Keep America's Food and Agriculture Safe

USDA Homeland Security

Agriculture Outlook Forum

February 17, 2006

Homeland Security at USDA

- Creation of USDA Homeland Security Council - Sept. 2001
  - Mission: To develop a Department-wide plan and coordinate efforts among all USDA agencies and offices

- Establishment of USDA Homeland Security Staff - Aug. 2002
  - Mission: To provide leadership and coordination for the Department's homeland security efforts. Liaison with Federal, State, local, and industry stakeholders.

USDA Homeland Security Structure

Executive Office of the President

<u>USDA Homeland Security Council</u>
Secretary
Deputy Secretary
Homeland Security Office
Under/Assistant Secretaries
Communications Director

<u>Protection of the Food Supply & Agricultural Production</u>
Under Secretary, Food Safety, Co-Chair
Under Secretary, Marketing & Regulatory Programs, Co-Chair

<u>Protecting USDA Facilities & Other Infrastructure</u>
Under Secretary, Natural Resources & Environment, Co-Chair
Under Secretary, Research, Education & Economics, Co-Chair

<u>Protecting USDA Staff/ Emergency Preparedness</u>
Assistant Sec., Administration
Inspector General

USDA's Key Assets

Over 30 Agencies and Offices dedicated to agricultural, food, natural resources, and forestry issues

- Skilled professionals including veterinarians, plant pathologists, inspection personnel, risk assessors, analysts, emergency response personnel, educators, resource managers, and laboratory staff
- Physically located throughout the country including on-site in food processing facilities
- Key relationships with the private sector university community
- Strong relationships with State partners
  - Lab networks
  - State inspection program (food)
  - Training for State partners

The Agriculture & Food Sector is Essential To National Security

All Photos - Source: USDA/OC Photo Library

U.S. Agriculture - a National Resource

Value Toward GDP	**$1.24 Trillion or 12.3% of GDP**
Direct and Related Employment	**16.7% or 1 in 6 Jobs**

"Most reliable, secure and safe supply of food at a reasonable cost that the world has ever known"

Source: Agricultural Statistics Board (National Agricultural Statistics Service)

Challenges to Protecting the U.S. Agriculture and Food Sector

- Terrorism knows no boundaries
  - Sept. 11, 2001
  - Expanding USDA's mission to include 'security'
- Animal and plant pathogens and pests - readily available overseas
- Information on their use - on the Internet

Source: USDA/OC Photo Library

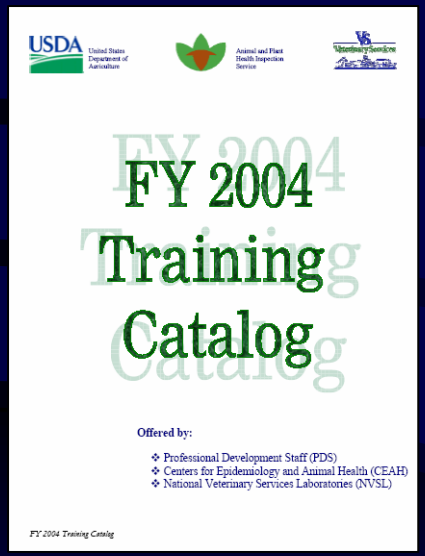
HSPD-9 Highlights

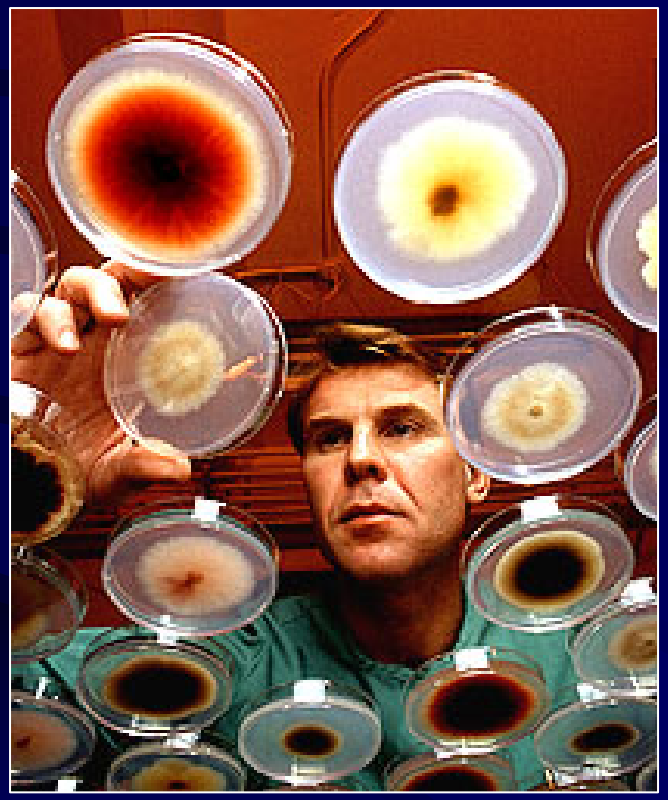
- **HSPD-9 sets a national policy for defending our food and agriculture system against terrorist attacks, major disasters, and other emergencies**

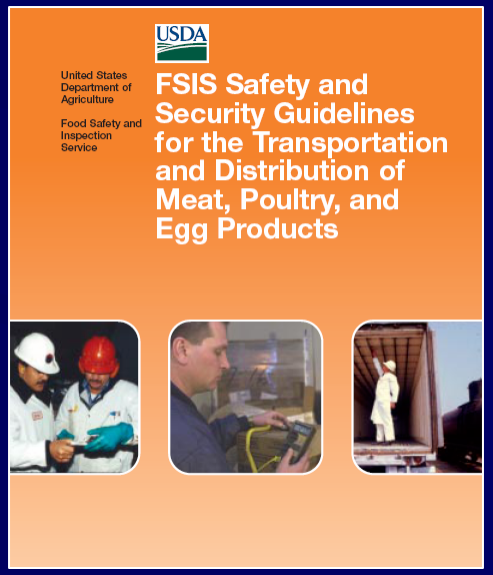
Key Components:

- Awareness & Warning
- Vulnerability Assessments
- Mitigation Strategies
- Response Planning & Recovery
- Outreach & Professional Development
- Research & Development

What is USDA Doing to Address Security within the Sector?







All photos: Source USDA/OC Photo Library

Protecting American Agriculture

- **Assessments of USDA-owned facilities (i.e., research facilities, airtanker bases) and private facilities (i.e.., food processing facilities, rural utilities)**

- **Cooperation with DHS on border protection, food and agricultural security**

All photos: Source USDA/OC Photo Library

Protecting American Agriculture

Animal Health Programs and Research

- Focus on diagnosis, epidemiology, treatment and prevention
  - Diagnosis:
    - Early detection of pathogens; Comparative microbial genomics; Genomic fingerprints of existing agents; Collect information on agent epidemiology
  - Disease Control Strategies:
    - Development of new vaccine strategies that rapidly accommodate new strains; Development of non-specific disease treatment strategies; Development of antiviral treatments
  - Priority Animal Diseases:
    - Foot and Mouth disease virus, Avian influenza, Rift Valley Fever, Exotic Newcastle, Classical Swine Fever, Vesicular stomatitis virus

Protecting American Agriculture

Plant Health Programs and Research

- **Focus on detection, epidemiology and protection**
  - Rapid Diagnostics: soybean rust, citrus canker, sudden oak death, wheat rusts, citrus tristeza, Pierce's Disease – grapes
  - Prevention: pathogen biology, genetics, host plant resistance, spread
  - Control: biological, cultural

- **Accomplishments**
  - Developed classical and real-time PCR assays for rapid detection and discrimination of the two soybean rust pathogens.
  - Identification of *P. pachyrhizi* from infected soybean leaves using real-time PCR assay allows for more rapid diagnosis.

Protecting the Food System

- **Awareness and Warning**
  - Implemented National Consumer Complaint Monitoring System
  - Increasing laboratory capacity to detect threat agents
  - Developing the Food and Agriculture Biosurveillance System to gain situational awareness for food safety and security

- **Vulnerability Assessments**
  - Conducting vulnerability assessments for domestic and imported products in house as well as in partnership with State and Local Officials, FBI, DHS, FDA, and Industry

Source: USDA/FSIS

- **Mitigation Strategies**
  - Incorporated food defense into inspection activities
  - Developed security guidelines for food processors, distributors, and transporters
  - Developing countermeasures based upon vulnerability assessments

Protecting the Food System

- **Response Planning and Recovery**
  - Conducting exercises that simulate intentional contamination of food products throughout the country
  - Developing Non Routine Incident Management System
  - Developed guidelines for disposal of contaminated product and decontamination of processing facilities

- **Outreach and Professional Development**
  - Conducted outreach to food-defense partners (state and local agriculture and public health agencies, law enforcement, and industry) to raise awareness of food defense issues and to provide vulnerability assessment training
  - Provided tools to assist industry in hardening the food supply:
    - Security Self-Assessment Checklist
    - Guidance Documents
    - Model Food Defense Plans

Source: USDA/ARS Photo Library

National Food, Animal & Plant Health Laboratory Networks

- **FERN, NAHLN and NPDN - Network of Federal and State resources to enhance detection of and enable a rapid and sufficient response to food, animal and plant health emergencies**
  - Information Sharing
  - Early Detection/Surveillance
  - Surge Capacity
  - Coordinated Resource Allocation

- **Integrated Consortium of Laboratory Networks**
  - Communicate and cooperate across animal, plant, health and environmental labs
  - Sharing capabilities, policies, procedures, and approaches for handling laboratory analysis in national emergencies.
  - Limit redundancies, identify gaps, and seek solutions

Photos Source: USDA/ARS Photo Library

Research

Animals, Plants, and Foods:

- Prevention
  - Understanding mechanisms of disease resistance
- Detection and Diagnosis
  - Rapid, highly sensitive diagnostics
- Control
  - Technologies to prevent contamination and disease spread
- Mitigation
  - Development of disease resistant germplasm
- Inactivation
  - Development of effective methods to inactivate pathogens and toxins

What Can You Do?

- **Awareness**
  - Recognize suspicious behavior and know how to report it
  - Educate each other
- **Preparedness**
  - Make plans and exercise them
- **Response**
  - Know your role relative to others

Source: USDA/OC Photo Library

Information and Outreach

The Extension Disaster Education Network (EDEN)

- To assist Extension professionals in educational programming efforts, this site offers ready-to-use presentations, case studies, applied activities, and handouts for producer workshops and/or community awareness presentations

- State-specific information

www.agctr.lsu.edu/eden/

For More Information

USDA Homeland Security Office: www.usda.gov/homelandsecurity/

Food Safety & Inspection Service, Office of Food Defense & Emergency Response:
http://www.fsis.usda.gov/Food_Security_&_Emergency_Preparedness/index.asp

Emergency contact number (24 hours) 1-800-333-1284

USDA Meat & Poultry Hotline 1-888-MPHotline, e-mail: mphotline.fsis@usda.gov

Animal & Plant Health Inspection Service:

Veterinary Services: http://www.aphis.usda.gov/vs/

Plant Protection & Quarantine: http://www.aphis.usda.gov/ppq/
Anti-smuggling Hotline: 1-800-877-3835

Agricultural Research Service: www.arsnet.usda.gov/ohs/

Cooperative State Research, Education & Extension Service:
http://www.csrees.usda.gov/nea/ag_biosecurity/ag_biosecurity.html