



# Facilitating trade by improving data quality in globally consulted pest information resources



Photos: USDA

Godshen Pallippambal<sup>1</sup>, Carol Hicks<sup>1</sup>, Heather Hartzog<sup>2</sup>, & Karl Suiter<sup>1</sup>

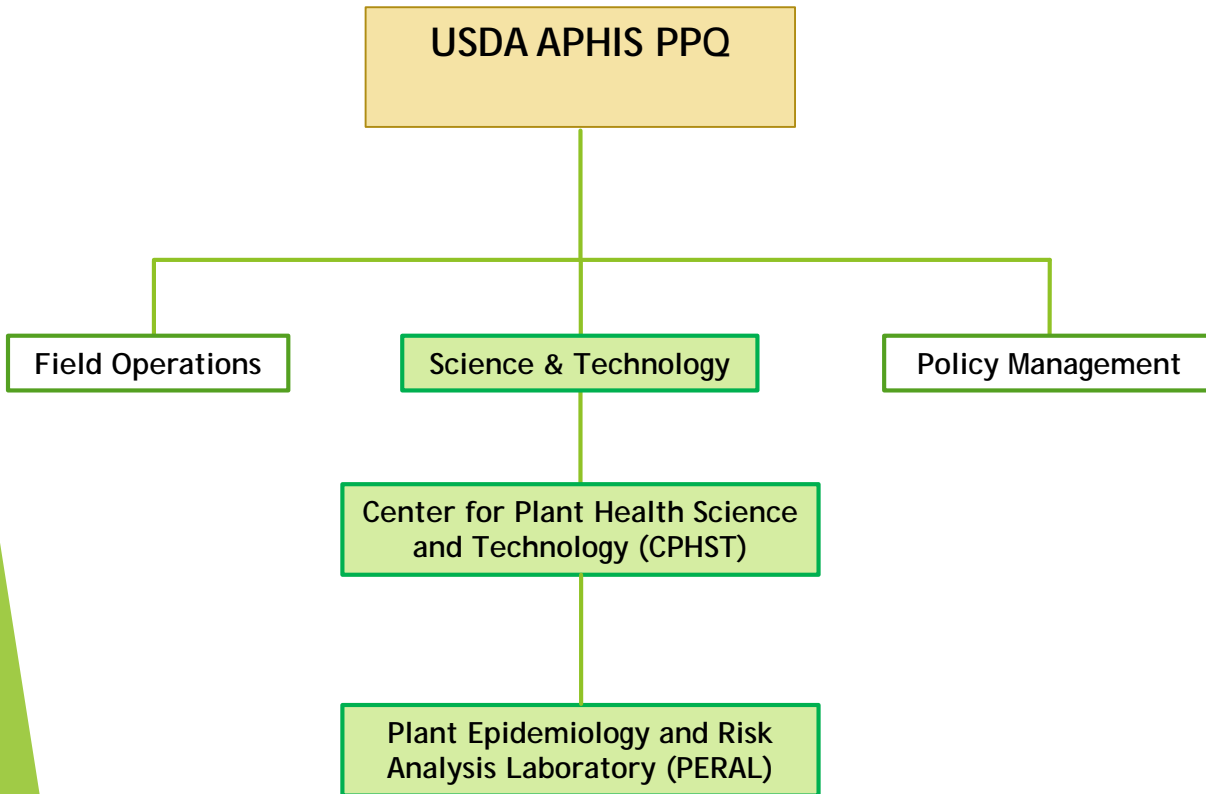
<sup>1</sup> Center for Integrated Pest Management, North Carolina State University, NC, Raleigh, USA;

<sup>2</sup> United States Department of Agriculture, Animal Plant Health Inspection Service, Plant Protection and Quarantine, Center for Plant Health Science and Technology (CPHST), Plant Epidemiology and Risk Analysis Laboratory (PERAL)

# Who are we?



# Who are we?



## CPHST Locations





# Technical Assistance for Specialty Crops (TASC) Project

**Facilitate U.S. exports of specialty crops**  
**by improving accuracy of global pest data used by importing countries**

## Specialty crops

- fruits
- dried fruits
- vegetables
- tree nuts
- nursery crops
- floriculture crops
- herbs and spices



Photo: USDA-FAS

# Technical Assistance for Specialty Crops (TASC) Project

## *U.S. data improvements in globally consulted pest databases*

United States requests market access for exporting specialty crops



Potential Trade Partner (importing country)

List of U.S. pests

Assess pest threats to their agriculture



**Erroneous pest records can**

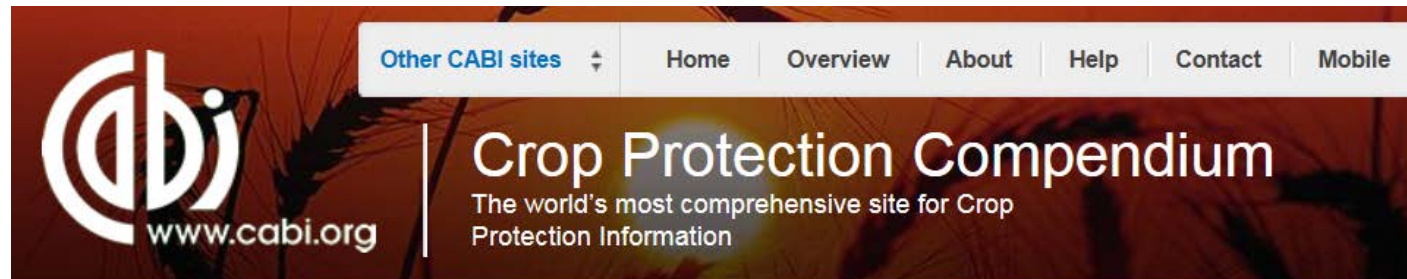
- Affect trade negotiations
- Delay market access
- Impose phytosanitary measures



# Technical Assistance for Specialty Crops (TASC) Project

*U.S. data improvements in globally consulted pest databases*

Arthropod and plant pathogen records



The screenshot shows the top navigation bar of the Crop Protection Compendium website. On the left is the CABI logo (a stylized 'c' and 'i' in a circle) and the URL 'www.cabi.org'. To the right of the logo is a navigation menu with links: 'Other CABI sites', 'Home', 'Overview', 'About', 'Help', 'Contact', and 'Mobile'. Below the navigation menu, the main heading reads 'Crop Protection Compendium' with the tagline 'The world's most comprehensive site for Crop Protection Information'.



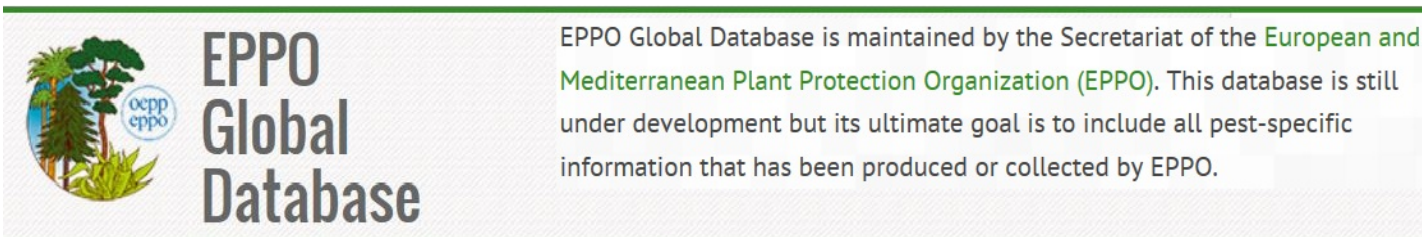
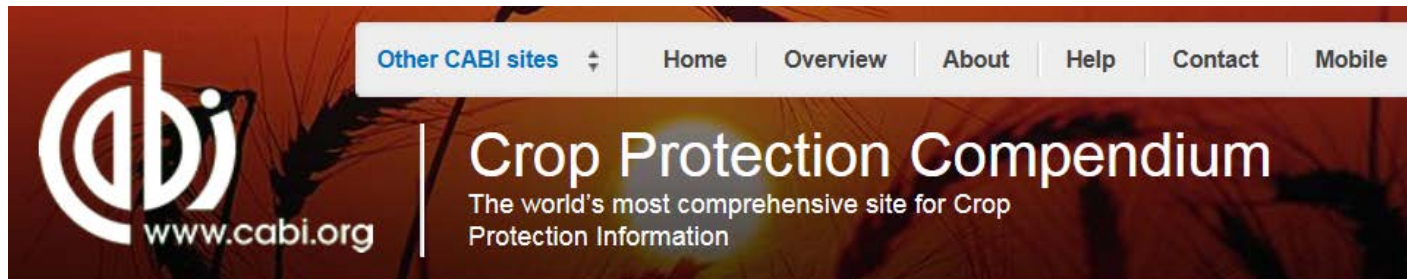
The screenshot shows the top section of the EPPO Global Database website. On the left is the EPPO logo, which features a globe with a tree and the text 'ocpp eppe' and 'eppe'. To the right of the logo, the text reads 'EPPO Global Database'. Further right, a paragraph of text states: 'EPPO Global Database is maintained by the Secretariat of the European and Mediterranean Plant Protection Organization (EPPO). This database is still under development but its ultimate goal is to include all pest-specific information that has been produced or collected by EPPO.'

- Distribution
- Pest Biology
- Hosts

# Technical Assistance for Specialty Crops (TASC) Project

*U.S. data improvements in globally consulted pest databases*

Arthropod and plant pathogen records



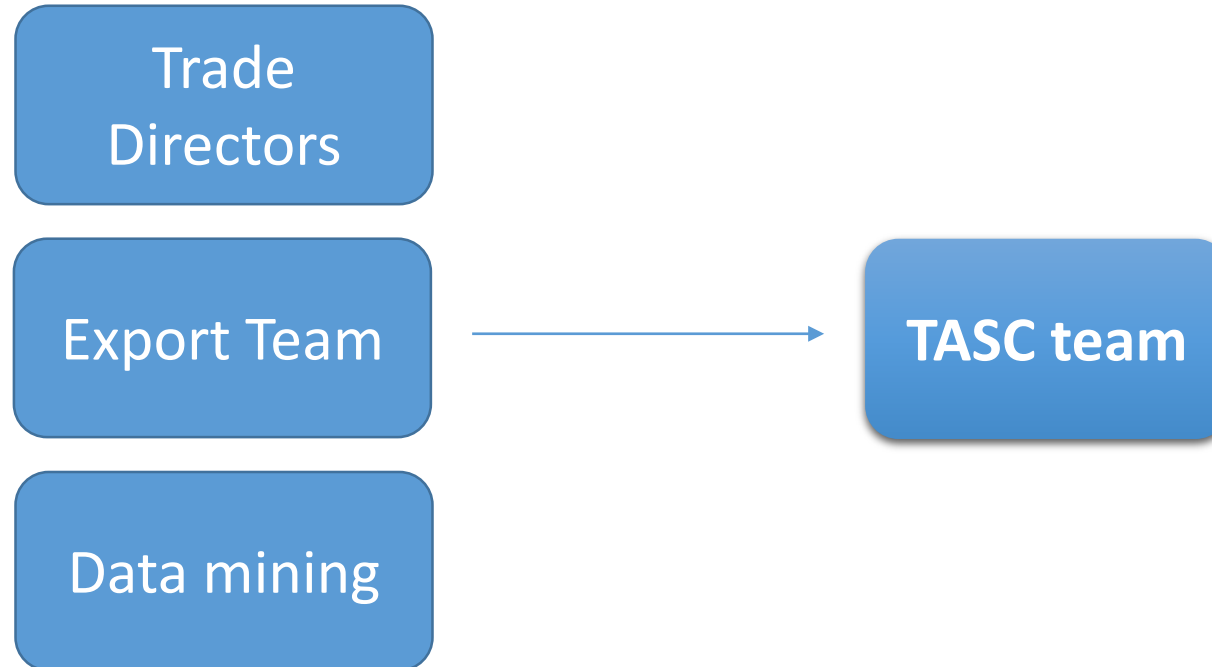
- **Distribution**
- Pest Biology
- Hosts



# Technical Assistance for Specialty Crops (TASC) Project

*U.S. data improvements in globally consulted pest databases*

**We receive candidates for analysis from:**







# Technical Assistance for Specialty Crops (TASC) Project

*U.S. data improvements in globally consulted pest databases*

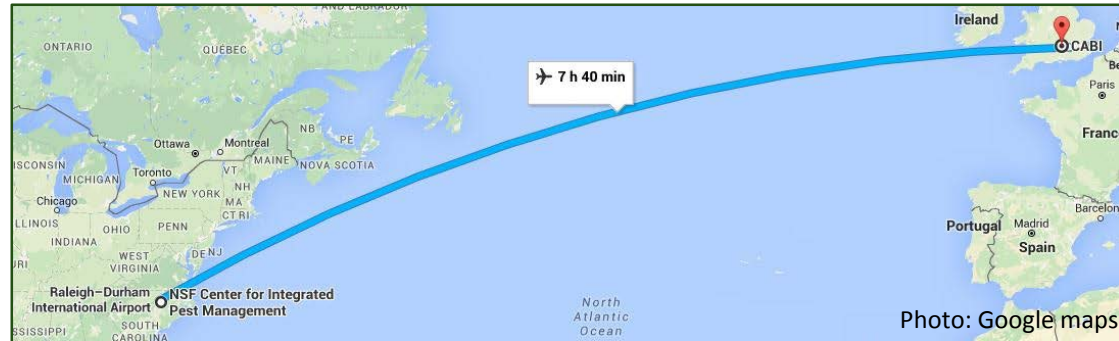




Photo: Google maps



United States Department of Agriculture

United States Department of Agriculture  
Animal and Plant Health Inspection Service  
Month DD, YYYY  
Version #

## Assessment of Pest status in the United States






North American Plant Protection Organization's  
**Phytosanitary Alert System**

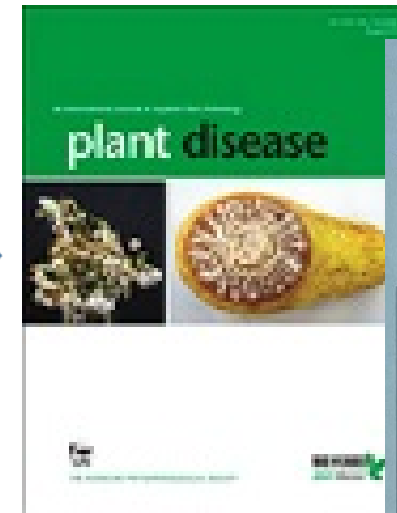
Home | Emerging Pest Alerts | Official Pest Reports | Archive | Resources

Official Pest Reports

Official Pest Reports are provided by National Plant Protection Organizations within the NAPPO region. These Pest Reports are intended to comply with the International Standard for Phytosanitary Measures No. 17: 2002 Pest Reporting, of the International Plant Protection Convention.

Select: All Go

Country	Title	Posted
	<i>Agrilus planipennis</i> (Emerald Ash Borer) - APHIS adds County in Tennessee to the regulated area in the United States	08/02/2016
	<i>Epiphyas postvittana</i> (Light Brown Apple Moth) - APHIS Adds Ventura County to the Regulated Area in California	08/02/2016
	<i>Anastrepha ludens</i> (Mexican Fruit Fly) - APHIS Establishes a Quarantine in the San Ygnacio Area of Zapata County, Texas	07/22/2016
	Citrus Canker ( <i>Xanthomonas</i> spp.) - APHIS adds St. Bernard Parish and Portions of Jefferson, Plaquemines, St. Charles, and Lafourche Parishes in Louisiana to the domestic citrus canker quarantine	07/15/2016



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## PROCEEDINGS

of the  
**ENTOMOLOGICAL SOCIETY**  
of WASHINGTON

PUBLISHED QUARTERLY

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(Continued on back cover)

# Technical Assistance for Specialty Crops (TASC) Project

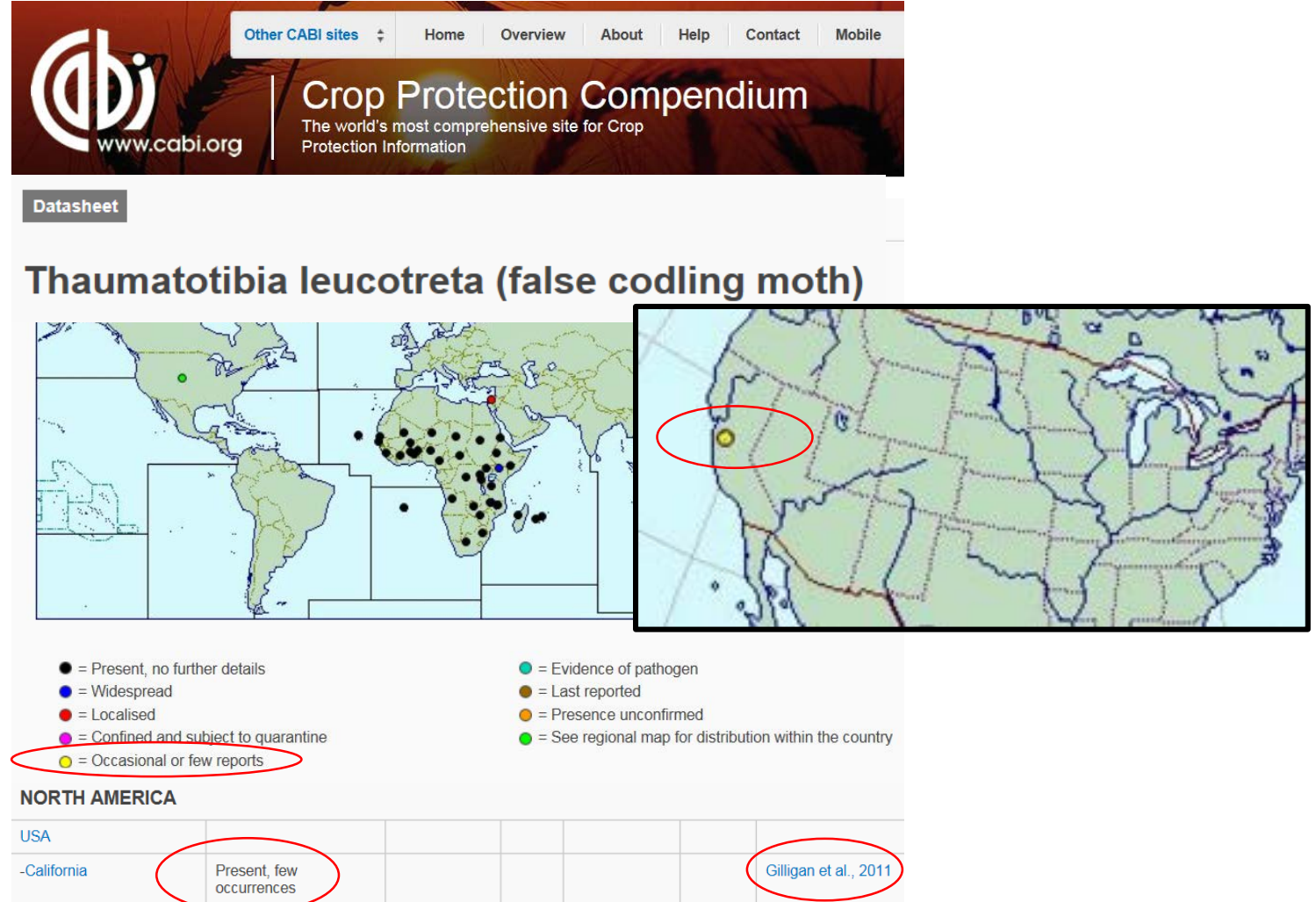
*U.S. data improvements in globally consulted pest databases*

## CABI Error

- **Distribution**
- Hosts
- Pest Biology



*Thaumatotibia leucotreta*  
Photographer: Bugwood



**Crop Protection Compendium**  
The world's most comprehensive site for Crop Protection Information

**Datasheet**

**Thaumatotibia leucotreta (false codling moth)**

**Legend:**

- = Present, no further details
- = Widespread
- = Localised
- = Confined and subject to quarantine
- = Occasional or few reports
- = Evidence of pathogen
- = Last reported
- = Presence unconfirmed
- = See regional map for distribution within the country

**NORTH AMERICA**

USA				
-California	Present, few occurrences			Gilligan et al., 2011



# Technical Assistance for Specialty Crops (TASC) Project

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PROC. ENTOMOL. SOC. WASH.  
113(4), 2011, pp. 426–435



*Thaumatotibia leucotreta*  
Photographer: Bugwood

## DISCOVERY OF FALSE CODLING MOTH, *THAUMATOTIBIA LEUCOTRETA* (MEYRICK), IN CALIFORNIA (LEPIDOPTERA: TORTRICIDAE)

TODD M. GILLIGAN, MARC E. EPSTEIN, AND KEVIN M. HOFFMAN

*Abstract.*—The false codling moth, *Thaumatotibia leucotreta* (Meyrick), is one of the most destructive pests of avocado, citrus, and cotton in Africa. On July 24, 2008, a male of this species was identified from a pheromone trap located in Ventura County, California. Although larvae of *T. leucotreta* are frequently intercepted at U.S. ports-of-entry, primarily on bell peppers (*Capsicum* sp.), eggplant (*Solanum melongena*), and clementines (*Citrus* sp.), this represents the first North American record outside of a port or international commercial shipment. Additional individuals have not been recorded from California suggesting that this species is not yet established in the state. We provide descriptions, illustrations, and other information to help in the identification of this species.

# Technical Assistance for Specialty Crops (TASC) Project

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*Thaumatotibia leucotreta*  
Photographer: Bugwood

- Specialty crop hosts ?
- Delimitation surveys after detection?
- Ongoing detection surveys?
- Regulated at the ports of entry?

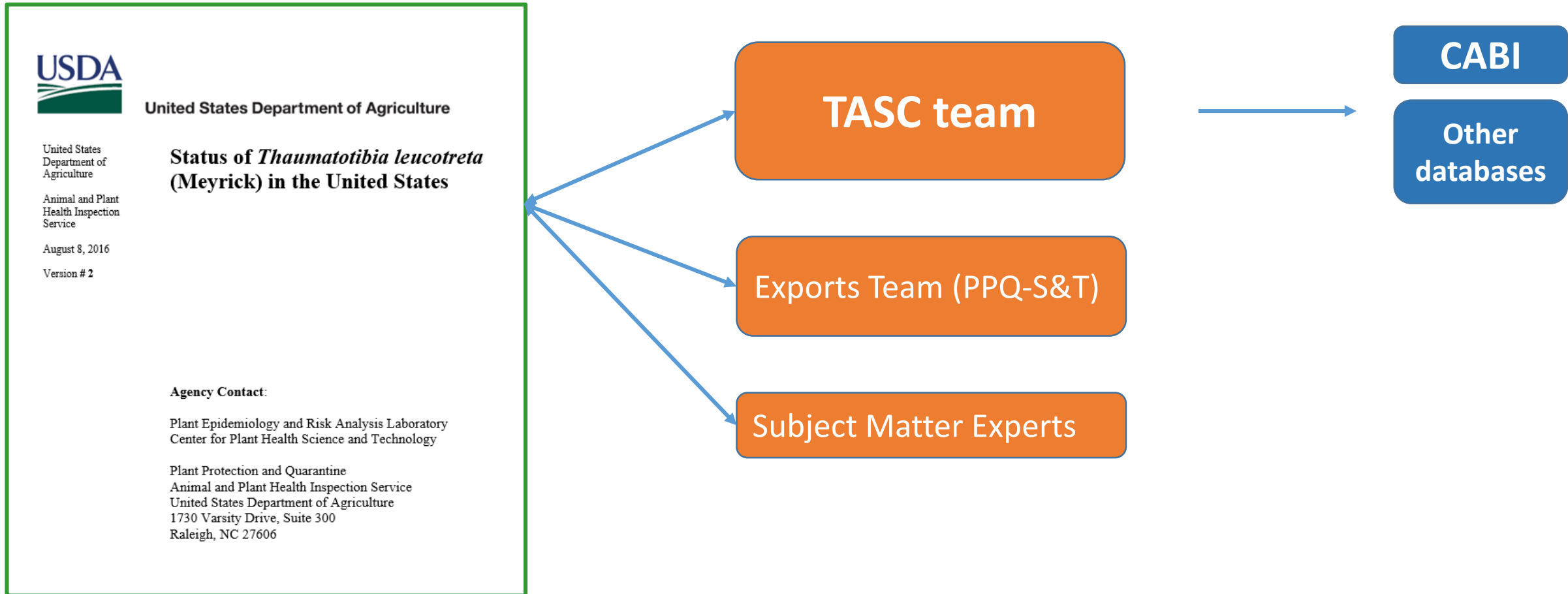






# Technical Assistance for Specialty Crops (TASC) Project

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# Technical Assistance for Specialty Crops (TASC) Project

## *U.S. data improvements in globally consulted pest databases*

### Status of *Thaumatotibia leucotreta* (Meyrick) in the United States

**Contact:** John H. Bowers, National Survey Coordinator, National Policy Manager, Cooperative Agricultural Pest Survey, USDA, APHIS, PPQ, PHP

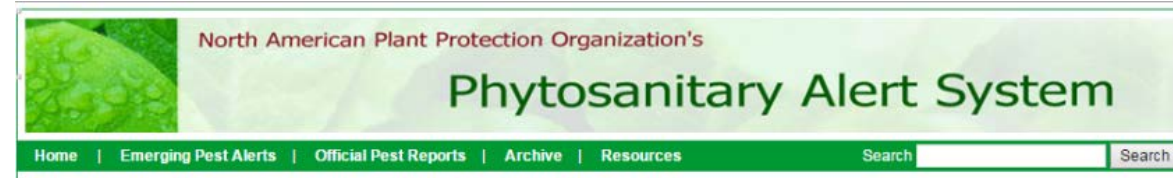
In late July 2008, APHIS confirmed the detection of an adult male False Codling Moth (FCM), *Thaumatotibia leucotreta* (Meyrick), from a trap placed near an orange tree in a suburban area of Port Hueneme, Ventura County, California. This was the first and only detection of FCM in the continental United States.

FCM attacks different plant species including pepper, orange, macadamia, guava, peach, pomegranate, cotton, sorghum and maize. Following the detection in 2008, APHIS and the California Department of Food and Agriculture (CDFA) established delimitation survey areas and extensively surveyed throughout the state to determine the extent of this incursion. There were no additional detections of false codling moth in the state during the delimitation surveys and therefore, the 2008 detection was considered an isolated regulatory incident. California and the United States continue to target this pest in state and national survey efforts. For additional information on FCM surveys visit:


<http://pest.ceris.purdue.edu/map.php?code=ITBUEUA#>.

Under IPPC standards, *T. leucotreta* is considered a pest that is **Absent: pest no longer present** in the United States.

PPQ Science & Technology  
Harmonization Advisory Group (HAG)



Official Pest Reports are provided by National Plant Protection Organizations within the NAPPO region. These Pest Reports are intended to comply with the International Plant Protection Convention's [Standard on Pest Reporting](#), endorsed by the Interim Commission on Phytosanitary Measures in March 2002.

 **Corrected Status of 2008 *Thaumatotibia leucotreta* (False Codling Moth) detection in the United States**

**Date posted:** 09/28/2016

**Contact:** Deborah L. McPartlan, National Policy Manager, at 301-851-2191

In late July 2008, APHIS confirmed the detection of an adult male False Codling Moth (FCM), *Thaumatotibia leucotreta* (Meyrick), from a trap placed near an orange tree in a suburban area of Port Hueneme, Ventura County, California. This was the first and only detection of FCM in the continental United States. The purpose of this Official Pest Report is to clarify that the current status for *T. leucotreta* is: "Absent: pest no longer present, confirmed by survey" and thereby correct distribution errors in global pest databases.



# Technical Assistance for Specialty Crops (TASC) Project

*U.S. data improvements in globally consulted pest databases*

# Other team activities

# Technical Assistance for Specialty Crops (TASC) Project

*U.S. data improvements in globally consulted pest databases*

- Distribution
- **Pest Biology**
- Hosts

**Dominican Republic bans imports of certain fruit, veg to fight fruit fly**



Photograph from USDA

*Bactrocera dorsalis*  
Oriental fruit fly



Photograph from Bugwood





# Technical Assistance for Specialty Crops (TASC) Project

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The measure allows imports of pest-free areas of the State of California, which must be located more than 150 km away from the outbreak areas in the counties of Covina, Los Angeles, and Santa Clara and additional to the phytosanitary certificate, must have an additional statement in which the Government of the United States endorses compliance with these regulations.

## Dominican Republic bans imports of certain fruit, veg to fight fruit fly

The Ministry of Agriculture banned imports of fruit and vegetable that host the oriental fruit fly (*Bactrocera dorsalis*) from the state of Florida and regulated imports from the state of California.

The Ministry of Agriculture took the measure in response to the emergence of several outbreaks in those states and notified the Attache of the US Embassy in the country about it via communication MA-2015-10693 dated October 14.

The oriental fruit fly is considered one the major quarantine pests in the world because of the damage it causes to more than 400 species of fruits and vegetables. It is native to Southeast Asia, but has been present in the island of Hawaii since 1945 and, according to official reports from APHIS/USDA, it was detected in Santa Clara, California on 22 June this year. Likewise, according to the official notification that the APHIS/USDA gave the Dominican Government on October 9, the pest was detected in the Miami Dade County, Florida, on August 26 this year.

Following this official notification, and considering that there have been 165 captures of oriental fruit flies in Miami Dade, including some near the Florida International Airport, the country took the decision to ban the importation of fruits and vegetables from that state that can host the *Bactrocera dorsalis*, such as pears, strawberries, grapes, apples, citrus, cherries, tomatoes, and peaches, among others.

The measure allows imports of pest-free areas of the State of California, which must be located more than 150 km away from the outbreak areas in the counties of Covina, Los Angeles, and Santa Clara, and, additional to the phytosanitary certificate, must have an additional statement in which the Government of the United States endorses compliance with these regulations.

As part of preventive measures, the Plant Quarantine Service of the Ministry of Agriculture, in coordination with the Directorate General of Customs and Immigration, is carrying out thorough inspections of passengers from the states of California and Florida, in order to avoid the entry of fruits and plants hosting the pest in their luggage.

Source: [elnuevodiario.com.do](http://elnuevodiario.com.do)

Publication date: 10/19/2015

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# Technical Assistance for Specialty Crops (TASC) Project

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150 km flight  
distance?



Pest  
Free  
Areas

*Bactrocera dorsalis* - CABI

Factsheet states:

“Many *Bactrocera* spp. can fly 50 -  
100 km (Fletcher, 1989).”

# Technical Assistance for Specialty Crops (TASC) Project

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## Distribution Maps of Plant Diseases

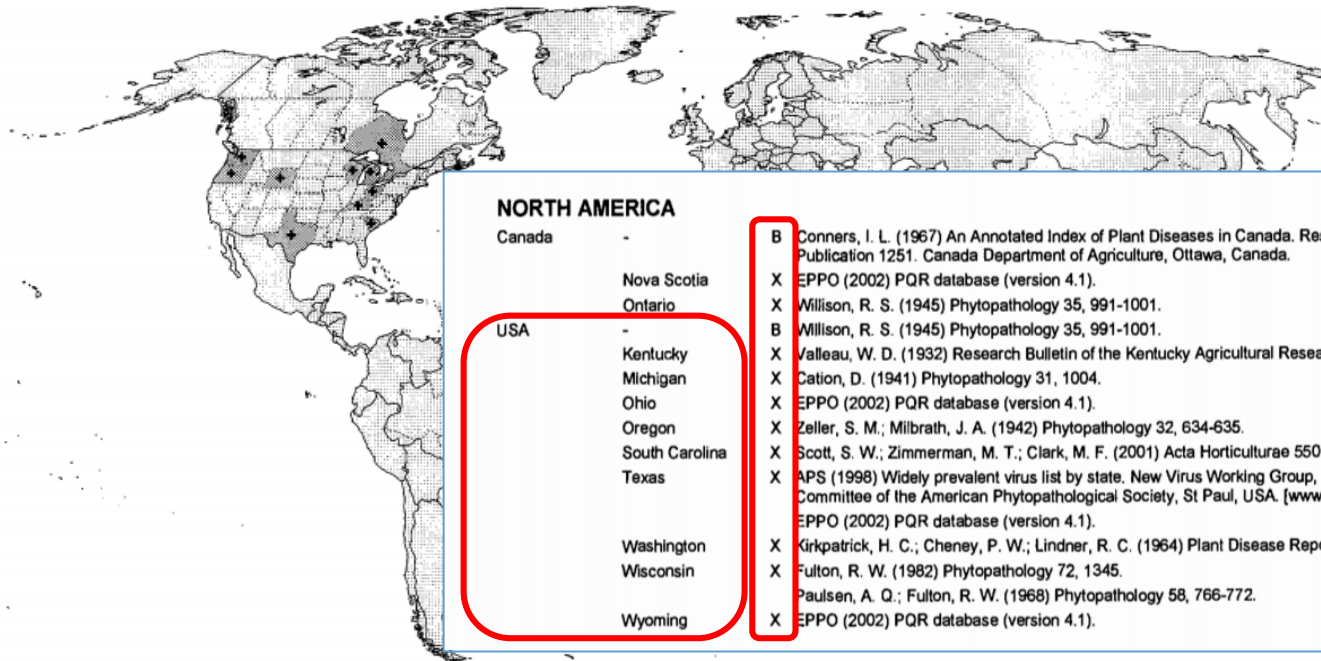
Compiled by CAB INTERNATIONAL in association with EPPO

Map No. 847    Edition 1    Issued April 2002

### American plum line pattern virus

Viruses: Bromoviridae: Ilarvirus

Hosts: Plum (*Prunus domestica*), also peach (*P. persica*) and other *Prunus* spp.



B Connors, I. L. (1967) An Annotated Index of Plant Diseases in Canada. Research Branch Publication 1251. Canada Department of Agriculture, Ottawa, Canada.

X EPPO (2002) PQR database (version 4.1).

X Willson, R. S. (1945) *Phytopathology* 35, 991-1001.

B Willson, R. S. (1945) *Phytopathology* 35, 991-1001.

X Valteau, W. D. (1932) *Research Bulletin of the Kentucky Agricultural Research Station* 327, 89.

X Cation, D. (1941) *Phytopathology* 31, 1004.

X EPPO (2002) PQR database (version 4.1).

X Zeller, S. M.; Milbrath, J. A. (1942) *Phytopathology* 32, 634-635.

X Scott, S. W.; Zimmerman, M. T.; Clark, M. F. (2001) *Acta Horticulturae* 550 (1), 221-227.

X APS (1998) Widely prevalent virus list by state. New Virus Working Group, Plant Virology Committee of the American Phytopathological Society, St Paul, USA. [www.aphis.usda.gov]

EPPO (2002) PQR database (version 4.1).

X Kirkpatrick, H. C.; Cheney, P. W.; Lindner, R. C. (1964) *Plant Disease Reporter* 48, 616.

X Fulton, R. W. (1982) *Phytopathology* 72, 1345.

Paulsen, A. Q.; Fulton, R. W. (1968) *Phytopathology* 58, 766-772.

X EPPO (2002) PQR database (version 4.1).

**Proactively validating  
CABI maps:  
> 45 pests/year**

 Present: national record     Present: subnational record

CABI/EPPO (2002) American plum line pattern virus. Distribution Maps of Plant Diseases No. 847.  
CAB INTERNATIONAL, Wallingford, UK.

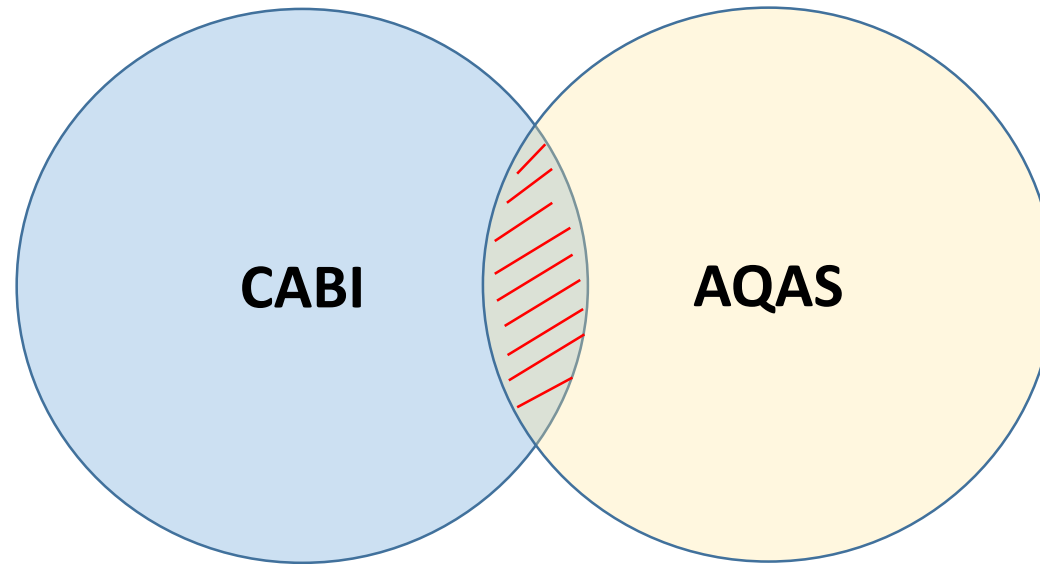
Map No. 847



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## Data mining for additional candidates



Pests listed as present in the United States

Pests that are currently regulated at our ports of entry

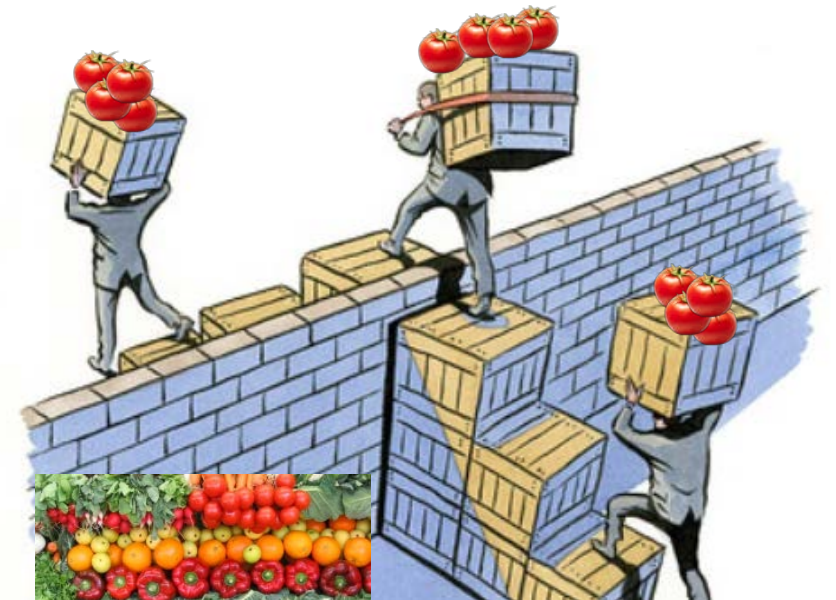


# Technical Assistance for Specialty Crops (TASC) Project

*U.S. data improvements in globally consulted pest databases*

## **With this project, we aim to overcome trade barriers**

- Open, expand and maintain market access for specialty crops
- Remove unwarranted phytosanitary measures
- Aid trade negotiations



# Contact us



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