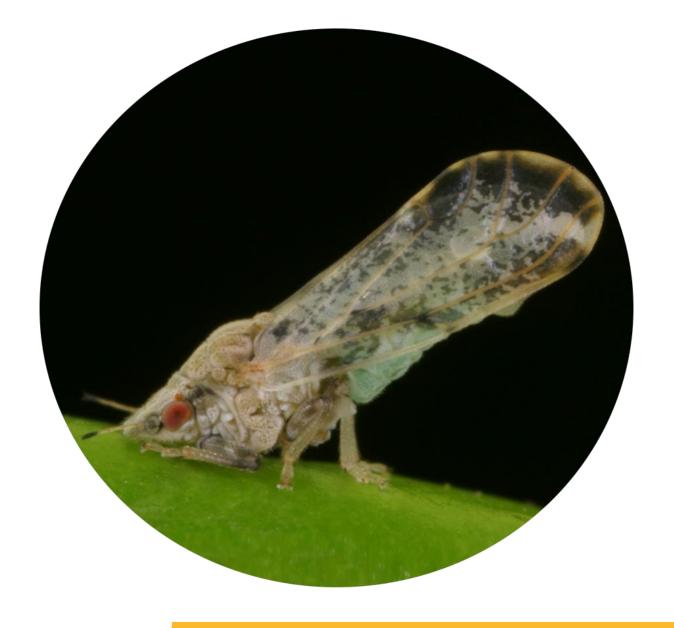




# Public Meeting Information

**Asian Citrus Psyllid Control Program** 

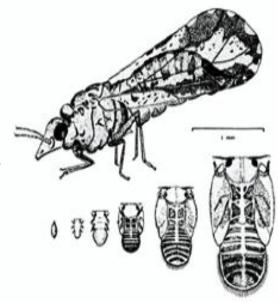


CDFA REPORT A PEST HOTLINE: 1.800.491.1899 www.cdfa.ca.gov/go/reportapest

# **ACP Lifecycle**

#### **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



CDFA REPORT A PEST HOTLINE: 1.800.491.1899 www.cdfa.ca.gov/go/reportapest





#### **Asian Citrus Psyllid Life Stages**





Eggs







Adult ACP

Adult feeding with nymphs

# Huanglongbing or Citrus Greening Disease









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.



## Survey

CDFA staff will survey the area for Asian citrus psyllid and Huanglongbing disease symptoms.











- If ACP is found on your property, a CDFA surveyor will collect leaf samples from the host tree where the psyllid was found and collect any life stages of the ACP from host trees.
- Host plants include all citrus varieties and hybrids, including kumquat, mandarin, grapefruit, orange, lemon and lime; also including closely related plants like curry leaf and ornamental orange-jasmine.
- All plant samples are bagged and shipped to the CDFA Laboratory in Sacramento, California for analysis.
- If the sample is confirmed positive for the HLB disease, the resident will be notified.



# **Active Ingredients**

The Asian citrus psyllid (ACP) treatment program uses products containing imidacloprid and beta-cyfluthrin as active ingredients. The products used by CDFA are the same formulation as products that can be purchased at local home and garden centers.

Imidacloprid is a nicotine-based insecticide, in a group of chemicals called neonicotinoids. It is available in a variety of home garden use products and flea treatments for dogs and cats.

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.

PEST HOTLINE: 1.800.491.1899





#### From a Local Home Improvement Store

Beta-Cyfluthrin Product, Imidacloprid Product, Pyrethroid Product



### **Treatment**

PEST HOTLINE: 1.800.491.1899



CDFA will be treating infested areas to eradicate the Asian citrus psyllid.









CDFA REPORT A PEST HOTLINE: 1.800.491.1899 www.cdfa.ca.gov/go/reportapest





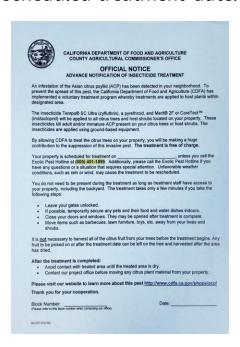




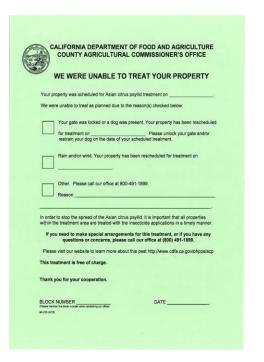


## **Notifications**

Properties will be notified at least 48 hours in advance, with a blue notification notice that will have a scheduled treatment date.



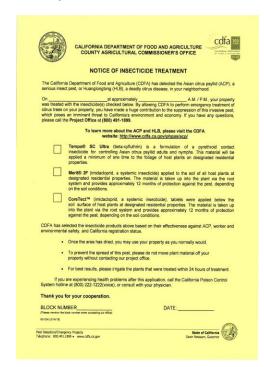
If we are unable to treat, we will leave a green notification with the reason.



**PEST HOTLINE:** 1.800.491.1899



Upon completion of treatment you will receive a yellow notification.





## Tree Removal

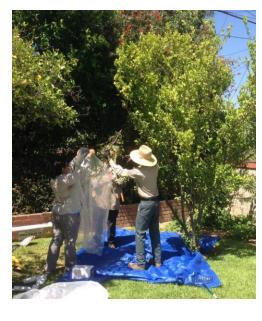
PEST HOTLINE: 1.800.491.1899



- A tree that is confirmed by CDFA as positive for the bacteria that causes
   Huanglongbing will decline in health and die.
  - It might appear healthy now, but the disease is damaging the trees vascular system and causing the tree to starve for nutrients.
  - The diseased tree is considered a nuisance as it poses a threat to citrus trees in the surrounding community.
- There is no cure for HLB, and all confirmed positive trees must be removed.
  - CDFA will take great care with the residential property while conducting the tree removal.









## **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.







Tamarixia radiata



**Biocontrol Rearing Process** 



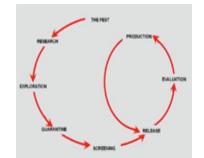






**PEST HOTLINE:** 

**Biocontrol Releases** 





# **Environmental Monitoring**



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.

CDFA REPORT A PEST HOTLINE: 1.800.491.1899 www.cdfa.ca.gov/go/reportapest





# **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.







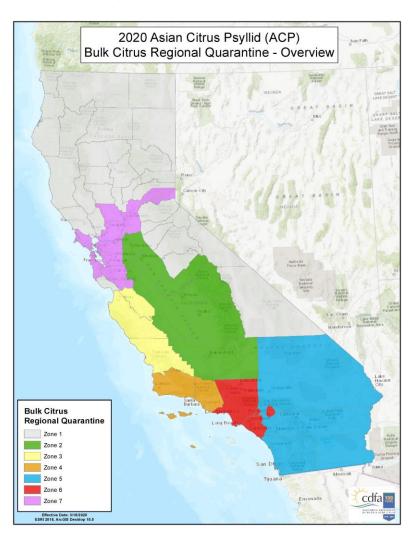


## Quarantine

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

- Movement of regulated host material within and from a quarantine area is prohibited unless it meets regulatory requirements.
- 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 to the possibility of ACP hitchhiking to other areas.

PEST HOTLINE: 1.800.491.1899



- Nurseries and farmers markets are regulated establishments.
- Only buy citrus nursery stock from reputable sources within the ACP quarantine zone in which you reside. Citrus nursery stock in this quarantine should have a blue CDFA nursery tag attached to them.

#### **More Quarantine Information?**

/isit our website for the latest regulation information: <u>www.cdfa.ca.gov/plant/acp/regulation</u> <u>www.cdfa.ca.gov/plant/hlb/regulation</u>



### Questions?





To ask a question:

- I. Raise your hand– you will beunmuted andcan ask verbally.
- 2. Type your question into the question box.

