



ESF 11 Coordination – State & Regional Approaches to Coordinating Food and Agriculture Response

States Represented: Iowa, Colorado, Michigan
ESF-11 Regions: 5, 7 & 8





Emergency Support Function #11 Agriculture and Natural Resources



Presented by:

Rosalynn Days-Austin

USDA

Emergency Support Function-11 Coordinator

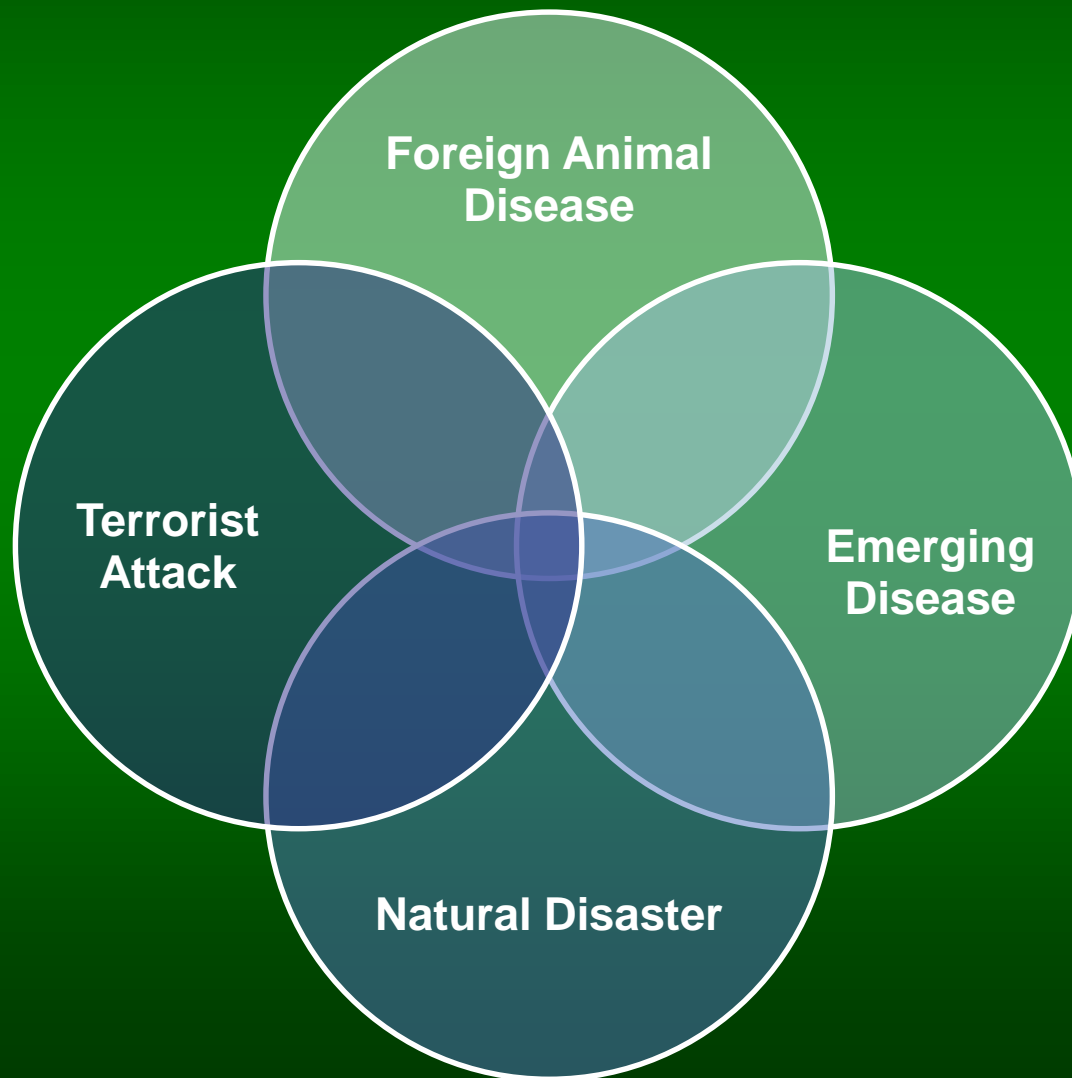
FEMA Region VII (Iowa, Kansas, Missouri, Nebraska)

The Agriculture & Food Sector is Essential To National Security



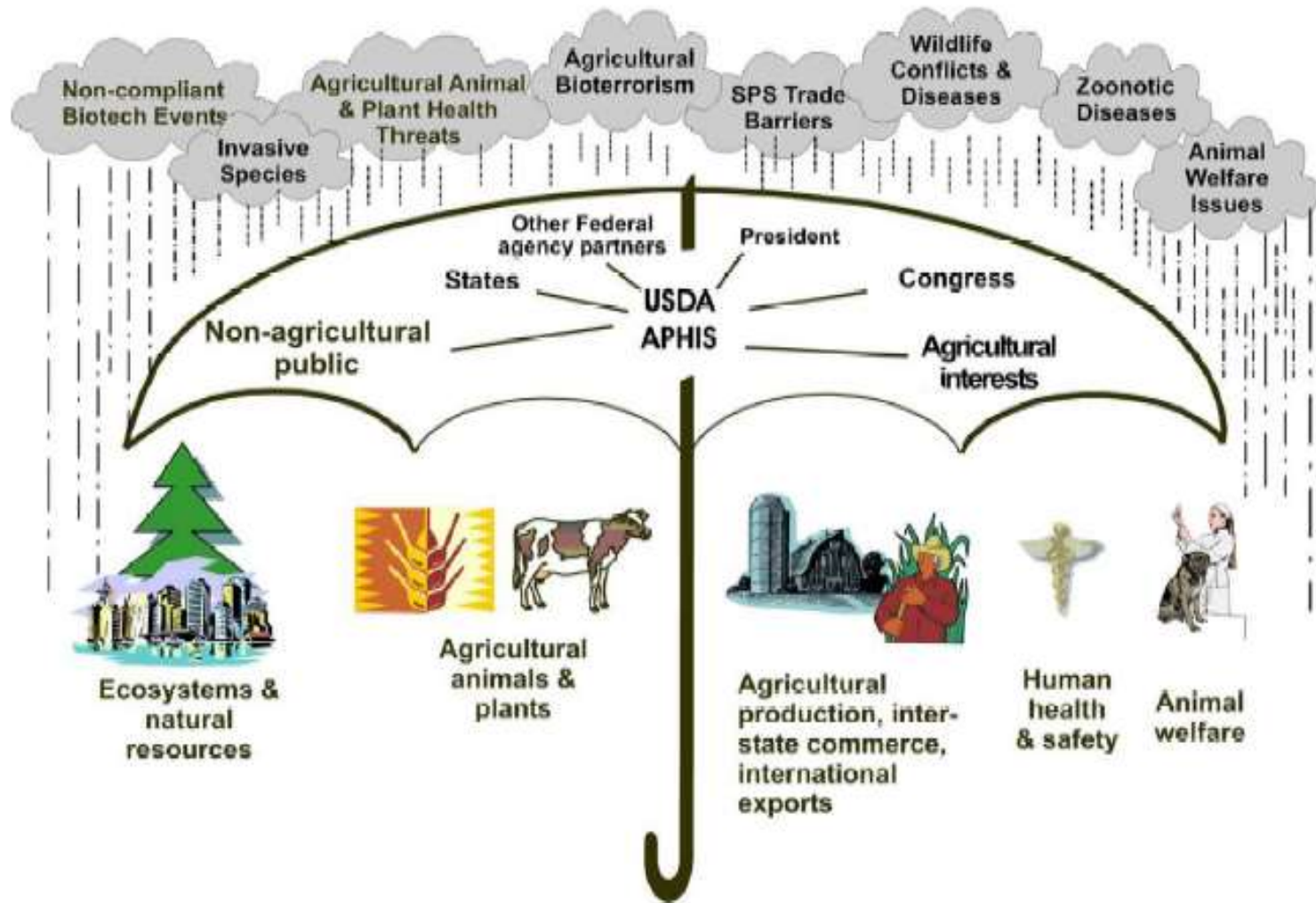
All Photos - Source: USDA/OC Photo Library

An Agriculture and Natural Resources Emergency Can Come in Many Forms



APHIS' Mission:

To protect the health and value of American agriculture and natural resources



Emergency Support Functions (ESF) and Corresponding Coordinating Agencies

(The Coordinating Agency is the entity with management oversight for that particular ESF)

ESF #1 -
Transportation



ESF #9 – Search and Rescue
(SAR)



ESF #2 –
Communications



ESF #10 – Oil and Hazardous
Materials Response



ESF #3 – Public Works &
Engineering



US Army Corps
of Engineers

ESF #11 – Agriculture and Natural
Resources



ESF #4 – Firefighting



ESF #12 – Energy



ESF #5 – Emergency Management



ESF #6 – Mass Care, Emergency
Assistance, Housing, and Human
Services



ESF #13 – Public Safety and
Security



ESF #7 – Logistics Management
and Resource Support



ESF #14 – Long-Term Community
Recovery



ESF #8 – Public Health
and Medical Services



ESF #15 – External
Affairs



ESF #11 Primary Agencies:

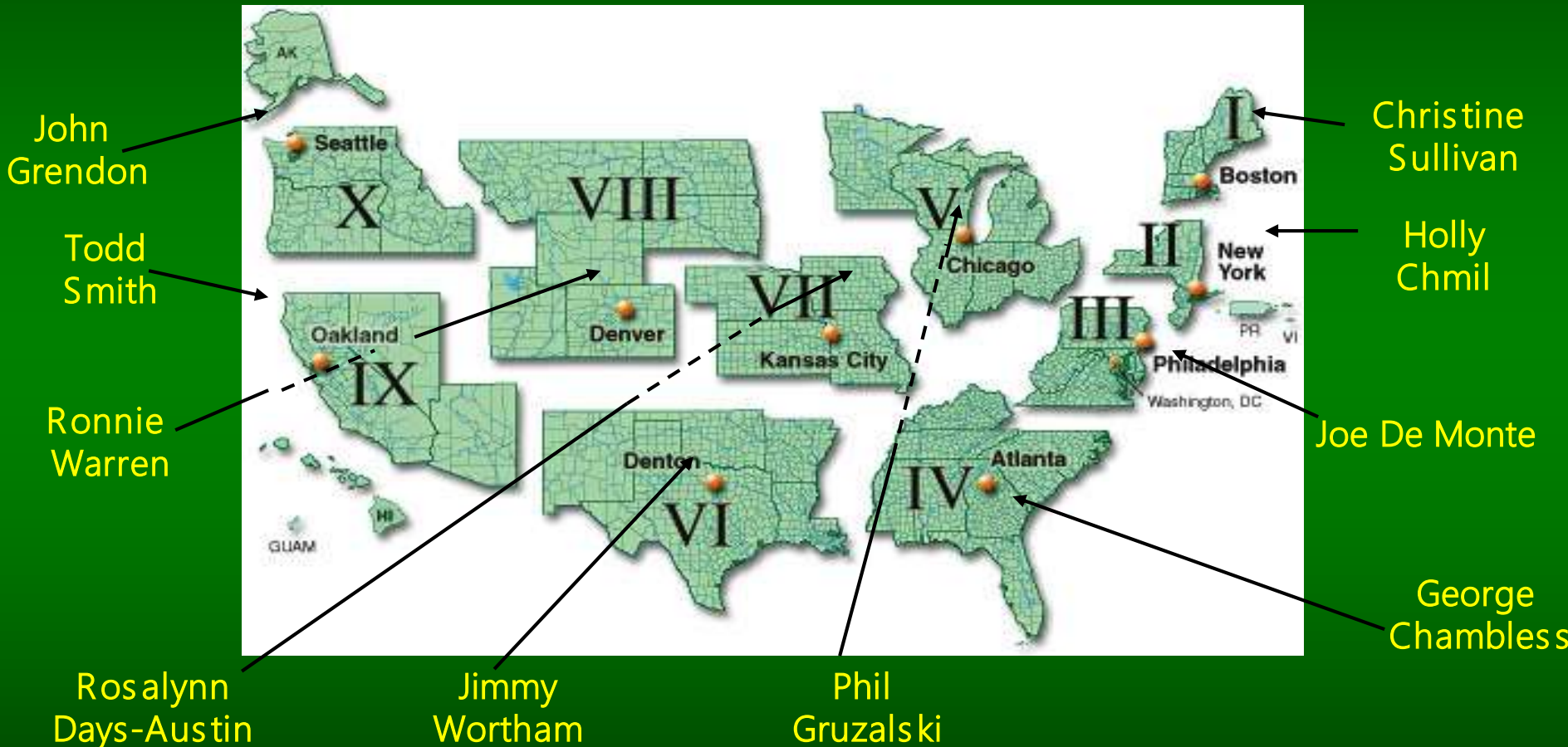
Department of Agriculture (USDA)

- ❖ *USDA designated APHIS as coordinating agency*
- Animal and Plant Health Inspection Service (APHIS)
 - Plant Protection and Quarantine (PPQ)
 - Wildlife Services (WS)
 - Veterinary Services (VS)
 - Animal Care (AC)
 - Investigative and Enforcement Services (IES)
- Food Safety and Inspection Service (FSIS)
- Food and Nutrition Service (FNS)
- Department of the Interior (DOI)

ESF#11 Coordinates Five Primary Tasks

- Protecting Natural, Cultural, and Historical Resources (DOI)
- Responding to Animal and Plant Diseases and Pests (APHIS – VS and PPQ)
- Ensuring the Safety and Security of the Commercial Food Supply (FSIS)
- Providing for the Safety and Well-Being of Household Pets (APHIS – AC)
- Providing Nutrition Assistance (FNS)

FEMA Regions and USDA ESF 11 Coordinators



ESF 11 Nationwide



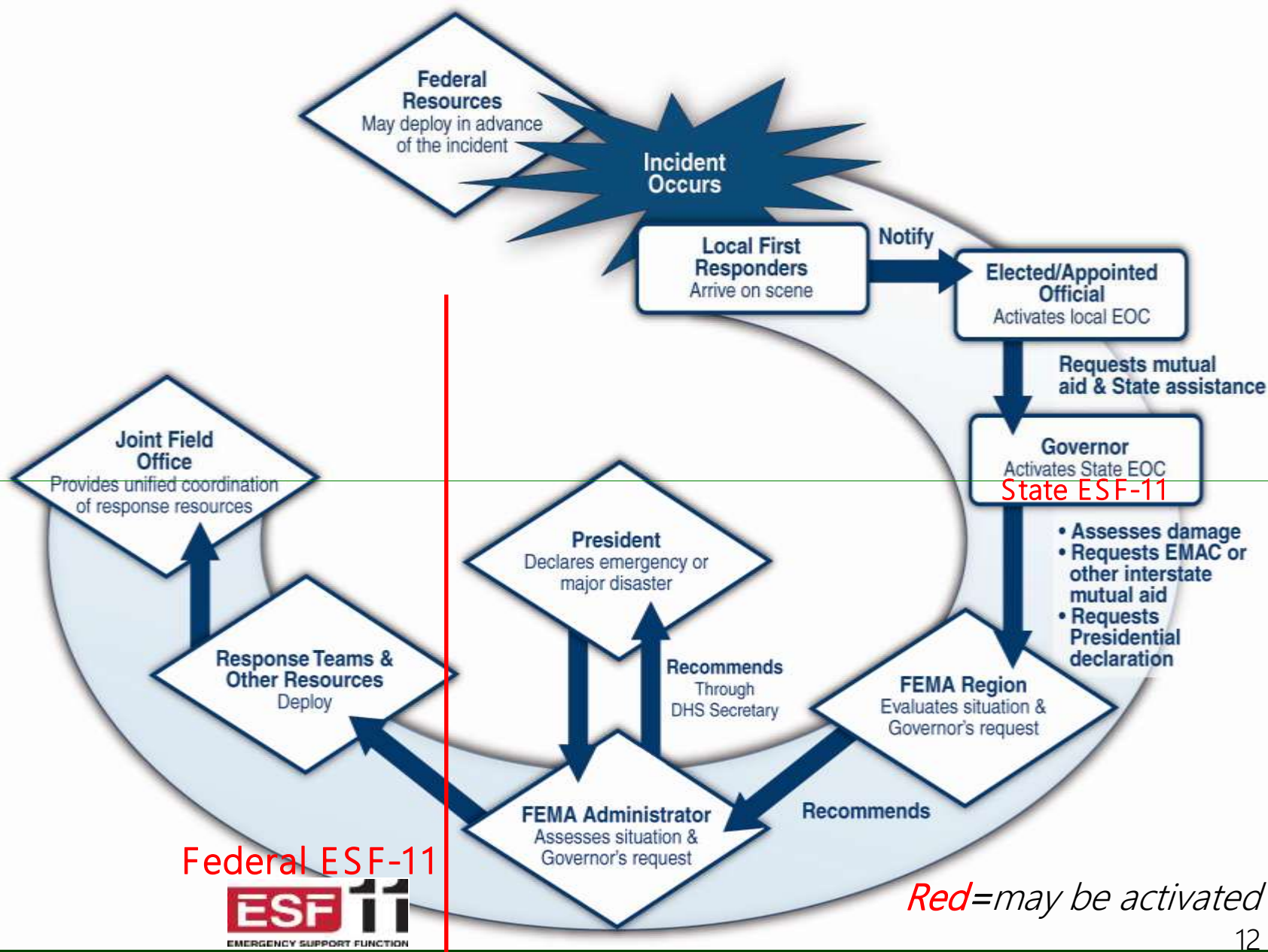
ESF 11
EMERGENCY SUPPORT FUNCTION



Emergency Support Function #11 – Agriculture and Natural Resources



How does ESF-11 get "activated"?



Federal ESF-11



Red = may be activated

State & Regional Approaches to Coordinating Food and Agriculture Response



All disasters start local and end
local, **we are here to support.**

Region 5

Dr. Mike Neault

Michigan Department of Agriculture

NeaultM@michigan.gov

Philip Gruzalski, LCSW

USDA, APHIS

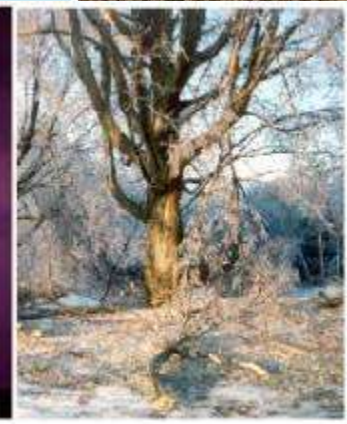
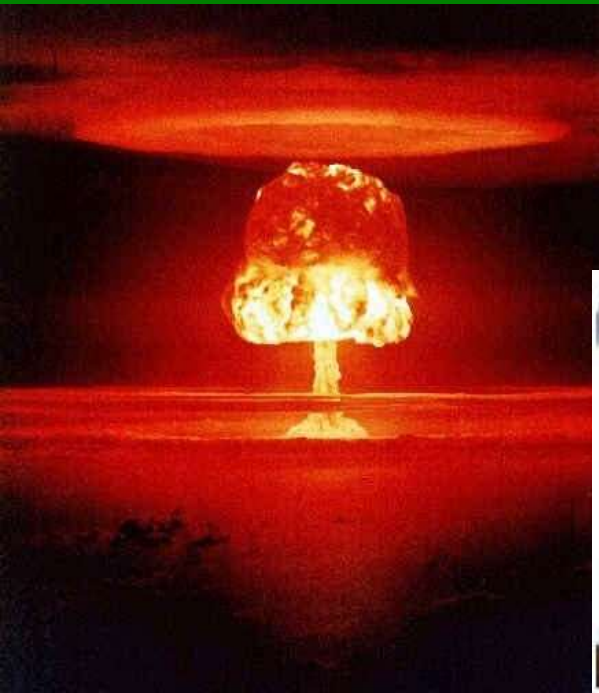
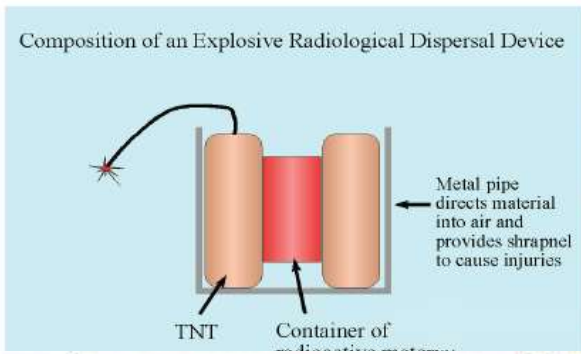
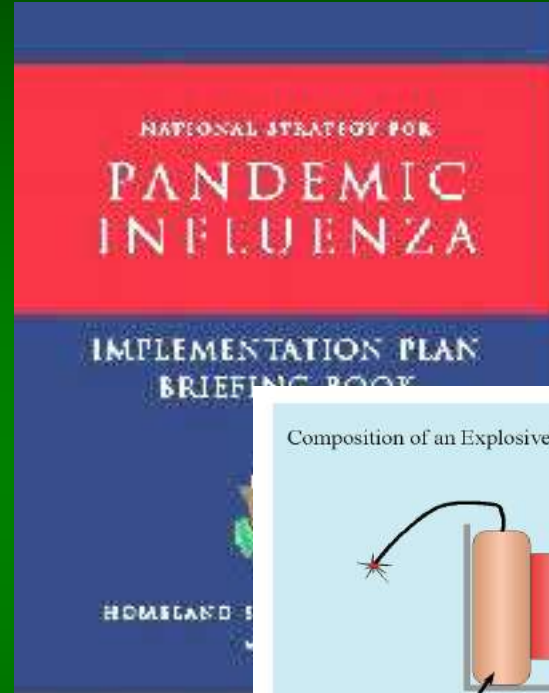
Region V ESF-11 Coordinator

(Illinois, Indiana, Michigan, Minnesota, Ohio,
Wisconsin)

Philip.A.Gruzalski@aphis.usda.gov



ALL HAZARDS



CDC: Category A

pose a risk to national security because they:

- can be easily disseminated or transmitted from person to person;
- result in high mortality rates and have the potential for a major impact;
- would likely cause public panic and social disruption; and
- require special actions from various ESFs

Diseases

- **Anthrax** (*Bacillus anthracis*)
- **Botulism** (*Clostridium botulinum* toxin)
- **Plague** (*Yersinia pestis*)
- **Smallpox** (variola major)
- **Tularemia** (*Francisella tularensis*)
- **Viral hemorrhagic fevers**

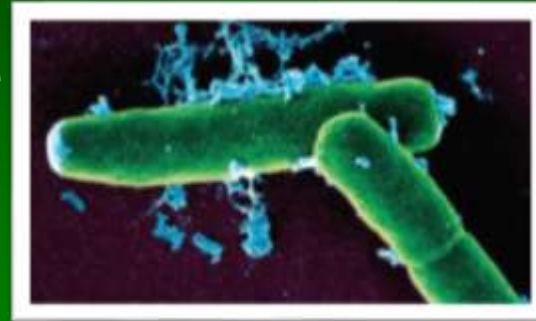
Anthrax Response Exercise Series (ARES)

- ARES Exercise Concept:
 - Integrate anthrax requirements into biological threat-based exercises currently under development or planned within the 10 FEMA regions
- Dissemination of an aerosolized anthrax attack in an urban area is our *#1 biological threat.*
- April 21, 2010



Anthrax: The Organism & The Disease

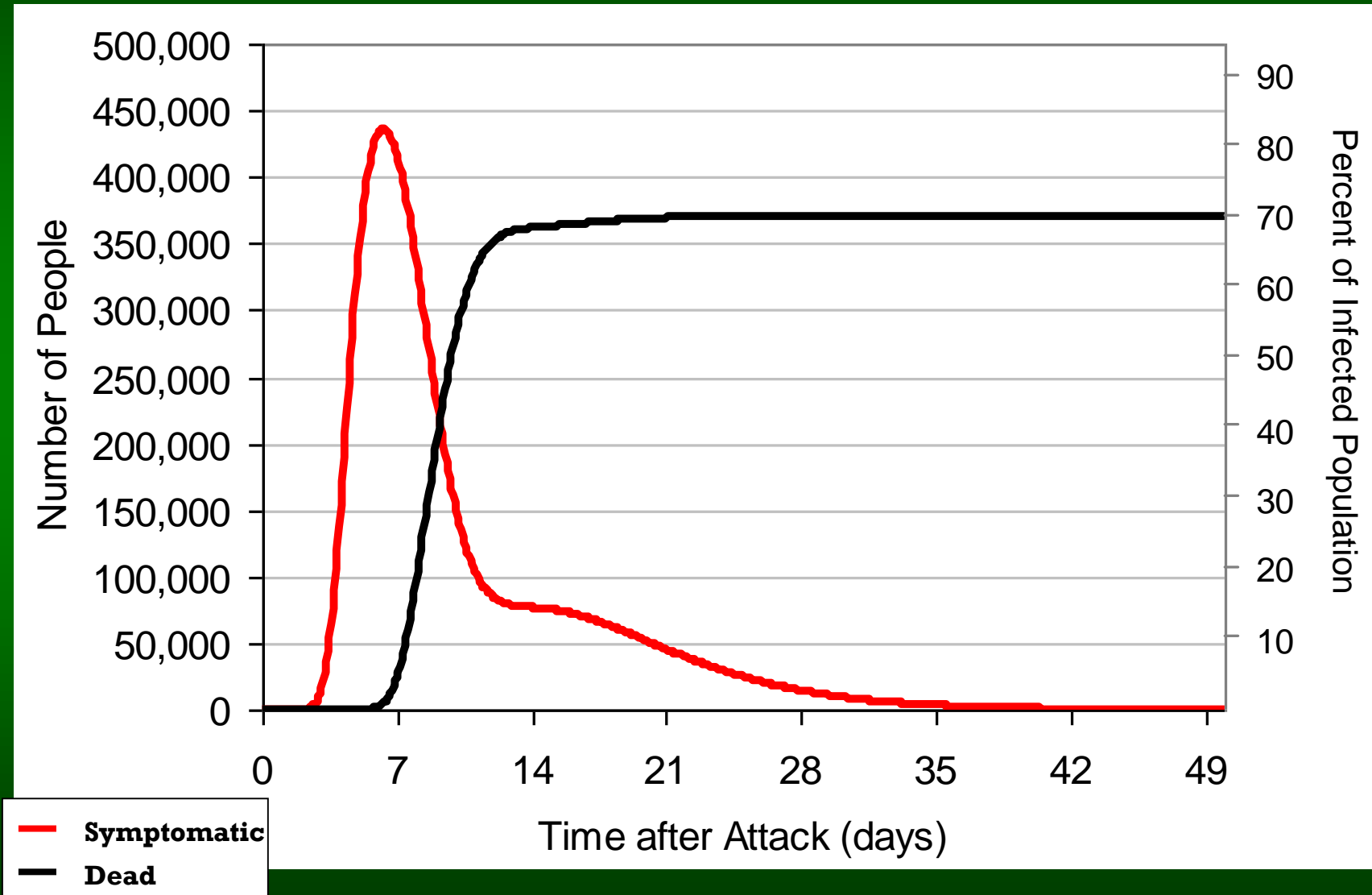
- Bacterium is easy to grow and aerosolize
- Spores last for decades in the environment
- Gastrointestinal, cutaneous, or inhalational disease. Inhalational form often fatal unless treated very early or immunized
- Infection may be caused by a very small number of spores
- Current medical countermeasure CONOPS depend on anthrax sensitivity to antibiotics
- Agent found in the environment and labs worldwide. It is a naturally occurring disease in many countries



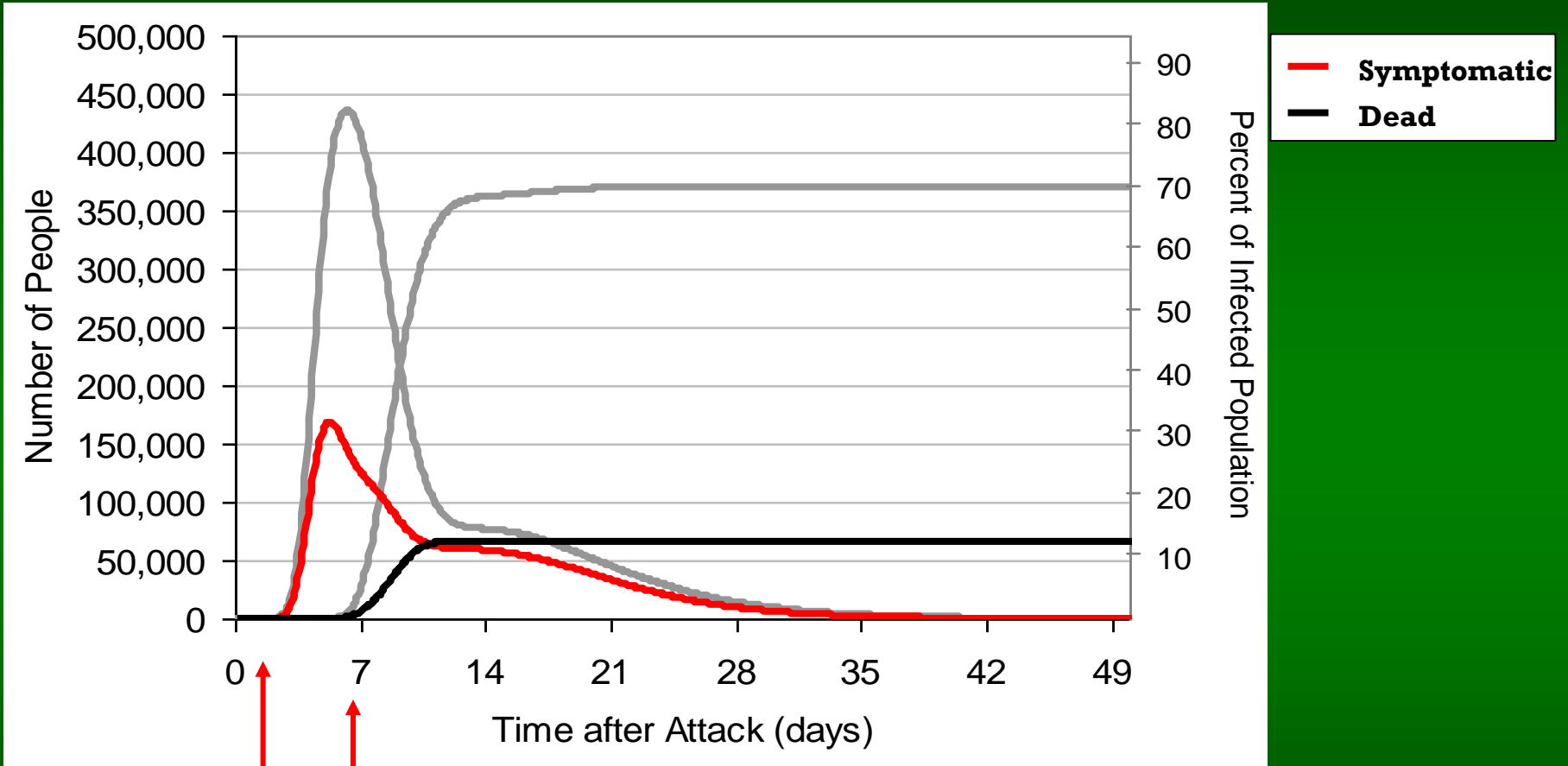
Inhalational Anthrax

- Breathing in spores = exposure to the disease, doesn't mean the exposed individual will get *symptoms*. Bacteria spores must "germinate"
- Incubation period usually < 1 week but can be longer
- Once spores germinate, they release several toxic substances, which cause internal bleeding, swelling, and tissue death
- Illness begins with flu-like symptoms; may not be identified as anthrax
- Main form is a bloody infection of lymph nodes in the chest, hemorrhagic mediastinitis. Up to half of individuals may also have hemorrhagic meningitis
- Death rate may be 45-90% **with** treatment
 - Better outcomes with earlier treatment
- Treated with ciprofloxacin or doxycycline

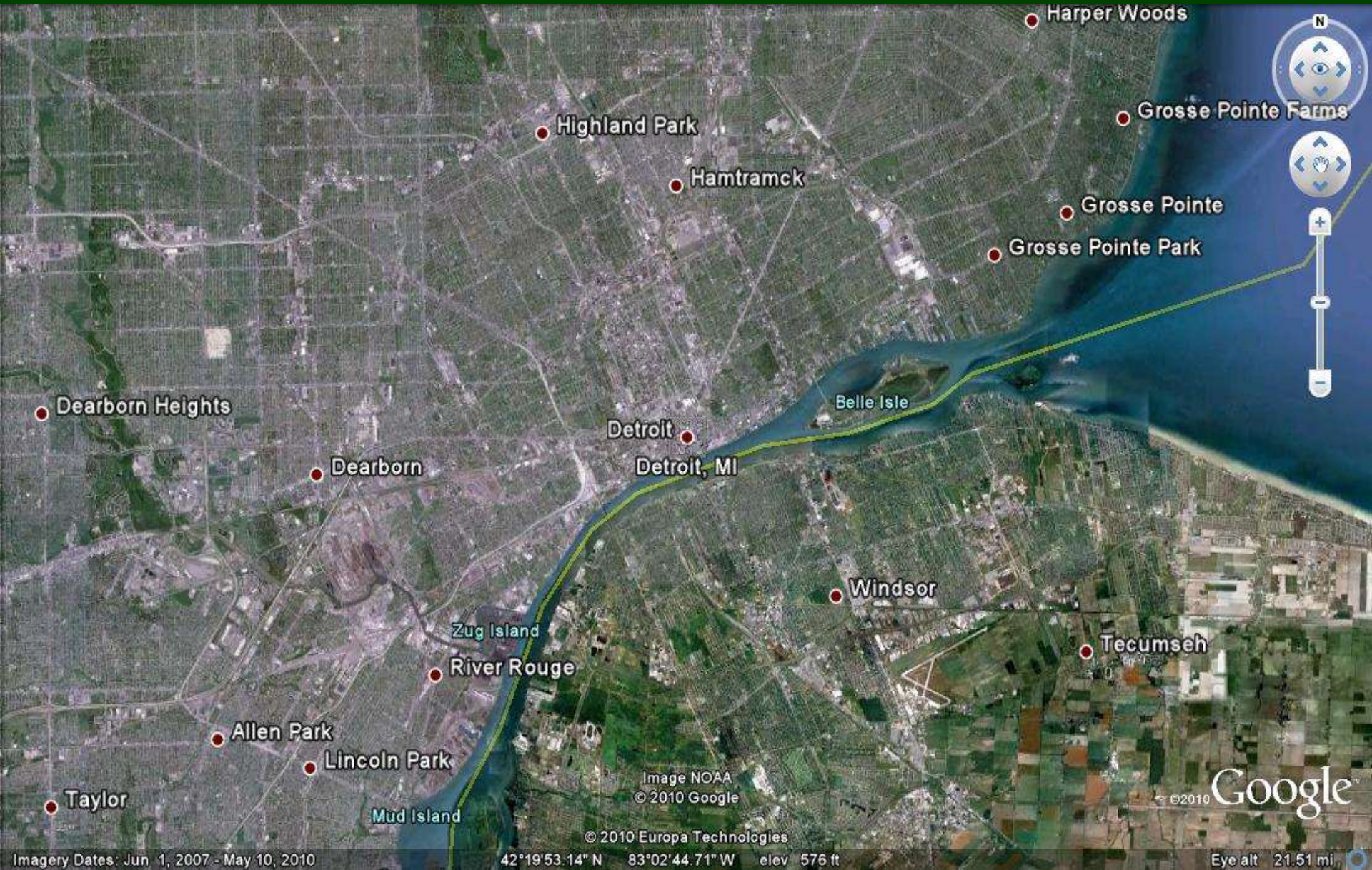
Models: No Medical Countermeasures



Models: With Medical Countermeasures



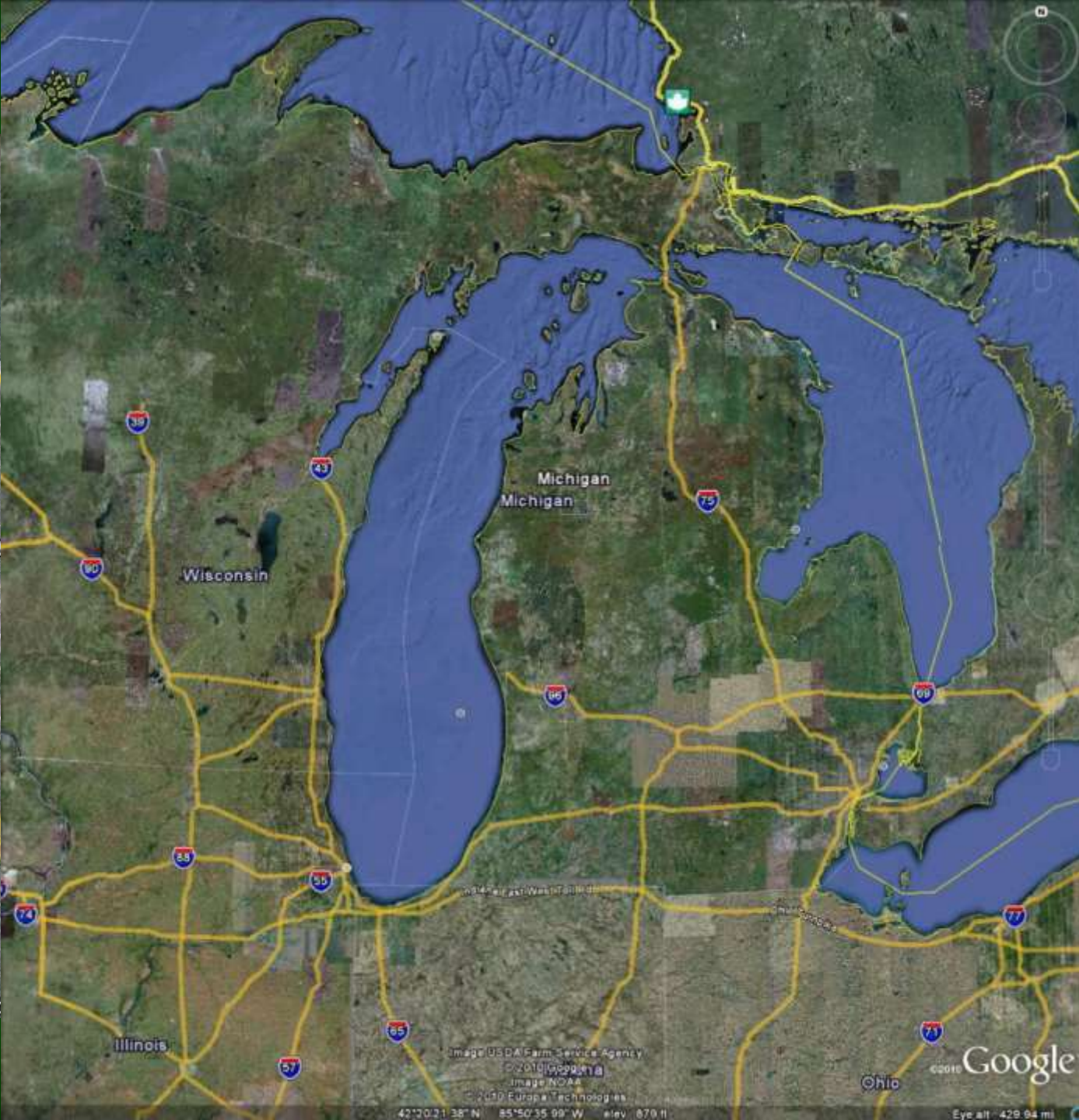
Prophylaxis Campaign Executed In Five Days
Detection and Decision-Making Take No More Than Two Days



Imagery Dates: Jun 1, 2007 - May 10, 2010

42°19'53.14" N 83°02'44.71" W elev 576 ft

Eye alt 21.51 mi



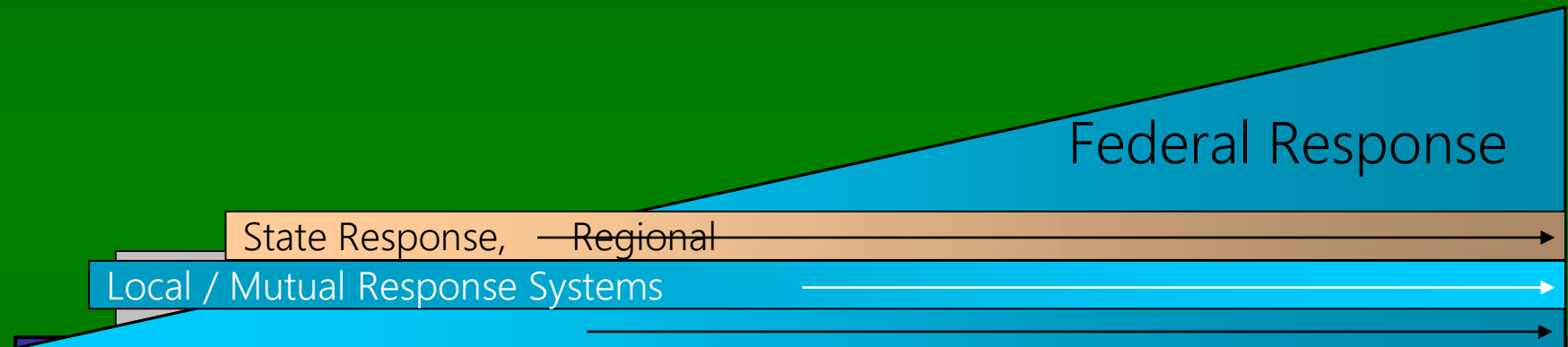
Challenges: General Population

- Medical Countermeasure Distribution
- Critical Decision Making
- Identification of Exposed Population
- Population Movements
 - Planned and unplanned
- Maintenance of Key Societal Functions
- Post-event Cleanup

Discussion

- What are some potential concerns food & agriculture needs to consider in a metropolitan aerosolized anthrax attack?

Layered Response Strategy



Categories of Escalating Contingency Threats

MINIMAL	LOW	MEDIUM	HIGH	CATASTROPHIC
Severe Thunder Storm	Ice Storm	Tornado	CAT 3 - 4 Hurricane	New Madrid earthquake /Miami CAT 5 Hurricane
Influenza, food borne illnesses	LPAI, Pseudo-Rabies, EAB	HPAI	Pandemic Influenza, FMD	Bio-Engineered Agent, Smallpox, Anthrax attack
Traffic Accident	HAZMAT Spill	Aircraft Crash	Dirty Bomb	Improvised Nuclear Device (IND)



Exports to Canada via Bridges

- 24 Bovine
- 7 Caprine
- 96,200 poultry
- 4564 equine
- 410 Swine



Pets



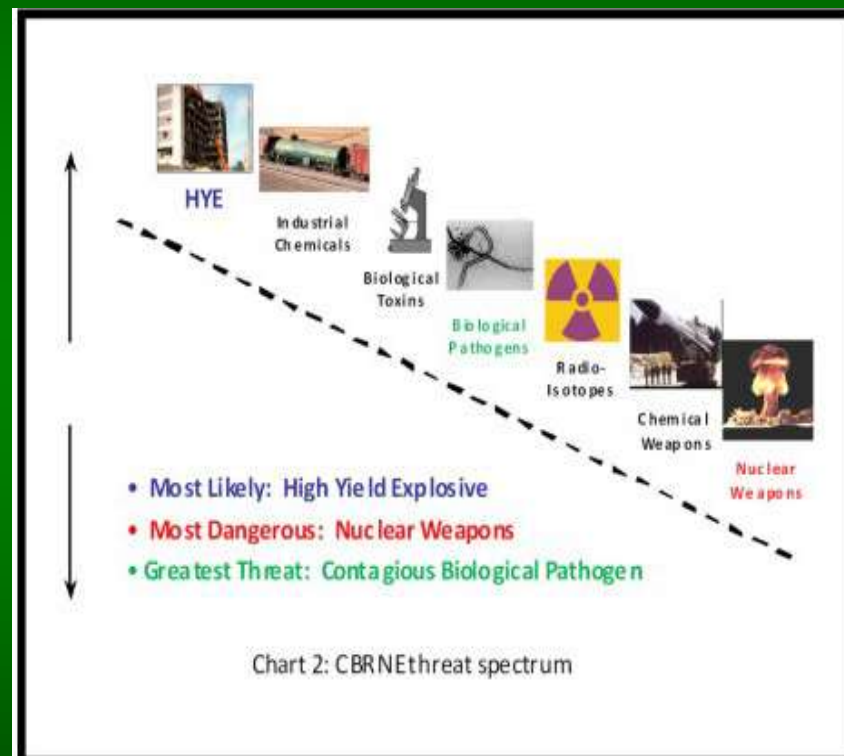


Areas that Impact Agriculture



CBRNE Threats & Agriculture

- Chemical
- Biological
- Radiological
- Nuclear
- Explosive



IOWA ESF-11



Kevin Klommhaus 515-242-6338

Iowa Dept. of Agriculture and Land Stewardship
Kevin.Klommhaus@IowaAgriculture.gov



Mark Shearer

515-725-3206

Iowa Homeland Security
Emergency Management Div.
Mark.Shearer@iowa.gov



ESF-11: 2008 Midwest Floods Region VII (Iowa, Kansas, Missouri, Nebraska)

Rosalynn Days-Austin

USDA Emergency Support Function-11 Coordinator

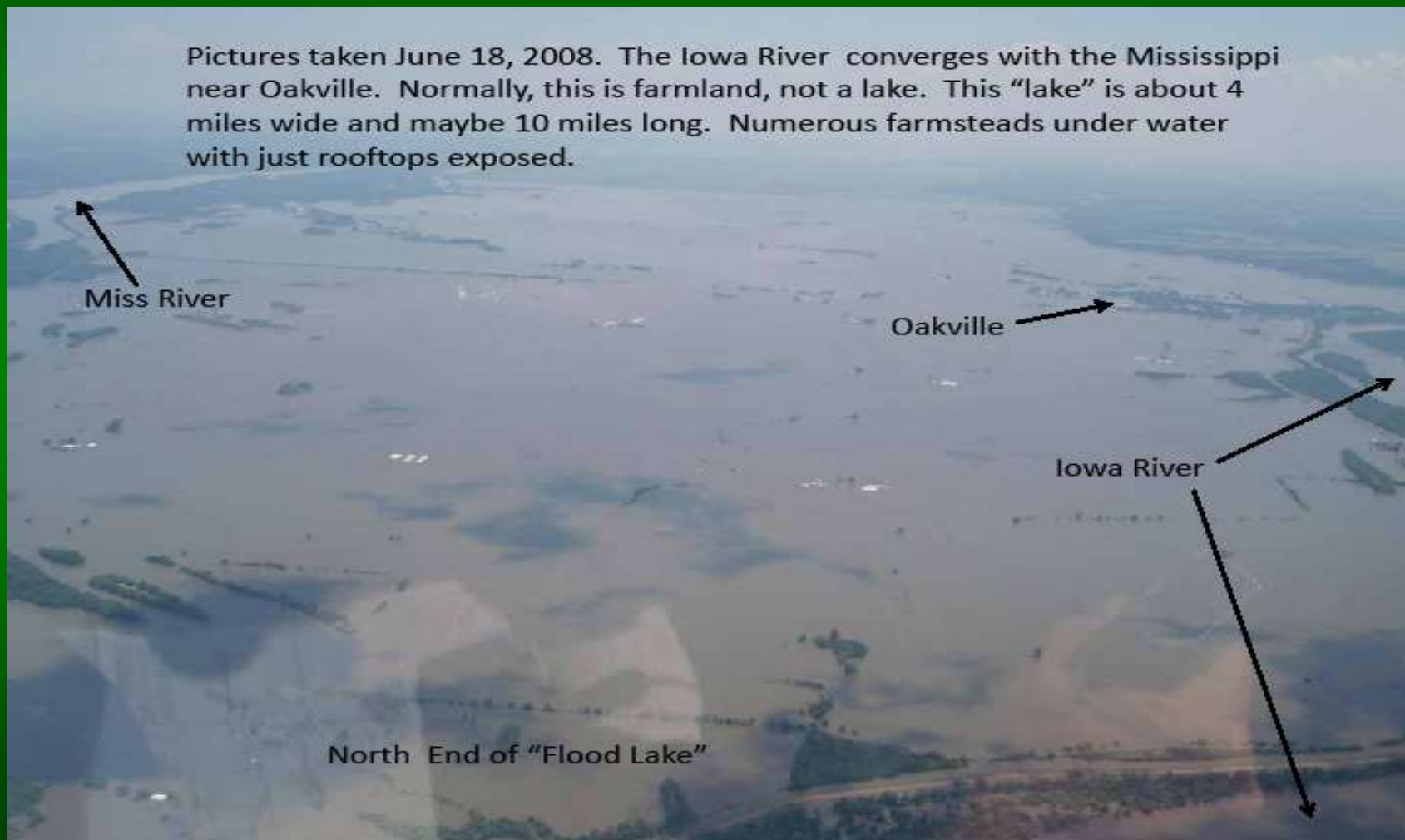
FEMA Region VII (Iowa, Kansas, Missouri, Nebraska)

Rosalynn.Days-Austin@aphis.usda.gov

2008 Midwest Floods

(1763DR-IA: Severe Storms, Tornadoes, and flooding)

Pictures taken June 18, 2008. The Iowa River converges with the Mississippi near Oakville. Normally, this is farmland, not a lake. This "lake" is about 4 miles wide and maybe 10 miles long. Numerous farmsteads under water with just rooftops exposed.



ESF-11 Incident Overview

- ESF-11 Coordinators:
 - Rosalynn Days-Austin
 - (USDA ESF11 R7 Coordinator)
 - Mark Shearer (Iowa)
- IDALS & USDA @ SEOC
 - AVIC and AEC assisted Iowa ESF-11 @ SEOC as VS and NVS SME
- 80+ Counties Presidential Declarations PA &/or IA
- RRCC @ FEMA Region VII: ESF 11 Desk activation (Saturday, 6-14-08)
- MA Companion Animals/Pet Shelters
- MA Livestock/carcass disposal
- Flooded Cities Farmsteads (20,000+ acres)
- Utilizing National Veterinarian Stockpile (NVS)
- USDA FSIS reviewing facilities effected by the flood
- DOI on standby



Iowa Flood 2008: Swine Carcasses





Iowa request assistance (ARF)



- **CONCERN:**
 - Reports of Swine rooting on levees, carcasses floating
 - Expected over 4000 swine left in structures or gates opened, concern of swine going feral
- Request USDA APHIS to assist with response activities involving livestock (primarily swine) and captive wildlife displaced by flooding in southeastern Iowa.
- **Purpose:** to avoid damage which may be caused by swine to levees and to agricultural resources, to avoid the potential for swine to breed with feral swine in the area which may be infected with pseudo rabies and/or brucellosis and which may increase the risk of these diseases spreading to commercial swine.



Joint efforts



- APHIS and IDALS coordinated with DNR to dispose of carcasses.
 - Des Moines County Landfill was authorized to receive carcasses
- APHIS coordinated with the State Veterinarian of Illinois, the AVIC of Illinois, and Illinois EPA for disposal of carcasses
- APHIS coordinated with the U.S. Army Corps of Engineers, the levee districts, county EOCs, and County Sheriffs to get access to carcasses on the levees
- Obtained permission from private landowners to access carcasses on their land

Carcass Disposal:



Cleanup: Swine and Carcasses

- Utilizing the National Veterinarian Stockpile
- Clean Harbor (NVS 3D contractor)
- Farm Animal Rescue and Housing (69)
- Received permission to go on private property
- Farm Animal (Swine/Public Property) Outside Carcass Disposal (371 carcasses)
- Farm Animal (Swine/Private Property) Inside Carcass Disposal (1160 carcasses)
- Swine Euthanized (30)
- Feeder pigs (1500)
- Total carcasses: 3061



Challenges:

- Carcasses being a "Health or Safety issue"
- Rendering plants not willing to receive carcasses





Swine
Carcasses

Lessons Learned



- Preparedness: Communication
 - **2009: Started R7 ESF-11 Bimonthly Call**
- Need for R7-RISC Carcass Disposal Subcommittee (FEMA R7, OSHA, EPA, State, DOI, etc.)
 - **2010 : Started R7 Carcass Disposal Subcommittee**



Nick J. Striegel, DVM, MPH
Colorado Department of Agriculture

&

USDA APHIS ESF-11 Ronnie Warren
FEMA Region-VIII

(Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming)

Partnership in All-Hazard Disaster
Planning Response and Recovery

Planning

- Participate in all-hazard disaster planning to ensure synchronization of State and Federal coordinated response
- Ensure that State and Federal all-hazard disaster plans are not in conflict with one another, and responsibilities are defined so that there is no duplication of efforts
- Enhance emergency management communication between federal, state, and industry to improve planning and training & exercise implementation

Training

- Attend emergency management training that supports the response to agriculture needs
- Support the Homeland Security training consortium courses hosted by the State and Federal training coordinators
- Attending consortium training courses ensure that information received is identical



Exercises



- USDA APHIS National Veterinary Stockpile (NVS) workshops & operational exercise
- CDA/CSU/USDA APHIS Foreign Animal Disease Course
- Colorado Dairy Crisis Exercise
- Pan-Flu Exercise

Utah

- Wasatch Fault/Earthquake Catastrophic Plan
- Utah Dept of Agriculture and Food/USDA APHIS AC Large Animal Rescue-Pet Sheltering Exercise

Our Contact Information

Nick J. Striegel, DVM, MPH

Colorado Assistant State Veterinarian

Nick.Striegel@ag.state.co.us

Chris S. Crnich, DVM

Director, Agriculture Homeland Security

ccrnich@utah.gov

Ronnie Warren

USDA APHIS ESF-11 Coordinator

ronnie.d.warren@aphis.usda.gov

Questions?

- In an emergency, *people don't rise to the occasion, but are reduced to their level of training.* – *Barrett Tillman*

Thank you!

