



National Crop Biosecurity

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

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April 23, 2007



National Crop Biosecurity

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



Emergency Response and Recovery *Plant Health vs. All Hazards*

	Plant Health	All Hazards
Lead Agency	APHIS-PPQ	FEMA
Authority	Plant Protection Act	Homeland Security Act
Policy	National Response Plan NIMS-ICS	National Response Plan NIMS-ICS
APHIS' Role	Primary	Support – ESF11
Presidential Declaration	Not required	Required

National Framework for Crop Biosecurity: Four Elements

1. Prevention

- Off-Shore – Preclearance Program
- Agricultural Quarantine Inspection

2. Preparedness

- Permits
- Diagnostics

3. Response

- Mitigations
- Surveillance

4. Recovery

National Framework for Crop Biosecurity: Four Elements

1. Prevention

- Off-Shore Pest Information System
- Risk Assessment
- Vulnerability Assessment

2. Preparedness

- New Pest Response Guidelines
- Science Panels

3. Response

- Diagnostics (development, validation, networks)

4. Recovery

- 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**

4. Recovery

- Diagnostics: **Accurate & Timely**
- Mitigations: **Timely containment, control, and eradication**
- 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.



National Framework for Crop Biosecurity: Four Elements

1. Prevention

2. Preparedness

3. Response

4. Recovery

- National Plant Disease Recovery System
- Prevention Elements
- Survey and Detection
- Diagnostics
- Long-Term Pest Control Systems



National Framework for Crop Biosecurity: Four Elements

1. Prevention

2. Preparedness

3. Response

4. Recovery

**Early Detection,
Rapid Response, and
Practical Recovery**



State Agencies: Role

1. Prevention

2. Preparedness

3. Response

4. Recovery

- **State Departments of Agriculture**
- **National Plant Board**
- **National Association of State Departments of Agriculture (NASDA)**
- **State Emergency Management Agencies**



Federal Agencies: Role

1. Prevention

2. Preparedness

3. Response

4. Recovery

- **USDA – MRPBS, ARS, CSREES, AMS, GIPSA, FSA, FAS, OHS**
- **EPA**
- **FWS**
- **DHS**
- **DOD**
- **CDC**



Industry and Stakeholders: Role

1. Prevention

2. Preparedness

3. Response

4. Recovery

- **Partnership and Coordination**
- **Agricultural Critical Infrastructure**
- **Vulnerability Assessment**
- **Prioritization and Protective Measures**



National Crop Biosecurity

Prevention, Preparedness, Response, and Recovery

Thank You!

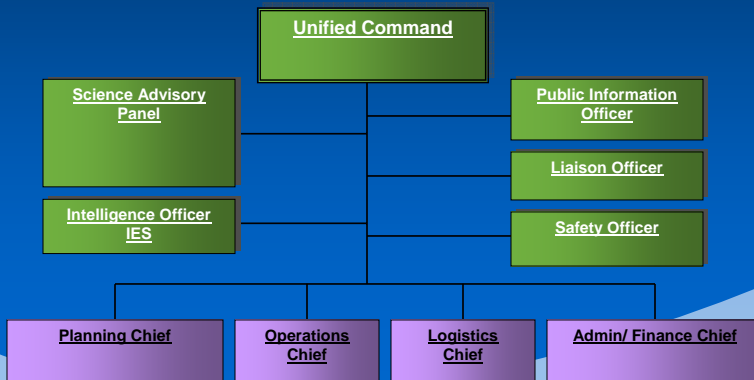


United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine

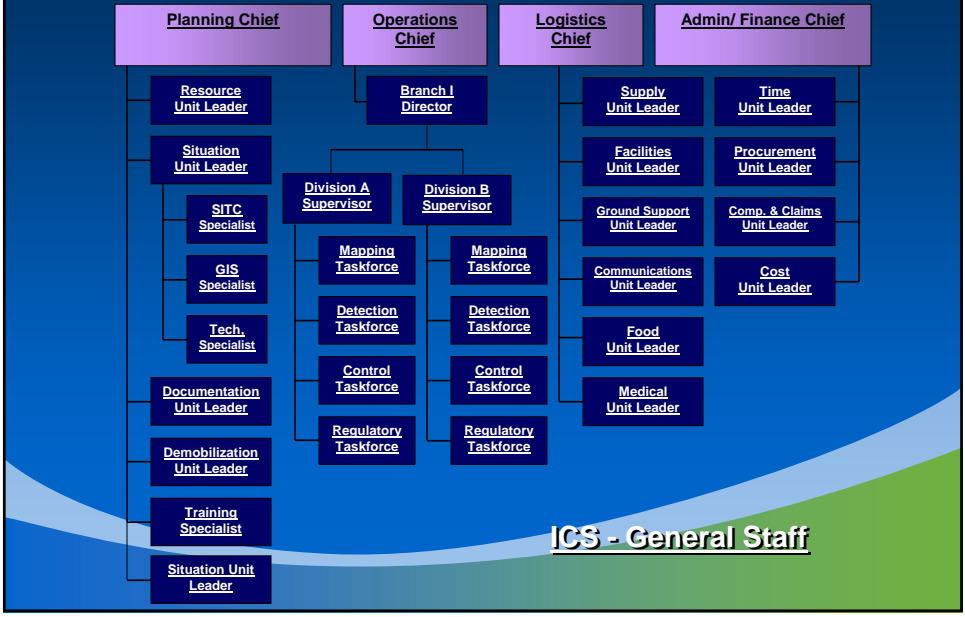


National Crop Biosecurity - Background

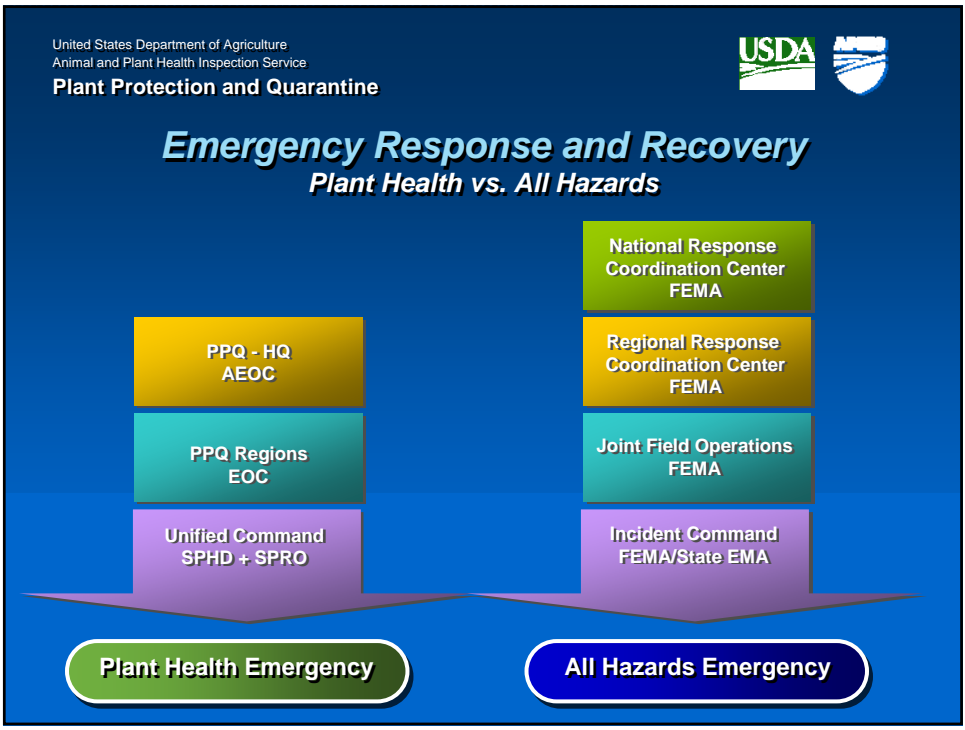
ICS - Command Staff



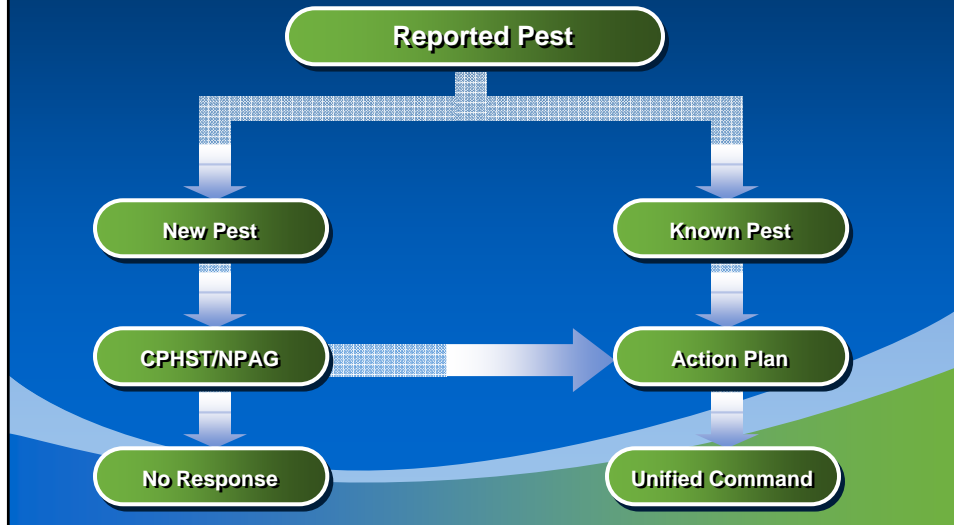
Plant Protection and Quarantine



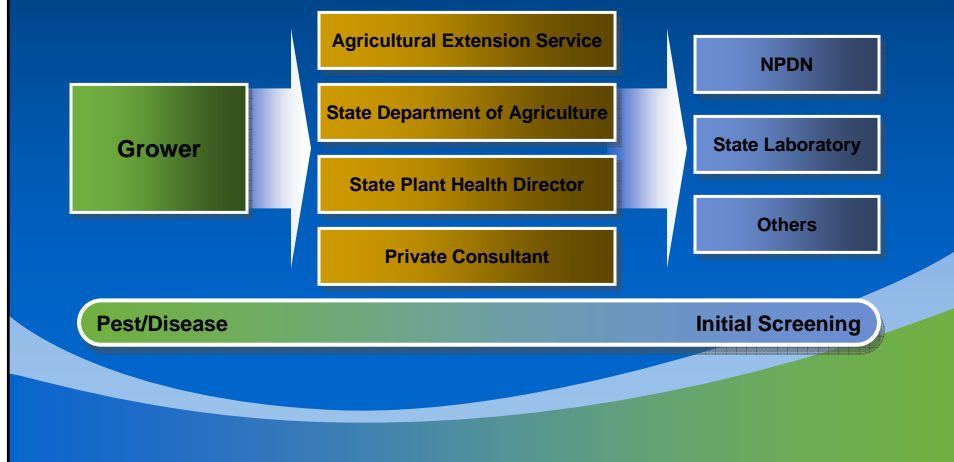
Plant Protection and Quarantine



Plant Health Emergency: Action Plan



National Crop Biosecurity Detection, Diagnostics, and Confirmation



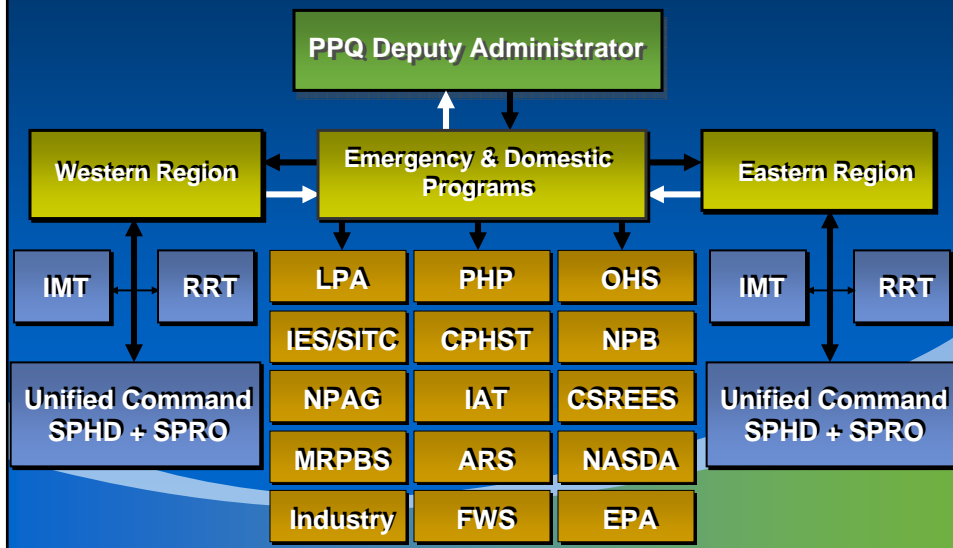


National Crop Biosecurity

Detection, Diagnostics, and Confirmation



Communication and Coordination





2. APHIS-Plant Protection and Quarantine: Roles

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)

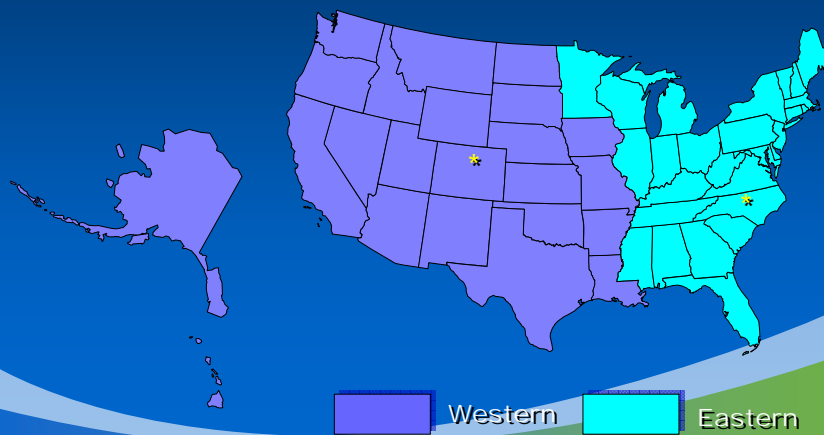
2. APHIS-Plant Protection and Quarantine: Roles

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**

2. APHIS-Plant Protection and Quarantine: Roles

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

National Crop Biosecurity - Background

Agricultural Bioterrorism Protection Act of 2002

Select Agents

Liberobacter africanus	Citrus Greening
Liberobacter asiaticus	Citrus Greening
Peronosclerospora philippinesis	PH Downy Mildew of Corn
Phakospora pachyrhizi	Soybean Rust
Plum pox potyvirus	Plum Pox
Ralstonia solanacearum, race 3, biovar 2	Bacterial Wilt of Potato
Sclerophthora rayssiae var. zeae	Downy Mildew of Corn
Synchytrium endobioticum	Potato Wart
Xanthomonas oryzae pv. Oryzicola	Bacterial Leaf Streak of Rice
Xylella fastidiosa	Citrus Variegated Chlorosis

National Crop Biosecurity - Background

APHIS Agricultural Select Agent Program

http://www.aphis.usda.gov/programs/ag_selectagent/index.html

Contact:

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National Crop Biosecurity - Background

- **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

