United States Department of Agriculture

Animal and Plant Health Inspection Service

Plant Protection and Quarantine

National Plant Health Emergency Management Framework

The opinions expressed by individuals in this report do not necessarily represent the policies of the U.S. Department of Agriculture.

Contents

Deputy Administrator's Letter

November 1, 2017

Dear Colleagues and Stakeholders:

The goal of APHIS' Plant Protection and Quarantine (PPQ) program is to safeguard America's agricultural and natural resources from the introduction and establishment of exotic, economically significant invasive plant pests. PPQ provides Federal leadership to maintain a strong continuum of overlapping safeguards to prevent, prepare for, respond to, and recover from invasive pest introductions in the United States. This continuum begins offshore, continues through U.S. ports of entry, and extends across the nation.

PPQ's success in effectively maintaining this safeguarding continuum depends heavily upon the close cooperation and coordination of key stakeholders, including Federal partners; State, local, and tribal governments; industry; nongovernmental institutions; and researchers and academics. Working closely with these stakeholders, PPQ develops and implements science-based pest prevention, early detection, rapid response, and practical recovery systems. They provide maximum protection to U.S. agricultural and natural resources, while posing minimal hazard to consumers, producers, and the environment.

We developed this Emergency Management Framework (referred to as the *Framework*) as a reference that clearly identifies and outlines the elements of these systems. It will help the highly skilled individuals and experts involved in maintaining PPQ's safeguarding continuum, including our many external cooperators, to fully understand the roles and responsibilities of the numerous interrelated aspects of prevention, preparedness, response, and recovery. Through this *Framework*, PPQ officials and our many partners will coordinate operations more quickly and effectively, ensuring America's agricultural and natural resources remain healthy and productive.

As always, we thank you for your hard work and support.

Sincerely,

Osama El-Lissy, Deputy Administrator USDA–APHIS–PPQ

Chapter 1: Introduction

Purpose

The United States Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine (USDA–APHIS–PPQ) National Plant Health Emergency Management Framework describes the response of PPQ and its cooperators to plant health and homeland security emergencies.

In addition to providing background information and resources needed by responders, the framework describes the roles and responsibilities of PPQ Program Managers in policy management, field operations, science and technology, and state plant protection agencies in the 48 contiguous states, Hawaii, and Alaska, the U.S. territories and commonwealths, and tribes.

The framework addresses the roles of other Federal agencies and APHIS units, which vary depending on the nature of the issues and the extent of their involvement. The framework also describes the roles and responsibilities of the interrelated components of PPQ's safeguarding system including preparedness, pest exclusion, response, and recovery elements.

Pest exclusion is synonymous with prevention. Pest exclusion involves activities conducted to eliminate or mitigate the risk of invasive plant pest introductions. Examples of preventive efforts include:

- Offshore commodity preclearance programs ensuring foreign commodities are free of plant pests before reaching the United States
- Conducting commodity pest risk assessments and instituting mitigation practices to ensure safe trade
- Agriculture quarantine inspections (AQI) at border crossings and other U.S. ports of entry, which are conducted by the U.S. Department of Homeland Security's Customs and Border Protection (DHS–CBP) in coordination with PPQ and its plant pest regulatory authority
- AQIs conducted by USDA–PPQ officers at PPQ Plant Inspection Stations located at 16 U.S. ports of entry
- Identifying pests and diseases detected at U.S. ports of entry by USDA–PPQ identifiers located at more than 34 ports of entry nationwide
- Smuggling Interdiction and Trade Compliance (SITC) activities preventing the smuggling of prohibited and potentially infested plant commodities and to ensure compliance with phytosanitary requirements for imported and domestic commodities moving interstate and sold in retail markets

Preparedness is essential to maintaining the ability to implement an effective emergency response to invasive plant pest introductions. Preparedness supports PPQ and its cooperators in the following ways:

- Identifying resources necessary for pest management, emergency response, and coordination
- Establishing the infrastructure required to maintain a strong safeguarding system, especially as it relates to pest early warning systems (e.g., the PestLens program), survey systems (e.g., the Cooperative Agricultural Pest Survey (CAPS) program), and identification and diagnostic systems (e.g., the National Identification Service (NIS) and National Plant Diagnostic Network (NPDN)), including interagency cooperation within the National Biosurveillance Integration System (NBIS) and interagency collaboration between the DHS–National Biosurveillance Integration Center (NBIC) and the Biosurveillance Indications and Warning Analytic Community (BIWAC)
- Conducting appropriate training to ensure and maintain rapid, consistent, and effective pest management, emergency response, and coordination

The response element of the safeguarding system involves the activities that occur immediately after a significant invasive plant pest incident or outbreak is detected. Significant aspects of the response element performed by PPQ and its cooperators include the following:

- Establishing national lab capacity for official plant pest diagnosis
- Deploying a fast and accurate data management system for use in tracking sample information and final results
- Conducting risk analysis to fully understand the pest, its potential impact to U.S. agriculture and the environment, and identify potential technically based options for response
- Rapid detection and delimiting surveys
- Mobilization of emergency personnel and resources using the Incident Command System (ICS) under a unified command structure
- Establishing a Technical Working Group (TWG) to consider scientific aspects of the response
- Obtaining emergency funding
- Enacting an emergency regulatory framework
- Maintaining compliance with environmental laws
- Implementing protocols for communications, public outreach, and data management

The recovery element of the safeguarding system relates to the development and implementation of activities designed to provide stability and protection to an invasive plant pest emergency. These activities can occur simultaneously during and following any invasive plant pest emergency response. Aspects of recovery include the following:

- Demobilization of emergency response personnel and resources
- Critique of the response program

- Development of a long-term recovery plan
- Development of a long-term safeguarding system
- Identification and application of science-based pest mitigation solutions
- Sustained public outreach

The *Framework* covers all four elements in detail, providing PPQ employees and cooperators with a guide to understand all aspects of the U.S. plant health safeguarding system. This knowledge will enhance the ability of PPQ employees and cooperators to operate quickly, effectively, and in coordination with one another to successfully maintain this national safeguarding system.

Users

All PPQ employees, Federal and State cooperators, and stakeholders should be familiar with and use the framework for guidance and to promote uniformity.

Scope

The *Framework* is divided into eight chapters:

1. Introduction
2. Plant Protection and Quarantine
3. Pest Exclusion
4. Preparedness
5. Response
6. Recovery
7. Roles and Responsibilities
8. State Plant Protection Resources

The *Framework* also includes a glossary and an index.

The introduction contains basic information regarding the *Framework* including its purpose, scope, users, and application; a list of related documents providing the authority for the content; and directions for use.

Authorities and Enabling Legislation

The primary legislation enabling or directly relating to PPQ emergency response authorities are as follows:

- Plant Protection Act of 2000
- Cooperation with State agencies in the Administration and Enforcement of Certain Federal Laws Act, approved September 28, 1962
- Homeland Security Presidential Directives
- Agriculture Bioterrorism Protection Act of 2002
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended
- Privacy Act of 1974
- National Environmental Policy Act (NEPA), 1969
- Endangered Species Act (ESA), 1973

- Agriculture Bioterrorism Protection Act of 2002
- Public Health Security and Bioterrorism Preparedness and Response Act of 2002
- Federal Noxious Weed Act of 1974
- Federal Seed Act, issued March 1940
- Noxious Weed Control and Eradication Act of 2004

Refer to the *PPQ Emergency Response Manual* (formerly *PPQ Emergency Programs Manual*) for more information on these acts and directives.

PPQ Emergency Response Manual https://www.aphis.usda.gov/import_export/plants/manuals/emergency/downloads/epm.pdf

PPQ has aligned the *Framework* with key national and USDA emergency management policies and plans, including the following:

- Homeland Security Directives (especially HSPD 5, 7, 8, and 9)
- Presidential Policy Directives (especially PPD 8 National Preparedness Goal)
- The National Response Framework
- The National Incident Management System
- USDA's Strategic Plan
- APHIS' 2015–2019 Strategic Plan
- PPQ's 2015–2019 Strategic Plan

To fulfill its emergency management responsibilities, PPQ cooperates with other APHIS programs and federal agencies; State, local, Tribal, Territorial, and foreign governments; nongovernmental organizations; and the private sector.

How to Use

The *Framework* is a portable electronic document that is updated periodically. Please download the current version of the *Framework* from its source and use Adobe Reader® to view it on your computer screen. You can print the *Framework* for convenience. However, links and navigational tools are only functional when the document is viewed in Adobe Reader®. Printed copies of the *Framework* are obsolete once a new version has been issued.

Conventions

Conventions are established by custom and widely recognized and accepted.

PHP–PDEP

The smaller, bold-face green subheadings (as shown above) indicate the acronym for the PPQ units responsible for the activities described. Use these subheadings to quickly find the information specific to a particular unit.

Find Web site addresses and other information on how to use the resources in a box at the end of each topic.

Control Data

Information placed at the bottom of the page is the month, year, document title, and page number. PPQ–Pest Detection and Emergency Programs–Emergency Programs (PPQ–PDEP) is the unit responsible for the content of the *Framework*.

Heading Levels

Each chapter and section can contain three heading levels; each heading is green. The first-level heading looks like This. The second- and third-level headings each have a smaller font than the preceding heading level. The small, bold-face acronyms (e.g., **PPQ–FO**) indicate the units responsible for the activities described in the accompanying text.

Italics

The following items are italicized throughout the framework:

- Names of publications
- Scientific names

Transmittal Number

The transmittal number contains the month, year, and a consecutively issued number (beginning with -01 for the first edition and increasing consecutively for each update to the edition). The transmittal number is only changed when the specific chapter sections, appendices, glossary, tables, or index is updated. If no changes are made, the transmittal number remains the unchanged. The transmittal number only changes for the entire *Framework* when a new edition is issued or changes are made to the entire *Framework*.

How to Cite the *Framework*

Cite the *Framework* as follows: U.S. Department of Agriculture, Animal Plant Health Inspection Service, Plant Protection and Quarantine. National Plant Health Emergency Management Framework (Washington, D.C.: Government Printing Office, 2017).

How to Find More Information

Contact the Director of Pest Detection and Emergency Programs for further information concerning the *Framework*.

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Chapter 2: Plant Protection and Quarantine

Introduction

The U.S. Department of Agriculture, Animal, and Plant Health Inspection Service (USDA–APHIS) in cooperation with other Federal and State agencies with closely allied missions, safeguard agricultural and natural resources to ensure an abundant, high-quality, and varied food supply. Plant Protection and Quarantine (APHIS–PPQ) is the integral component of USDA–APHIS and is responsible for safeguarding plant health in the United States.

Mission Statement

We safeguard U.S. agriculture and natural resources against the entry, establishment, and spread of economically and environmentally significant pests, and we facilitate the safe international trade of agricultural products.

PPQ is divided into three core functional areas (CFAs) and the Deputy Administrator's (DA) office:

- Office of the Deputy Administrator (ODA)

- Policy Management

- Science and Technology

- Field Operations

While each CFA has a specific designated area of responsibility, they all work in close coordination to fulfill PPQ's overall safeguarding mission. The roles and responsibilities of each PPQ subunit are described in this chapter.

Refer to the APHIS–PPQ Web site for further information.

> PPQ organization structure
> https://www.aphis.usda.gov/aphis/ourfocus/planthealth/ppq-program-overview/ppq-organization
>
> PPQ mission, goals, and objectives
> https://www.aphis.usda.gov/aphis/banner/aboutaphis

Office of the Deputy Administrator

The PPQ Deputy Administrator provides executive leadership and strategic direction. The PPQ Deputy Administrator reports directly to the APHIS Administrator and is a member of the APHIS Management Team. PPQ is organized around three core functional areas critical to our mission delivery: Policy Management (PM), Field Operations (FO), and Science and Technology (S&T). These interdependent functional areas collaborate to provide science-based solutions for plant protection issues.

Policy Management

PPQ's PM staff provides national coordination for the policy and regulatory framework associated with emergency and domestic preparedness, response, and recovery efforts against threats to plant health. PPQ–PM provides budgetary, technical, and environmental

documentation support to national pest programs. PPQ–PM also supports efforts to ensure science-based systems are available for early detection, rapid response, and practical recovery to provide maximum protection for U.S. agricultural and natural resources, while safeguarding the environment and minimizing the impact on consumers and producers.

These capabilities are also available, as needed and when applicable, to support Federal disaster response efforts and other significant homeland security needs.

Science and Technology

PPQ's S&T CFA supports PPQ regulatory decisions and operations through methods development, scientific investigation, data and risk analyses, and technology. PPQ–S&T works to identify pathways used by exotic plant pests and noxious weeds; assess risks posed by exotic pests to food, fiber, and the environment; develop, adapt, and support methods and technology to detect, identify, and mitigate the impact of significant exotic pests; and ensure detection and identification methods, survey protocols, and tools used by PPQ are effective and efficient. S&T is comprised of seven principal laboratories with satellite locations across the United States and in Guatemala.

PPQ S&T
https://www.aphis.usda.gov/planthealth/cphst

Field Operations

PPQ's FO offices provide leadership and coordination for field activities for emergency and domestic pest exclusion, preparedness, response, and recovery efforts against plant health threats.

This CFA unifies FO management to yield effective and sustainable support for program delivery. FOs are managed seamlessly, blending policy and science for effective program delivery. FO focuses on the highest risks and utilizes critical information supported by robust analysis.

Another critical component of PPQ's organization is the State Plant Health Director's (SPHD) office. PPQ maintains a SPHD in every U.S. State and Puerto Rico; in a few instances, an SPHD is assigned more than one State or U.S. Territory. The SPHDs oversee operational activities within their assigned State or States and work closely with their counterpart State Plant Regulatory Official (SPRO) to ensure communication and coordination, conduct joint training of the work force, and manage plant pest emergency preparedness, pest exclusion, response, and recovery efforts at the local level.

Chapter 3: Pest Exclusion

Introduction

Pest exclusion involves activities conducted to eliminate or mitigate the risk of invasive plant pest introductions. Pest exclusion—also known as prevention— encompasses an array of activities including the development and management of regulatory policy and programs that ensure safe trade and the exclusion of quarantine plant and animal pests and diseases.

Plant Protection and Quarantine's Plant Health Programs (PPQ–PHP) unit works with trading partners and international plant protection organizations to develop and implement early detection and control strategies designed to prevent the entry of invasive pests and diseases into the United States. PPQ maintains personnel at ports of entry to conduct inspections at plant inspection stations, oversee fumigations, conduct pest identifications, and maintain compliance activities. In addition, PPQ partners with the U.S. Department of Homeland Security's Customs and Border Protection (DHS–CBP) and State plant protection resources to ensure the continued success of agricultural inspections at all U.S. ports of entry and inspections at interim or final destinations.

PPQ's pest exclusion strategies include the following:

- Offshore pest surveillance
- Phytosanitary issues management
- Risk and pathway analysis
- Development of trade-related regulations
- Issuance of permits
- PPQ preclearance program
- CBP–Agriculture Quarantine Inspection
- PPQ–Agriculture Quarantine Inspection
- Plant inspection stations
- Pest identification
- Treatments and fumigations
- Development of Agriculture Quarantine Inspection (AQI) and port technologies
- Preclearance and offshore programs
- Predeparture programs
- Mitigation of agricultural pests in neighboring and offshore countries
- Smuggling interdiction and trade compliance
- Select agent program

Offshore Pest Surveillance
PPQ–PM

PPQ's mission is to protect U.S. agriculture and natural resources against the introduction of exotic plant pests. To fulfill this mission, PPQ carries out numerous safeguarding functions including port-of-entry inspections, preclearance in exporting countries, pest surveillance, pest risk analysis, and eradication and containment efforts. All of these functions depend on current biological information regarding exotic pests, such as distribution, host range, history of spread, and susceptibility to control measures.

Information evolves continuously as each pest situation changes and new insights are gained.

PestLens allows PPQ to stay current on newly emerging pest information and provides a mechanism for documenting and coordinating safeguarding actions by the following:

- Gathering emerging information from a wide range of sources including several hundred scientific journals, Web sites, email groups, newsletters, automated Internet search queries, and contributions from regulatory officials

- Summarizing this information, together with relevant background knowledge, and reporting it in a weekly email notification

- Providing a conceptual framework for making and coordinating safeguarding decisions

- Making the original information and resulting decisions and actions accessible through a Web-enabled database

PestLens is the result of the merger of two previously existing PPQ systems—Exotic Pest Information Collection and Analysis (EPICA) and the Offshore Pest Information System (OPIS). Previous OPIS and EPICA reports remain accessible through the PestLens database.

PestLens reports new information regarding plant pests of U.S. quarantine significance especially the following:

- New distribution records (country level)

- New host records

- Significant outbreaks

- Emerging pests of economic significance

- Weed naturalization

- New pathogen/vector relationships

- Research results of interest to the regulatory community

APHIS personnel can self-register for the PestLens system at https://pestlens.info.

Phytosanitary Issues Management
PPQ–ODA

The Phytosanitary Issues Management (PIM) unit ensures the export and import of agricultural commodities occur in accordance with science- based standards to effectively mitigate pest risks.

PIM is recognized as the National Plant Protection Organization (NPPO) for the United States under the International Plant Protection Convention (IPPC) and acts on behalf of PPQ. PIM is the primary point of contact for all technical plant health communication with trading partners, leads the development of plant health policy and strategy, and coordinates the implementation of technical solutions to phytosanitary trade barriers.

PIM, in collaboration with other PPQ units, addresses phytosanitary technical barriers by:

- Initiating and presenting scientific and technical studies to support safe, science-based trade

- Encouraging trading partners to harmonize import requirements with international standards and guidelines

- Providing a conceptual framework for making and coordinating safeguarding decisions

- Building domestic and international consensus among trading partners, industry, the scientific community, and other Federal agencies for feasible, science-based solutions to technical trade barriers

PIM also coordinates with PPQ Export Services to support an internationally accepted system of phytosanitary certification in accordance with international standards.

> PIM Web site:
> https://www.aphis.usda.gov/planthealth/pim

> APHIS Role in Trade
> https://www.aphis.usda.gov/aphis/ourfocus/importexport/trade/ct_trade

Plant Health Programs
PPQ–PM

PPQ's Plant Health Programs (PPQ–PHP) staff provides national coordination for phytosanitary quarantine and trade policies; plants for planting, plant material import and export, preclearance activities, and regulated use permitting; pest identification services; plant health regulatory coordination; and regulatory support for enforcement of quarantines on animal products and by-products. PPQ– PHP works with U.S. Fish and Wildlife Service (FWS) and maintains national program guidance to PPQ's enforcement of plants and plant products under the Convention on International Trade of Endangered Species of Flora and Fauna (CITES). PPQ–PHP ensures science-based safeguarding systems are in place to prevent the introduction of exotic plant and animal pests into the United States and to support PPQ pest detection, emergency, and regulatory efforts.

PPQ–PHP works in close coordination with the DHS–CBP to provide the regulatory pest exclusion authority and guidance for Agriculture Quarantine Inspection at U.S. ports of entry and border crossings. PPQ–PHP is based in Riverdale, Maryland.

Risk and Pathway Analysis
PPQ–S&T

The Plant Epidemiology and Risk Analysis Laboratory (PERAL) in PPQ–S&T collects and interprets scientific and technical information regarding plant pest risks with respect to the uses of plant products or conveyances that may result in the spread of plant pests. PERAL assists PPQ in designing risk- based policies and regulations for import, export, and domestic programs.

The PERAL risk and pathway analyses identify, assess, and prioritize new pest threats, provide scientific support for regulatory updates and revisions, and identify gaps in knowledge that guide the establishment of research priorities.

The program uses state-of-the-art tools and methodologies for pest and pathway risk assessments, including sophisticated spatial technology systems that integrate weather, pest distribution, and other databases to analyze pest dynamics, identify pests of greatest concern, and identify potential pathways for the introduction of exotic pests.

The PERAL staff also provides the economic and cost- benefit analyses to facilitate emergency responses. In addition to the regulatory significance and potential environmental impact, PPQ and its cooperators consider the potential economic impact of the pest on local, interstate, and international trade in developing emergency response and regulatory plans.

> Plant Epidemiology and Risk Analysis Laboratory (PERAL)
> https://www.aphis.usda.gov/aphis/ourfocus/planthealth/ppq-program-overview/SA_CPHST/CT_Peral

Development of Trade Regulations
PPQ–PM

PHP's Imports, Regulations, and Manuals (PHP–IRM) unit develops regulations that set conditions for importing plants, plant products, and commodities into the United States. One of PPQ's primary functions is to facilitate the two-way trade of agricultural products while preventing the introduction of pests into the United States. To this end, PPQ conducts rigorous and defensible pest risk analyses and develops regulations to support trade agreements.

The APHIS regulatory development process begins with the PHP–IRM unit, which shapes the initial regulation prior to sending it to the Regulatory Analysis and Development (PPD–RAD) unit. PHP–IRM works with PPQ's trade staff to develop the regulations that set the conditions for plants and plant products to enter the United States via the negotiated trade agreements.

Additionally, PHP–IRM is responsible for updating and revising PPQ's regulations governing the importation of plants for planting (7 CFR § 319.37 also known as Quarantine 37 or Q-37). The regulatory process affords the public the opportunity to view PPQ's risk analysis and ensure all pest risks have been appropriately considered and mitigated.

Permits to Safeguard Plants, Plant Products, and Other Organisms
PPQ-–PM

Permitting and Compliance Coordination (PCC) and IRM issue permits required for the importation, transit, domestic movement, and environmental release of organisms that impact plants and plant products under the authority of the Plant Protection Act (PPA). PPQ permits establish the conditions under which plants and plant products may enter the country and require inspections at ports of entry to ensure those conditions have been met.

Organism permits are required for plant pests (e.g., insects and snails), plant pathogens (fungi, bacteria, and viruses), biological control agents, bees, federal noxious weeds, and parasitic plants. Plant and plant product permits are required for plants for planting such as nursery stock and small seed lots, plant products such as fruits and vegetables, timber, cotton, and cut flowers.

Transit permits are required to ship regulated plant products into, through, and out of the United States. Soil permits are required in many cases, and Controlled Import Permits are needed to import prohibited plant materials for research and development. APHIS regulates these organisms because they can provide a pathway for the introduction of a variety of plant pests into the United States or are considered plant pests themselves. For further information, refer to the Permits Web site.

Plant Organism and Soil Permits
https://www.aphis.usda.gov/planthealth/permits

CBP Agriculture Quarantine Inspection
PPQ–PM
CBP–AQI

Agriculture Quarantine Inspection (AQI), which is a series of inspection and pest-exclusion efforts designed to keep prohibited agricultural items from entering the country, plays a major role in preventing the unintentional introduction of invasive pests into the United States.

The DHS–CBP conducts agriculture quarantines and inspections on behalf of APHIS at international ports of entry and border crossings, to protect the United States from the threat of invasive pests. These activities include inspection of items such as commercial cargo, individual shipments, international mail, and baggage carried by passengers that could transport and introduce pests with the potential to cause serious damage to America's crops, livestock, and the environment.

Most ports of entry convene a pest risk committee comprised of representatives from DHS–CBP, PPQ, the State, and other key stakeholders. The committee reviews and analyzes current pest interception and trade noncompliance data at the ports of entry to identify potential foreign pest threats and emerging risk patterns or situations. The pest risk committee's work supports DHS–CBP's risk management planning, resource allocation, and risk decisionmaking; PPQ's decisions regarding the policies and procedures followed by DHS–CBP at ports of entry; and the planning of early pest detection surveys at the State level.

PPQ provides DHS–CBP with the necessary AQI policies and procedures along with the technical support to carry out AQI activities including training; providing scientific expertise and regulatory authority; and identifying intercepted plant materials, pests, and diseases in a timely manner.

The Quarantine Policy Analysis and Support (PHP–QPAS) staff provides technical support by analyzing results of agricultural cargo inspections at U.S. ports of entry and the associated pest interception data. This information is used to develop a comprehensive early warning system and to identify potential pathways at high risk allowing for more focused inspection as well as trace-back and trace-forward activities.

PPQ Field Operations identifiers provide local summary reports to DHS–CBP that include the pests detected, information regarding seasonal cargo and potential pests, and may highlight significant interceptions.

Plant Inspection Stations
PPQ–FO

PPQ Field Operations (PPQ–FO) manages PPQ's plant inspection stations. Federal regulations require most imported plants and seeds to enter the United States through certain ports of entry where PPQ operates plant inspection stations for the inspection and clearance of those items. Currently, PPQ has 16 plant inspection stations in the United States at or near major international airports, seaports, and land borders.

At the stations, PPQ Plant Health Safeguarding Specialists inspect imported plants and seeds to ensure they are free of plant pests not currently known to occur in the United States that could be damaging to either U.S. agriculture or natural resources. These specialists also ensure the plants and seeds comply with Federal import regulations and permitting requirements. When regulated pests or diseases are detected, PPQ may require the plants for planting material be treated, exported, or destroyed.

PPQ also enforces the rules and regulations that apply to the import, export, and reexport of plant species protected by the Endangered Species Act (ESA) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Many plant inspection stations also issue phytosanitary certificates for the export of plants, seeds, and other propagative materials.

Pest Identification
PPQ–PM
PPQ–FO

The PPQ National Identification Services (NIS) coordinates plant pest identification in support of the USDA's regulatory programs. Accurate and timely identifications provide the foundation for quarantine decisions and are essential to safeguard the nation's agricultural and natural resources. NIS employs or collaborates with scientists who specialize in identifying organisms within various plant pest groups including weeds, insects, mites, snails, and plant diseases. These scientists are stationed at various institutions around the country including Federal research and

regulatory laboratories, plant inspection stations, land-grant universities, and natural history museums. In addition, NIS supports the use of alternative diagnostic methods to enhance the speed and precision of the identification process such as the Remote Pest Identification Program, which utilizes digital imaging technology. Additionally, the NIS works closely with the S&T Beltsville Laboratory that provides molecular diagnostic and confirmatory testing services in support of the agency's pest monitoring and exclusion programs.

PPQ Port Activities

PPQ–FO manages the operations of PPQ identifiers located at more than 34 ports of entry across the country. These identifiers include entomologists, plant pathologists, and botanists who provide taxonomic identification of pests detected by DHS–CBP, PPQ plant inspections stations, and PPQ domestic programs, and support cooperator pest detection activities. All identifiers maintain both a local port collection and a collection that supports their specific taxonomic specialty.

PPQ–FO manages PPQ work units at ports of entry around the country. These work units oversee fumigation treatment of material infested with quarantine pests, provide review and clearance of cold- treated commodities from foreign countries, provide export certification, and monitor compliance activities.

Development of AQI and Port Technologies
PPQ–S&T

The Center for Plant Health Science and Technology (CPHST) develops agriculture quarantine inspection and port technology methods to provide the scientific basis for agricultural import inspections and treatment technologies to ensure the safety of agricultural imports. Quarantine inspections and mitigating treatments are the last line of defense against exotic invaders.

CPHST responsibilities include developing and validating phytosanitary treatment methods, including alternatives to the use of methyl bromide; supporting the development of treatment manuals for ports of entry; certifying vessels and containers for transporting commodities; certifying international commodity treatment facilities in preclearance programs; and developing detection technologies for deployment at ports such as chemical sensors, acoustic detectors, and agricultural x-ray technology

Offshore Preclearance
PPQ–PM

PHP's Preclearance and Offshore Programs (PHP–POP) represents the first line of defense in preventing the unintentional introduction of invasive plant pests and diseases into the United States,

PPQ coordinates offshore programs, preclearance inspections, treatments, and other mitigation measures in foreign countries in accordance with phytosanitary procedures agreed upon by

APHIS, the host country's NPPO, and the participating industries. These procedures are designed to identify and mitigate the risk of exotic pest introductions on commodities through action taken in foreign countries prior to shipment to the U.S.

Quality assurance inspections may be performed at U.S. ports of entry to ensure compliance with the program guidelines.

> For additional information on POP:
> https://www.aphis.usda.gov/planthealth/preclearance

Predeparture
PPQ–PM
PPQ–FO

APHIS has deemed it necessary to restrict the interstate movement of cut flowers, fruits, vegetables, plants, and portions of plants from Hawaii, Puerto Rico, the U.S. Virgin Islands, Guam, and the Commonwealth of the Northern Mariana Islands to prevent the introduction of quarantined pests into the U.S. mainland.

Inspections are also conducted on air passengers, cargo, and mail destined for the continental United States (CONUS), when originating outside the continental United States (OCONUS). Federal personnel at predeparture locations inspect articles of agricultural risk for a variety of harmful pests and for prohibited products carried by passengers or moving as maritime or air cargo. If quarantine pests or prohibited materials are discovered during the inspection, the appropriate regulatory action is taken.

Mitigating Agricultural Pests in Neighboring and Offshore Countries
PPQ–PM

PPQ is working with neighboring countries to develop an international strategy designed to prevent or minimize the risk of accidental introductions or natural dispersal of invasive pest species into CONUS. Mitigating actions include the development of joint safeguarding measures and the sharing of expertise regarding the employment of various control tactics to eradicate or control the targeted pests.

Implementing mitigation measures in nearby countries not only assists their governments in dealing with new exotic plant pests, but also builds international partnerships and protects the United States from the increased risk of accidental plant pest introduction. AQI is a resource-intensive activity; thus, only a percentage of incoming cargo and passengers can be inspected. Therefore, AQI does not serve as a standalone prevention tool and must be used in concert with other measures within the safeguarding continuum such as offshore mitigation activities.

Examples of PPQ's offshore efforts include the Asian gypsy moth program with Japan and Russia; working with Italian shippers on packing material; the pink hibiscus mealy bug program in the Caribbean; and the Potato Cyst Nematode and Greenhouse Nursery Certification program with Canada.

PPQ is pursuing the North American Perimeter Approach (NAPP) and the Greater Caribbean Safeguarding Initiative (GCSI) to support this approach with neighboring countries.

Regulatory Cooperation Council (RCC): Perimeter Approach to Plant Protection (PAPP). Under the RCC Plant Protection Workplan, a reinvigoration of the North American Perimeter Approach, APHIS and the Canadian Food Inspection Agency (CFIA) continue to advance a perimeter approach to facilitating safe bilateral trade and protecting Canada and the United States from risks posed by plants and plant products arriving from developing countries. This includes aligning phytosanitary import requirements and related systems wherever possible working toward reducing certification and inspection requirements between the two countries. Through several phases, APHIS and CFIA have successfully revised the Canada–U.S. Greenhouse Certification Program. We continue joint work to manage chrysanthemum white rust and are working bilaterally on postentry quarantine (PEQ) and e-certification initiatives.

> For additional information on RCC:
> http://www.trade.gov/rcc/

Greater Caribbean Safeguarding Initiative

Plant pests entering Caribbean countries could potentially spread to the United States through the importation of plants and plant products or as a result of weather events. In 2006, PPQ began a safeguarding initiative to identify and address potential pathways for pests entering Florida from the Caribbean region. This pilot program increased coordination of PPQ's efforts and initiatives for targeting and reducing the risk of plant pests establishing in the United States through the Florida pathway. In 2008, PPQ began expanded the initiative into a national program, known as the GCSI with the goal of protecting the health and value of agricultural, natural, and other resources in the greater Caribbean region by excluding, detecting, and controlling exotic pests that arrive and become established. This goal is accomplished through collaborative efforts among partners and countries in the greater Caribbean region to develop and harmonize exclusion and response strategies, and other safeguarding initiatives.

> Greater Caribbean Safeguarding Initiative
> https://www.aphis.usda.gov/planthealth/offshore-safeguarding-activities

Smuggling Interdiction and Trade Compliance
PPQ–FO

Smuggling Interdiction and Trade Compliance (SITC) plays a major role in interdicting noncompliant agricultural products of regulatory significance before or after they reach U.S. markets. By identifying high- risk trade pathways, the SITC staff detects and prevents the unlawful entry and distribution of products that may harbor exotic plant and animal pests, diseases, or invasive species. These harmful organisms could seriously damage America's crops, livestock, and environment. SITC's mission is accomplished through a combination of field work (site inspections, trace-forwards, and trace-backs), trend analysis, outreach, and the use of intelligence tools and data systems.

SITC officers and analysts are experts in developing commercial targeting information, examining aspects of international trade, and identifying contraband in commerce and at the

consumer level. In the marketplace, SITC officers work under the guidance of State Plant Health Directors (SPHDs) to monitor agricultural trade at commerce sites. Such sites encompass freight distribution centers, national chain stores, specialty independent retailers, flea markets, roadside vendors, animal, plant, and insect trade shows, and private residences associated with the purchase of regulated goods on the Internet. When SITC officers find a noncompliant item at a commerce site, every effort is made to trace it back to the port of entry and responsible importer. Once the pathway is documented, SITC notifies DHS–CBP or PPQ plant inspection stations to help shut it down, often resulting in administrative penalties, civil or criminal prosecution, and product recalls to safeguard American agriculture. SITC officers also work closely with CBP at U.S. ports of entry, both on a routine basis and during joint special operations, to carry out trade verifications and intercept smuggled products. SITC also partners with PPQ plant inspection station personnel for operations focused on plants for planting.

The SITC staff engages with many Federal, State, and local agencies to accomplish the program's mission. Through such partnerships, SITC has provided other federal entities (DHS–CBP, USDA's Office of the Inspector General (OIG), APHIS' Investigative and Enforcement Services (IES) Program, U.S. Immigration and Customs Enforcement (ICE), USDA's Food Safety and Inspection Service (FSIS), U.S. Food and Drug Administration (FDA), and others) and State agriculture agencies with information leading to seizures, the stop-sale of products, criminal prosecutions, and administrative violations.

While SITC's efforts often react to products that have already entered commerce, SITC also takes preventive steps to anticipate noncompliant imports before they occur, ultimately reducing costs to the American public through avoided eradication programs and quarantines. For instance, SITC officers and analysts watch for increased threats from seasonal shipping trends and marketplace disruptions that could signal an upswing in smuggling activity. SITC officers also perform extensive liaison work and outreach with industry groups and other stakeholders to stop noncompliant agricultural trade before it occurs.

SITC officers are flexible enough to respond to a wide breadth of agricultural threats and challenges, including participating in plant health emergency response programs, where they may be tasked with determining the entry pathway of an exotic plant pest.

Select Agent Services
APHIS

Select agents are pathogens that have been deemed a severe threat to the public, animal or plant health, or animal or plant products.

USDA and Health and Human Services (HHS) are responsible for preventing, preparing for, and responding to acts of bioterrorism and other public health emergencies that could threaten either public health and safety or American agriculture. USDA–APHIS and HHS' Centers for Disease Control and Prevention (CDC) jointly regulate entities and individuals possessing, using, or transferring select agents and toxins.

USDA's Agriculture Select Agent Services (AgSAS) provides regulatory oversight to specifically safeguard plant pest select agents. This regulatory oversight includes inspecting entities for biocontainment and physical security. Entities must maintain biocontainment, security, and incident response plans. In addition, all individuals and private or commercial entities must complete a U.S. Department of Justice (DOJ) Security Risk Assessment (SRA) for the facility, its owners, and the designated responsible official

Facilities must also meet the biosafety requirements commensurate with the risk that a select agent or toxin poses. They must establish security measures that provide graded protection in accordance with the threat posed by the agent or toxin.

AgSAS also helps safeguard agricultural agents that have the potential to accidentally cause significant damage to U.S. agricultural resources. This is accomplished through APHIS permits. Permits are required for the importation, transit, domestic movement, and environmental release of organisms that impact plants, and for the importation and transit of plants and plant products.

Agriculture Select Agent Services
https://www.selectagents.gov

Chapter 4: Preparedness

Introduction

Preparedness encompasses evaluating and planning for an effective response to a plant health emergency, identifying the necessary resources, establishing the required infrastructure, and conducting training and exercises to ensure an effective and timely response. Plant Protection and Quarantine (PPQ) works with Federal agencies; State, Tribal, and local governments; and industry to prepare, build, and sustain operational capacity and capabilities including early detection; timely, accurate, and confirmed diagnostics; and effective containment, mitigation, and control strategies against plant health threats and pest introductions.

Preparedness includes the following early warning activities:

- North American Plant Protection Organization's (NAPPO) alert system

- Smuggling and Interdiction Trade Compliance (SITC) National Information and Communication System (SNICAS)

- U.S. Department of Homeland Security (DHS) enforcement alerts

- U.S. Department of Agriculture (USDA) significant pest alerts

- State and university pest alerts

- Pest interception data

- European and Mediterranean Plant Protection Organization (EPPO)

- State and Federal pest detection programs (Cooperative Agricultural Pest Survey (CAPS), National Agricultural Pest Information System (NAPIS), National Plant Diagnostic Network (NPDN), State agency survey programs, the Cooperative Extension Service, universities, U.S. Forest Service, etc.)

- Identification and diagnostic services

- PPQ–New Pest Advisory Group (NPAG) assessments and recommendations

- New Pest Response Guidelines (NPRG)

- Formation of Incident Management Teams (IMT)

- Incident Command System (ICS) training including emergency response exercises with cooperators

Early Warning Systems

NAPPO Phytosanitary Alert System

PPQ–S&T

The NAPPO's Phytosanitary Alert System (PAS) is hosted in Raleigh, North Carolina at PPQ's Center for Plant Health Science and Technology (PPQ–CPHST). The system adapts to the basic needs of the plant protection services of NAPPO's member countries— the United States, Canada, and Mexico—and serves as a readily accessible, user-friendly aid to the daily operations of PPQ and its cooperators. The alert system gathers, on a broad international scale, crucial intelligence regarding pests of importance to NAPPO countries. The system then filters the data, repackages it to suit NAPPO's needs, and disseminates it through the PAS Web site.

The information is derived from a variety of sources, including records from port-of-entry interceptions, domestic plant pest surveys, the Internet, primary literature, and user submissions. The most significant information is posted for the target audience, which consists of the plant protection services for Canada, Mexico, and the United States.

The system provides many benefits, including the following:

- Focused domestic plant pest surveys

- Port-of-entry inspections that flag specific pests and pathways

- Improved information for decisionmaking on permits, risk assessments, and regulations

- Increased lead time to prepare action plans for emergency coordination, response, and eradication

Refer to the NAPPO Web site for further information or to subscribe to the alerts.

> North American Plant Protection Organization Phytosanitary Alert System
> http://www.pestalert.org

European and Mediterranean Plant Protection Organization

The EPPO is an intergovernmental organization responsible for European cooperation in plant health. Founded in 1951 by 15 European countries, EPPO now has 50 members, covering almost all countries of the European and Mediterranean regions. The objectives of EPPO are to protect plants, develop international strategies against the introduction and spread of plant pests, and promote safe and effective control methods. In addition, EPPO publishes three bulletins each year featuring newly detected invasive plant pests in the region.

PPQ uses the information provided through EPPO to develop the following preparedness strategies:

- Surveys for domestic plant pests

- Inspections at ports of entry that flag specific pests and pathways

- Development of New Pest Response Guidelines

- Greater lead time to prepare emergency coordination and response plans

For further information, refer to the EPPO Web site.

> European and Mediterranean Plant Protection Organization
> https://www.eppo.int/index

Pest Detection Program
PHP–PM

The goal of PPQ is to protect America's agricultural and natural resources by ensuring the early detection of harmful or economically significant plant pests and weeds. A strong domestic agricultural pest detection system is an essential element in providing a continuum of checks from offshore preclearance programs, domestic port inspections, and surveys at rural and urban sites across the United States.

Surveys for exotic pests are accomplished under the Cooperative Agricultural Pest Survey (CAPS) program and Section 10007 of the 2014 Farm Bill. PPQ provides funding through cooperative agreements with State departments of agriculture, universities, and other appropriate entities.

The CAPS and Farm Bill surveys are part of a national plant pest detection system that allows flexibility in setting survey priorities at the national and State levels. Survey data are entered into the National Agricultural Pest Information System (NAPIS) database. Certain PPQ program pest surveys conducted with Farm Bill funding are entered into the Integrated Plant Health Information System (IPHIS) when applicable.

Confirmation of pests new to the United States is made via the National Identification Service (NIS) according to the Pest Identification Notification to States protocol posted on the APHIS Web site and includes simultaneous communication to the State Plant Health Directors (SPHD), State Plant Regulatory Officials (SPRO) of the affected State, and PPQ personnel who have a need to know. After the confirmed detection is entered into NAPIS by the State, the database generates a notification to the CAPS community on pests new to the United States. The NAPIS notification also includes pests new to a State and county.

For further information, refer to APHIS's Plant Health Program (PHP) Web site.

> Pest Detection Program
> https://www.aphis.usda.gov/planthealth/pest-detection

SITC National Information Communication Activity System

The SITC SNICAS supports the mission of the Smuggling Interdiction and Trade Compliance (SITC) program to detect and prevent the unlawful entry and distribution of prohibited and/or noncompliant products that may harbor exotic plant and animal pests, diseases, or invasive species. SITC focuses on antismuggling and trade compliance efforts at U.S. ports of entry and in commerce to prevent the establishment of plant and animal pests and diseases while maintaining the safety of our ecosystems and natural resources. SITC uses SNICAS to perform

legal and regulatory actions; scientific research; risk, trend, pathway, and targeting analyses; trade support; administrative and budgetary support; supervision and program management; and the overall decision support services necessary to achieve the mission.

The system contains some identifiable information regarding persons associated with the importation and/or interstate movement of prohibited or restricted agricultural products. This information assists SITC officials to identify and stop pathways used for the introduction of prohibited commodities and those regulated commodities that lack the necessary certificates and permits to enter U.S. commerce. SITC officials utilize the records to evaluate the risk status of the commerce sites where regulated commodities are seized. SITC officials also use SNICAS to generate reports to evaluate the quality control of data and effectiveness of the program.

Pest Notification–Business Process

PPQ uses the Agriculture Quarantine Activity System (AQAS) database to record program activities and store statistical data. This system includes the databases that capture all cargo import data (PPQ 280 and 264) from inspections conducted by DHS–CBP and PPQ. This system also captures all Emergency Action Notifications (EANs) including those written at ports of entry by SITC and by domestic program activities. This data is monitored by the PPQ Field Operations Data, Analysis, Risk, and Targeting (DART) group and PPQ–PHP analysts to identify trends or other key import information. Another database, PestID, captures pest identification records. This database is continuously monitored by the Plant Health Program's National Identification Services (PHP–NIS) staff for notable pest interceptions, which allows for a rapid response to serious import or pest detection concerns. AQAS is currently being replaced by a new system known as Agriculture Risk Management (ARM).

When a significant plant pest interception at the port of entry is noted in the PestID database, NIS staff will notify Quarantine Policy, Analysis, and Support (PHP– QPAS). QPAS will in turn notify the appropriate program for response. For example, QPAS will notify DHS–CBP Agriculture Programs and Trade Liaison (APTL) by issuing a significant pest bulletin using the aforementioned process.

The APTL staff members will notify their Director of Field Operations (DFO) who will distribute the information to his or her managers and supervisors at ports of entry. The DHS–CBP Agriculture Specialists will receive instructions on how to conduct more intensive examinations to increase the chances of detecting the newly discovered significant pests in imported cargo shipments.

A similar process is used for notification of significant interceptions related to SITC or plant inspection station operations.

NIS notifies the PPQ National Survey Coordinator. The notifications are then sent to the State and PPQ–FO, S&T, and PM contacts.

Preparedness Infrastructure

Identification and Diagnostic Services
PPQ–S&T

PPQ and its cooperators are often confronted with invasive plant pests and diseases that are new to the United States. The arrival of new pests presents a challenge in providing the timely and accurate identification and diagnostics critical to preparedness and response activities.

CPHST provides scientific development and validation of molecular diagnostic methods used in pest detection and management programs.

CPHST develops, adapts, and validates molecular or biochemical assays for pests for which there are no validated diagnostic tools available, and provides official Federal diagnostics of regulatory pests. Once developed and validated, these tools are used by the National Identification Service (PHP–NIS) and collaborating laboratories to support emergency response.

As part of preparedness, CPHST develops molecular diagnostic tools for exotic pests before being introduced to the Unites States. These tools are released to PPQ labs and cooperators to be used for regular surveys and CAPS for early pest detection.

To build PPQ's diagnostic capacity and to help diagnosticians detect the pests in the fields and ports, CPHST also provides hands-on training to diagnosticians throughout the U.S.

The PHP–NIS coordinates the identification of plant pests in support of the USDA's regulatory and emergency programs. Refer to Identification and Diagnostics on page 5-10 for additional information concerning PHP–NIS's role.

New Pest Advisory Group
PPQ–S&T

The New Pest Advisory Group (NPAG) operates out of the Plant Epidemiology and Risk Analysis Laboratory (PERAL), which is part of S&T CPHST.

NPAG assesses exotic plant pests new to or not yet present in the United States, but which may pose a risk to U.S. agriculture or the environment and recommends appropriate actions to the PPQ Deputy Administrator. NPAG evaluates the significance of plant pests and their potential economic and environmental impacts by coordinating information sharing and soliciting expertise from regulatory and subject matter experts (SMEs). These experts can include Federal, State, and university personnel that have knowledge of the pest or pest situation. This evaluation consists of a brief technical report that provides key information regarding the pest, determines the potential economic and trade implications, and provides science-based recommendations for PPQ's responds to a new plant pest or imminent threat.

NPAG can be notified of a new pest through a variety of sources such as any part of PPQ, State departments of agriculture, and electronic alerts. When notified, NPAG determines whether to analyze the pest based on its presence or absence in the United States and its quarantine status as a plant pest. If the pest is a routine pest and the recommendations are fairly limited in scope, the NPAG report is directly referred to the appropriate PPQ action leaders, such as the NIS, Pest

Detection and Emergency Programs (PDEP), or others and consults with the National Plant Board (NPB) when providing recommendations on the types of regulatory actions to take. If the pest is deemed a high-consequence pest, it is presented directly to the PPQ management team, which includes the Deputy Administrator, who discusses it and comes to a consensus on the recommendations

Refer to the PPQ–NPAG Web site for further information.

> PPQ New Pest Advisory Group
> https://www.aphis.usda.gov/plant-health/npag

New Pest Response Guidelines
PPQ–S&T

PPQ has historically developed New Pest Response Guidelines (NPRG) as a framework for providing methods and tools used for containing, controlling, or eradicating a known pest that is not yet present in the United States. NPRGs are proactively developed so regulatory personnel will have scientifically valid and operationally practical methods available to them to respond to plant health emergencies.

The purpose of an NPRG is to provide the basic information likely to be needed by the initial PPQ response team in the first 30 to 60 days following a pest detection in the United States.

Each NPRG contains the following information:

- Summary of relevant pest biology

- Guide to identification or screening for the pest in the field based on damage

- Preliminary method for conducting a delimiting survey

- Summary of known eradication and quarantine options

- Summary of knowledge gaps

NPRGs are based on the best information available at the time of development: in additional to consulting the scientific literature, the NPRG group consults with SMEs in each stage of the development of NPRGS. However, at the time of the emergency new scientific and technical information may be identified. In addition, each pest incursion has unique, site-specific characteristics that are impossible to predict. Therefore, NPRGs should be considered a general guideline only. As the pest situation evolves and new information is gathered, the response implemented—including survey protocols—may need to be modified from the original recommendations.

Pests are selected using the Objective Prioritization of Exotic Pests process, which categorizes pests based on their likelihood of causing serious impacts in the United States and the likelihood of introduction. Exotic pests that have been determined to have a high likelihood of causing serious impacts upon introduction are prioritized the highest. Additionally, because S&T

develops the NPRGs for each year, the NPRG group relies on its liaisons in PHP–PDEP and FO to approve the planned list of pests.

> PPQ New Pest Response Guidelines
> https://pags.cphst.org/

Incident Command System
PPQ–PM

PPQ has four incident command teams: Alpha, Bravo, Charlie, and Delta. Since 2006, the members have been trained in the Incident Command System. When support is needed, the teams assume a lead role in coordinating an onsite response to pest detection emergencies.

Training

The ability to conduct coordinated emergency responses has new importance as reflected in the Homeland Security Presidential Directive 5 (HSPD-5) issued February 28, 2003. This directive requires all Federal departments and agencies to adopt the National Incident Management System (NIMS) in a domestic emergency. NIMS is designed to provide a consistent nationwide framework for Federal, State, and local governments. The governments use NIMS to prepare for, respond to, and recover from domestic incidents regardless of cause, size, or complexity. NIMS is based on the ICS.

The ICS is a structured management system designed to bring multiple responding agencies, including those from different jurisdictions, together under a single command structure when an incident occurs.

In keeping with NIMS–Incident Management Systems Division (IMSD) recommendations, APHIS–PPQ supports ICS training in its preparedness efforts. The ICS program takes a holistic approach toward ICS training and promotes training through local emergency management organizations and agency-sponsored ICS courses online and in classrooms. Acquiring ICS training is not mandatory; however, managers are encouraged to promote training to build capacity and enhance capabilities in the realm of emergency preparedness and response. The following are courses outlined in Federal Emergency Management Agency's (FEMA) credentialing system and are used as a baseline for ICS positions within PPQ.

Basic ICS Training Courses

ICS 100	Introduction to the Incident Command System (ICS)
ICS 200	ICS for Single Resources and Initial Action Incidents
ICS 300	Intermediate ICS for Expanding Incidents
ICS 400	Advanced ICS
ICS 700	National Incident Management System, An Introduction
ICS 800	National Response Framework, An Introduction

Advanced ICS Training Courses

E/L 950	All-Hazards Incident Commander
E/L 952	All-Hazards Public Information Officer
E/L 954	All-Hazards Safety Officer
E/L 956	All-Hazards Liaison Officer
E/L 958	All-Hazards Operations Section Chief
E/L 960	All-Hazards Division/Group Supervisor
E/L 962	All-Hazards Planning Section Chief
E/L 964	All-Hazards Situation Unit Leader
E/L 965	All-Hazards Resources Unit Leader
E/L 967	All-Hazards Logistics Section Chief
E/L 969	All-Hazards Communication Unit Leader
E/L 970	All-Hazards Supply Unit Leader
E/L 971	All-Hazards Facilities Unit Leader
E/L 973	All-Hazards Finance/Admin Chief
E/L 975	All-Hazards Finance/Admin Unit Leader
S 420	Command and General Staff
L 480	Organizational Leadership

PPQ Multiyear Training & Exercise Program

Exercises allow emergency management personnel, from first responders to senior officials, to train and practice pest exclusion, protection, response, and recovery capabilities in a realistic but risk-free environment. Exercises are also valuable for assessing and improving performance, while demonstrating community resolve to prepare for major incidents.

PPQ follows the tenets of the Homeland Security Exercise and Evaluation Program (HSEEP), a capabilities- and performance-based exercise program. The intent of HSEEP is to provide common exercise policy and program guidance capable of instituting a national standard for all exercises. HSEEP reflects lessons learned and best practices of existing exercise programs and can be adapted to a variety of scenarios and events (e.g., natural disasters, terrorism, and technological disasters). PPQ is compliant with the following specific performance requirements:

- Conduct an annual training and exercise planning workshop and maintain a multiyear training and exercise plan

- Plan and conduct exercises in accordance with the guidelines set forth by HSEEP policy

- Develop and submit a properly formatted After Action Report/ Improvement Plan (AAR/IP)

- Track and implement corrective actions identified in the AAR/IP

The multiyear training and exercise plan identifies an entity's priorities as articulated in the entity's strategy and identifies the capabilities that are most relevant to achieving those priorities. The plan then outlines a multiyear schedule of training and exercises that an entity will undertake to enhance and validate its capabilities. It also graphically illustrates a multiyear schedule for training and exercise activities to support these priorities. A multiyear plan employs a building-block approach in which training and exercise activities focus on specific capabilities in the following cycle of increasing complexity:

- Seminar: an informal discussion designed to orient participants to new or updated plans, policies, or procedures

- Workshop: resembles a seminar but is employed to build specific products such as a draft plan or policy

- Tabletop exercise: involves key personnel discussing simulated scenarios in an informal setting; tabletop exercises can be used to assess plans, policies, and procedures

- Games: a simulation of operations that often involves two or more teams, usually in a competitive environment, using rules, data, and procedures designed to depict an actual or assumed real-life situation

- Drill: a coordinated, supervised activity usually employed to test a single specific operation or function within a single entity

- Functional exercise: examines or validates the coordination, command, and control between various multi-agency coordination centers; a functional exercise does not involve any boots on the ground

- Full-scale exercises: multiagency, multijurisdictional, multidiscipline exercises involving functional and boots-on-the-ground responses

The PPQ Professional Development Center (PPQ–PDC) employees design and facilitate full-scale exercises for responders from PPQ and other Federal, State, local, and Tribal authorities. These exercises typically last from 1 to 3 days and provide the opportunity to improve capabilities in responding to plant pest and all-hazard emergencies. These exercises emphasize both strategic and practical skills and provide an opportunity to execute plans, procedures, and cooperative agreements.

PPQ and cooperators implement an assortment of discussion and operations exercises annually. The exercises are planned with built-in flexibility to allow updates to drive the activity. Each exercise consists of the following major components:

- Scenario simulating an outbreak of a plant pest or weed

- Simulations focused on communicating with the public and addressing problems arising during the response

- Evaluation, lessons learned, and a report written to identify strengths and weaknesses

National Incident Management System
https://www.fema.gov/national-incident-management-system

USDA Agricultural Leaving (Aglearn)
https://aglearn.usda.gov/

Chapter 5: Response

Introduction

Emergency response involves those activities that occur immediately after a plant health emergency has been declared. The Animal and Plant Health Inspection Service, Plant Protection and Quarantine (APHIS–PPQ) works with Federal agencies, State, Tribal, and local governments, industry, and other stakeholders to implement coordinated emergency responses. Ultimately, a well- coordinated response must include the aforementioned parties working together to contain, control, mitigate, or eradicate the pests and diseases that caused the emergency.

PPQ uses the Incident Command System (ICS), which provides responding agencies and entities with a unified strategy for working together in response to plant health emergencies. In consultation with the PPQ Deputy Administrator's Office, the Policy Management Staff (PPQ–PM) leads national coordination for policy and regulatory framework formulation for plant health emergency response activities. In doing so, PPQ–PM works closely with PPQ's Science and Technology (PPQ–S&T), PPQ's Field Operations (PPQ–FO), and State departments of agriculture.

PPQ–PM, PPQ's Plant Health Programs (PPQ–PHP), the National Plant Board (NPB), and the Phytosanitary Issues Management (PIM) staffs work together to develop regulations and address impacts on international trade; the PPQ–FO staff provides operational support and information. PPQ–S&T develops and delivers science-based information, methods, and protocols that provide a scientific foundation for response efforts.

PPQ responses include the following:

- Authorities
- Communication and outreach
- Rapid detection and delimiting surveys
- Scientific guidance from a Technical Working Group (TWG)
- Identification and diagnostics
- Emergency funding
- Mobilization
- National Incident Management System (NIMS) implementation
- Single incident command and unified command
- Data management
- Emergency coordination
- Emergency situation reporting

- Regulatory framework

- Environmental monitoring

- Pest mitigation strategies

Authorities

Plant Protection Act

The Plant Protection Act of 2000 (PPA) provides the authority for the Secretary of Agriculture to prevent the introduction or spread of a plant pest or noxious weed. Section 414 provides the authority to take emergency action to seize, quarantine, treat, or destroy articles or products related to plant pests new to or not known to be widely prevalent in the United States. Section 415 provides the authority for the Secretary of Agriculture to declare an extraordinary emergency.

This act provides the authority to regulate the movement of plant pests and their carriers into or through the United States and to take emergency measures pending promulgation of quarantines and regulations.

This authority incorporates provisions of older statutes that were repealed, including the Federal Plant Pest Act, most of the Federal Noxious Weed Act, and the Golden Nematode Act.

The PPA provides the authorities that support emergency response. The PPA, codified in Federal regulations, provides the foundation for flexible but effective programs for protecting the United States against threatening pests and to promulgate or modify existing regulations wherever necessary.

As the PPA relates to emergency response programs, it provides the U.S. Secretary of Agriculture with the authority to do the following:

- Establish or modify quarantines and regulations as necessary to carry out programs against new plant pests that become established in the United States
- Restrict and prohibit the entry and interstate movement of plants and plant products to prevent the entry and interstate spread of plant pests
- Declare an extraordinary emergency when a new economically significant plant pest is present in the United States whose presence threatens the agriculture of the United States and State measures are deemed inadequate
- Cooperate with States, farmers, associations, and other countries to carry out operations to control or eradicate pests that pose a significant economic hazard or threaten the United States

State Authorities

State authorities are often complimentary to Federal authorities and may in some instances grant more liberal access to properties and conveyances that need to be surveyed, inspected, or treated. Cooperation between State and Federal entities and utilizing the complimentary authorities in an efficient manner can lessen the impact on regulated parties and the public and preserve and enhance the public trust in regulatory responses to plant health emergencies.

Declaration of Emergency

When it is necessary to secure funding beyond what is available in contingency funds for an emergency, a Declaration of Emergency is issued by the U.S. Secretary of Agriculture to request a transfer of Commodity Credit Corporation (CCC) funds or other U.S. Department of Agriculture (USDA) funds to APHIS for a specific PPQ program activity.

The declaration may be issued in conjunction with regulations (e.g., an interim or proposed rule to contain plant pests). A Declaration of Emergency may also be declared at the State level by the Governor, head of the State department of agriculture, or other appropriate governmental official to allow for emergency funding and emergency regulation enactment.

Declaration of Extraordinary Emergency

A Declaration of Extraordinary Emergency is issued by the U.S. Secretary of Agriculture and provides PPQ the authority to conduct survey and eradication measures, control the movement of regulated articles within a State, and/or pay compensation, at the Secretary's discretion, for economic losses caused by an action of the Secretary. It also gives PPQ the authority to quarantine part of a State. A Declaration of Extraordinary Emergency is undertaken by the Secretary only after review and consultation with the Governor of the affected State or appropriate State officials after finding that the measures taken by the State are inadequate to eradicate the pest or noxious weed.

A Declaration of Extraordinary Emergency must be published in the Federal Register. If necessary, subsequent *Federal Register* notices are used to publish an interim, proposed, or final rule.

Communication and Outreach
PPQ–ODA

Communication and outreach are central to an effective plant health emergency response. During an incident, PPQ must communicate promptly and accurately. We must also reach many different audiences with information specific to their interests and needs. This section provides direction for developing an emergency response communications plan.

Assembling the Emergency Response Communications Team

The job of the Emergency Response Communications Team is to create and execute the emergency response communications plan. You need several different people to handle communications during an incident and each person has an important role to play. The team typically includes representatives from:

Team Member	Primary Role
Policy Management (PM)	Communicate with affected industry groups and associations at the national level; lead communications with NPB and other Federal agencies
Science and Technology (S&T)	Coordinate communication with universities, researchers, and extension
Field Operations (FO)	Coordinate communication with PPQ field offices, State Plant Regulatory Officials (SPROs), local industry contacts, and productions/growers in impacted areas
Phytosanitary Issues Management (PIM)	Coordinate communication with foreign trading partners, the World Trade Organization, and regional and international plant health organizations
PPQ Communication Team	Develop communications plan, draft messaging, and direct and manage communications activities
Legislative and Public Affairs (LPA)	Lead communications with media, general public, Congressional representatives and their staffs, and elected and local officials

Identifying Audiences and Their Information Needs

After you have assembled your team, the next step is to identify all potential audiences and determine their information needs.

Potential audiences and their specific information needs may include:

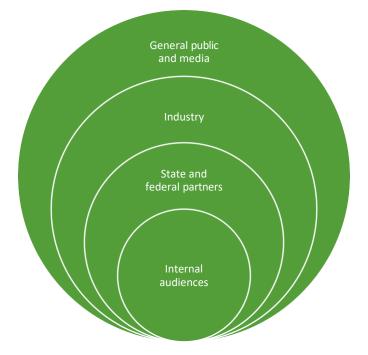| Audience	Specific Information Needs
Various groups within PPQ and APHIS	How is PPQ responding? What do I need to do?
National Plant Board (NPB)	How is PPQ responding? What is the impact to States? What do SPROs need to do?
National Association of State Departments of Agriculture (NASDA)	What is the impact to States? What do States need to do?
Communications Officers of State departments of agriculture	What information can we share? How can we help get the word out?
Impacted or affected industry groups and associations	What is the impact to production and trade? What steps should growers take to control or eradicate the pest/disease?
Producers/growers in impacted areas	What is the impact to production or exports? What steps should growers take to control or eradicate the pest/disease?
Other Federal or State agencies	What role might other Federal/State agencies play?
Foreign trading partners	What is the impact? What is the U.S. government/U.S. industry doing to control the pest/disease and prevent its spread to other countries?
Congressional representatives	What is the impact to agriculture and the U.S. economy? What can be done to minimize harm?
Elected and local officials	What is the impact to my district? What can be done to minimize harm?
Media	What is the impact? Who is involved? What is being done to minimize harm?
General public in affected areas	What is the impact? Who is involved? What is being done to minimize harm?

Developing the Message

At the outset of an emergency plant health situation, you should work quickly to gather as much information as possible about the pest's biology and its potential to cause damage, its regulatory status and importance, the location and extent of the outbreak, potential response strategies, and potential economic impacts and trade implications. Use that information to draft audience-specific messages. Try to keep your statements short and use plain language. If possible, avoid acronyms, jargon, and unnecessarily technical terms.

An important goal of an emergency response communications plan is to establish core messaging consistent throughout the life cycle of the emergency response. Core messaging should emphasize how PPQ will work with Federal, State, and industry partners to respond in the least restrictive but most effective manner, based on science and an assessment of risk. Core messaging is very important because you may have limited details to share at the outset about the plant health emergency or the actions we will take. As new details about the plant health emergency become available, you will add that information to your core messaging.

Determining the Order and Frequency of Communications

An important goal of an emergency response communications plan is to coordinate the release of information. This involves making decisions about the order in which you will release information to your various audiences. You will also have to determine how often each audience will need to hear from you. During most emergency plant health situations, we first share information internally and then with our State and Federal partners before we reach out to industry and beyond.

That said, there are situations where you may need to communicate with multiple audiences at the same time. You may also need to engage State, Federal, or industry partners early in the process so they cannot only provide input into the response strategy but also help deliver information to key audiences.

Use a table to help determine and track the order and frequency of your communication activities (example below):

Date/time	Activity	Message	Person responsible	Method of communication

Determining the Method of Communication

PPQ has a number of tools you can use to communicate with your audiences. It is important to select the method best suited to each situation.

In-person meeting	Share sensitive or confidential information in a small group setting with government officials and impacted industries
Conference call	Share information and coordinate activities with employees and partners in multiple locations; this method is well suited for sharing sensitive information you are not ready to put in writing
Field talking points	Basic information PPQ and State field surveyors and extension agents can use to explain the situation and survey activities without causing needless alarm or potential export market closures
Shared talking points	Key messages PPQ shares with States, extension, and, if applicable, industry groups, helping to ensure we all convey the same accurate information presented in a way that minimizes needless alarm and disruptions to domestic and international trade
SPRO letter	Communicate policy decisions (i.e., establishing a quarantine, issuing a Federal Order, etc.) to SPROs
North American Plant Protection Organization (NAPPO) alert	Notify trading partners about a new pest/disease detection
World Trade Organization notice	Notify trading partners about a new pest/disease detection
Stakeholder announcement	Communicate information broadly to stakeholders, the media, and the general public
Press release	Communicate information broadly to stakeholders, the media, and the general public

Rapid Detection and Delimiting Surveys
PPQ–FO
PPQ–S&T

Rapid detection and delimiting surveys are essential and implemented at the onset of the response. Survey data are necessary for the overall response strategy, including the ability to contain, control, and eradicate the pest.

The PPQ field staff under the oversight of the State Plant Health Director (SPHD) along with the State cooperators under the direction of the SPRO play primary roles in conducting pest survey activities within every State. PPQ–S&T provides technical support and demonstrated methods to

PPQ field survey operations for the rapid detection of exotic pests. S&T works with PM and FO to develop survey plans designed to assist responder in delimiting the distribution of the pest or disease.

In addition to providing the overall strategy, the survey plan includes a description of the survey methods (random, targeted, etc.) and the appropriate tools (trap and pheromone types, scouting, netting, etc.), the geographical area, number of samples to be collected, and the host range to be surveyed.

Technical Working Group
PPQ–S&T

PPQ and cooperators are often confronted with questions of how best to respond to the unanticipated challenges presented by the first introduction of an invasive plant pest and disease in the United States. The guidance of a TWG, an ad hoc group of subject matter experts (SMEs), may be needed to provide PPQ with timely technical information regarding the particular pest or disease to which the response is being mounted. The TWG considers scientific input from a variety of different scientific sources and the TWG leadership within the Center for plant Health Science and Technology (CPHST) compiles and synthesizes the information.

Once the need is identified, the core functional areas (CFAs) work together to craft questions to present to the scientist on the TWG through S&T. PPQ–S&T then organizes a group of experts to discuss and address the questions of science. TWG membership, may consists of scientific experts from Federal and State agencies, universities, the private sector, and international organizations.

The TWG chair is to ensure coherent and relevant information is captured.

Identification and Diagnostics
PPQ–PM

Timely and accurate pest identification is fundamental to the success of an emergency response.

The PPQ National Identification Service (PPQ–NIS) staff coordinates the identification of plant pests in support of the USDA's regulatory programs. Accurate and timely identifications provide the foundation for quarantine decisions and are essential in the effort to safeguard the nation's agricultural and natural resources.

The core foundation of NIS is its network and collaboration of national taxonomists and identification specialists in order to provide timely identifications of submitted specimens. These scientists who specialize in various plant pest groups including weeds, insects, mites, snails, and plant diseases are located throughout the country and are part of different institutions such as Federal and State laboratories, plant inspection stations, land-grant universities, and natural history museums. Some of the specific locations of these national specialists include the CPHST Beltsville and Mission Laboratories, the Systematic Entomology Laboratory (SEL) at the Smithsonian Institution, the Systematic Nematology Laboratory (SNL), the Systematic Botany and Mycology Laboratory (SBML), and the National Plant Diagnostic Network (NDPN). Because of the logistical complexity of networking for all of the national specialists, NIS acts as

a clearinghouse for pest identification by routing specimens to the appropriate laboratories ensuring timely response.

For additional information, refer to the National Identification Services Web site.

PPQ–National Identification Services
https://www.aphis.usda.gov/plant-health/pest-id

Emergency Funding
PPQ–ODA

The success of plant health emergency response often depends on obtaining additional resources. Funding needs for plant health emergency response are identified through field operations PPQ–Resource Management and Planning Services (PPQ–RMPS), and the impacted States. Several potential funding options are available for emergency events including the following:

- Congressional supplemental funding
- APHIS contingency funds
- CCC funding
- Reprogramming
- State funding
- Other Federal agencies
- Farm Bill Section 10007

Congressional Supplemental Funding
Congressional supplemental funds are in addition to regular appropriated funding and address unanticipated national circumstances such as avian influenza. These funds have restricted use and are available for a limited time.

APHIS Contingency Funds
APHIS's contingency funds consist of no-year money annually appropriated through Congress. This money reverts back to APHIS if not used. The approval process for these funds is straightforward, requiring review by APHIS' Policy and Program Development (APHIS–PPD), the approval of the administrator and the undersecretary of marketing and regulatory programs, and final review by the USDA's Office of Budget and Program Analysis (OBPA). The process requires approximately 2 months for completion once PPQ submits a budget request to APHIS–PPD. The level of funding is approximately $4 million each year.

Commodity Credit Corporation (CCC) Funding
Authority is delegated to the Secretary of Agriculture to declare an agricultural emergency. A request is made based on a compilation of operational and individual program needs. The request is reviewed by APHIS–PPD and the USDA–OBPA and then sent to the U.S. Office of Management and Budget (OMB) for final approval. The process takes from 2 to 6 months, and the funding is no-year, meaning that it can be carried over and will remain in the program.

Reprogramming

Reprogramming refers to funding already available within APHIS programs. Amounts exceeding $500,000 require Congressional approval and must first be recognized as available from the program to which they were appropriated by Congress. Once PPQ and APHIS management agrees to this course of action, a formal reprogramming letter is prepared by Policy and Program Development (APHIS–PPD). The letter then moves to USDA–OBPA, OMB, and finally to Congress for a decision. Congress usually renders a decision within 15 days of receipt of the request.

All emergency funding requests are coordinated through the PPQ–RMPS financial management section located in Riverdale, Maryland.

Discretionary funds are also available at PPQ–FO and PPQ–PM levels for an initial emergency response. The expectation is that PPQ–FO has the authority to initiate spending within its discretion up to $50,000 from available resources for quick action in response to a plant health emergency event. This funding is from existing allocations, not new money.

State Funding

Often States contribute their own resources to add to the Federal funds provided. The mechanism to provide these funds at the State level vary from State to State; thus, the amount provided also varies.

Farm Bill Section 10007

The Farm Bill Section 10007, National Clean Plant Network and the Plant Pest and Disease Management and Disaster Prevention Program, authorizes the Secretary to provide funding to enhance mitigation capabilities, for an appropriate short-term course of action to quickly mitigate a new detection of a pest of potential regulatory significance and to utilize PPQ's initial response protocols for the overarching goals of containment, control, or eradication at the onset of a plant health emergency.

Mobilization
PPQ–FO

Mobilization refers to the processes and procedures used by PPQ and its cooperators to activate, assemble, and transport the resources necessary for successful emergency response, which includes both equipment and personnel.

Depending on the size and scope of the plant health emergency, the State and PPQ local resources may be sufficient for adequate response. The SPRO and SPHD or their designees form a unified command structure to manage the response, including coordinating the resource mobilization.

If the emergency requires resources beyond those available within the State in which the emergency has occurred, the incident commanders in a unified command structure would request additional resources through the National Field Operations Manager (NOM) for Emergency Preparedness and Response. The NOM would work collectively with policy managers and the

APHIS dispatch to solicit, select, and coordinate mobilizing additional resources to the emergency site.

During this process, the APHIS dispatcher utilizes the Employee Qualification System (EQS) to assist with selecting the most qualified individual to send to the incident.

If the required resources surpass those available across PPQ–FO, the National Emergency Program (EPC) coordinator in Riverdale, Maryland would pursue securing additional resources from other APHIS programs, Customs and Border Protection (DHS–CBP), or other Federal agencies such as the Agricultural Marketing Service (AMS), Agricultural Research Service (ARS), Cooperative State Research, Education, and Extension Service (CSREES); the National Institute for Food and Agriculture (NIFA), or the Department of Defense (DOD).

For large complex emergencies, the incident commanders in a unified command structure may request the assistance of a PPQ National Incident Management Team (NIMT). The National Field Operations Manager for Emergency Preparedness and Response and policy managers work with the on-call incident commanders of the NIMT to decide whether the entire team should be deployed. NIMT members are available to respond to emergencies within 24 to 48 hours of notification.

Emergency Coordination
PPQ–FO

PPQ works with Federal agencies; State, Tribal, and local governments; academia; and industries to implement coordinated actions designed to contain, control, and eradicate plant pests and diseases. Under the ICS, command may be single (incident commander), or unified (incident commanders) with command personnel from different agencies or jurisdictions who share authority for the incident. The SPHD and SPRO provide the leadership and local coordination for plant health emergencies through the unified command structure.

Incident Command
PPQ–FO

PPQ and State cooperators have historically demonstrated a consistent, innate ability to respond quickly to plant health emergencies.

The ability to conduct coordinated responses to large emergencies has taken on new importance as reflected in the Homeland Security Presidential Directive 5 (HSPD-5) issued February 28, 2003. This directive requires all Federal departments and agencies to adopt the National Incident Management System (NIMS) in their domestic emergency management.

At the center of NIMS is the ICS, a structural type of management system designed to bring multiple responding Federal, State, and local jurisdictions together under a single overall command structure when an incident occurs.

The ICS offers a scalable response to an emergency (incident) of any magnitude and provides a common framework within which people can work together. The system is designed to grow and shrink along with the incident, allowing more resources to be smoothly added into the system when needed and released when no longer necessary.

In keeping with ICS operating principles, PPQ's response to any emergency is focused on supporting the local needs of the SPHD and SPRO together with the incident commanders working in the unified command structure. When the local jurisdiction requests additional assistance, PPQ works cooperatively with its local, State and Federal cooperators and private entities to develop and implement a joint incident action plan under the unified command structure.

The incident commanders may request the assistance of a NIMT for large or complex emergencies. The National Field Operations Manager for Emergency Preparedness and Response and policy managers work with the on-call NIMT incident commanders to decide whether the entire team should be deployed. Four NIMTs have members available to respond to emergencies within 24 to 48 hours of notification.

For further information, refer to the *APHIS Mobilization Guide* and *PPQ Emergency Programs Manual*.

> *PPQ Emergency Programs Manual*
> https://www.aphis.usda.gov/import_export/plants/manuals/emergency/downloads/epm.pdf

Unified Command

The incident commanders in the unified command structure are responsible for the overall management of the plant health emergency at the local or State level; the development and implementation of the daily incident objectives and strategy; and for approval of the ordering and release of resources. In keeping with ICS operating principles, PPQ's response to any emergency is focused on supporting the local needs of the SPHD and SPRO working together as the unified command.

When the local jurisdiction requests additional assistance, PPQ works cooperatively with its local, State, and Federal cooperators and private entities to develop and implement a joint incident action plan under the unified command structure.

The unified command is comprised of more than one State or Federal agency. The incident commanders in a unified command structure report back to their respective agencies. Depending on the situation, the incident commanders could report to the area command, Raleigh, NC, or Fort Collins, CO offices, the State department of agriculture, and the respective participating agencies.

For larger, more complex responses, or for responses requiring multiple incident command posts, an area command may be established. Incident commanders in a unified command structure report to the area command. The command staff (information, liaison, safety, and intelligence officers) and general staff (operations, planning, logistics, and finance/administration chiefs) report to the incident commanders in a unified command structure.

Direct tactical and operational responsibility for the conduct of incident management activities rests with the on-scene incident commanders. For further information, refer to the *PPQ Emergency Programs Manual*.

> *PPQ Emergency Programs Manual*
> https://www.aphis.usda.gov/import_export/plants/manuals/emergency/downloads/epm.pdf

Area Command

The purpose of an area command is to oversee the management of a large or complex regional incident and coordinate the allocation of resources in support of the incident and the unified command. Typically, incident commanders in a unified command structure (Federal and State) report to the area command. If an area command is absent, they report to Raleigh, NC or Fort Collins, CO offices or the SPRO and SPHD of the affected State.

PPQ's field operations provides area command support for the States identified in the Field Operations Organizational Chart.
(https://www.aphis.usda.gov/plant_health/downloads/orgcharts/fieldoperations.pdf).

Multiagency Coordination

Multiagency Coordination (MAC) coordinates agencies at the State, regional, or national level. The purpose of MAC is to oversee and coordinate groups of agencies in response to plant health emergencies of national significance.

Typically, MAC consists of Federal, State, and principals from other organizations with direct incident management responsibilities or with significant incident management support or resource responsibilities. These entities may facilitate incident management and policy coordination.

PPQ–PM provides national leadership and coordination to the MAC for plant health emergencies of national significance, including the following:

- Ensuring each involved agency is providing situation and resource status
- Establishing priorities between incidents and area commands in concert with the single incident command or unified command structures
- Acquiring and allocating resources required by incident management personnel
- Coordinating and identifying future resource requirements
- Coordinating and resolving policy issues
- Providing strategic coordination

Data Management
PPQ–ODA

The response to a plant health emergency involves the collection of detection, survey, control, treatment, and regulatory information in the affected area; adequate and timely identification of the plant pest or disease; and coordination of the appropriate emergency response to contain, control, and eradicate the pest or disease. Central to successful emergency coordination is the timely communication of information to responders and stakeholders throughout the process.

Accurate data collection, data analysis, and timely access to information are the foundation of the decision support processes used to manage plant health emergencies. A data management system designed to provide timely data collection, storage, integration, analysis, and reporting is also fundamental to managing plant health emergencies.

Integrated Plant Health Information System

PPQ uses the Integrated Plant Health Information System (IPHIS) to meet its domestic regulatory information management and reporting needs. IPHIS is a single data management system that enhances PPQ and cooperators' ability to coordinate and respond to plant pest/disease outbreaks, to minimize impacts from pests already established in the country, and demonstrate to trading partners that agricultural commodities meet export requirements. IPHIS is designed to provide a secure, Web-based application for all regulatory plant pest detection agricultural activities.

IPHIS provides an environment for gathering quality information from PPQ's core regulatory functions survey, regulatory, diagnostics, and control. It incorporates the relational data utilizing advanced mobile, database, and geographic information technologies. IPHIS leverages the data and makes the information available to key regulatory partners and stakeholders. New functionalities are built into the system based on user feedback. IPHIS also shares information with PPQ's agricultural quarantine activity systems.

PPQ also utilizes eTrap, Roam, and collector for ArcGIS (ESRI Collector).

Visit the APHIS Web site for more information.

Integrated Plant Health Information System
https://www.aphis.usda.gov/planthealth/iphis-info

Data Management Resources

In addition to IPHIS, PPQ has Data Management Resources (DMR) that, upon request to Field Operation's Data Management and Data Analysis Risk and Targeting (DART) staff, will provide on-site data support during plant health emergencies. The DMR becomes an integral part of the incident command infrastructure at the outset and during the early planning phase. Depending on the size and scope of the plant health emergency, the DMR are provided to ensure the correct data are collected using the appropriate tools and formats for a successful response. When the ICS is used, Data Management Resources (DMR) report to the planning section of the command and general staff. Resources requested may include specialists in data management, information technology, and Geographic Information Systems (GIS). In addition, FO has DMR and GIS specialists with national coverage areas to integrate and assist the incident command system.

Data management specialists provide the following:

- Coordinates and supports on-site data management for the emergency
- Identifies the data requirements (elements, collection, integration, analysis, evaluation, and reporting) necessary for an effective response to the plant health emergency
- Works with NOM and other working group members to design the survey template

Information technology specialists provide the following:

- Assembles on-site hardware, software, connectivity, and networks necessary to support the overall data management function

GIS specialists provide the following:

- Supports on-site GIS data integration and geospatial analysis of the data associated with the emergency response

Emergency Management Incident Situation Reports
PPQ–FO

Central to successful emergency coordination is timely communication of information to responding agencies, other Federal and State cooperators, stakeholders, and trading partners. Potential reports include:

- Incident action plan
- Incident situation
- Weekly situation
- Monthly summary

Incident Action Plan
For each operational period, the incident commanders in the unified command generate an incident action plan as soon as response activities begin. The plan formally documents incident objectives and the response strategy defined by the incident command and general staff during the response planning. The plan includes general strategies and tactics intended to achieve specific goals and objectives as well as facilitating the dissemination of critical information regarding response efforts. The plan is distributed to individuals directly involved with the emergency, including the command and general staff, FO, and national emergency response coordinators.

Incident Situation Report
Depending on the scope of the emergency, the incident command and general staff may be requested to submit an incident situation report. In addition to information in the daily incident action plan, the incident situation report includes survey and diagnostics, trace-back and trace-forward information, treatment information, and regulatory activities. This report, which is distributed on a need-to-know basis, also includes information of national significance such as trade, communication and outreach, technical, economic, and other biological and ecological information regarding the pest or disease.

Weekly Situation Report
This report replaces the incident situation report as information becomes less fluid and timely information can be provided weekly as determined by the MAC, area command, and unified command. The weekly report summarizes the pest status, regulatory activities, and results associated with the response.

Monthly Situation Report

This report replaces the daily and weekly situation reports as program activities become routine and when the MAC, area command, and unified command determine updates can be provided on a monthly basis. The monthly report includes a summary information regarding the pest status, regulatory activities, and long-term results associated with the response.

> *PPQ Emergency Response Manual*
> https://www.aphis.usda.gov/import_export/plants/manuals/emergency/downloads/epm.pdf

Regulatory Framework
PPQ–PM

The USDA is responsible for protecting plants and safeguarding American agriculture. The Plant Protection Act of 2000 (PPA) provides the USDA with the authority to regulate the movement of organisms that may pose a threat to agriculture into or within the United States. The PPA also provides the USDA with the authority to prevent the introduction, dissemination, or establishment of such organisms. APHIS–PPQ is the lead Federal agency providing safeguards against exotic plant pests threatening agriculture and natural systems.

The domestic regulatory framework is developed in collaboration with the affected State plant regulatory agencies. When less than the entire State is quarantined, both the Federal and State quarantine must, at minimum, be in parallel.

PPQ can exercise one or more of the following regulatory options in an effort to prevent the spread of plant pests and diseases of regulatory significance:

- Emergency Action Notification (EAN)
- Federal Order (FO)
- Interim rules
- Proposed and final rules

Emergency Action Notification

The EAN is a document issued by a PPQ inspector to notify an owner or agent of carrier, premises, and/or articles to apply specific remedial measures to prevent the potential spread of a plant pest or disease. An EAN can be used when dealing with a relatively small number of regulated entities.

Federal Order

Federal Quarantine Orders (FQO) or Federal Orders are issued by PPQ with the approval of USDA's Office of General Counsel (OGC). An FQO is used to stop or regulate the movement of articles from a defined geographical area to prevent the spread of plant pests and diseases. AN FQO can also be used to announce that a host will be regulated, expand existing quarantine regulations, or add to host lists under existing quarantine regulations. SPRO letters are used to transmit information regarding FQO's, program and regulatory updates, and the detection of new pests in addition to providing program and regulatory updates and detecting new pests.

Interim Rules

The interim rules are used to establish a new quarantine in the Code of Federal Regulations (CFRs) on an emergency basis or when prior public comment is not in the best interest of the public. Interim rules are issued by APHIS with OGC, departmental, and OMB review.

Proposed and Final Rules

These rules are used for the long-term regulatory requirements or maintenance of ongoing programs. These rules can also be used to approve new treatments or protocols for interstate movement of regulated articles under existing regulations.

APHIS issues proposed and final rules with OGC, USDA, and OMB review or clearance. The PPQ–PHP–Imports, Regulations, and Manuals (PHP– IRM) provides support and guidance to PPQ policy managers in selecting the most appropriate regulatory option based on the circumstances of the pest outbreak.

PPQ's PHP–IRM staff interfaces with the regulations writers in APHIS–PPD, USDA–OGC, OMB, and others involved in regulatory decision making to facilitate the development and codification of regulatory initiatives.

Protection of Human Health and the Environment
PPD–ERAS

A response to a plant health emergency situation may require the use of chemical control or some other eradication tools. Whenever such control techniques are proposed, several Federal laws must be considered prior to the initiation of the activity:

- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- Endangered Species Act (ESA)
- National Environmental Policy Act (NEPA)

Federal Insecticide, Fungicide, and Rodenticide Act

FIFRA requires that chemicals used for control have approved labels and that all label requirements are followed. These requirements can include applicable uses, maximum application rates, handling instructions, and personal protective equipment (PPE). If no label is available for the emergency in question (i.e., the pest of concern is not listed as one for which the chemical may be used), a new label or a label exemption may be obtained.

Endangered Species Act

ESA requires that all Federal actions, including emergency responses, must not harm federally protected, threatened, or endangered species. Before an action can begin, one must determine if protected species are in the project area, and if so, measures must be put in place to protect them from adverse effects of the action. Such work requires coordination with the U.S. Fish and Wildlife Service (FWS) or the National Marine Fisheries Service.

Several methods are available to ensure ESA compliance, but the exact method chosen is dictated by the nature of the emergency, the proposed response, and the location. In the earliest possible stage of the response, Policy and Program Development's Environmental and Risk Analysis Services (PPD– ERAS) and PHP's Environmental Compliance (PHP–EC) play critical

roles in providing the necessary guidance and in conducting the necessary analyses to develop the required documentation.

National Environmental Policy Act

NEPA requires that Federal agencies consider in writing the potential adverse effects of their actions, which often requires public input. The exact nature of the documentation and public involvement is dictated by the potential for adverse effects and the significance of those effects.

Most emergency responses will include actions that require up to 30 days of public comment prior to initiation of the action. Thus, PPD's ERAS and PHP's EC staffs must be involved early in the process of planning a response so the required public involvement can be put into place and not hinder the speed of the response.

The first step is Environmental Assessment (EA), which can be completed in a few months leading to a Finding of No Significant Impact (FONSI), in which case, the NEPA requirements are met. If the initial assessment finds significant impact on the environment or human health, an Environmental Impact Statement (EIS) must be completed, which can take several years to complete.

State and Local Environmental Laws

The state plant health regulatory agency in the affected State is responsible for contacting the State and local agencies with jurisdiction over environmental and human health to determine the applicable non-Federal laws.

All-Hazards Emergency Support Function
PPQ–FO

The Federal Emergency Management Agency's (FEMA) mission is to support our citizens and first responders to ensure that, as a nation, we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards. Coordinates the response to all-hazard emergencies, including natural catastrophes such as hurricanes, tornados, tsunamis, earthquakes, and volcanic eruptions.

The FEMA National Response Framework (NRF) is a guide to how the nation responds to all types of disasters and emergencies. It is built on scalable, flexible, and adaptable concepts identified in NIMS to align key roles and responsibilities across the nation. The NRF describes the principles, roles, and responsibilities, and coordinating structures for delivering the core capabilities required to respond to an incident and further describes how response efforts integrate with those of the other mission areas. **This framework is always in effect and describes the doctrine under which the nation responds to incidents**. The structures, roles, and responsibilities described in this Framework can be partially or fully implemented in the context of a threat or hazard, in anticipation of a significant event, or in response to an incident. Selective implementation of the NRF's structures and procedures allows for a scaled response, delivery of the specific resources and capabilities, and a level of coordination appropriate to each incident.

The NRF may be activated in response to one or more of the following:

- A Federal department or agency acting under its own authority has requested the assistance of the Secretary of Homeland Security
- The resources of State and local authorities are overwhelmed and Federal assistance has been requested by the appropriate State and local authorities responding to a major disaster or an emergency as defined under the Stafford Act or a catastrophic incident
- More than one Federal department or agency has become substantially involved in responding to an incident
- The Secretary of Homeland Security has been directed to assume responsibility for managing a domestic incident by the President

Different Federal departments or agencies lead the coordination of the Federal government's response depending on the type and magnitude of the incident. The lead agencies are also supported by other agencies bringing relevant capabilities to bear in responding to the incident. For example, FEMA leads and coordinates Federal response and assistance when the President declares a major disaster or emergency under the Stafford Act. Federal agencies are assigned support functions on the basis of authorities, resources, and capabilities.

The following 15 numbered Emergency Support Functions (ESF) are assigned to Federal agencies:

1. Transportation
2. Communications
3. Public works and engineering
4. Fire fighting
5. Information and planning
6. Mass care, emergency assistance, temporary housing, and human services
7. Logistics
8. Public health and medical services
9. Search and rescue
10. Oil and hazardous materials response
11. Agriculture and natural resources
12. Energy
13. Public safety and security
14. Superseded by the National Disaster Recovery Framework
15. External affairs

USDA has delegated to APHIS the lead for ESF 11, and two of the five primary functions are:

- Responding to animal and agricultural health issues
- Providing technical expertise in support of animal and agricultural emergency management

APHIS has ESF 11 structure at the national and field levels, including one ESF 11 coordinator to each of the 10 FEMA Regions. The ESF 11 Coordinator works with States, territories, Tribes,

and locals, in addition to other Federal programs and FEMA. The APHIS Emergency Preparedness Committee (EPC) accomplishes ongoing, consolidated, APHIS-wide, prevention and preparedness activities on behalf of the Administrator. APHIS programs have senior level (typically Senior Executive Service) member on the EPC. The EPC is charged with coordinating the agency's overall response and contribution of resources during an ESF 11 activation to an all-hazard emergency.

FEMA National Incident Management https://www.fema.gov/national-incident-management-system
All-Hazards Emergency Support Function 11 (ESF-11) https://www.fema.gov/pdf/emergency/nrf/nrf-esf-11.pdf

Chapter 6: Recovery

Introduction

During an ongoing response and after an emergency response is complete, Plant Protection and Quarantine (PPQ) works with Federal agencies; State, Tribal, and local governments; and the private sector to develop and implement systems designed to provide long- term stability and protection from the pest or disease that caused the emergency. Recovery includes plant health regulations, eradication, best management practices, and restoration plans.

PPQ's recovery activities include the following:

- Long-term protection plan
- Demobilization
- National Plant Disease Recovery System (NPDRS)
- Science-based methods and technology
- Outreach

Long-Term Protection Plan
PPQ–PM

PPQ works with State, Federal, and Tribal agencies, industry, and stakeholders to develop and implement long-term plans designed to prevent further domestic plant health emergencies from occurring. The long-term plan could include one or more of the following strategies:

Eradication

Eradication programs are designed to eliminate the pest and the risks associated with its spread to other areas or States. Eradication is considered provided the biology and epidemiology of the pest supports this approach, the necessary tools are available, and the effort is financially and operationally feasible. Examples of eradication programs include programs for exotic fruit flies, the European grapevine moth, plum pox virus, the Asian long-horned beetle, the pale cyst nematode, the golden nematode, and the boll weevil.

Pest Mitigation

Pest-mitigation programs are designed to mitigate the damage, risk, and economic impact of pests that are extremely difficult to control and almost impossible to eradicate. Examples of pest-mitigation programs are those for the emerald ash borer, European gypsy moth, Japanese beetle, and *Phytophthora ramorum*. Mitigation practices are based on the following:

- Voluntary or nonvoluntary
- Critical control points

For example, the *Phytophtera ramorum* program uses a systems approach to address the pathogen's continued presence in certain nurseries. This approach includes intensive surveillance for the disease at the nursery and, if the pathogen continues to be detected, the mandatory adoption of measures designed to mitigate the pathogen's presence at certain critical points in the nursery's production system. The European gypsy moth's "Slow-the-Spread" program uses a trap and lure system to determine the front of the gypsy moth infestation. When determined,

Animal and Plant Health Inspection Service (APHIS) in conjunction with State and other Federal partners including the National Park Service and Forestry Service, works to deploy biological controls and additional trapping to detect and reduce pest populations. In addition, biological controls and sterile insect techniques have been developed and are in programmatic use for a variety of pests.

Integrated Pest Management

Integrated Pest Management (IPM) plans are designed to suppress the pest population below economic levels utilizing various tools and strategies. Many of the tools may be developed by PPQ with Federal and State cooperators and transferred to producers for implementation. Examples of IPM approaches include the programs for soybean rust, white fly, cherry blossom moth, and sugarcane rust.

Regulations

Developed regulations can include control over the movement of restricted commodities, treatment to reduce pest populations on the commodity, or the use of plow-down dates for crop destruction to disrupt the life cycle of the pest in question. These examples of regulations are some of the methods used to facilitate the movement of commodities to their destinations.

Regulatory Framework

The regulatory framework supports both eradication and pest mitigation and can include interim, proposed, and final rules or State regulatory authorities.

Interim Rules—used to establish a new quarantine in the Code of Federal Regulations (CFRs) on an emergency basis or when prior public comment is not in the best interest of the public

Proposed and Final Rules—used for the long-term regulatory requirements or maintenance of ongoing programs; can also be used to approve new treatments or protocols for interstate movement of regulated articles under existing regulations; issued by APHIS with USDA–Office of General Counsel (OGC) and U.S. Office of Management and Budget (OMB) review or clearance

Compliance Agreements—established with industry to ensure compliance with the regulations established to support the recovery

State Regulatory Authority—States are encouraged to take the initial lead on any new plant health emergency in a State to ensure a timely and effective response; federal regulatory authorities will simultaneously work with the States to ensure all necessary requirements are appropriately and expeditiously completed

Demobilization
PPQ–FO

 Demobilization refers to the process and procedures used by PPQ and cooperators to ensure orderly, safe, and efficient return of an incident resource to its original location and status. The following two criteria must be satisfied:

- All personnel are debriefed following demobilization, and the supervisor is notified of return to routine job duties
- Equipment and nonconsumable materials are inventoried, released, and returned to controlling agencies

Although demobilization of certain resources occurs throughout the incident, most demobilization activities occur after the emergency response.

APHIS Mobilization Guide

https://www.aphis.usda.gov/library/manuals/pdf/aphis_1050.pdf

National Plant Disease Recovery System
ARS–NPDRS

The National Plant Disease Recovery System (NPDRS) is mandated by Homeland Security Presidential Directive number 9 (HSPD-9). The purpose of NPDRS is to ensure the tools, infrastructure, communication networks, and capacity required for mitigating the impact of high-consequence plant disease outbreaks are available to allow a reasonable level of crop production.

Each disease-specific plan is intended to provide a brief primer on the disease, assess the status of critical recovery components, and identify disease management research, extension, and education needs. These documents are not intended to be stand-alone documents addressing all aspects of the plant disease outbreak and all decisions that must be made and actions taken to achieve effective response and recovery. They are, however, documents that will aid the U.S. Department of Agriculture (USDA) and guide others in further efforts directed toward recovery from a high-consequence plant disease. The plans are a cooperative effort of university, industry, and government scientists sponsored by the American Phytopathological Society and the USDA.

PPQ has been instrumental in assuring the NPDRS has engaged not only Federal, but State partners in developing strategies for recovery from all high-consequence plant health emergencies.

USDA–Agricultural Research Service–Office of Pest Management–National Plant Disease Recovery System
https://www.ars.usda.gov/crop-production-and-protection/plant-diseases/docs/npdrs/

Science-Based Methods and Technologies
Science-based methods and technologies require a scientific assessment that supports recovery strategies. The methods and technologies ensure the tools and methods are developed to achieve pest mitigation goals and strategies in an efficient and scientifically valid manner.

Outreach
Outreach to stakeholders and other interested parties is critical to a successful recovery. Working with the National Plant Board (NPB) and National Association of State Departments of Agriculture (NASDA), we can use the tactics described in the "Communication and Outreach" section of this document to keep all parties aware of recovery strategies, and overall progress, and ensure participation in public and industry meetings. Coordinated engagement ensures a

balanced recovery approach. In addition, recognition activities can be held to announce the end of a program (e.g., Asian longhorn beetle in Chicago, Illinois, plum pox virus (PPV) in Pennsylvania, and European grapevine moth (EGVM) in California).

Chapter 7: Roles and Responsibilities

Introduction

National Operations Managers (NOMs) in Field Operations (FO) and National Policy Managers in Policy Management (PM), as well as subject matter experts (SMEs) are involved in plant health emergency response and have specific roles and responsibilities. While personnel from all three core functional areas (CFAs) are expected to work together as a cross-functional working group, the overall leadership lies with the National Policy Manager in Riverdale, MD.

For the purposes of this document, emergency programs are those programs involving one or more of the following:

- Identifying and delimiting new outbreaks of a quarantine pest
- Coordinating with industry, Federal agencies, and State, Tribal, and local governments to organize and implement coordinated actions designed to contain, control, or eradicate a quarantine pest
- Coordinating the development of a domestic regulatory framework that quarantines the pest while facilitating interstate commerce of regulated articles that pose plant health risks
- Formulating and pursuing funding on an emergency basis (as needed)

Plant Protection and Quarantine (PPQ)–PM, Riverdale

National Policy Managers within Pest Detection and Emergency Programs (PDEP) provide leadership, overall direction, and guidance from the national perspective that includes, but is not limited to the following:

1. Executive decisionmaking support
   a. PDEP coordinates with FO, Science and Technology (S&T), various units within PM, and others to gather the critical information needed for the PPQ executive team to make decisions regarding the nature and goals of the emergency response when a quarantine pest has been detected. PDEP also ensures the States and critical stakeholders affected by the emergency response have had the opportunity to provide their perspective and input for the executive team's consideration.
2. Policy management
   a. Drafts program policy and recommendations for agency consideration
   b. Initiates communication and coordinates the development of program policy in alignment with the PPQ–New Pest Advisory Group (NPAG) recommendations and PPQ management team decisions regarding the nature and goals of the emergency response
   c. Initiates and coordinates consultation with Federal agencies and public and private organizations concerned with the emergency and response actions under consideration
   d. Consults with State, local, and Tribal governments

  e. Stays abreast of program status, changes, or evolving critical issues provided by the field and others

  f. Performs timely program reviews to ensure objectives are met and activities are cost effective

  g. Provides support to the Deputy Administrator on specific program issues as needed

3. Budget development

  a. Develops a budget for the program in consultation with the field and the States

    i. Initiates and facilitates the development of the budget for the emergency response and associated performance measures

    ii. Works with the Deputy Administrator's office through PPQ Resource Management and Planning Services (PPQ–RMPS) to secure funding

    iii. Works with the APHIS budget staff to complete the program assessment rating process, including the development of the performance measures to be reported to the U.S. Office of Management and Budget (OMB)

4. Program management and coordination; PHP provides the overall program coordination

  a. With PPQ–S&T to

    i. Initiate the NPAG report

    ii. Request New Pest Response Guidelines (NPRGs), for pests not known to occur in the U.S.

    iii. Determine if a technical working group (TWG) is needed to provide science-based recommendations

    iv. Identify and ensure PPQ–Center for Plant Health Science and Technology (CPHST) is charged with the scientific and technical aspects including identifying the priorities among the required activities for the emergency response

  b. In consultation with FO and others to ensure national consistency occurs on the following program operations:

    i. With Federal agencies; State, Tribal, and local governments; industry; and public and private organizations concerned with the emergency and response actions under consideration

    ii. With the APHIS ESF-11 national coordinator and the regional ESF-11 coordinators when an all-hazards incident impacts an emergency response program

5. Mobilization of resources available for consultation

6. Liaison with other resources as needed
    a. Ensures overall coordination occurs within PPQ and with other Federal agencies; state, local, and Tribal governments; industry; and public and private organizations involved in the emergency response. Coordinates with PPQ's plant health programs and APHIS' International Services (APHIS–IS) on programs that involve international activity.
7. Communication and collaboration; develops and maintains communication plans with APHIS–Legislative and Public Affairs (LPA), PPQ FO, and the PPQ Deputy Administrator's office as follows:
    a. Prepares information for APHIS and USDA executive leadership based on input from situation reports and other information compiled through the cross-functional working group (CFWG)
    b. Works with APHIS–LPA to issue press releases, pest alerts, and program brochures
    c. If determined appropriate, develops communications outlets using social media and the Internet
    d. Ensures appropriate public meetings are held in consultation with APHIS–LPA
    e. Prepares and sends out State Plant Regulatory Officials (SPRO) letters
    f. Convenes conference calls with the National Plant Board (NPB), PPQ leadership, and CFWG
    g. Coordinates with State Plant Health Directors (SPHDs) and the field in communicating with affected State, local, and Tribal agencies, industry, and stakeholders
    h. Coordinates with CFWG, and stakeholders to ensure a robust range of alternative actions are considered in response to the emergency
    i. Generates talking points, mini-memos, and other documents as needed
    j. Establishes and maintains the public Web page, when applicable, through information technology (IT) protocols
    k. Ensures all appropriate personnel at all levels of the organization are informed
    l. Ensures a consistent message is communicated by all levels of the organization with Federal Emergency Management Agency (FEMA) and other external entities regarding the coordination of the plant health emergency response program with a separate ESF-11, all- hazards response
    m. Manages and coordinates the relationships and communications with affected industry representatives at the national level
    n. Coordinates with the field managers to develop a consistent message to be communicated with industry and other stakeholders at the local level
    o. Coordinates with CFWG, the States, and APHIS–LPA in developing an outreach plan (includes coordinating with the media at the national level)
    p. Communicates any local political issues to FO and larger political issues to the Deputy Administrator's office

      q. Represents PPQ at program, stakeholder, and all applicable meetings

      r. Represents the agency's official position on program issues

8. Data management

      a. Ensures national-level deployment, integration, and coordination of data management teams in the emergency response

9. Regulatory framework development

      a. Works with PPQ–Plant Health Programs–Regulatory Coordination and Compliance (PPQ–PHP–RCC) to develop the regulatory framework governing the emergency response

      b. Determines which regulatory tool is most appropriate

      c. Works with FO and SPHDs to ensure Federal quarantines match actual pest distribution or the quarantines established and maintained by the States

      d. Verifies parallel State regulations are in place as required

      e. Facilitates the development of Federal Domestic Quarantine Orders

10. Environmental compliance requirements

      a. Works with field managers and the National Pesticide Coordinator to address potential environmental and treatment issues

      b. Works with APHIS's environmental services to address environmental issues

            i. Works with PPQ–PHP Environmental Compliance to conduct the appropriate National Environmental Policy Act (NEPA) and Endangered Species Act (ESA) analyses (environmental assessments, environmental impact statements, etc.) to ensure proposed actions will not adversely affect the quality of the human environment or threaten endangered species

            ii. Develops and coordinates environmental monitoring plans for the program

11. Issues management

      a. Engages PPQ's Phytosanitary Issues Management (PPQ–PIM) staff to address trade issues

      b. Manages the larger political and legal issues, coordinating with the PPQ Deputy Administrator, APHIS Administrator, and Undersecretary for Marketing and Regulatory Programs Business Services (MRPBS)

12. PPQ–S&T coordination

      a. Assures the work of the PPQ–TWG with the CFWG, ensuring it meets the technical needs of emergency response operations

      b. In cooperation with the CFWG, provide input to PPQ–S&T regarding the emergency response program's scientific and technical needs, identifies and establishes the priorities among all project requests, and monitors progress

      c. Initiates and coordinates routine communication with field managers and PPQ–S&T scientists working on the program

Field Operations

The primary role can be executed by a field operations director, assistant executive director, and other relevant field operations managers as needed to coordinate and implement operations among States as follows.

1. Implements agency policy
   a. Participates in the development of and is responsible for the implementation of the agency's policy and provides feedback to PPQ–PM regarding the effectiveness of the policy
2. Budget
   a. Works with the national policy manager, field managers, and FO director and budget analyst to develop the necessary program budgets
   b. Participates in the development of performance measures and provides documentation on program activities and performance measure information to the national policy manager to meet the monitoring and report requirements to the U.S. OMB via APHIS's policy and program development
   c. Provides status of funds and updated budget information to the national policy manager as program progresses
3. Program management coordination; Provides overall coordination at the field level and field perspective in the development of the overall
   a. Emergency response plan
   b. Budget (resource management)
   c. Communication plan
   d. Regulatory framework
   e. ESF-11 activities involving a plant health emergency program
   f. Field operations consistency within and among States and across regions
4. Resource management
   a. Develops the program- or field-level budget
   b. Identifies and ensures the impacted States receive the resources needed to effectively respond to the emergency
   c. Recruits additional personnel as needed
   d. Establishes and manages cooperative agreements in affected States
   e. Facilitates the procurement of equipment, supplies, vehicles, etc.
5. Resources mobilization
   a. Coordinates the deployment and management of resources (people, equipment, supplies, etc.) for the emergency response program and any associated ESF-11 response when needed
6. Trains, exercises, deploys, and coordinates incident management teams (PPQ–NIMTs); provides field and area command for the emergency response

7. Communication
    a. Communicates with SPHDs and SPROs on program issues and keeps field operations staff and national policy management staff informed
    b. Provides input on the daily and emergency situation report and ensures adherence with agency continuity and contingency plans
    c. Ensures the incident commander provides the incident situation report
    d. Participates in all policy and response coordination discussions
    e. Represents PPQ at local stakeholder and other meetings
    f. Advertises legal notice of the availability for comment of NEPA documents
    g. Communicates and coordinates with local emergency preparedness stakeholders to facilitate and support an effective incident command system response
    h. Represents the agency's official position on program issues
8. Data management
    a. Ensures deployment, integration, and coordination of data management teams as needed in the emergency response
    b. Coordinates with SPHD on the use of Smuggling Interdiction and Trade Compliance (SITC) and APHIS–Investigative and Enforcement Services (IES) expertise to support the emergency response, as needed (e.g., trace-backs, trace-forwards) to discover pathways and to identify any regulatory compliance issues associated with new pest introduction or to conduct investigations
9. Regulatory framework
    a. Works with PPQ policy managers to assist in the development the domestic regulatory framework governing the program
    b. Works with the field and SPHDs to ensure Federal quarantines match actual pest distribution or the quarantines established and maintained by the States
10. Environmental compliance
    a. Works with field and local operations staff to address environmental issues
    b. Works with PPQ's policy managers, the environmental compliance unit, and APHIS environmental services to develop appropriate environmental documentation (environmental assessments, environmental impact statements, etc.) as needed.
11. Issue management
    a. Manages and communicates stakeholder concern, political, and legal issues to the attention of agency national leadership
        i. Engages PPQ–PHP and DA–PIM staff to address trade issues
        ii. Engages PPQ–PHP and Quarantine Policy Analysis and Support (QPAS) to address overseas monitoring of domestically regulated pests (e.g., gypsy moth program)
        iii. Manages and communicates to national leadership on overarching issues that emerge

State Plant Health Directors

The primary role of the SPHD is to coordinate the Federal emergency response with the appropriate State, local, and Tribal officials.

1. Unified command and incident management
   a. Serves as first responder and co-leads with the appropriate State official in the unified command structure. The SPHD coordinates the implementation of the emergency response plan (survey, control, regulatory framework) at the field level
   b. Participates with the CFWG to develop the following:
      i. Emergency response plan
      ii. Budget
      iii. Communications plan
      iv. Regulatory framework
2. Resource management
   a. Deploys resources and ensures efficient and effective use of resources in the field
   b. Ensures proper communication and coordination with field managers for resources beyond the local capacity
3. Communication
   a. Generates and communicates daily status reports following the communication protocols established by the incident commanders as specified by the Plant Health Emergency Framework
   b. Procedures for emergency situation and spot reports for effects to our operations, facilities, and employees is dictated in *Departmental Manual 1800*
   c. Initiates any consultations with State, local, and Tribal governments
   d. Participates in all policy and response coordination discussions
   e. Ensures all field personnel are kept informed of changes in policy direction
   f. Advertises legal notice of the availability for comment of NEPA documents
   g. Provides feedback to the field and national policy managers on the effectiveness of program policy and operations
   h. Communicates with the affected constituencies within the State
   i. Represents the agency's official position on program issues
   j. Conducts Tribal consultations
4. Data management
   a. Ensures quality data are collected and entered into the established system on a daily basis
   b. Keeps the incident commanders informed of progress being made in the field and to support daily operational planning decisions
   c. Coordinate to ensure the proper data collect and management devices are sufficient

5. Issues management
    a. Addresses local political and public issues
    b. Keeps the field and national policy managers informed
    c. Elevates issues with broader implications to the field or national level

Center for Plant Health, Science, and Technology

The primary role of S&T is to provide technical and scientific information. This information will be used to make regulatory and operations decisions and to develop new tools and technologies for operational use.

1. Coordinates with the National Identification Service (NIS) to identify or confirm the identification of exotic pests with appropriate tools utilizing the best available science and provides others laboratory services and subject matter expertise as needed
2. Pest Analysis
    a. Conducts a preliminary risk assessment to
        i. Identify the host range of the pest
        ii. Identify the potential pathways for pest introduction and spread
        iii. Determine the likelihood of establishment in the United States
        iv. Identify and calculate the impacts associated with a pest
    b. Provides information to field operations or the national policy manager regarding trace-forwards or trace-backs, if needed, to determine if stop sale or recalls are required
    c. Identifies currently available survey and control tools
3. Develops the NPAG report to recommend the most appropriate response to a detection of a pest of regulatory significance
4. Provides leadership for a TWG
    a. PPQ–S&T acts as liaison with USDA–Agricultural Research Service (ARS), universities, and other research organizations
    b. Provides guidance and develops strategy and tools to detect and identify the pest and to conduct delimiting surveys
    c. Provides scientific input on the size of quarantine areas based on the biological and ecological parameters of the pest
    d. Provides recommendations on effective tools designed to contain, control, or eradicate the pest
    e. Provides recommendations on other scientific and technical issues
5. Develops and provides appropriate and efficacious methods
    a. To mitigate a plant pest incursion
    b. To adapt or improve detection technology for plant pests
    c. To adapt or improve identification technology for plant pests

6. NPRGs
    a. Provides the technical and scientific support in the development of the NPRGs to support the emergency response operations
7. Liaison role
    a. Coordinates with other entities to obtain needed scientific and technical resources
    b. Coordinates with the National Plant Diagnostic Network (NPDN) to identify their labs' capacity to assist and determine the NPDN contribution during an emergency program
8. Provides technical transfer training
    a. Provides training to all necessary units and personnel in PPQ and elsewhere on the survey and provides identification methods to ensure successful outcomes
    b. Develops technical documentation to support the ongoing application of the technical tools provided
9. Program management
    a. Works with program managers to develop and prioritize the project slate to support the emergency response
10. Communication
    a. Provides information to program managers regarding the ongoing status of scientific and technical projects that PPQ– CPHST is charged to deliver

Chapter 8: State Plant Protection Resources

Introduction

State departments of agriculture, territories, and possessions are members of the National Association of State Departments of Agriculture (NASDA). The mission of NASDA is to represent the State departments of agriculture in the development, implementation, and communication of sound public policy and programs that support and promote the U.S. agricultural industry, while protecting consumers and the environment. NASDA works closely with the U.S. Department of Agriculture Animal and Plant Health Inspection Service (USDA–APHIS) and the plant protection branches of the States via a standing committee dedicated to plant health issues. NASDA maintains a Web site containing information on each member State. For further information, refer to the NASDA Web site.

The plant protection and regulatory subdivisions within their departments of agriculture or other relevant subdivisions—such as the departments of natural resources or entomology at land-grant universities—are members of the National Plant Board (NPB), a national organization of State and territory plant protection resources that work regionally and nationally with USDA–APHIS to coordinate and carry out plant protection programs. The NPB also maintains a Web site containing contact information for each member State and territory and up-to-date information on laws, rules, and programs. For further information, refer to the NPB Web site.

National Plant Board (NPB)
http://nationalplantboard.org/

State Authorities

State plant protection and regulatory authorities are generally designed to address regulatory issues within the State's jurisdiction. These regulatory issues include the intrastate movement of plants and plant products and the interstate movement of plants and plant products in the absence of APHIS regulations for pests of limited distribution. Intrastate regulations generally conform to the model Nursery Stock Certification Standards and the Principles of Plant Quarantine that have been adopted by the NPB. When APHIS interstate regulations are in place, the State, territory, or possession internal or intrastate requirements must be similar to the Federal regulatory measures.

While State, territory, or possession plant protection laws and rules vary somewhat depending upon the regulatory needs of the stakeholders, in most cases, they include a plant health emergency authority to respond to new plant pests of economic importance when detected. Additional related authorities at the State level may provide the authority to enter onto private properties for inspection purposes and the ability to stop the intrastate movement of regulated articles at risk of moving plant pest or disease.

Many States can require regulated entities to maintain records or can subpoena records of regulated entities. Many States can also conduct control activities and operations.

Refer to the Web sites of NPB and NASDA for further information concerning State, territories, and other possessions.

National Association of State Departments of Agriculture (NASDA)
http://www.nasda.org/
National Plant Board (NPB)
http://nationalplantboard.org/

State, Territory, and Possession Protection Duties and Responsibilities

State departments of agriculture, territories and possessions (through their plant protection and regulatory divisions) have the responsibility to carry out general pest detection activities and have the authority and ability to respond to new plant pests or disease incursions. The level of response varies depending upon the resources available in the State, territory, or possession.

Generally, when a new pest or disease is detected and identified as being of economic importance or possibly requiring a prescribed response, an agricultural plant health emergency is declared by the appropriate State official. This allows the release of plant health emergency response resources to apply to the specific plant pest issue.

Plant health emergency response typically takes the form of a Plant Health Emergency Program involving survey, regulations, control, public relations, and administrative sections. The current structure used in most plant health emergency response programs is the Incident Command System (ICS). The use of ICS has many advantages including standardization and coordination of response functions that can allow for a multistate and joint Federal response (unified command) using a standardized framework. Refer to the Incident Command System on page 31 for further information.

Refer to the Web sites of NPB and NASDA for further information concerning State, territory, and possession plant protection resources and responsibilities.

National Association of State Departments of Agriculture (NASDA)
http://www.nasda.org/
National Plant Board (NPB)
http://nationalplantboard.org/

State and Federal Cooperative Agreement Program

A combined State and Federal coordinated response is often the best approach to effectively address the duties and responsibilities required to safeguard U.S. plant health. When APHIS funding is transferred to a State, partnership programs are carried out through the cooperative agreement process.

The cooperative agreement process is initiated at the State level between APHIS and the State departments of agriculture. The officials include the State Plant Health Directors (SPHD) and the State Plant Regulatory Officials (SPRO). A cooperative agreement is comprised of the agreement document, workplan, and a financial plan and requires semi-annual and annual reporting.

The workplan and financial plans are important because they describe the scope of the work, division of labor, and the financial obligations or budget. Cooperative agreements are an important part of the *Plant Health Emergency Response Framework*. The agreements are developed by the appropriate State and Federal plant health emergency program managers and

fiscal officers with knowledge of the program being developed and the cooperative agreement process.

Refer to the Web site of the Agreements Services Center (ASC) for further information on the cooperative agreement process.

Financial Management Division (FMD), Financial Services Branch, Agreements Services Center (ASC)
https://www.aphis.usda.gov/aphis/ourfocus/business-services/financial-management-division/financial_services_branch/agreements_service_center/asc

Glossary

Use this glossary to find the meaning of specialized words, abbreviations, acronyms, and terms used by Plant Protection and Quarantine Pest Detection and Emergency Programs (PPQ–PDEP). To locate where in the manual a given definition, term, or abbreviation is mentioned, refer to the Index.

Definitions, Terms, and Abbreviations

AAR/IP. After Action Report/Improvement Plan

AC. Area Command

AgSas. USDA–Agriculture Select Agent Services

AMS. Agricultural Marketing Service

APHIS. USDA–Animal and Plant Health Inspection Service

APS. American Phytopathological Society

APTL. DHS–CBP–Agriculture Programs and Trade Liaison

AQAS. Agricultural Quarantine Activity System, a Web database

AQI. CPHST–Agricultural Quarantine Inspection

AQIPT. USDA–PPQ–CPHST–Agricultural Quarantine Inspection and Port Technology

ARM. Agriculture Risk Management

ARS. USDA–Agricultural Research Service

ASC. Agreements Services Center

BIWAC. Biosurveillance Indications and Warning Analytic Community

CAPS. Cooperative Agricultural Pest Survey Program

CBP. U.S. Department of Homeland Security–Customs and Border Protection

CCC. Commodity Credit Corporation

CDC. HHS–Centers for Disease Control and Prevention

CFA. Core Functional Areas

CFIA. Canadian Food Inspection Agency

CFR. Code of Federal Regulations

CFWG. Cross-Functional Working Group

CITES. Convention on Internal Trade of Endangered Species of Flora and Fauna

CONUS. Continental United States

CPHST. Center for Plant Health Science and Technology

CSREES. Cooperative State Research, Education, and Extension Service

DA. Deputy Administrator

DART. PPQ–FO–Data, Analysis, Risk, and Targeting

DHS. U.S. Department of Homeland Security DEE. Declaration of Extraordinary Emergency

DFO. Director of Field Operations

DMR. Data Management Resources

DMT. Data Management Team

DOD. Department of Defense

DOJ. U.S. Department of Justice

EA. Environmental Assessment

EAN. Emergency Action Notice

EC. PHP–Environmental Compliance

EGVM. European Grapevine Moth

EIS. Environmental Impact Statement

EPC. Emergency Program Coordinator

EPICA. Exotic Pest Information Collection and Analysis

EPPO. European and Mediterranean Plant Protection Organization

EQS. Employee Qualification System

ERAS. APHIS–PPD–Environmental and Risk Analysis Services

ERC. Emergency Response Coordinator

ES. Environmental Services

ESA. Endangered Species Act

ESF. Emergency Support Functions

FDA. U.S. Food and Drug Administration

FEMA. Federal Emergency Management Agency

FIFRA. Federal Insecticide, Fungicide, and Rodenticide Act

FMD. Financial Management Division

FO. PPQ–Field Operations

FONSI. Finding of No Significant Impact

FQO. Federal Quarantine Order

FSIS. USDA–Food Safety and Inspection Service

FWS. U.S. Fish and Wildlife Service

GCSI. Greater Caribbean Safeguarding Initiative

GIS. Geographic Information Systems

HHS. U.S. Department of Health and Human Services

HSEEP. Homeland Security Exercise and Evaluation Program

HSPD. Homeland Security Presidential Directives

ICE. Immigration and Customs Enforcement

ICS. Incident Command System

IES. APHIS–Investigative and Enforcement Services

IMSD. NIMS–Incident Management Systems Division

IMT. Incident Management Team

IPHIS. Integrated Plant Health Information System

IPM. Integrated Pest Management

IPPC. International Plant Protection Convention

IRM. PHP–Imports, Regulations, and Manuals

IT. Information Technology

LPA. Legislative and Public Affairs

MAC. Multiagency Coordination

MDB. CPHST–Molecular Diagnostics and Biotechnology

MRPBS. APHIS–Marketing and Regulatory Programs Business Services

NAPIS. National Agricultural Pest Information System

NAPPO. North American Plant Protection Organization

NASDA. National Association of State Departments of Agriculture

NBIC. National Biosurveillance Inegration Center

NEPA. National Environmental Policy Act

NIFA. National Institute for Food and Agriculture

NIMS. National Incident Management System

NIMT. PPQ–National Incident Management Team

NIS. PPQ-National Identification Service

NOM. National Field Operations Manager

No-year funding. Funding that can be carried over and will remain with the program

NPAG. PPQ–New Pest Advisory Group

NPB. National Plant Board

NPDN. National Plant Diagnostic Network

NPDRS. National Plant Disease Recovery System

NPPO. National Plant Protection Organization

NPRG. New Pest Response Guidelines

NRF. National Response Framework

OBPA. USDA–Office of Budget and Program Analysis

OCONUS. Outside the continental United States

ODA. Office of the Deputy Administrator

OGC. USDA–Office of General Counsel

OIG. USDA–Office of the Inspector General

OMB. U.S. Office of Management and Budget

OPIP. Offshore Pest Information Program

OPIS. Offshore Pest Information System

PAPP. Perimeter Approach to Plant Protection

PAS. NAPPO–Phytosanitary Alert System

PCC. Permitting and Compliance Coordination

PDC. PPQ–Professional Development Center

PDEP. Pest Detection and Emergency Programs

PEQ. Postentry Quarantine

PERAL. CPHST–Plant Epidemiology and Risk Analysis Laboratory

pest. includes insects and other arthropods, weeds, plant disease agents, and microorganisms

pest exclusion. preventive measures to keep exotic pests out of the country or out of a state

PestID. database containing all the information recorded from the PPQ Form 309 Pest Interception Record

PHP. PPQ-Plant Health Programs

PIM. Phytosanitary Issues Management

PIS. Plant Inspection Station

PM. PPQ–Policy Management

POP. PHP–Preclearance and Offshore Programs

PPA. Plant Protection Act of 2000

PPD. APHIS–Policy and Program Development

PPE. Personal Protective Equipment

PPQ. APHIS–Plant Protection and Quarantine

PPV. Plum Pox Virus

QPAS. PHP–Quarantine Policy Analysis and Support

RAD. PPD–Regulatory Analysis and Development

RCC. Regulatory Cooperation Council

REM. Regional Emergency Management

RMPS. PPQ–Resource Management and Planning Services

RPM. PHP–Regulatory Permits and Manuals

SBML. Systematic Botany and Mycology Laboratory

select agents. pathogens that have been deemed a severe threat to the public, animal or plant health, or animal or plant products

SEL. USDA–ARS–Systematic Entomology Laboratory

SITC. Smuggling Interdiction and Trade Compliance

SME. Subject Matter Expert

SNICAS. SITC–National Information and Communication System

SNL. Systematic Nematology Laboratory

SRA. Security Risk Assessment

SPHD. State Plant Health Director

SPRO. State Plant Regulatory Official

S&T. PPQ- Science and Technology

TED. APHIS–Marketing and Regulatory Programs Business Services–Human Resources Division–Training and Employee Development

TWG. Technical Working Group

UC. Unified Command

USDA. United States Department of Agriculture

USFS. United States Forest Service

weather events. state of the atmosphere with respect to wind, temperature, cloudiness, moisture, and pressure

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