swine  
Gates and Panels



Swine Mobile  
Chute



Mobile Corral – CA FMD Exercise September 2011





# **Deployable Resources**

## **3D Response Support Services**

# 3D Response Support Services

- Depopulation, disposal, decontamination (3D), or other services to support incident command.
- Trained and self sufficient contractors with their own equipment.
- Companies available through USDA Contracts.





# **Requesting Assistance for a Damaging Animal Disease**

# Prior to Requesting NVS Assistance

- List inventory of resources available within the State
- Consider local, state, federal, private
- Preplan what resources you will likely request from NVS

SC In-State HPAI Response Inventory Calculations (2008)

Determine supplies have in-house:

ITEM	SC-LPH INVENTORY	SC-VS INVENTORY
Coveralls	2,000	275
Disp. Boots (pairs)	1,750	275
Gloves (pairs)	6,000	
Head covers	3,500	1,000
Goggles	30	24
Disp. Particulate masks	1,640	400
Half-mask respirators	25	0
Full-mask respirators	5	0
PAPR	4	4
Blood tubes, needles, syringes	some	lots
Swabs	3,000	0

Determine number of in-state teams available:

Organization	No. of Teams	Primary Duties
CULPH, VS-SC, CUCES	5-8	sampling, depop, disposal, decon activities of non-commercial flocks
Commercial Companies	1-4 each	sampling, depop, disposal, decon activities of their commercial flocks

Determine PPE and sampling items per team:

Disposable Items	Sampling Backyard Team (per 2-person team)	Sampling Comm Team (per 1-person team - broiler/turkey farm)
coveralls	2	1
boots pair	4	2
gloves pair	5	2
goggles (reuse)	2	1
resp. mask	2	1
head cover	2	1
blood tube/needles	min 20 per farm	10/house (min 20 per farm)
swabs	min 20 per farm	10/house (min 20 per farm)
media tubes	min 4 per farm	2/house (min 4 per farm)

# NVS Request Process

SAHO/AVIC determine all available resources in the State will soon be exhausted.



## *NVS 5-Step Request Process*

1. SAHO/AVIC agree NVS support is needed.

2. SAHO/AVIC consult with VS District Office.

3. VS District Office calls FiOps 24/7 hotline, 800-940-6524.

4. NVS Director returns call to acknowledge request and DD initiates conference call with all parties.

5. APHIS approves, ICS 213 submitted, and NVS DMT coordinates deployment details with Incident Command POC.



NVS deploys countermeasures within 24 hours of APHIS approval.



# **NVS Planning Tools**

Regular Updates of NVS Website

<http://www.aphis.usda.gov/nvs>



# NVS Website

- Mission
- Purpose
- Goals
- Contact Us
- NVS News
- NVS Documents
- Request Approval as an NVS Planner
- Information for NVS Planners

The screenshot shows the USDA Animal and Plant Health Inspection Service website for the National Veterinary Stockpile (NVS). The page includes a navigation menu with links for Home, Our Focus, Resources, Newsroom, and Blog. A search bar is located in the top right corner. The main content area is titled "National Veterinary Stockpile (NVS)" and features a sidebar with a table of contents. The table of contents lists various sections such as "Animal Health", "Program Overview", "District Offices", "Contact Us", "Animal Disease Information", "Emergency Management", "Export from the U.S.", "Import into the U.S.", "Laboratory Information Services", "Monitoring and Surveillance", "NAHMS", "One Health", "Traceability", "Training and Development", "Veterinary Accreditation", "Veterinary Services Process Streamlining (VSPS)", "Veterinary Biologics", and "OIE International Standards". The main content area includes a "Mission" section, a "Purpose" section, a "Goals" section, and a "Contact Us" section. There is also a "Related Links" section with links to "FMD Materials", "FAD PrEP Materials and References", "Disinfectants", "Animal Health Emergency Management", and "Emergency Management Response System (EMRS)". A "NVS News" section lists several recent news items, and a "NVS Documents" section lists various documents. At the bottom, there is a "Request Approval as an NVS Planner" section with a note that the page is password protected.

USDA Animal and Plant Health Inspection Service  
United States Department of Agriculture

Home Our Focus Resources Newsroom Blog

Animal Health / Emergency Management / National Veterinary Stockpile (NVS)

## National Veterinary Stockpile (NVS)

Last Modified: Apr 21, 2014

**Mission**  
To provide the veterinary countermeasures animal vaccines, antivirals, or therapeutic products, supplies, equipment, and response support services that States, Tribes, and Territories need to respond to damaging animal disease outbreaks.

**Purpose**  
Homeland Security Presidential Directive 9 established the NVS in 2004 to protect the nation's food supply by maintaining sufficient amounts of countermeasures capable of deployment against the most damaging animal diseases within 24 hours. The directive reflected the national concern that terrorists could simultaneously release animal diseases of catastrophic proportions that would quickly deplete available resources within the State, Tribe, or Territory and overwhelm the private sector's ability to support such a disaster.

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

Assist States, Tribes, and Territories plan, train, and exercise for the rapid request, receipt, processing, and distribution of NVS countermeasures during an event.

Contact Us

**NVS News**

- National Veterinary Stockpile, Puerto Rico, and U.S. Virgin Islands Conduct Successful Planning Workshops (pdf 180kb) 4-21-14
- National Veterinary Stockpile and State of Texas Conduct Successful Logistics Exercise (pdf 207kb) 1-17-14
- USDA Donates CSF Vaccine to Guatemala (pdf 38kb) 3-25-13
- NVS Sponsors Tabletop Exercise on FMD Vaccine Shipment (pdf 131kb) 1-24-13
- National Veterinary Stockpile and State of Colorado Conduct Successful Logistics Exercise 2012 (pdf 516kb)
- NVS Sponsors Exercise on Vaccine Shipment (pdf 72kb) 7-23-12
- NVS and FADDL Exercising to Improve (pdf 65kb)
- National Veterinary Stockpile and Navajo Nation Conduct Successful Logistics Exercise (pdf 367kb)
- USDA, APHIS, NVS and Navajo Nation Exercise (pdf 46kb) 5-5-2011
- SAADRA-NVS Exercise Logistics Readiness (pdf 34kb)
- NVS Supports Iowa 2010 Flood (pdf 7kb)

**NVS Documents**

- NVS Basic Brief (pdf 785kb) 12-09-11
- NVS Basic Brief Speaker Notes (pdf 5mb) 12-09-11
- NVS Factsheet (pdf 39kb) 8-13-12
- Questions & Answers

**Request Approval as an NVS Planner**

Information for NVS Planners << NOTE: This page is password protected.



# Restricted Website for NVS Planners

- Recently migrated to USDA Connect
- eAuth Level 1 for Access
- Request access from NVS Training and Exercise Coordinator or email [nvs@usda.gov](mailto:nvs@usda.gov)

The screenshot shows the USDA Connect website interface. At the top, there is a navigation bar with links for '508 Compliance', 'Governance', 'Update Email', 'Support', and 'Help Desk'. Below this is a dark navigation bar with 'USDA Connect' and various user options like 'Profiles', 'Communities', 'Apps', 'My NRCS', 'My FSA', 'My FSIS', and 'My OCIO'. The main content area is titled 'Communities' and features a search bar. The selected community is 'National Veterinary Stockpile (NVS)'. The page layout includes a left sidebar with navigation options: 'Overview' (selected), 'Recent Updates', 'Status Updates', 'Members', 'Files', 'Metrics', and 'Tags'. The main content area shows the 'Community Description' with a mission statement: 'Mission: To provide the veterinary countermeasures animal vaccines, antivirals, or therapeutic products, supplies, equipment, and response support services that States, Tribes, and Territories need to respond to damaging animal disease outbreaks.' Below the description is a 'Files' section with a list of documents, all updated on May 9 by STEVE COON. The 'Files' list includes: 'Training Materials: Practical Exercise Materials/ Practical Exercise Documents', 'Training Materials: Practical Exercise Materials/ Practical Exercise Key', 'Exercise Materials: State NVS Drill Exercise Templates', 'Exercise Materials: State NVS Plan Workshop Templates', and 'Exercise Materials: NVS Tabletop Exercise Templates'. On the right side, there is a 'Members' section showing 123 people and a 'View All (123 people)' link. The bottom of the screenshot shows the Windows taskbar with the system clock indicating 12:53 PM on 5/29/2019.



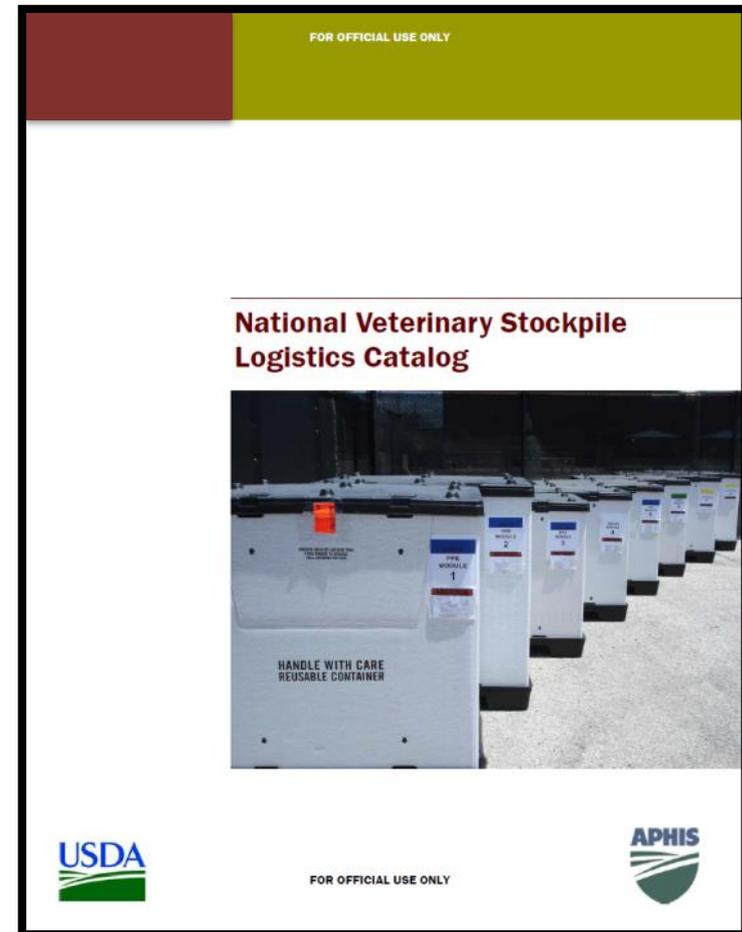
- Current NVS Catalog
- State NVS Tabletop Exercise Templates
- State NVS Drill Exercise Templates
- NVS State IMF Training documents
- NVS State IMF Access Database (password protected)
- NVS Logistics Warehouse Training Materials
- Factsheets
- Presentations
- Vaccine Questions and Answers
- NVS Planning Tools
- NVS Plans
- Reports – AAR/IPs

The screenshot displays a file directory interface with the following elements:

- Navigation:** Tabs for "Files" and "Folders".
- Page Info:** "1-17 of 17"
- Sort Options:** "Sort by: Name | Updated | Created | Files"
- File List:** A list of folders and files with their respective update information:
  - NVS Catalog**: Updated today at 3:08 PM by GUY TITSWORTH | 1 file
  - Exercise Materials: State NVS Drill Exercise Templates**: Donna Hodge updated on Feb 15 | 13 files
  - Exercise Materials: NVS Tabletop Exercise Templates**: Donna Hodge updated on Feb 15 | 7 files
  - Exercise Materials: State NVS Plan Workshop Templates**: Donna Hodge updated on Feb 15 | 8 files
  - Training Materials: Practical Exercise Materials/ Practical Exercise Key/ Writing A Statement of Work and Specifications: VIDEO**: Donna Hodge updated on Feb 15 | 1 file
  - Training Materials: Practical Exercise Materials/ Practical Exercise Key/ Writing A Statement of Work and Specifications: FILES ONLY**: Donna Hodge updated on Feb 15 | 7 files
  - Training Materials: Practical Exercise Materials/ Practical Exercise Key**: Donna Hodge updated on Feb 15 | 13 files
  - Training Materials: Practical Exercise Materials/ Practical Exercise Documents**: Donna Hodge updated on Feb 15 | 9 files
  - Training Materials: NVS State IMF Training**: Donna Hodge updated on Feb 15 | 8 files
  - Training Materials: NVS Logistics Warehouse Training**: Donna Hodge updated on Feb 15 | 6 files
  - Animal Vaccine Factsheets**: Donna Hodge updated on Feb 15 | 3 files
  - State, Tribe, and Territory NVS Plans**: Donna Hodge updated on Feb 15 | 6 files
  - NVS Planning Tools**: Donna Hodge updated on Feb 15 | 9 files
  - State NVS Drill Exercise Templates**: Donna Hodge created on Feb 15
  - State NVS Tabletop Exercise Templates**: Donna Hodge created on Feb 15
  - Reports**: Donna Hodge updated on Feb 15 | 7 files
  - Presentations**: Donna Hodge updated on Feb 15 | 1 file

# NVS Logistics Catalog

- Posted on restricted NVS website accessible to NVS planners upon approval
- Password required to open catalog
- Describes all available NVS countermeasures

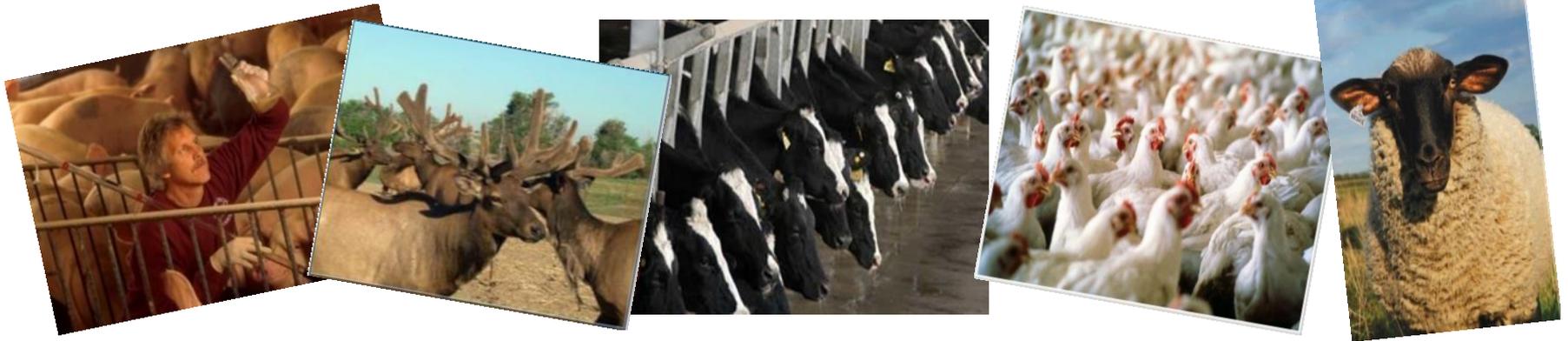




# If you had an outbreak tomorrow...

- What countermeasures would you request?
- What facility would receive countermeasures?
- What support agencies would assist you?
- What is the plan to receive, store, prescribe and dispense antiviral medications to responders?
- Who will do what in the ICS Logistics Section, specifically the Supply Unit?
- What tool will be used to manage inventory?
- How would you train Logistics responders and access just-in-time training materials?

# Questions?



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