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

National Crop Biosecurity

Prevention, Preparedness, Response, and Recovery

Animal & Plant Health Inspection Service
Plant Protection & Quarantine
Emergency and Domestic Programs

Agenda….

- Background; USDA-APHIS-PPQ
- Pest & Disease Pathways
- PPQ – National Crop Biosecurity
- Case Study: Potato Cyst Nematode (PCN)

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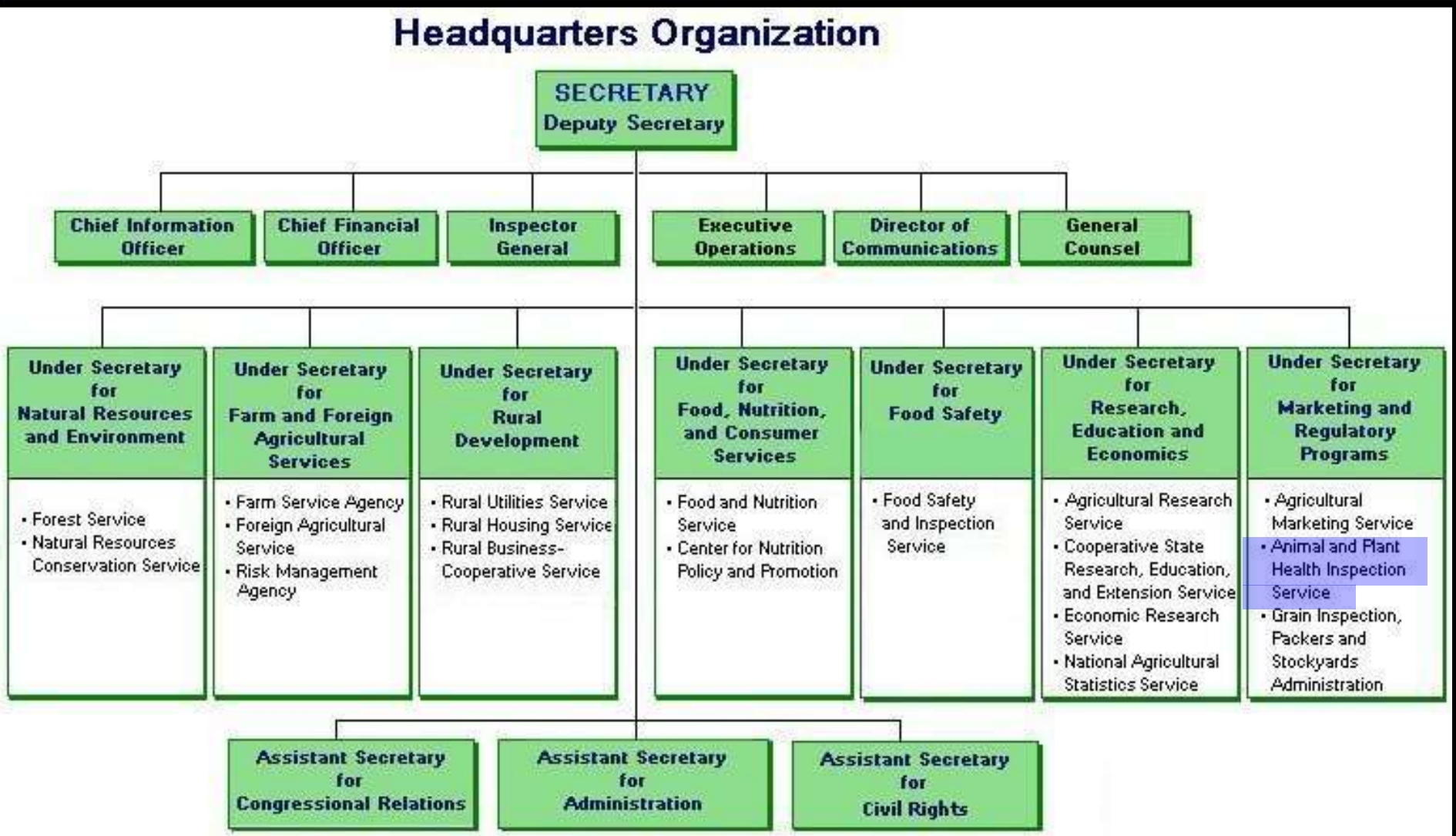
Headquarters Organization



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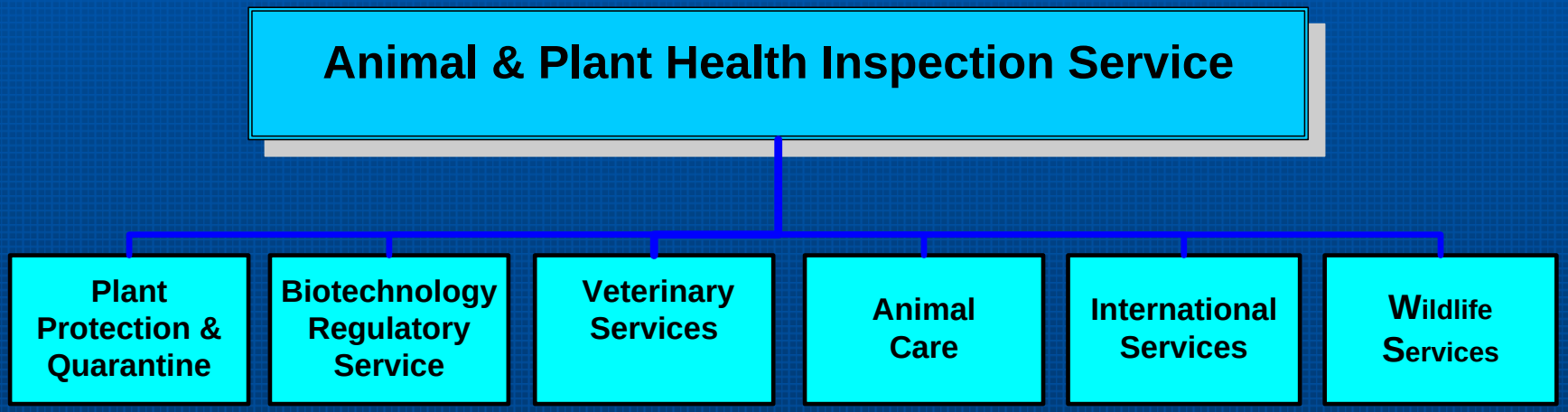

Plant Protection & Quarantine

Mission

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

Plant Protection Act, 2000
Ag. Bioterrorism Protection Act, 2002

Pest and Disease Pathways

Unintentional

- Natural Movement
- Accidental Introduction

Intentional

- Smuggling
- Bioterrorism

Why Target Agriculture?

American Agriculture

~13% of the Gross Domestic Product
~17% of all U.S. employment
~25 million Americans are employed in agricultural-related industries

- **Agricultural industries valued at $230 billion**
- **Agricultural Exports account for $140 billion & 860,000 jobs**

Why Target Agriculture?

Ramifications & Consequences:

- Devastating impact on U.S. agriculture economy
- Loss of nation's supply of food & fiber
- Disruption of trade & commerce
- Increased dependency on imports
- Impact on environment / quality of life

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Asian Long-horned Beetle

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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	NIMS-ICS	National Response Framework NIMS-ICS
APHIS' Role	Primary	Lead – ESF11
Presidential Declaration	Not required	Required

National Crop Biosecurity

PPQ Vision

Highly Coordinated Systems:

- **Science-based**
- **Maximum protection**
- **Minimum adverse impacts**
- **Inclusive**

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National Framework for Crop Biosecurity: Four Elements

1. Prevention
2. Preparedness
3. Response
4. Recovery

National Framework for Crop Biosecurity: Four Elements

1. Prevention

2. Preparedness

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4. Recovery

- **Off-Shore Pre-Clearance Program**
- **Agricultural Quarantine Inspection**
- **Permits**
- **Surveillance**
- **Diagnostics**
- **Mitigations**
- **Critical Infrastructure**
- **Vulnerability Assessment**

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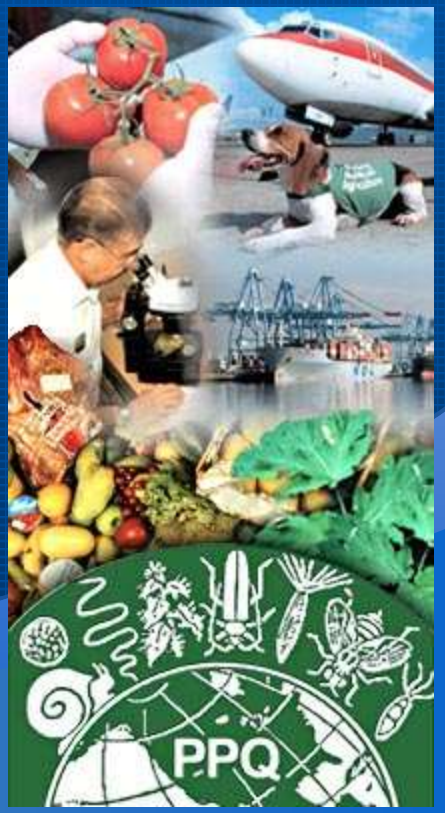
National Framework for Crop Biosecurity: Four Elements

Prevention

Agricultural Quarantine Inspection

Support to DHS Customs and Border Protection:

- **Policies, Rules, and Regulations**
- **Pest identification at 25 ports-of-entry**
- **Technical training**
- **Inspect plant material**
- **Animal products (Veterinary Regulatory Services)**



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Plant Protection and Quarantine

National Framework for Crop Biosecurity: Four Elements

Prevention

- **Agricultural Quarantine Inspection**

National Framework for Crop Biosecurity: Four Elements

1. Prevention
2. Preparedness
3. Response
4. Recovery

- Off-Shore Pest Information System
- NAPPO Phytosanitary Alert System
- Risk Assessment
- Science Panels
- New Pest Response Guidelines
- Diagnostics (development, validation, capacity)
- Survey – Detection (CAPS, NAPIS, NBIS)
- Treatment (mitigation)
- Training (ICS, survey, diagnostics, data management, mitigation, exercises, etc.)
- Infrastructure

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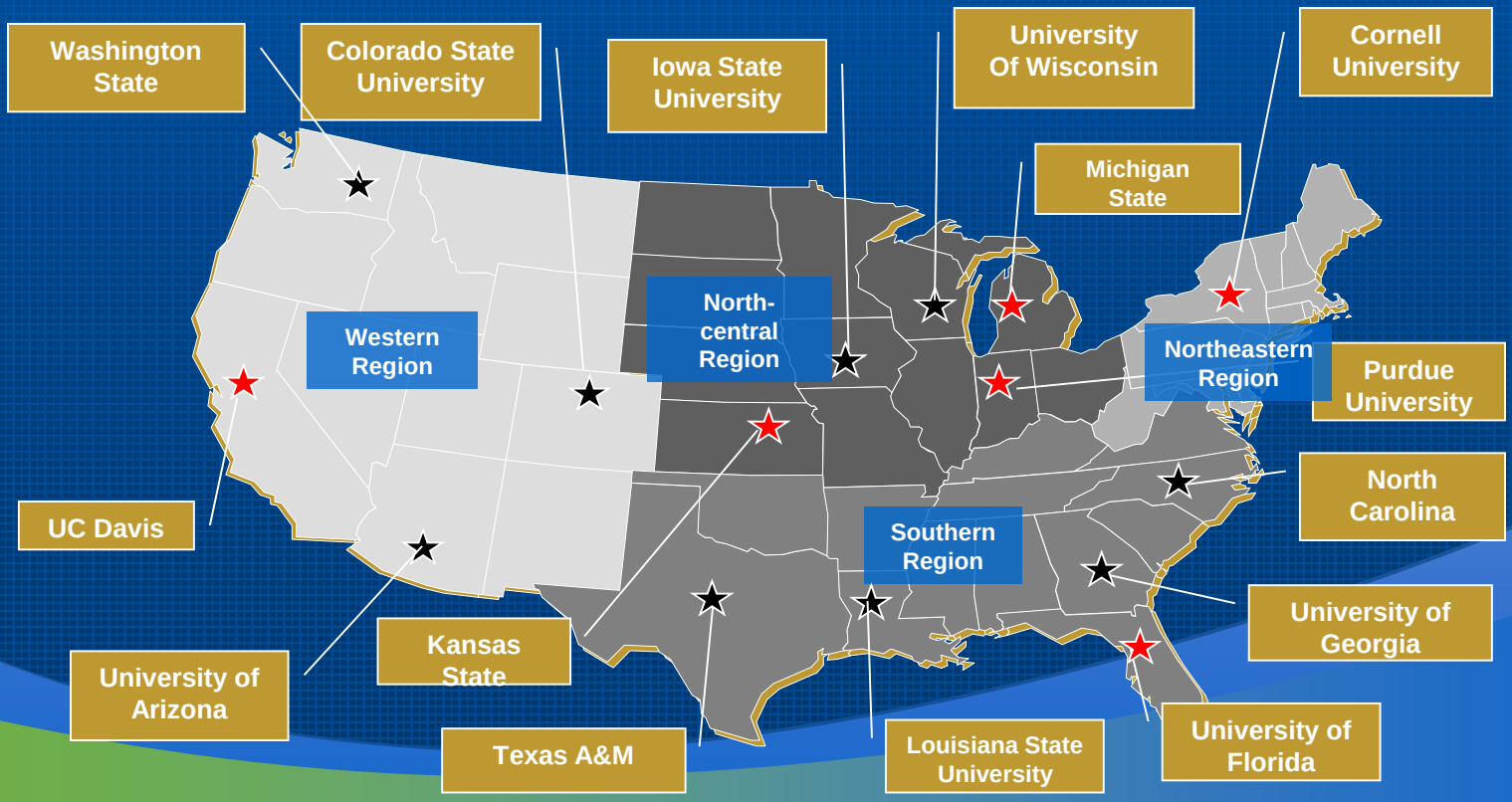
National Framework for Crop Biosecurity: Four Elements

Preparedness

Diagnostic Networks & Data Management



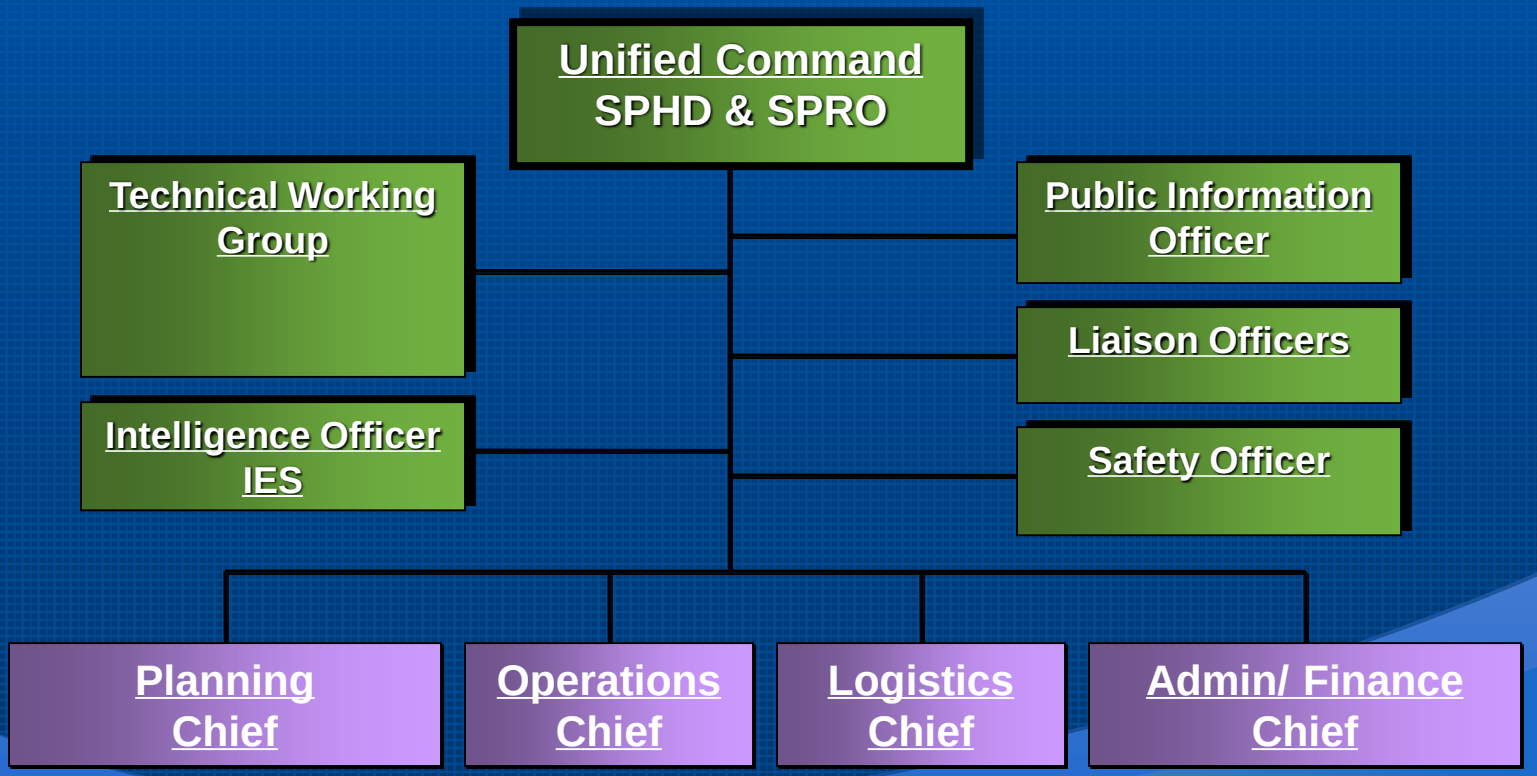
National Framework for Crop Biosecurity: Four Elements

Preparedness

Preparedness and Response Training:

- ICS 100/200 (Mandatory APHIS Employee Training)
- ICS 300 (Mandatory for All State Plant Health Directors)
- Full-Scale Exercises
- Workshops/Seminars
- Table Top Exercises
- Functional Exercises

ICS - Command Staff



National Framework for Crop Biosecurity: Four Elements

1. Prevention
2. Preparedness
3. Response
4. Recovery

- **Implementation Plan**
  Generic and Sector-Specific Elements
- **Incident Command System**
  Federal and State Unified Command
- **e-Resource Allocation and Tracking**
  Human, Fiscal, and Physical Resources
- **Survey - Detection**
  Adequate – Timely
- **Diagnostics**
  Accurate and Timely
- **Mitigations**
  Timely – containment, control, and eradication

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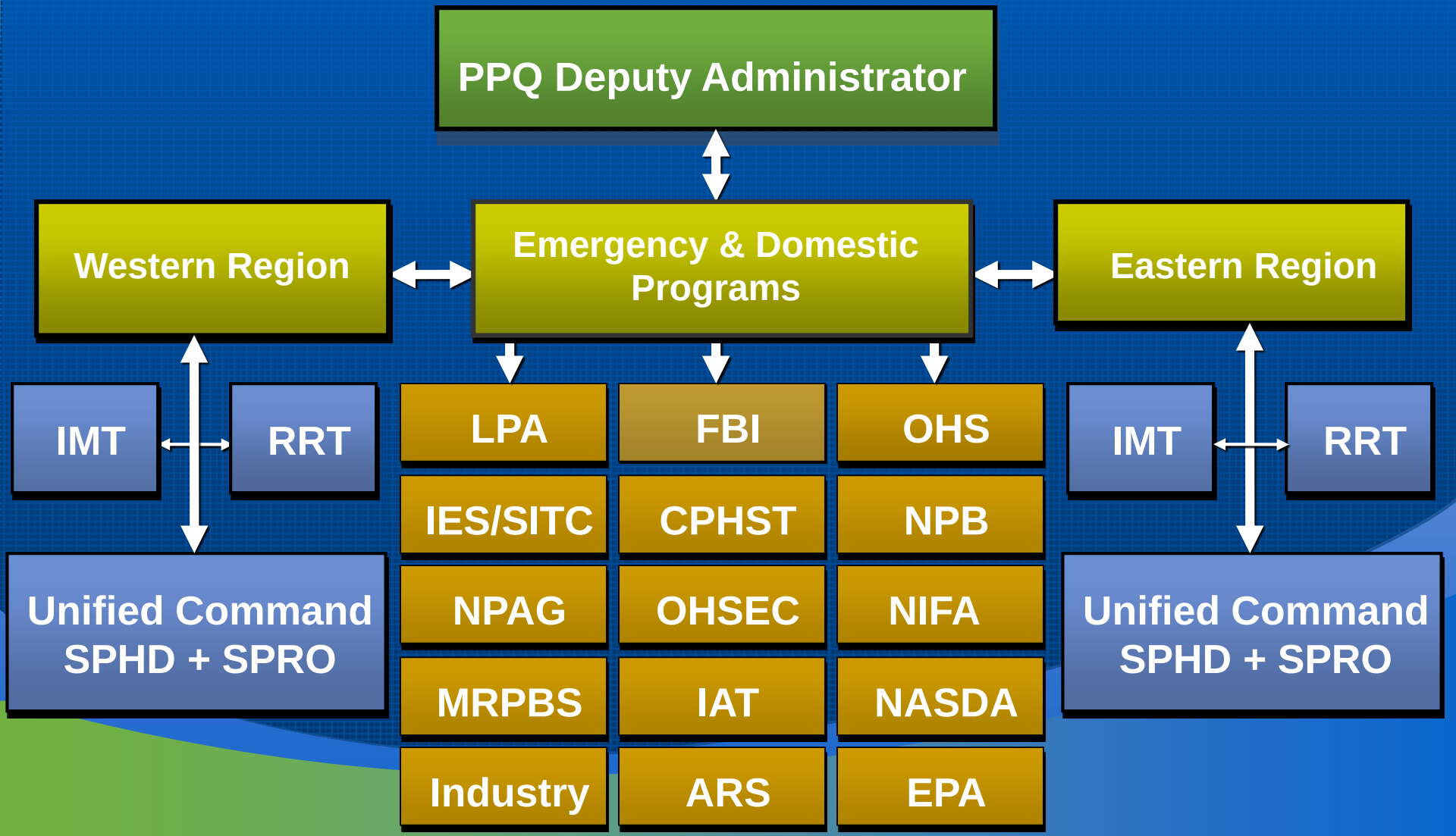
National Framework for Crop Biosecurity

Response

- **Incident Command System**
  Federal and State Unified Command

- **Emerald Ash Borer (MI, IN, IL, OH)**
- **Plum Pox Virus (NY, MI, PA)**
- **Citrus Greening & Canker (FL)**
- ***Sirex noctilio* (NY)**
- **Fruit Fly Outbreaks (CA, FL, MX)**
- **Potato Cyst Nematode (ID)**

Communication and Coordination



National Framework for Crop Biosecurity: Four Elements

Recovery

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

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National Framework for Crop Biosecurity

Recovery

Citrus Health Response Plan
Asiatic Soybean Rust

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http://www.aphis.usda.gov/subjects/plant_health/

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