

# **Pest Surveillance and the Detection of Exotic Pests In the United States**



# **Vigilancia de Plagas y Detección de Plagas Exóticas en los Estados Unidos**



# **La Surveillance et la Detection des Maladies et Ravageurs Exotiques aux Etats Unis**



Offshore Preclearance



Port Inspections



Domestic Surveys



# Pest Surveillance



*Keep our own country's  
agriculture and  
environment safe*

*Satisfy other countries that  
our agricultural commodities  
are safe*



## Pest Surveillance

- Our Pest Surveillance Program supports APHIS' goal of safeguarding U.S. agricultural and environmental resources by ensuring that new introductions of harmful plant pests and diseases are detected as soon as possible, before they have a chance to cause significant damage.
- A strong domestic agricultural pest detection system is an essential element, and provides a continuum of checks from offshore preclearance programs, domestic port inspections, and surveys in rural and urban sites across the United States.



## ISPM 6: Guidance for Surveillance (1997)

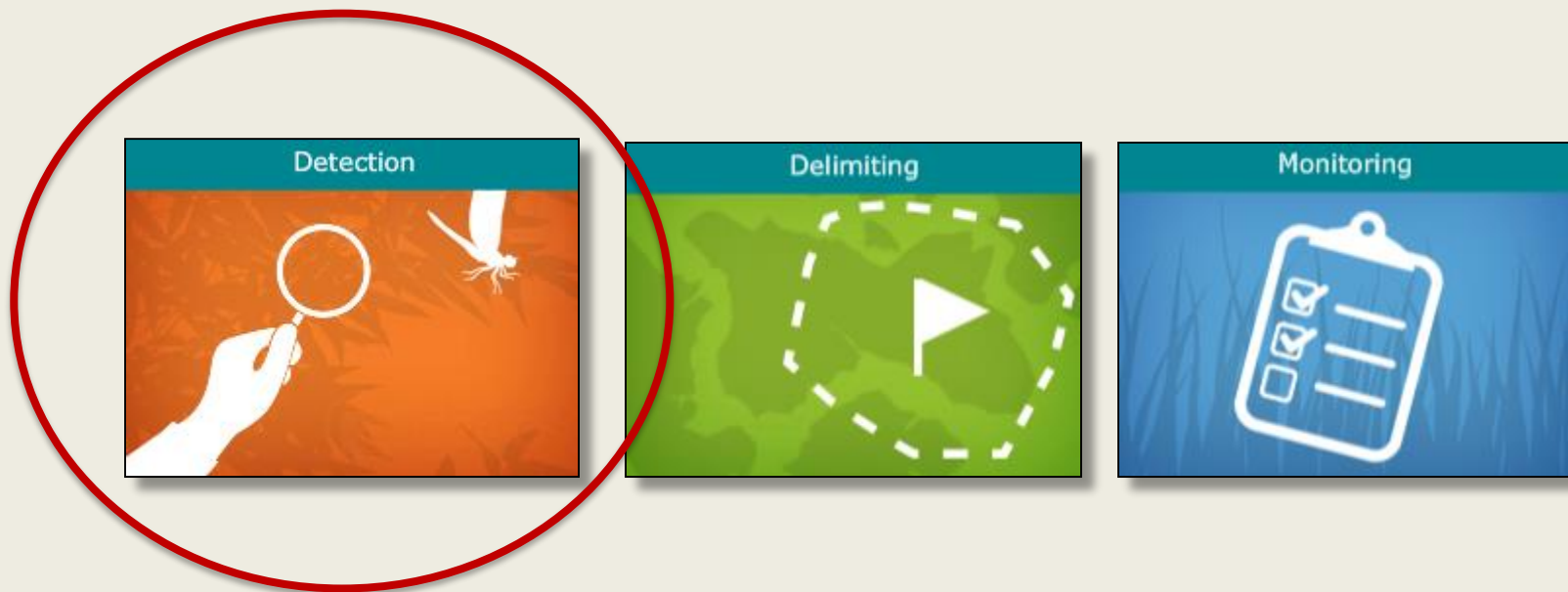
- There are two major types of surveillance systems:
- **General Surveillance**
  - Involves gathering any current information about the pest you are monitoring from as many accurate and reliable sources as possible.
- **Specific Surveys**
  - Specific surveys are procedures by which NPPOs obtain information on pests of concern on specific sites in an area over a defined period of time
- The verified information acquired may be used to determine the presence or distribution of pests in an area, or on a host or commodity, or their absence from an area (in the establishment and maintenance of pest free areas)



# Pest Surveillance – Specific Surveys

There are three general types of surveys:

Detection, Delimiting, and Monitoring





# PPQ Pest Surveillance Programs - Domestic

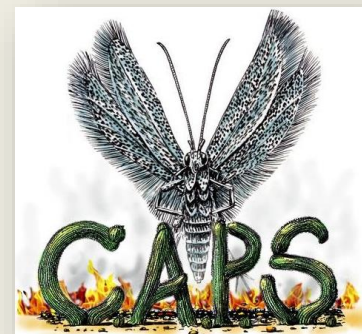
- Established Domestic Programs

- *Emerald Ash Borer*
- *Asian Longhorned Beetle*
- *Citrus Pests and Pathogens*
- *Pale Cyst Nematode*
- *Fruit Flies*



- Cooperative Agricultural Pest Survey (CAPS)

- *Exotic Pest Detection*



## Cooperative Agricultural Pest Survey (CAPS)

- The Program uses a multi-pronged strategy:
  - A structured, transparent assessment process to identify pest threats,
  - Development of scientifically sound pest diagnostics and survey protocols,
  - Providing survey materials (traps, lures, etc.),
  - Conducting the actual pest surveys,
  - Timely reporting of pest survey results,
  - Ensuring that the data collected is valid, of high quality, and verifiable, and
  - Notification of significant pest detections through established protocols.

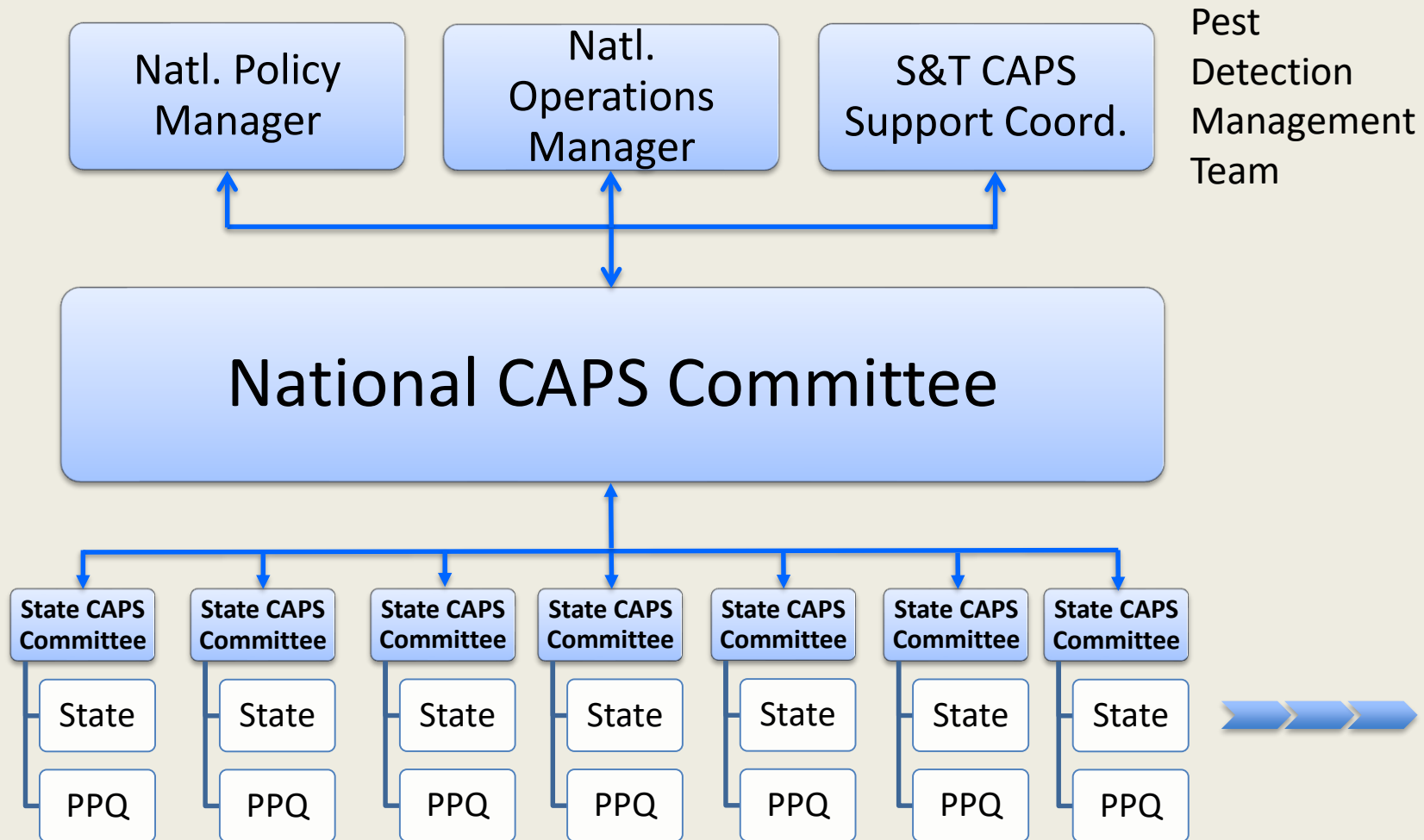


## Cooperative Agricultural Pest Survey (CAPS)

- Conduct science-based national and state surveys
- Target specific exotic plant pests identified as threats to U.S. agriculture and/or the environment
  - Pests → Insects, Plant Pathogens, Mollusks, and Weeds
- Surveys accomplished through a network of cooperators
  - State departments of agriculture / natural resources
  - Universities
  - Other cooperators
  - PPQ state offices



# Cooperative Agricultural Pest Survey (CAPS)



# Cooperative Agricultural Pest Survey (CAPS) Program

- Focus on the early detection of exotic plant pests
  - ✓ Pests not yet present in the U.S. or of a very limited distribution, and
  - ✓ Likely to have a high impact if established in terms of environmental or economic consequences



# Cooperative Agricultural Pest Survey (CAPS) Program

- Focus on exotic pests
  - ✓ Not native, widely distributed or established
  - ✓ Not PPQ Program pests
- First line of defense against the domestic establishment of harmful plant pests, pathogens, and weeds



# Surveys

- The emphasis is on multi-pest surveys
  - ✓ The survey must concentrate on multiple, high priority pests for efficiency and economy of survey
  - ✓ The survey must include pests from the CAPS Priority Pest List
  - ✓ Pests of importance to a State not on the Priority Pest List, but in common with the other pests, may be included



# Pest Surveillance

- **Conduct surveys for pests and pathogens that should not be present, and we hope we do not find!**
- **Negative data is very important!**
  - Saves the cost of eradication or management
  - Potential to facilitate trade and the designation of pest-free areas, and
  - Supports official control programs







## Cooperative Agricultural Pest Survey

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## CAPS Resource and Collaboration Site



The Pest Detection program supports APHIS' goal of safeguarding U.S. agricultural and environmental resources by ensuring that new introductions of harmful plant pests and diseases are detected as soon as possible, before they have a chance to cause significant damage. 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 in rural and urban sites across the United States.... [Read more](#)

### CAPS Recognition

Individuals receive recognition from their peers and the CAPS community for being continually engaged in the CAPS Program at a high level, and for their contributions and outstanding efforts in support of the CAPS Program in their states. The CAPS Recognition pages showcase the individuals and their achievements: [2017](#) [2016](#) [2015](#) [2014](#) [2010](#)



### Welcome



**Ekaterina Nikolaeva**  
[enikolaeva@pa.gov](mailto:enikolaeva@pa.gov)

CAPS Coordinator  
Pennsylvania Department of Agriculture

Katya Nikolaeva is Pennsylvania CAPS Coordinator with Pennsylvania Department of Agriculture. Katya received her PhD in Cell Biology from Moscow State University. In 2004, she came to PDA Plant Health Division as a PSU Postdoc to support department with development and deployment of modern diagnostic tools and to conduct state and national surveys for high-risk plant pathogens. Three years ago, she joined PDA Plant Health Division and now is serving as Plant Inspection Program Specialist and Molecular Plant Pathologist. Katya loves to travel inside the US and internationally. At home, she enjoys decorating, organic gardening, and canning food.



**Tom Gere**  
[tom.gere@state.sd.us](mailto:tom.gere@state.sd.us)

State Plant Regulatory Officer  
South Dakota

Tom Gere has been with the SD Department of Agriculture for 13 years and is the Assistant Director of Division of Agricultural Services. He previously held the position of Agronomy Services Manager for the Feed, Fertilizer, Pesticide and Recycling programs within the department. He is currently a Certified Crop Advisor (CCA) and has a position on the SD CCA Board of Directors. He has been married for 18 years and has two sons, ages 16 and 13. He enjoys hunting, fishing, and golfing.



**Tiffany Pahs**  
[tpahs@agr.wa.gov](mailto:tpahs@agr.wa.gov)

State Survey Coordinator  
Washington

### CAPS Partner Login

Enter your Username and Password

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## National Pest Surveillance Guidelines - 2017

☐ 2017

- [Guidelines Letter](#)
- [National Pest Surveillance Guidelines](#) ←

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## Cooperative Agricultural Pest Survey (CAPS) 2017 National Pest Surveillance Guidelines April 22, 2016

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### INTRODUCTION

The purpose of these guidelines is to provide pest surveillance direction for the Cooperative Agricultural Pest Survey (CAPS) Program. These guidelines are for State Departments of Agriculture, state Plant Protection and Quarantine (PPQ) personnel, tribal governments, and collaborators that conduct pest surveillance activities with Pest Detection (and Farm Bill Goal 1 Survey - National Priority Surveys) funding. These guidelines and the referenced resources provide general and specific direction on Program processes and how pest surveillance activities should be conducted. Questions concerning current or yearly survey activities may be obtained from the National Survey Coordinator in Policy Management, National Operations Manager for Pest Detection, or members of the National CAPS Committee (NCC).

### MISSION

The mission of the Cooperative Agricultural Pest Survey (CAPS) program is to provide a survey profile of exotic plant pests in the United States deemed to be of [regulatory significance](#) to the United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ), State Departments of Agriculture, tribal governments, and other cooperators through early detection and surveillance activities by:

- Confirming the presence or absence of environmentally and/or economically harmful plant pests that impact agriculture, the environment, or our natural resources and that have potential to be of phytosanitary significance; and
- Establishing and maintaining a comprehensive network of cooperators and stakeholders to facilitate our mission and to safeguard our American plant resources.

The CAPS program strives to conform to the [International Standards for Phytosanitary Measures](#) (ISPMs) as adopted by [The International Plant Protection Convention](#) (IPPC). The IPPC is an international plant health agreement, established in 1952, that aims to protect cultivated and wild plants by preventing the introduction and spread of pests. The United States is a signatory to The Convention.

### PROGRAM OVERVIEW & ORGANIZATION

Central to the success of the CAPS program is clarity about the roles and responsibilities of all parties involved in cooperative surveys. This includes surveys conducted by PPQ and state cooperators funded through the Pest Detection line item (and Farm Bill Goal 1 Survey). While the focus of these survey guidelines is primarily directed to PPQ state offices and state cooperators, it also extends to universities, tribal governments, and,



# National Pest Surveillance Guidelines

- Updated Annually with Timelines
- Program Structure & Organization
  - Roles & Responsibilities
- Priority Surveys
- Priority Pest List
- Administrative
  - State Funding
  - Work Plans & Cooperative Agreements
- Data Management
- Negative Data



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▣ Survey Information

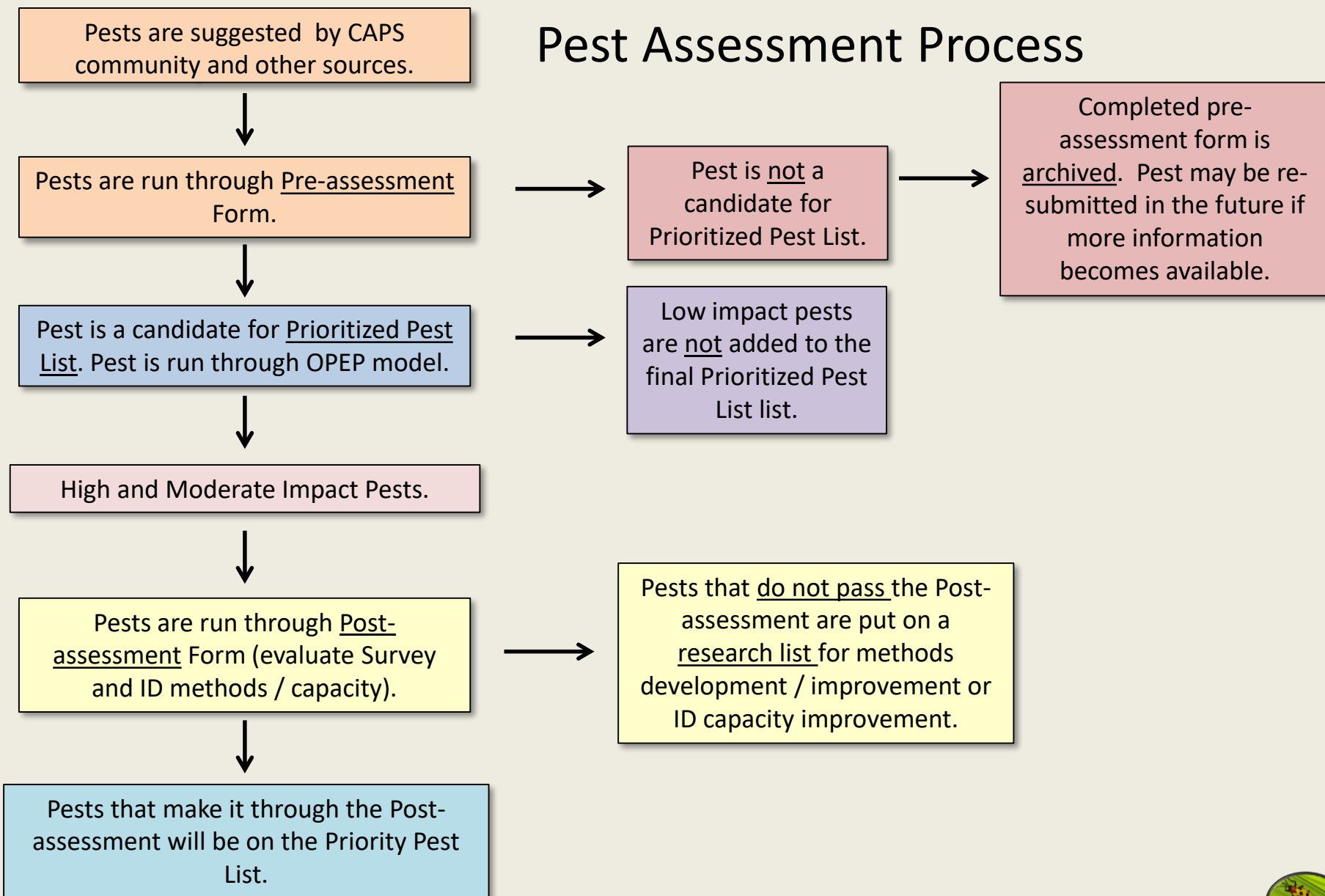
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# Pest Assessment Process



## Priority Pest List

- **Commodity and Taxon-Based Surveys**

| Commodity      |              | Taxon                            |
|----------------|--------------|----------------------------------|
| Corn           | Pine         | Asian Defoliators                |
| Cotton         | Small Grains | Cyst Nematodes                   |
| Grape          | Solanaceous  | Exotic Wood Borer & Bark Beetles |
| Oak            | Stone Fruit  | Mollusks                         |
| Palm           | Soybean      |                                  |
| Tropical Hosts |              |                                  |

- **Economic & Environmental Pests**

- High Impact Pests from the OPEP Prioritization Model



## Solanaceous Hosts



| Scientific Name                                    | Common Name                       | Eco. & Environ.* |
|--|-----------------------------------|------------------|
| <i>Autographa gamma</i>                            | Silver-Y moth                     | No               |
| 'Candidatus Phytoplasma australiense'<br>16SrXII-B | Australian grapevine yellows      | Yes              |
| <i>Chrysodeixis chalcites</i>                      | Golden twin spot moth             | No               |
| <i>Globodera pallida</i>                           | Pale cyst nematode                | No               |
| <i>Globodera rostochiensis</i>                     | Golden nematode                   | No               |
| <i>Helicoverpa armigera</i>                        | Old world bollworm                | Yes              |
| <i>Meloidogyne fallax</i>                          | False Columbia root-knot nematode | No               |
| <i>Meloidogyne minor</i>                           | Root-knot nematode                | No               |
| <i>Neoleucinodes elegantalis</i>                   | Tomato fruit borer                | Yes              |
| <i>Ralstonia solanacearum</i> race 3 biovar 2      | Bacterial wilt                    | Yes              |
| <i>Spodoptera littoralis</i>                       | Egyptian cottonworm               | No               |
| <i>Spodoptera litura</i>                           | Cotton cutworm                    | Yes              |
| <i>Synchytrium endobioticum</i>                    | Potato wart                       | No               |
| <i>Tecia solanivora</i>                            | Guatemalan potato moth            | Yes              |
| <i>Thaumatotibia leucotreta</i>                    | False codling moth                | Yes              |
| <i>Tospovirus Groundnut bud necrosis virus</i>     | Groundnut bud necrosis (GBNV)     | Yes              |
| <i>Tuta absoluta</i>                               | Tomato leafminer                  | Yes              |

\*Eco. & Environ. denotes that the pest is on the 2018 Pests of Economic and Environmental Importance Prioritized Pest List.





# Cooperative Agricultural Pest Survey

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## Survey Manuals

The purpose of these surveys is to detect new infestations of target species at low population levels. Their references provide standardized guidelines for conducting detection surveys in the United States and its territories. Each consists of an Introduction document and individual pest datasheets. The Introduction contains information on the background of the survey, survey planning, trapping, and sample submission. The individual pest datasheets are posted as free-standing documents.

For the most up-to-date methods for survey and identification, see the [Approved Methods](#). The information in the Approved Methods site will always supersede any survey and identification/ diagnostic information found in any other CAPS document (i.e., Commodity-based Survey References and Guidelines, CPHST Pest Datasheets, etc.). Manuals are updated only on a periodic basis and may not contain updates that occur outside of a review period.

|  |  |
|--|--|
| <b>Asian Defoliator</b>                | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
| <b>Corn</b>                            | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
| <b>Cotton</b>                          | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
| <b>Cyst Nematode</b>                   | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
| <b>Exotic Wood Borer / Bark Beetle</b> | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
| <b>Grape</b>                           | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
| <b>Mollusk</b>                         | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
| <b>Oak</b>                             | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
| <b>Palm</b>                            | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
| <b>Pine</b>                            | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
| <b>Small Grains</b>                    | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
| <b>Solanaceous Hosts</b>               | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
| <b>Soybean</b>                         | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
| <b>Stone Fruit</b>                     | <a href="#">2018</a> <a href="#">2017</a> <a href="#">2016</a> |
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## Solanaceous Hosts Survey Reference - 2017

The purpose of the Solanaceous Hosts Survey is to detect new infestations of targeted solanaceous hosts pest species at low population levels. Solanaceous hosts include eggplant, pepper, potato, tobacco, and tomato. The Solanaceous Hosts Survey Reference provides standardized guidelines for conducting a Solanaceous Hosts detection survey in the United States and its territories.

The Solanaceous Hosts Survey Reference consists of an Introduction and individual pest datasheets. **The Introduction contains information on the background of the survey, survey planning, trapping, and sample submission.** The individual pest datasheets are posted as free-standing documents (below).



[Autographa gamma](#)

[Candidatus Phytoplasma australiense 16SrXII-B](#)

[Chrysodeixis chalcites](#)

[Globodera pallida](#)

[Globodera rostochiensis](#)

[Helicoverpa armigera](#)

[Meloidogyne fallax](#)

[Meloidogyne minor](#)

[Neoleucinodes elegantalis](#)

[Ralstonia solanacearum race 3 biovar 2](#)

[Spodoptera littoralis](#)

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[Tospovirus Groundnut Bud Necrosis Virus](#)

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## Autographa gamma

### Scientific Name

*Autographa gamma* L., 1758

### Synonyms:

*Plusia gamma* var. *gammata*  
Staudinger

### Previous older combinations:

*Phytometra gamma* L.,  
*Plusia gamma* L.

### Common Name

Silver Y moth, beet worm,  
gamma owlet

### Type of Pest

Moth

### Taxonomic Position

Class: Insecta, Order: Lepidoptera, Family: Noctuidae

### Reason for Inclusion in Manual

CAPS Target: AHP Prioritized Pest List - 2006 through 2009

### Pest Description

**Eggs:** Eggs are semi-spherical and 0.57 mm (< 1/32 in) in diameter. They are strongly and irregularly ribbed with 28 or 29 ribs (Paulian et al., 1975; Carter, 1984). Eggs are initially yellowish-white, but as they age, they turn yellowish-orange and later brown. They are laid singly or in small groups on the underside of leaves (Hill, 1987).

**Larvae:** The larvae are "semiloopers" with only three pairs of prolegs: two pairs of abdominal prolegs and one pair of anal prolegs (abdominal segments 5, 6, and 10) (Fig. 3) (Carter, 1984; Hill, 1987; INRA/HYPP Zoology, 2011). The caterpillar ranges from bright green to dark olive green. There is a dark green dorsal line edged



Figure 1. *Autographa gamma* adult (Julieta Brambila, USDA-APHIS-PPQ, Bugwood.org).



Figure 2. Eggs of *Autographa gamma* (Jurgen Rodeland, [http://www.rodeland.de/fotos/lepidoptera/autographa\\_gamma.htm](http://www.rodeland.de/fotos/lepidoptera/autographa_gamma.htm)).



## Negative Data – CAPS Policy Definition

- Valid Negative data
  - Basis for the program and a guiding principle
- Active activity; Not a passive activity
  - Absence of a positive does not necessarily mean negative
- To have valid negative data, one must
  - ✓ Target a specific pest
  - ✓ Conduct surveys using specific Approved Methods
  - ✓ Examination of the sample by a qualified identifier
- If the target pest is not present in a sample after examination by an identifier and the method used will capture or detect that pest, then that sample is negative for the specific pest at that point in time.





## Approved Methods for Pest Surveillance

### 2017 Approved Methods

The survey methodology presented here lists the most up-to-date, Approved Methods for survey and identification/diagnostics of 2017 CAPS target pests from the Priority Pest List, consisting of 1) Commodity and Taxonomic Survey Pests and 2) Pests of Economic and Environmental Importance. The information in this table supersedes any survey and identification/diagnostic information found in any other CAPS document (Commodity- or Taxon-based Survey References and Guidelines, datasheets, etc.). All other CAPS documents will eventually be revised to include the information contained in this table; however, this table should always be the authoritative source for the most up-to-date, Approved Methods for Pest Surveillance.

**IMPORTANT: Read this first before using the table!** [Click here for more information.](#)

Looking for the other lists? Click: [2016](#) [2015](#) [2014](#) [2013](#) [2012](#) [2011](#).

Scientific Name: 
 Lists: 
 Survey: 
 ID/Diagnostic:

Displaying 167 records. Results per page:

| OPTIONS              | Scientific Name                 | Common Name               | Lists  | Survey       | ID/Diagnostic | Version    |
|----------------------|---------------------------------|---------------------------|--|--------------|---------------|------------|
| <a href="#">info</a> | <i>Adoxophyes orana</i>         | Summer Fruit Tortrix Moth | Stone Fruit  | Trap         | Morphological | 2010-08-18 |
| <a href="#">info</a> | <i>Aeolesthes sarta</i>         | City Longhorned Beetle    | Oak  | Visual       | Morphological | 2010-08-18 |
| <a href="#">info</a> | <i>Agrilus auroguttatus</i>     | Goldspotted Oak Borer     | EWB/BB   | Trap/Visual  | Morphological | 2014-11-05 |
| <a href="#">info</a> | <i>Agrilus biguttatus</i>       | Oak Splendour Beetle      | Economic and Environmental<br>EWB/BB<br>Oak                      | Other/Visual | Morphological | 2014-11-05 |
| <a href="#">info</a> | <i>Agrilus planipennis</i>      | Emerald Ash Borer         | EWB/BB   | Trap/Visual  | Morphological | 2014-11-05 |
| <a href="#">info</a> | <i>Alectra vogelii</i>          | Yellow Witchweed          | Soybean  | Visual       | Morphological | 2015-04-24 |
| <a href="#">info</a> | <i>Anguina tritici</i>          | Wheat seed gall nematode  | Economic and Environmental<br>Small Grains                       | Visual       | Molecular     | 2016-04-22 |
| <a href="#">info</a> | <i>Anoplophora chinensis</i>    | Citrus Longhorned Beetle  | EWB/BB   | Visual       | Morphological | 2010-08-18 |
| <a href="#">info</a> | <i>Anoplophora glabripennis</i> | Asian Longhorned Beetle   | EWB/BB   | Visual       | Morphological | 2010-08-18 |
| <a href="#">info</a> | <i>Anthrenus grandis</i>        | Boll weevil               | Cotton   | Trap         | Morphological | 2011-12-09 |
| <a href="#">info</a> | <i>Archips xylosteanus</i>      | Variagated Golden Tortrix | Oak  | Trap         | Morphological | 2010-08-18 |
| <a href="#">info</a> | <i>Argyresthia pruniella</i>    | Cherry Blossom Moth       | Stone Fruit  | Trap         | Morphological | 2014-06-09 |
| <a href="#">info</a> | <i>Aspidiotus rigidus</i>       | False Coconut Scale       | Palm   | Visual       | Morphological | 2015-04-08 |
| <a href="#">info</a> | <i>Autographa gamma</i>         | Silver Y Moth             | Corn<br>Cotton<br>Grape<br>Small Grains<br>Solanaeous<br>Soybean | Trap         | Morphological | 2014-03-11 |



## Approved Methods for Pest Surveillance

### Summer Fruit Tortrix Moth - *Adoxophyes orana*

Version: 08/18/2010

**Effective:** August 18, 2010 - September 29, 2014

**Resources:** [Global Pest & Disease Database](#)

**Taxonomic Position:** Lepidoptera : Tortricidae

**Pest Type:** Insects

**Pest Code (NAPIS):** ITBUETA

This pest is a member of the following lists:

| List        | 2015                                 | 2016                                 | 2017                                 |
|-------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Grape       | <a href="#">reference</a>            |                                      |                                      |
| Oak         | <a href="#">guidelines reference</a> | <a href="#">guidelines reference</a> |                                      |
| Soybean     | <a href="#">guidelines reference</a> |                                      |                                      |
| Stone Fruit | <a href="#">guidelines reference</a> | <a href="#">guidelines reference</a> | <a href="#">guidelines reference</a> |

This datasheet represents an Approved Method for: 2011, 2012, 2013, 2014, 2015, 2016, 2017

#### Human and Animal Pathogens Transmitted:

Not known to transmit any human or animal pathogens.

#### Plant Pathogens and Organisms Vectored:

Not known to vector any pathogens or other associated organisms but damage may lead to invasion by secondary pests.

### Survey

#### Approved Method(s):

| Method | Product Name / Instructions                    | NAPIS Survey Method                  |
|--------|--|--------------------------------------|
| Trap   | 108 - Paper Delta Trap, 2 sticky sides, Brown  | 00002 - Trap;Delta Pheromone (Paper) |
| Trap   | 110 - Paper Delta Trap, 2 sticky sides, Green  | 00002 - Trap;Delta Pheromone (Paper) |
| Trap   | 109 - Paper Delta Trap, 2 sticky sides, Orange | 00002 - Trap;Delta Pheromone (Paper) |

**Trap Spacing:** When trapping for more than one species of moth, separate traps for different moth species by at least 20 meters (65 feet).

#### Method Notes:

Trap should be used with ends open. Trap color is up to the State and does not affect trap efficacy.

#### Approved Lure(s):

| Option | Product Name                 | Dispenser     | Effectiveness | Compound(s)  |
|--------|------------------------------|---------------|---------------|--|
| 1      | <i>Adoxophyes orana</i> Lure | rubber septum | 84 days       | <a href="#">Z9-14Ac</a><br><a href="#">Z11-14Ac</a><br><a href="#">Z9-14OH</a><br><a href="#">Z11-14OH</a> |



## Survey Supply and Procurement Program (SSPP)

- Coordinates Bulk Purchasing: Increased Savings & Quality
  - FY 2013 – FY 2017 Savings of over \$1,200,000
  - 1,900 m<sup>2</sup> Warehouse – 50% Fully Temperature Controlled
  - \$2 Million in Survey Supplies Stored
  - 500 Orders Filled annually
- Organization & Delivery of Survey Supplies
- Inventory Maintained and Forecasted
- Speeds Survey Response Time



## CAPS Information Services - CAPSIS

- Cooperative Agreement with Purdue University
- Provides an efficient and supportive decision-support environment for the CAPS Program in the form of enhanced information services
- State owned, restricted access, role-based
- Includes:
  - CAPS Resource & Collaboration web site
  - Survey Summary Form
  - National Agricultural Pest Information System (NAPIS)
  - Accountability Reports
  - Pest Tracker public web site
  - Associated processes, work flows, and integration





# National Agricultural Pest Information System (NAPIS)

- The purpose of NAPIS is to provide a repository for survey results, and to provide information about survey activities and the incidence and spread of pests.
- The only national repository for historical survey data
  - Rules for validating negative data entry were developed and instituted to enforce standard survey methodology for negative data
  - Negative data validation rules in NAPIS check for the correctness of the data, not just that a required field contains a proper value



HELP STOP EXOTIC PESTS

[REPORT EXOTIC PESTS](#)

*Stopping exotic invaders is a community effort.*



HAVE YOU SEEN THIS BIG BUG?



The [Asian Longhorned Beetle](#) poses a serious threat to forests of the northeast and maple syrup production. Infestations in Massachusetts, New York and New Jersey are under eradication by USDA APHIS. This is just one of many forest pests that are moved to un-infested forests by humans moving firewood. Help to protect our forests: [don't move firewood!](#)

ASIAN LONGHORNED BEETLE



PEST WATCH



**Oak Splendour Beetle - *Agrius biguttatus***

This pest presents a significant threat to food or forest plants. Click the photo to learn more about this exotic pest.

CAPS SURVEYS



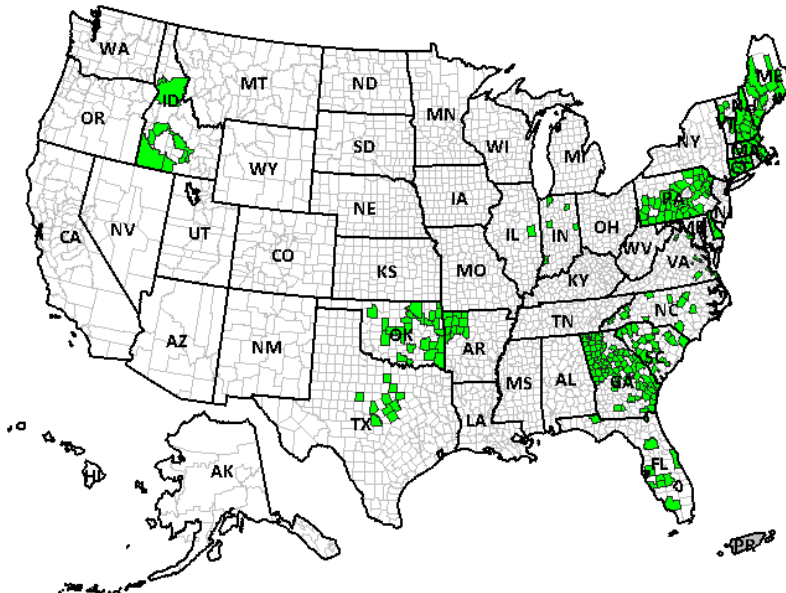
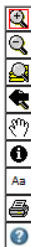
The [Cooperative Agricultural Pest Survey \(CAPS\)](#) program is sponsored by the Plant Protection and Quarantine division of USDA Animal and Plant Inspection Services. Surveys to detect and prevent the spread of this pest are being supported in the highlighted states.



Map views: 2016 | [2015](#) | [2014](#) | [2013](#) | [2012](#) | [2011](#) | [2010](#) | [2009](#)

[view summarized survey results for this map pest page](#)

**Survey Status of Oak splendour beetle - *Agrilus biguttatus***  
**2016**



Survey profile – not a distribution profile



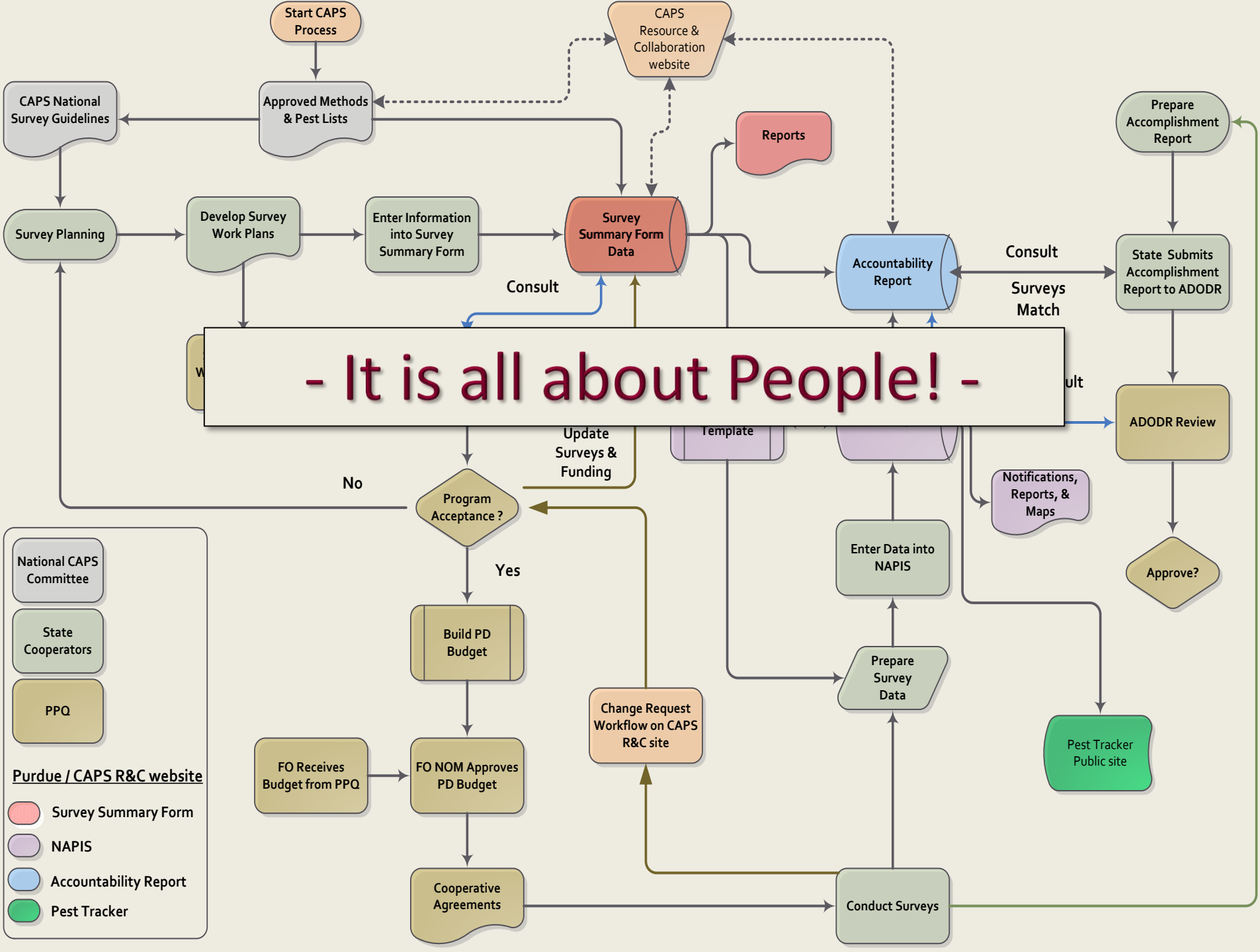
This map only represents pest survey data submitted to the NAPIS database by participating states in the Cooperative Agricultural Pest Survey (CAPS) program with USDA, APHIS, PPQ. Data is based on survey observation by calendar year. CERIS does not certify the accuracy or completeness of this map. "Survey in Progress" does not imply that all counties are expected to report. © 2009-2017 Purdue University. All Rights Reserved.



## CAPS Measures & Metrics - 2017

| Participation         | 50 States, PR, USVI, Guam       |
|-----------------------|---------------------------------|
| # Surveys             | 280                             |
| Avg # Surveys / State | 5 - 6                           |
| # Unique Pests        | 275                             |
| Avg # Pests / State   | 24                              |
| # Priority Pests      | 129 (97% of all Priority Pests) |
| # Non-Priority Pests  | 146                             |







**CAPS Resource and Collaboration Site**  
[caps.ceris.purdue.edu](http://caps.ceris.purdue.edu)

