## What to Expect in Response to a Confirmed Positive Huanglongbing Detection

Huanglongbing (HLB), also known as citrus greening disease, is caused by the bacteria *Candidatus* Liberibacter asiaticus (*C*Las). which can be transferred to plants in the citrus family (Rutaceae) by an infected Asian citrus psyllid (ACP), adult or nymph. HLB-infected trees bear small, asymmetrical fruit which are partially green, rancid tasting, and inedible. Once infected, the tree will decline in health and die. HLB is considered to be one of the most serious plant diseases in the world and there is no cure. HLB is not harmful to human or animal health.

As a resident in the community where an HLB detection is confirmed, you can expect to see California Department of Food and Agriculture (CDFA) and your local County Agricultural Commissioner's office (CAC) staff surveying for HLB-infected host plants (primarily citrus trees) in the area, conducting insecticidal treatments to control ACP populations, and removing confirmed HLB diseased trees.

Due to the serious nature of this pest and disease, you can expect these activities to be ongoing for many years. Your cooperation with the program will help to protect your citrus trees, your neighbor's trees, and those of your entire community.

The CDFA's Citrus Pest and Disease Prevention Division (CPDPD) has authority under the Food and Agricultural Code and the California Code of Regulations to inspect, treat for, and eradicate invasive pests and diseases that cause harm to citrus plants. Activities associated with an HLB confirmed detection are mandatory.

All activities associated with this project are offered free of charge to residents in the project area. CDFA staff or others associated with the program will never ask for money for any activities conducted.

## Activities that CDFA may conduct on your property:

#### Survey

# **Detection Survey – Multi-Pest Survey (MPS)**

CDFA staff conduct MPS to determine the presence of citrus pests and diseases, including HLB, in an area. This survey is risk-based, and both insect and plant samples may be collected. Staff will visually inspect citrus trees and other closely related hosts for ACP and symptoms of HLB, as well as other citrus pests and diseases.

- Upon arriving at a residence, staff will make contact with an adult at the residence to request permission to survey both front and/or backyard host plants.
- Surveyors may work alone or in pairs.
- The surveyor(s) will never ask to enter your home.
  - The surveyor(s) will be identified by a CDFA issued identification badge and may wear shirts or hats with a patch or with the words "Department of Agriculture" or "State Agriculture."

- If the property owner is not home, the surveyor will leave an informational flyer and may return at a later time to initiate contact.
- If trees are in the front yard and unfenced, the surveyor will inspect trees that are accessible and leave a post survey notice to explain what was done.

Below are pictures of citrus plants exhibiting HLB symptoms:





Asymmetrical mottling of the leaves

A leaf with corky veins

## **Delimitation survey**

If a plant sample is confirmed positive for CLas, the bacteria that causes HLB, the following delimitation survey will be conducted. This survey is mandatory. If an ACP sample tests positive for CLas the delimitation activities will be conducted, but the activities are not mandatory.

Every property within 250 meters of the initial detection site will be surveyed.

- Samples from all HLB host plants will be collected.
- HLB hosts 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.
- Surveyor will make contact with the property owner to request access to the yard.
  - Surveyors may work alone or in pairs.
  - Surveyor will never ask to enter your home.
  - Surveyor will be identified by a CDFA issued identification badge and may wear hats or shirts that clearly identifies the surveyor with a patch or with the words "Department of Agriculture" or "State Agriculture."
  - o If the property owner is not home, the surveyor will leave an informational flyer and may return at a later time to initiate contact.

o If trees are in the front yard and unfenced, the surveyor will conduct the survey of the trees which are accessible and leave a postsurvey notice to explain what was done.

## Sample Collection

- The surveyor will collect 20 leaves from each host plant and other plant parts, such as peduncles and roots and any life stages of the ACP that they find.
- All samples are bagged, labeled 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.

Below are pictures showing examples of CDFA surveyors:





## **Intensive Survey**

If a positive HLB sample is collected from a property or if the sample is inconclusive, a more intensive survey is conducted on the property.

- Staff will re-contact the resident and schedule a visit to take additional samples.
- The specific host plant is visually sectioned into quadrants and each quadrant is sampled.
- A collective sample of 20 leaves, peduncles, and fibrous roots will be taken as part
  of the intensive sampling.
- The sample will be bagged, labeled and shipped to the lab for analysis.

#### **HLB Eradication**

## **ACP Suppression Treatment**

The ACP is a very small insect, about the size of an aphid (1/8<sup>th</sup> inch); it is the vector for the deadly citrus disease, HLB. It is important to reduce the ACP population to help prevent the spread of the HLB disease. In any area where CLas positive ACP, or HLB positive host plants have been detected, CDFA will conduct residential treatments to suppress ACP populations.

The treatment protocol consists of treating all ACP host plants within 250 meters of a tree or ACP sample confirmed positive for CLas, the bacteria that causes HLB, with both a foliar and a systemic insecticide. Foliar insecticides are useful for immediate reduction of the adult population to eliminate dispersal, while systemic insecticides are used to provide long term protection against reinfestation. CDFA will act very quickly in these **emergency** situations to suppress ACP populations, because the ACP can carry and spread the HLB disease.

A public meeting (held virtually) may be conducted prior to initiating any treatment activities in the area.

- Residents will be notified about the public meeting via mailed or hand-delivered postcard invitations, generally one week prior to the meeting.
- Host plants on the find site and adjacent properties may be treated with homeowner permission prior to the public meeting.

<u>Foliar treatment</u> is conducted for the immediate reduction of the adult ACP populations and to prevent the adults from dispersing to the adjacent areas.

- CDFA staff and treatment contractor staff will conduct treatments. The foliage of host plants within 250 meters of each detection site will be treated with a pyrethroid contact insecticide Tempo® SC Ultra (B-Cyfluthrin).
- This will occur using hydraulic spray or a backpack hand sprayer.

**Soil treatment** is applied as a systemic application of Merit® 2F to kill the sedentary ACP nymphs and provide long-term protection against reinfestation.

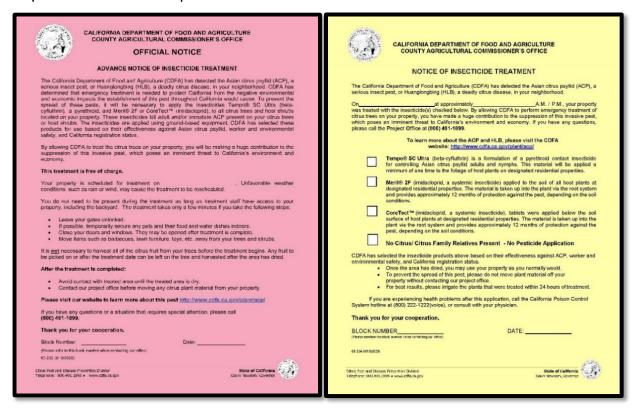
 CoreTect<sup>™</sup> pellets may be used in place of Merit® 2F in situations where there are environmental concerns about soil surface runoff, host plants growing next to ponds or in small pots, and/or other environmentally sensitive areas.

An official notice of insecticide treatment will be provided to the resident or left at the residence at least 48 hours in advance of the scheduled treatment date.

- On the day of treatment staff will make contact with an adult resident to notify them that CDFA is ready to conduct treatment on the front and/or backyard host plants.
   There may be treatment contractor staff on site with CDFA:
  - Staff will identify suitable host plants for treatment and cover any non-host plants, as needed.

 Following treatment, staff will remove tarps covering non-host plants and/or household items and close gates behind them. Completion notices are left with the homeowners detailing precautions to take and post-harvest information applicable to any fruit on the property.

Below are examples of notices (provided in both English and Spanish) you might receive as part of the treatment process:



Advance notice of treatment

Post-treatment notice

# Below are examples of what you might see during treatment:





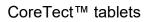


CDFA treatment truck

Tarping to protect nonhost plants and property

Foliar application





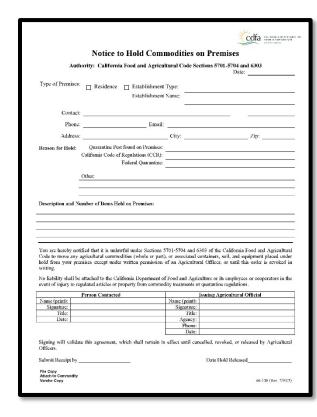


Soil application

### **HLB Positive Tree Removal**

A host plant or citrus tree that is confirmed by the lab as positive for the bacteria that causes HLB will decline in health and die. It might appear healthy now, but the disease is damaging the tree's vascular system and causing the tree to starve for nutrients. The diseased tree increases the risk of spreading HLB to other citrus trees in the surrounding community. The diseased tree acts a reservoir for the bacteria that ACP can feed on, acquire the bacteria and spread the bacteria to other healthy host plants or trees. There is no cure for HLB, and all confirmed positive trees must be treated and removed.

- CDFA will notify the property owner or current resident and schedule treatment and removal of the HLB-positive tree.
- CDFA staff and/or a tree removal contractor will take the necessary precautions to avoid damaging property and safely remove and dispose of the infected tree(s).
- CDFA staff will oversee all the activities performed by the tree removal crew.
- If the resident is unwilling to allow the removal of the diseased tree, CDFA will use their authority to abate the nuisance and remove the tree.
- A hold notice will be issued to the property owner where an HLB positive tree has been confirmed to prevent the movement of any remaining citrus plants and/or cuttings from the property.





Notice to hold commodities on premises

Consent for host removal

- On the day of HLB positive host plant removal:
  - CDFA staff will contact the resident upon arrival at the property and take their consent.
  - Staff will remove any household items placed under the tree.
  - The tree will be completely cut down, and the stump will be removed either manually or using a stump grinder.
  - The entire citrus tree is chipped using an onsite wood-chipper or the tree is cut into pieces and double bagged before removing from the property.
  - o The plant debris is disposed of at the nearest landfill.

Below are pictures showing CDFA staff conducting tree removal:





## CDFA Authority

- CDFA's CPDPD has authority under the Food and Agricultural Code and the California Code of Regulations to inspect and treat for invasive pests and diseases that cause harm to citrus trees.
- Due to the serious nature of this disease, activities associated with an HLB confirmed detection are mandatory.
- If the resident is unwilling to allow the removal of the diseased tree, CDFA will
  use their authority to abate the nuisance and remove the tree.

## Below is an example of an abatement letter you might receive:



April 2, 2024

Mr. and Mrs. Smith 123 ABC Drive Somewhere, CA 90210

# SUBJECT: MANDATORY TREATMENT AND REMOVAL OF HUANGLONGBING INFECTED TREE

Dear Mr. and Mrs. Smith (or current resident):

The California Department of Food and Agriculture must treat and remove two lime trees and one mandarin tree located at 123 ABC Drive, Somewhere, Calfiornia found to be infected with huanglongbing (HLB) disease, a devastating disease of citrus of which there is no cure. Any plant or tree infected with HLB will die. Until the infected trees are treated and removed, they will continue to be HLB reservoirs for the vector Asian citrus psyllid to feed upon and spread the disease to other trees and plants. Any HLB-infected tree on a property is considered a public nuisance under the law (Food and Agriculture Code section 5762). Therefore, the infected trees must be treated and removed as soon as possible to eliminate the source of the inoculum and protect other citrus trees on the property and in your neighborhood.

Please contact project personnel at <u>800-491-1899</u> no later than <u>4:30 p.m., Tuesday, April <u>16, 2024</u>, to schedule treatment and removal of the HLB-infected lime trees and mandarin tree on your property. If we do not hear from you by that date and time, we will initiate the abatement process.</u>

If you have any questions, please contact the project personnel at the number above.

Sincerely,

Director, Citrus Pest & Disease Prevention Division

cc: County Agricultural Commissioner

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