



CITRUS PEST & DISEASE
PREVENTION DIVISION
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE

Public Meeting Information

Asian Citrus Psyllid Control Program



CDFA REPORT A PEST HOTLINE: 1.800.491.1899

www.cdfa.ca.gov/go/reportapest

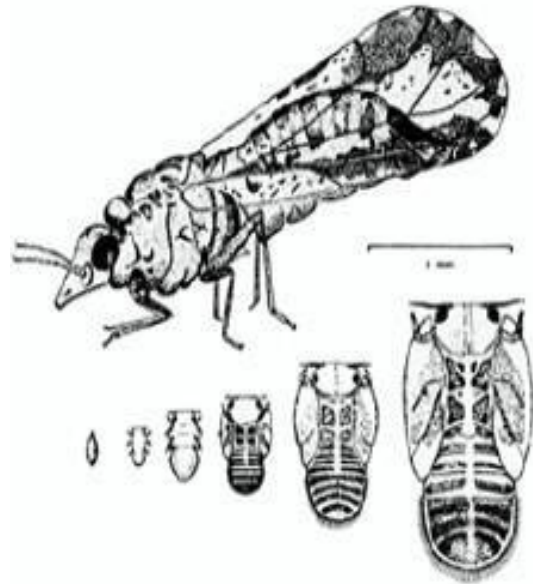
ACP Life Cycle



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Asian Citrus Psyllid Lifecycle

- Eggs laid singly
- 5 nymphal stages
- 10 generations /year
- Life cycle takes 15-47 days
- Egg to adult in 2 weeks at 75-80°F



Asian Citrus Psyllid Life Stages



Eggs



Nymphs with wax exudate



Adult ACP



Adult feeding with nymphs

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Huanglongbing or Citrus Greening Disease



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Lopsided fruit with aborted seeds



Asymmetric leaf mottling



Blotchy mottle



Yellow Veins



Huanglongbing (HLB), also known as Citrus Greening Disease or Yellow Shoot Disease, is a very destructive bacterial disease of citrus and citrus relatives. It is spread primarily by psyllid insect vectors and through grafting with infected budwood. HLB represents a serious threat to the citrus industry worldwide and especially in California. Three separate strains of HLB have been discovered and identified: Asian, African (South Africa) and South American (Brazil).

Symptoms include yellow shoots, leaf mottle, small upright leaves and lopsided fruits with a bitter flavor. There is no known control or cure for this disease once a tree becomes infected. Diseased trees are non-productive, have a shortened lifespan and must be removed and destroyed to prevent further spread of HLB.

This disease is spread readily by the Asian citrus psyllid (*Diaphorina citri*), which is widespread in Florida, Texas, Hawaii, Southern California and Mexico. The insect vector (both adults and nymphs) feed on the new growth flush. Orange jasmine (*Murraya paniculata*), an ornamental citrus relative, is the preferred host for the psyllid, although all Citrus species are hosts. The Asian strain of HLB was discovered for the first time in August 2005 in Florida, in Texas in February 2012 and in Southern California in March 2012. The first HLB infected citrus tree in California (a pummelo, grafted on lemon) was found in Hacienda Heights, Los Angeles County.

If you suspect you have citrus with HLB disease – based on the presence of the symptoms described or of the insect vector – please contact the California Department of Food and Agriculture at 1-800-491-1899.

Quarantine

What Plants are Regulated?

Asian citrus psyllid (ACP) and Huanglongbing (HLB) host plants are members of the Rutaceae family which includes all citrus as well as some ornamentals and plants grown for their leaves, such as Makrut lime and *Murraya* spp. (including curry leaf).

What Can I Do to Prevent the Spread of ACP?

Do not move potted citrus plants or other host plants from your property.

Homegrown fruit for personal consumption (under 25 pounds) may move within the quarantine area provided *all stems and leaves are removed*. Sharing fruit is discouraged due of the possibility of ACP hitchhiking to other areas.

What Establishments are Regulated?

NURSERIES

Outdoor grown and maintained citrus nursery stock poses a threat to spreading ACP.

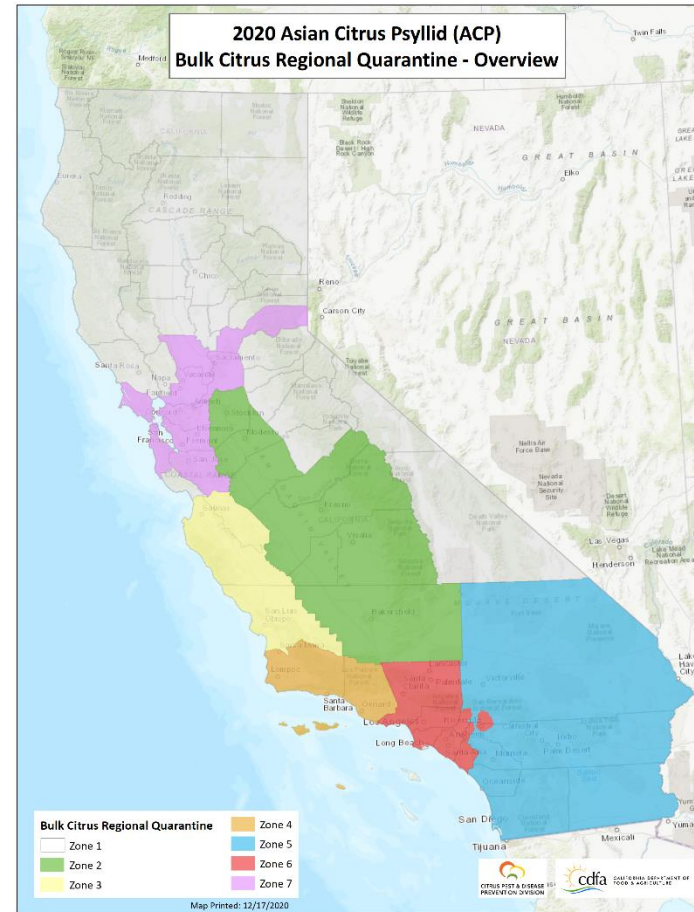
SWAP MEETS/FARMERS MARKETS

Fruit free from stems and leaves may be sold at swap meets and farmers markets by vendors with a compliance agreement.

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More Quarantine Information?

Visit our website for the latest regulation information:

www.cdfa.ca.gov/plant/acp/regulation

www.cdfa.ca.gov/plant/hlb/regulation



Area-Wide Treatment



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Treatment will be made by a professional applicator and CDFA staff.

- CDFA will be treating infested areas to eradicate the Asian Citrus Psyllid
- 400/800-meter buffer surrounding commercial citrus groves
- Coordinated treatment with citrus growers in designated Psyllid Management Areas (PMA)



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Active Ingredients

The Asian citrus psyllid (ACP) treatment program will use a product containing beta-cyfluthrin as an active ingredient. The product used by CDFA has the same formulation as products that can be purchased at local home and garden centers.

Beta-cyfluthrin is a pyrethroid insecticide similar to a natural chemical produced by chrysanthemum flowers. Pyrethroids are one of the most common household insecticides used today. Beta-cyfluthrin products are used in homes, restaurants, hospitals, food processing plants and gardens.

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From a Local Home Improvement Store

Beta-Cyfluthrin Product, Imidacloprid Product,
Pyrethroid Product



Notifications

**PEST HOTLINE:
1.800.491.1899**




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Properties will be notified at least 48 hours in advance.

If unable to treat, we will leave a green notification with the reason.

Upon completion of Treatment you will receive a yellow notification.

 CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
COUNTY AGRICULTURAL COMMISSIONER'S OFFICE

OFFICIAL NOTICE
ADVANCE NOTIFICATION OF INSECTICIDE TREATMENT

An infestation of the Asian citrus psyllid (ACP) has been detected in your neighborhood. To prevent the spread of this pest, the California Department of Food and Agriculture (CDFA) has implemented a voluntary treatment program whereby treatments are applied to host plants within designated areas.

The insecticide Tempo® SC Ultra (cyfluthrin), a pyrethroid, and Merit® 2F or CoreTect™ (imidacloprid) will be applied to all citrus trees and host shrubs located on your property. These insecticides kill adult and/or immature ACP present on your citrus trees or host shrubs. The insecticides are applied using ground-based equipment.

By allowing CDFA to treat the citrus trees on your property, you will be making a huge contribution to the suppression of this invasive pest. **The treatment is free of charge.**

Your property is scheduled for treatment on _____, unless you call the Exotic Pest Hotline at **(800) 491-1899**. Additionally, please call the Exotic Pest Hotline if you have any questions or a situation that requires special attention. Unfavorable weather conditions, such as rain or wind, may cause the treatment to be rescheduled.

You do not need to be present during the treatment as long as treatment staff have access to your property, including the backyard. The treatment takes only a few minutes if you take the following steps:

- Leave your gates unlocked.
- If possible, temporarily secure any pets and their food and water dishes indoors.
- Close your doors and windows. They may be opened after treatment is complete.
- Move items such as barbecues, lawn furniture, toys, etc. away from your trees and shrubs.

It is not necessary to harvest all of the citrus fruit from your trees before the treatment begins. Any fruit to be picked on or after the treatment date can be left on the tree and harvested after the area has dried.

After the treatment is completed:


- Avoid contact with treated area until the treated area is dry.
- Contact our project office before moving any citrus plant material from your property.

Please visit our website to learn more about this pest <http://www.cdfa.ca.gov/phpps/acp/>

Thank you for your cooperation.

Block Number: _____ Date: _____
(Please refer to this block number when contacting our office)

60-232 (12/14)

 CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
COUNTY AGRICULTURAL COMMISSIONER'S OFFICE

WE WERE UNABLE TO TREAT YOUR PROPERTY

Your property was scheduled for Asian citrus psyllid treatment on _____.

We were unable to treat as planned due to the reason(s) checked below.

Your gate was locked or a dog was present. Your property has been rescheduled for treatment on _____. Please unlock your gate and/or restrain your dog on the date of your scheduled treatment.

Rain and/or wind. Your property has been rescheduled for treatment on _____.

Other. Please call our office at 800-491-1899.
Reason: _____

In order to stop the spread of the Asian citrus psyllid, it is important that all properties within the treatment area are treated with the insecticide applications in a timely manner.


If you need to make special arrangements for this treatment, or if you have any questions or concerns, please call our office at (800) 491-1899.

Please visit our website to learn more about this pest <http://www.cdfa.ca.gov/phpps/acp/>

This treatment is free of charge.

Thank you for your cooperation.

BLOCK NUMBER _____ DATE _____
(Please mention the block number when contacting our office)
60-232 (4/13)

 CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
COUNTY AGRICULTURAL COMMISSIONER'S OFFICE

NOTICE OF INSECTICIDE TREATMENT

The California Department of Food and Agriculture (CDFA) has detected the Asian citrus psyllid (ACP), a serious insect pest, or Huanglongbing (HLB), a deadly citrus disease, in your neighborhood.

On _____ at approximately _____ A.M. / P.M., your property was treated with the insecticide(s) checked below. By allowing CDFA to perform emergency treatment of citrus trees on your property, you have made a huge contribution to the suppression of this invasive pest, which poses an imminent threat to California's environment and economy. If you have any questions, please call the Project Office at (800) 491-1899.

To learn more about the ACP and HLB, please visit the CDFA website: <http://www.cdfa.ca.gov/phpps/acp/>

Tempo® SC Ultra (beta-cyfluthrin) is a formulation of a pyrethroid contact insecticide for controlling Asian citrus psyllid adults and nymphs. This material will be applied a minimum of one time to the foliage of host plants on designated residential properties.

Merit® 2F (imidacloprid, a systemic insecticide) applied to the soil of all host plants at designated residential properties. The material is taken up into the plant via the root system and provides approximately 12 months of protection against the pest, depending on the soil conditions.

CoreTect™ (imidacloprid, a systemic insecticide), tablets were applied below the soil surface of host plants at designated residential properties. The material is taken up into the plant via the root system and provides approximately 12 months of protection against the pest, depending on the soil conditions.

CDFA has selected the insecticide products above based on their effectiveness against ACP, worker and environmental safety, and California registration status.

- Once the area has dried, you may use your property as you normally would.
- To prevent the spread of this pest, please do not move plant material off your property without contacting our project office.
- For best results, please irrigate the plants that were treated within 24 hours of treatment.

If you are experiencing health problems after this application, call the California Poison Control System hotline at (800) 222-1222(voice), or consult with your physician.

Thank you for your cooperation.

BLOCK NUMBER _____ DATE _____
(Please mention the block number when contacting our office)
60-234 (3/14/13)

Pest Detection/Emergency Projects
Telephone: 800.491.1899 • www.cdfa.ca.gov

State of California
Gavin Newsom, Governor



Environmental Monitoring



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To ensure protection of human health and the environment, the CDFA has contracted with DPR to oversee environmental monitoring of treatment projects.

- Sampling media include air, leaf, soil, tank, and water.
- Samples are collected before and after treatment in order to analyze the amount of product residue.



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Protecting Pollinators

Protecting native bees and managed hives is an important consideration in agricultural officials' efforts to protect our food supply and environment from invasive pests like the Asian citrus psyllid.

- The Program follows all pesticide labels and bee safe label language.
- Program staff actively look for foraging bees.
- Treatment activities are not conducted if bees are actively foraging on host plants to be treated.
- When bees are present the treatment will be rescheduled for a time when bees are not active, like early morning.

**PEST HOTLINE:
1.800.491.1899**



When bees are present, we reschedule treatment for early morning when bees are dormant.



Biocontrol

Biological Control Method

- Use of natural enemies to suppress and control populations of invasive pests.
- *Tamarixia radiata* identified as ideal biocontrol agent for Asian citrus psyllid.
- Biocontrol is part of the Integrated Pest Management plan for Asian citrus psyllid.



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Biocontrol Rearing Process



Biocontrol Releases



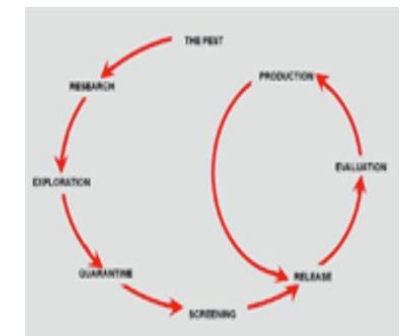
Tamarixia radiata



Biocontrol Rearing Facilities



Asian Citrus Psyllid



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CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE | PUBLIC MEETING INFORMATION

Questions?

To ask a question:

1. Raise your hand – you will be unmuted and can ask verbally.
2. Type your question into the question box.

