National Crop Biosecurity

Role of APHIS-PPQ in Prevention, Preparedness, Response, and Recovery

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April 23, 2007

Vision

National Crop Biosecurity Framework ensures that science-based early detection, rapid response, and practical recovery systems are available to provide maximum protection of U.S. agricultural and natural resources, thus ensuring minimum impact to consumers, producers and the environment.
National Crop Biosecurity

APHIS-PPQ

Safeguards agriculture and natural resources from the risks associated with the entry, establishment, or spread of animal and plant pests and noxious weeds.

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
HSPD-9 Background
(2) US agriculture and food systems are vulnerable to disease, pest, or poisonous agents that
– occur naturally
– are unintentionally introduced
– or are intentionally delivered by acts of terrorism
National Framework for Crop Biosecurity: Four Elements

1. Prevention
   - Off-Shore – Preclearance Program
   - Agricultural Quarantine Inspection
   - Permits
2. Preparedness
   - Diagnostics
3. Response
   - Mitigations
   - Surveillance
4. Recovery
   - Off-Shore Pest Information System
   - Risk Assessment
   - Vulnerability Assessment
   - New Pest Response Guidelines
   - Science Panels
   - Diagnostics (development, validation, networks)
   - Survey – Detection (CAPS/NAPIS, NBIS, FABIS)
   - Treatment (mitigation)
   - Training (ICS, survey, diagnostics, data management, mitigation, etc.)
National Framework for Crop Biosecurity: Four Elements

1. Prevention
   - Implementation Plan: Generic and Sector-Specific Elements
2. Preparedness
   - Resource Allocation and Tracking: Human, Fiscal, and Physical Resources
3. Response
   - Survey & Detection: Adequate & Timely
   - Diagnostics: Accurate & Timely
   - Mitigations: Timely containment, control, and eradication
4. Recovery
   - Incident Command System: Federal and State Unified Command

National Crop Biosecurity - Background

Incident Command System (ICS)

Organizational infrastructure comprising one or more qualified persons able to immediately confront an incident using technical, organizational, and interpersonal skills.
State Agencies: Role

1. Prevention
   - State Departments of Agriculture
   - National Plant Board

2. Preparedness
   - National Association of State Departments of Agriculture (NASDA)

3. Response
   - State Emergency Management Agencies

4. Recovery

Federal Agencies: Role

1. Prevention
   - USDA – MRPBS, ARS, CSREES, AMS, GIPSA, FSA, FAS, OHS

2. Preparedness
   - EPA
   - FWS

3. Response
   - DHS
   - DOD
   - CDC
Industry and Stakeholders: Role

1. Prevention
   - Partnership and Coordination
   - Agricultural Critical Infrastructure

2. Preparedness
   - Vulnerability Assessment
   - Prioritization and Protective Measures

3. Response

4. Recovery

National Crop Biosecurity

Prevention, Preparedness, Response, and Recovery

Thank You!
National Crop Biosecurity - Background

ICS - Command Staff

Unified Command

- Science Advisory Panel
- Intelligence Officer IES

Public Information Officer

- Liaison Officer
- Safety Officer

Planning Chief

Operations Chief

Logistics Chief

Admin/Finance Chief
Plant Health Emergency: Action Plan

Reported Pest

New Pest

Known Pest

CPHST/NPAG

Action Plan

No Response

Unified Command

National Crop Biosecurity

Detection, Diagnostics, and Confirmation

Agricultural Extension Service

State Department of Agriculture

State Plant Health Director

Private Consultant

Grower

Pest/Disease

Initial Screening

NPDN

State Laboratory

Others
1. Headquarters:

**Deputy Administrator:**
- Leadership

**Pest Detection and Management Programs:**
- National Coordination for Crop Biosecurity
- Program Design & ICS Leadership
- Action Plans for Select Agents
- Off-Shore Pest Information System
- Vulnerability Assessment
- Communication

**Plant Health Programs:**
- Select Agent Program/Permits
- Smuggling and Interdiction and Trade Compliance
- CBP Liaison
- National Identification Service
- Phytosanitary Issue Management

2. APHIS-Plant Protection and Quarantine: Roles

1. Headquarters:

**Professional Development Center (PDC):**
- Training
  - Plant Protection and Quarantine (PPQ)
  - Customs and Border Protection (CBP)
2. APHIS-Plant Protection and Quarantine: Roles

2. Center for Plant Health Science & Technology (CPHST):

- Global Pest Disease Database
- Pest Risk Assessments
- Science-Based Solution
- Survey and Detection
- Diagnostics (development, validation, confirmation)
- Control and Eradication Technologies

3. PPQ Regions:
National Crop Biosecurity - Background

Agricultural Bioterrorism Protection Act of 2002

- Law is designed to improve the ability of the United States to prevent, prepare for, and respond to bioterrorism
- Regulations for the Possession, Use, and Transfer of Biological Agents and Toxins – registration requirements, permits, inspection of facilities, personnel, and practices
- List of Select Agents and toxins deemed to pose a severe threat to animal or plant health

Select Agents

- Liberobacter africanus
- Liberobacter asiaticus
- Peronosclerospora philippinesis
- Phakopsora pachyrhizi
- Plum pox potyvirus
- Ralstonia solanacearum, race 3, biovar 2
- Sclerophthora rayssiae var. zeae
- Synchytrium endobioticum
- Xanthomonas oryzae pv. Oryzicola
- Xylella fastidiosa

- Citrus Greening
- Citrus Greening
- PH Downy Mildew of Corn
- Soybean Rust
- Plum Pox
- Bacterial Wilt of Potato
- Downy Mildew of Corn
- Potato Wart
- Bacterial Leaf Streak of Rice
- Citrus Variegated Chlorosis
National Crop Biosecurity - Background

APHIS Agricultural Select Agent Program

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Standards for Plant Health Emergency Management System

1. Emergency Management Plans
2. Written Agreements
3. Authorities and Policies
4. Communication Plan
5. Training and Education
6. Funding