

OVERVIEW OF USDA HOMELAND SECURITY EFFORTS – CURRENT AND
FUTURE INITIATIVES TO PROTECT THE AGRICULTURE AND FOOD SECTORS

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Keep America's Food and Agriculture Safe

USDA Homeland Security



Agriculture Outlook Forum

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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

USDA Homeland Security Council

Secretary

Deputy Secretary

Homeland Security Office

Under/Assistant Secretaries

Communications Director

Protection of the Food Supply & Agricultural Production

Under Secretary, Food Safety, Co-Chair

Under Secretary, Marketing &

Regulatory Programs, Co-Chair

Protecting USDA Facilities & Other Infrastructure

Under Secretary, Natural Resources & Environment, Co-Chair

Under Secretary, Research, Education & Economics, Co-Chair

Protecting USDA Staff/ Emergency Preparedness

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**

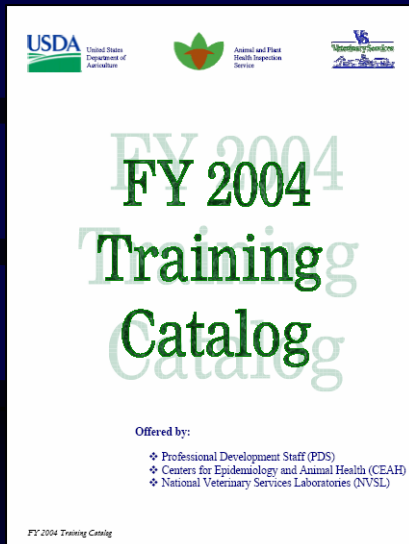
Key Components:

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

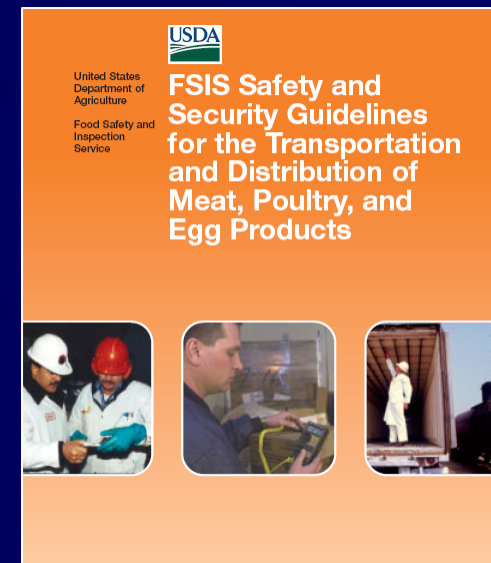




What is USDA Doing to Address Security within the Sector?



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/

The screenshot displays the EDEN website interface. On the left, there are navigation menus for 'Issues' (Hurricanes, Mold, Children and Disasters, More issues), 'Resources' (Extension Websites, Non-Extension Websites, EDEN Delegates, POCs), 'Search EDEN' (with a search box and 'Go' button), and 'The Network' (About EDEN, EDEN Intranet). Below these are links for 'Plant Biosecurity Management Course' and 'About EDEN'. On the right, there is a search box for 'Information by State' and a banner for 'Information & Resources about Hurricanes'. The 'News & Features' section lists several articles: 'Hurricane Aid for Agricultural Producers' by Pat Skinner (January 26, 2006), 'FEMA launches "FEMA for Kids"' by Sim on Kenyon (January 24, 2006), 'Kentucky County Extension Nation's First StormReady Supporter' by Tom Priddy (November 18, 2005), and 'Avian Influenza: What is it and how does it spread?' by Abigail Borron (August 08, 2005). A footer note states: 'The EDEN website receives support from the Cooperative State Research, Education and Extension Service, U.S. Department of Agriculture under CSREES/AUSD A Agreements No. 2002-30001-12100, CFD A #10.304 and 2004-37620-14644. Earlier support was provided under SPN 98-ESNP-1-0317. Feedback or queries should be sent to: Pat Skinner (LA), Registrar and Web Manager; Edwin Jones (IC), Chair.'



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: mph hotline.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