

Citrus Pest & Disease Prevention Program
Key Messages by Audience
Updated: 2/16/22

POSITIONING STATEMENT

Huanglongbing (HLB) is a death sentence for California citrus – but by working together we can all save our citrus trees from this deadly disease.

Key Messages – Consumer/Homeowner Audiences

DESCRIPTIVE MESSAGES (ALL AREAS)

- There is no cure for the disease/Huanglongbing. Once a tree is infected, it's like a death sentence and it will die.
- Now is a critical time for homeowners to protect their backyard citrus trees by searching for the Asian citrus psyllid and Huanglongbing, also known as HLB or citrus greening disease.
- The Asian citrus psyllid is similar in size to an aphid. Adults are brown, about 1/8th of an inch long, and feed with their bodies at a 45-degree angle.
- Young Asian citrus psyllids are yellowish orange and produce a white, waxy substance that can be seen on leaves.
- Adults, juveniles and eggs are typically found on tender, new leaves.
- Symptoms of HLB include blotchy, yellowing of leaves; yellow shoots; lopsided, small and rancid-tasting fruit; and premature and excessive fruit drop.
- Report [ACP/HLB] symptoms immediately to CDFA at 1-800-491-1899.

PRIMARY KEY MESSAGES (SOUTHERN CA)

- There is no cure for HLB. When a tree is infected, it's like a death sentence and it will die.
- Residents should inspect their trees for signs of HLB and report any suspicious symptoms immediately to CDFA.
- Residents should cooperate with agriculture officials – allow them to access your property to look for the disease.
- HLB is not harmful to humans or animals, but it is fatal for citrus trees.
- HLB has already been found in Southern California, and we need to work to keep it from killing more trees in the state.
- HLB infected trees need to be removed to protect other trees, the community's citrus, and the state's vibrant commercial citrus industry.

- If the pest and disease are not stopped, it will destroy citrus trees in residential neighborhoods. We should all help prevent the disease/Huanglongbing from spreading.

PRIMARY KEY MESSAGES (CENTRAL/NORTHERN CA; AREAS STILL RECEIVING ACP TREATMENTS)

- Controlling populations of the Asian citrus psyllid is critical to controlling the spread of HLB.
- Residents should inspect their trees for signs of the Asian citrus psyllid and HLB report suspicious pests or symptoms immediately to CDFA at 1-800-491-1899 or the county agricultural Commissioner.
- Residents should cooperate with agricultural crews – allow them to access your property to look for and treat for the pest.

SECONDARY MESSAGES (ALL AREAS):

- Residents are critical to the fight and should:
 - Not move citrus plants, leaves, or foliage into or out of quarantine areas or across state or international borders. Keep it local.
 - Remove stems and leaves and wash citrus fruit thoroughly before sharing.
 - Buy trees from reputable, licensed California nurseries.
 - When grafting, use only registered budwood with source documentation.
 - Dry or double bag citrus plant material prior to disposal.
 - Talk to your local home and garden center about products that can protect against the Asian citrus psyllid.
 - Consider removing unwanted or uncared for citrus trees so they do not become a host to the pest or disease.

SECONDARY MESSAGES (SOCAL):

- The HLB quarantine prohibits the movement of all citrus plant material into or out of the quarantine area.
- Provisions exist to allow the movement of commercially cleaned and packed citrus fruit.
- Fruit must be thoroughly washed and free of leaves and stems before it is moved from the property on which it is grown.
- Visit CaliforniaCitrusThreat.org to learn more about the pest and disease and to see pictures.

BIOCONTROL SPECIFIC MESSAGING (TO BE USED AS DETERMINED IS APPROPRIATE):

- Biocontrol to treat Asian citrus psyllid is a priority, and the University of California, Riverside, Citrus Research Board, Citrus Pest & Disease Prevention Program, and the United States Department of Agriculture are continuing to improve mass rearing methods for *Tamarixia radiata*, a tiny, stingless wasp that is harmless to humans or animals, with a major focus on releasing it into urban areas.
- The goal of the biocontrol program in Southern California is to reduce densities of Asian citrus psyllid, so there are fewer psyllids that may be able to find and spread HLB.
- Biocontrol is an important tool in the fight against ACP and HLB, but biocontrol is not a silver bullet, and thus additional support from the community and commercial growers is critical to

managing the spread of ACP and threat of HLB. There are many other tools in place — like quarantines, treatment and tree removal — that help prevent the spread of the disease.

- For *Tamarixia* to be effective, ant control is critical. Do your part by placing ant bait — not spray — around your citrus trees and control ants throughout your yard; contact your local nursery or home and garden center for recommendations on ant bait.

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Key Messages – Industry Audiences

PRIMARY KEY MESSAGES (GENERIC):

- We all must work together in the fight to save California citrus from the Asian citrus psyllid and the fatal plant disease it can carry called Huanglongbing, which has been found in residential areas of Los Angeles, Orange, Riverside, San Bernardino and San Diego counties at an increasing rate.
- The disease has no cure, and it could be years until there is a solution. Right now, the best way to stop the disease from spreading is to stop the Asian citrus psyllid.
 - To stop the Asian citrus psyllid, we must restrict its movement and suppress existing psyllid populations.
 - Regulations are in place to help prevent the spread of the pest and disease. All growers, packers and haulers must comply with all California Department of Food and Agriculture (CDFA), county and federal regulations, including quarantines.
- The cost to manage the Asian citrus psyllid is far less than any potential costs or loss to the industry should HLB take hold throughout our state.
- Employ trusted farm labor contractors, transporters and others who also adhere to regulations.
- Stay informed about the Asian citrus psyllid and HLB and findings in your area:
 - Get to know your regional grower liaison.
 - Regularly visit and sign up for the industry e-newsletter at CitrusInsider.org.

GROWER MESSAGES:

- Inspect citrus trees regularly for the Asian citrus psyllid and symptoms of Huanglongbing (HLB) by following best practices and conducting visual searches whenever there is new flush on the trees. If you think you have the pest or disease, contact your local agricultural commissioner and the California Department of Food and Agriculture immediately.
Note: Refer to descriptive messaging about ACP and HLB symptoms listed above.
- The best way to prevent the spread of HLB is to control ACP populations. A regional Asian citrus psyllid quarantine for movement of bulk citrus and nursery stock is in place to help protect California citrus from HLB and prevent the movement of ACP around the state. All citrus growers must be in compliance and follow approved [mitigation steps](#).
- Participate in best management practices and encourage other growers and farm labor contractors to do the same, including:
 - Participating in area-wide management programs for the Asian citrus psyllid.
Note: Area-wide management messaging is below.
 - Requiring all leaves, stems and branches to be removed from equipment and personal clothing every time a crew moves from a harvest site.
 - Regularly inspecting trees for the pest and symptoms of the disease.
- Abandoned or uncared for orchards threaten the entire citrus industry in our state, as these trees can serve as reservoirs for the psyllid and HLB. These orchards must be removed in order

to protect neighboring homeowner and commercial trees, and ultimately California's citrus industry.

- Abandoned orchards can be defined as those with lack of irrigation, lack of pest control and no harvest for an extended period of time.
- If you have an orchard that you do not care for or know of an abandoned grove in your area, contact your local grower liaison and agricultural commissioner who can work with you on solutions to remove these hazards and protect neighboring citrus trees.

General Treatment Information

- Citrus growers and pest control advisers (PCAs) should follow the University of California's [guidelines](#) for ACP management, and regularly consult this website for guidance on approved insecticides, treatment schedules and strategies, and other management best practices.
- Not all insecticides are effective against ACP. Some are short-lived, some only affect nymphal stages and some are quite toxic to natural enemies who feed on ACP. It's important to consult the University of California's guidelines for more information on approved and effective insecticides.

Area-Wide Management

- Area-wide management is a strategy where growers in a specific area coordinate treatment schedules to maximize the impact on psyllid populations as an emergency response to recent population detections. But in order to be effective, it is imperative neighboring growers work together.
- While area-wide management is not mandated, the strategy is supported by University of California researchers, industry leaders, Citrus Research Board, California Citrus Mutual and the Citrus Pest & Disease Prevention Division.
- Area-wide management is the most effective protection we have against the Asian citrus psyllid, and as a result, Huanglongbing. This tried-and-true process has been effectively implemented in California to manage the emergency response to European grape vine moth and glassy-winged sharpshooter.
- Individual orchard treatments are not as effective. Most insecticide residues break down in 3 to 4 weeks or less. If treatments occur in a patchwork fashion, the psyllids reinvade from neighboring areas when the residues break down. However, if treatments occur over a large area during a short period of time, they have the biggest impact on known psyllid populations.
- In areas where there are established populations of the psyllid, area-wide management schedules are set on a county-by-county basis and are developed in partnership with the University of California, local ACP/HLB task forces and pest control districts. Contact your grower liaison with questions about area-wide management and how to implement the recommended protocols.
 - Even in regions that are not yet at this management stage, it is important to build the infrastructure so if the time comes to implement an area-wide management strategy, growers in the region are ready.

- Counties are divided into small manageable zones called Psyllid Management Areas (PMA) where a grower network is established to work together. To view current PMA maps, visit CitrusInsider.org or contact your grower liaison.

HLB in Grove

- If a commercial citrus tree is confirmed to be HLB positive via the qPCR method, the grower should remove the tree and conduct treatment with a conventional insecticide in 250-meters of the HLB-positive tree's location in a quick manner. Tree removal and treatment is critical to protect nearby trees and maintain the long-term health of commercial citrus in our state.
 - *If appropriate:* If a grower does not conduct treatment and removal in a timely manner, the California Department of Food and Agriculture will perform the service and charge the grower for the cost.
- All citrus trees found to be presumptively positive for HLB by an early detection technology (EDT) should be retested by the California Department of Food and Agriculture using the qPCR method.

Organic Treatment

- Organic treatments are not as effective or long-lasting as conventional insecticide treatments, and often cost more than conventional methods. That said, the University of California has identified options for organic growers, such as repeated sprays of a low rate of oil or other organic insecticides applied at frequent intervals.
 - Organic insecticides are very short-lived, lasting hours to a few days. Thus, they must be applied frequently, every 10 to 14 days.
 - Organic insecticides are most effective in killing the psyllids they come in direct contact with, so complete coverage of the citrus tree is needed.
- The biological control agent *Tamarixia* is not a single solution for growers because it will not kill enough psyllids to prevent disease spread. It is typically used to reduce psyllid populations in urban areas.
- In an area that is in eradication mode for the Asian citrus psyllid, all growers are encouraged to treat with insecticides approved by the University of California to best manage the pest. (*Note: current areas operating under eradication mode include San Joaquin Valley, San Luis Obispo County, and Northern California.*)
- If Huanglongbing is found within 250 meters of a commercial grove, all growers within 250 meters – including organic growers – are required to treat with conventional insecticides to best manage the pest.
- When the psyllid management strategy changes to 'area-wide' because the psyllid has become established, it is critical for growers in a region to treat at the same time, and both conventional and organic treatments are acceptable.
- Talk to your local grower liaison to determine if your area is involved in a responsive management program or using area-wide management and follow University of California treatment guidelines to determine rates of Asian citrus psyllid effective insecticides.

PCA MESSAGES:

- Pest control advisors (PCA) play a critical role in the fight against the Asian citrus psyllid and Huanglongbing (HLB).
- Inspect citrus trees regularly for the Asian citrus psyllid and symptoms of HLB by following best practices and conducting visual searches whenever there is new flush on the trees. If you think a grower has the pest or disease, contact your local agricultural commissioner and the California Department of Food and Agriculture immediately.
- *Note: Refer to descriptive messaging about ACP and HLB symptoms listed above.*
- The best way to prevent the spread of HLB is to control ACP populations. A regional Asian citrus psyllid quarantine for movement of bulk citrus and nursery stock is in place to help protect California citrus from HLB and prevent the movement of ACP around the state. All citrus growers must be in compliance and follow approved [mitigation steps](#).
- Participate in best management practices and encourage other pest control advisers, pesticide applicators and farm labor contractors to do the same, including:
 - Participating in area-wide management programs as an emergency response to known Asian citrus psyllid populations.
Note: Area-wide management messaging is under Growers messaging.
 - Requiring all leaves, stems and branches to be removed from equipment and personal clothing every time a crew moves from a harvest site.
 - Regularly inspecting trees for the pest and symptoms of the disease.
- Abandoned or uncared for orchards threaten the entire citrus industry in our state, as these trees can serve as reservoirs for the psyllid and HLB. These orchards must be removed in order to protect neighboring homeowner and commercial trees, and ultimately California's citrus industry.
 - Abandoned orchards can be defined as those with lack of irrigation, lack of pest control and no harvest for an extended period of time.
 - If you have an orchard that you do not care for or know of an abandoned grove in your area, contact your local grower liaison and agricultural commissioner who can work with you on solutions to remove these hazards and protect neighboring citrus trees.
- By working together, pest control advisors and pesticide applicators can stay up to date on new tactics to prevent the spread of ACP and HLB and advise growers to participate in best management practices to protect their groves.

Note: See general treatment information messaging and area-wide management messaging

PACKER MESSAGES:

- As the primary connection between growers and haulers, packers play an important role in combatting the Asian citrus psyllid and Huanglongbing. Packers should work with trusted growers, farm labor contractors and transporters to prevent the spread of the Asian citrus psyllid and protect California citrus.

Best Practices for Packers

- Ensure bins leaving packinghouses are free of leaves and stems.
- Regularly host or sponsor "tailgate trainings" to educate farm labor contractors, crew bosses and harvesters on best practices for managing the Asian citrus psyllid. Free trainings are available in Spanish through the Citrus Pest & Disease Prevention Program.

- Require farm labor contractors and crew to follow best management practices for controlling the spread of the Asian citrus psyllid.
- Distribute posters, fliers, paycheck inserts or other materials to packinghouse workers.
- Encourage growers to participate in area-wide management, the most effective protection we have against the Asian citrus psyllid, and as a result, Huanglongbing. This tried-and-true process has been effectively implemented in California to manage other pests, including the European grape vine moth and glassy-winged sharpshooter.

HAULER MESSAGES:

- Haulers and transporters of bulk citrus fruit are a key component in preventing the spread of the Asian citrus psyllid.
- Under state law, all loads of bulk citrus fruit must be safeguarded in transit at all times with fully enclosed or completely covered loads. Tarps must be free of holes and rips and cover the entire load down to the truck bed.
- Each vehicle must have a copy of their Asian citrus psyllid bulk citrus compliance agreement. Failure to provide the required compliance agreement will result in a violation.

FARM LABOR CONTRACTOR/CREW MESSAGES:

- To protect California citrus from HLB, farm labor contractors (FLCs) should take great care to educate crews about the importance of preventing the spread of the Asian citrus psyllid.
- FLCs should require that all leaves, stems and branches be removed from equipment every time a crew moves from a harvest site. This means inspecting and brushing off all equipment, including underneath the equipment.
 - Equipment includes but is not limited to bins, forklifts, ladders, tractors, flatbeds, hedgers, trailers, sprayers, shade equipment, shredders, skidders, tree toppers, portable restrooms and pruning equipment.
- FLCs should require all harvesters to fully open their picking bags, dump and shake them out, and remove any stems, leaves or other debris before leaving the harvesting site.
- FLCs should require all harvesters, pruners and other field crews to inspect their clothing, personal items (hats, gloves, sleeves, etc.) and vehicles for plant material and brush them off before leaving a citrus grove.
- FLCs should park vehicles on the outside of groves, not within, and keep windows rolled up to prevent spreading the pest during transportation.
- Regularly host “tailgate trainings” with all crew bosses and farm labor crews to remind them of the importance of not transporting plant material between sites or off the property. The Citrus Pest & Disease Prevention Program provides free trainings in Spanish for field labor crews, crew bosses and foremen.

- Display signage at harvesting sites communicating the importance of best practices in managing the Asian citrus psyllid. Visit CitrusInsider.org to order free signage and informational materials.
- Report any suspected findings of the pest or disease to the California Department of Food and Agriculture at 800-491-1899.

25+ PROPERTIES AND COMMERCIAL CITRUS PRODUCTION PROPERTIES DEFINITION MESSAGES:

- The Food and Agriculture Code (FAC) 8405 defines citrus acreage as a parcel, tract or lot of land with 25 or more citrus trees of any age growing on it, except a parcel, tract or lot which is used as a nursery. This code section is specific to Citrus Pest Control Districts and their ability to assess fees on properties.
- While properties with more than 25 citrus trees are considered “citrus acreage” by the California Food and Agriculture Code, this does not mean that these properties are commercial production operations as defined by the CPDPD. Oftentimes, 25+ tree properties are residential hobbyists, common areas within residential communities or business/industrial parks.
- In its ACP/HLB Action Plan, the Citrus Pest and Disease Prevention Division defines a commercial citrus production operation as a property that has contiguous citrus with edges defined as spacing between plantings larger than a wind machine row, one acre or more of trees (100 trees per acre) and being grown with the intent of harvesting the fruit for sale
- The CPDPD uses the threshold of 25 or more trees as a way to determine treatment protocols. Properties with less than 25 trees receive treatments conducted by Division staff and paid for by the Division. Properties above the 25-tree threshold will require treatment by the landowner at their expense.
- There have been five HLB-positive plant samples detected on residential or industrial properties with more than 25 citrus trees. While these properties are not commercial production orchards per the definition above, because the number of citrus trees on the property exceeds 25, the Citrus Pest and Disease Prevention Division will require the property owner to conduct treatment and tree removal activities on their property at their own expense.

Reactive Messages

MUST BE APPROVED BY CPDPD AND CDFA PUBLIC AFFAIRS PRIOR TO USE

SAMPLE REACTIVE Q & A 25+ PROPERTIES AND COMMERCIAL CITRUS DEFINITION:

Have there been any detections of HLB in a commercial citrus area?

No. While there have been five HLB-positive plant samples detected on properties with 25+ citrus trees in the existing HLB quarantine area, the Citrus Pest and Disease Prevention Division does not recognize any of these five properties as commercial production orchards. There has been one ACP sample collected in a commercial grove in Riverside County that tested positive for the bacteria that causes HLB, but no plant samples on the property have tested positive for HLB.

When and where did these detections occur?

In the last four years, five properties with 25 or more citrus trees have experienced an HLB-positive detection. The first was in Garden Grove in Orange County in 2018. In 2019, there was a detection in the city of Orange in Orange County. In 2020, there were HLB detections on properties with more than 25 trees in the City of Riverside and Colton, and in 2021, there was another detection in Colton.

If they aren't commercial production orchards, what type of properties are they?

The majority were residential properties where citrus was being grown for personal use and consumption. One property was an industrial park that had more than 50 trees for decorative purposes.

If these properties are not considered commercial production orchards, why do they have compliance agreements with the state that authorize fruit selling or movement of bulk citrus?

Out of an abundance of caution properties with over 25 trees may be placed under a compliance agreement to educate the property owner about the rules and regulations regarding ACP and HLB quarantines.

PESTICIDES / BEES:

- Products used in Asian citrus psyllid treatments are regulated by the Environmental Protection Agency and California Department of Pesticide Regulation, and treatment crews apply treatments safely and follow label instructions, as the label is the law. By following the label, pesticides can be used to help stop the Asian citrus psyllid while maintaining the health of pollinators and the environment.
- Protecting against the Asian citrus psyllid using pesticides is one of the best ways to save the California citrus trees we all know and love. Without such treatments, our community's citrus trees are at risk of disappearing forever.

Only if pressed with direct questions about bee health

- While most people associate bees with honey, bees also provide a valuable role in our state's agricultural community as pollinators of crops. At this time when citrus trees are under attack, we need to balance the need to protect pollinators with the need to protect the landscape and agriculture industry that makes our region so vibrant and contributes to the local economy.
- Because of their important role in agriculture, home gardens, orchards and wildlife habitats, the California Department of Food and Agriculture, County Agricultural Commissioner's office and commercial citrus growers take great care to protect bees, as a healthy bee population is critical.
- Studies show there are a myriad of possible causes for declines in bee populations – from parasitic mites and disease, to genetics, poor nutrition and pesticide exposure. A 2012 study from the United States Department of Agriculture and Environmental Protection Agency says there is no one cause for the problem, and more research is needed.
- More research is needed in this area, and CDFA and California citrus growers support additional efforts to ensure we continue to maintain a healthy pollinator population and agriculture in our state.

ORGANIC / NUTRITIONAL REACTIVE MESSAGING:

MUST BE APPROVED BY CPDPD AND CDFA PUBLIC AFFAIRS PRIOR TO USE

Nutritional programs for treatment of HLB

- Growers are encouraged to maintain or improve the nutritional health of their trees. However, nutritional programs are not a cure for HLB, and while symptoms may be delayed, an infected tree will eventually die. In the meantime, it acts as a reservoir to spread the disease to other neighboring groves and backyards.
- After the initial gains in productivity from improving the micronutrient balance have been realized, the nutritional programs that have been conducted in Florida have not shown any reliable ability to keep the trees from developing Huanglongbing and dyeing.

Biological Control

- Biocontrol agents are used as part of the integrated pest control plan for Asian citrus psyllid management; however, they are not effective enough to control Asian citrus psyllids on their own.
- The biological control agent *Tamarixia radiata* is not a single solution for growers, but rather one tool in the toolbox that can be used to limit psyllid populations.
- It is used to reduce psyllid populations in urban areas in combination with other traditional methods.

ORGANIC TREATMENT MESSAGING:

General Messaging/HLB Prevention

- Because there is no cure for HLB, controlling psyllid populations is the most reliable means for growers to combat the disease.
 - This can prove difficult for conventional citrus growers with broad spectrum insecticides, but for organic citrus growers the task is even more difficult with the options currently available.
- The cost to manage the Asian citrus psyllid is far less than any potential costs or loss to the industry, should HLB take hold throughout our state.
- Organic treatments are not as effective or long-lasting as conventional insecticide treatments. That said, the University of California has identified options for organic growers, such as repeated sprays of a low rate of oil or other organic insecticides applied at frequent intervals.
 - Organic insecticides are very short-lived, lasting hours to a few days. Thus, they must be applied frequently, every 10 to 14 days.
 - Organic insecticides are most effective in killing the psyllids they come in direct contact with, so only the psyllids present at the time of spraying are reduced, not future psyllids who come in contact with the tree.
- The program supports all research into new treatments for the Asian citrus psyllid and new solutions for Huanglongbing, and the scientific community across the nation is fervently looking for solutions. Until then, the current recommended treatment approach is the best option for protecting the industry's citrus trees.
- By working together, California's citrus industry has kept HLB out of commercial groves for more than 10 years. We must continue our vigilance to save our citrus trees and livelihood from this disease.

Treatment Frequency & Methods

- Use yellow sticky cards, conduct visual monitoring, and sweep net or tap sampling every two weeks throughout the season. If psyllids are found in your grove, make two pesticide applications spaced 10 to 14 days apart. If psyllids are found again, resume applications every 10 to 14 days until no psyllids are detected.

Q: WHAT IF ACP IS FOUND IN OR NEAR AN ORGANIC GROVE IN AN ACP-INFESTED AREA?

If CLas-infected ACP is found within 250-meters of an organic grove

- The grower will be notified by CDFA or the county's grower liaison about the detection in the nearby area.
- While treatment is not mandatory, the grower should apply insecticides to all HLB host material within 250 meters of the detection, per UC ANR's recommended guidelines. *(See general messaging above.)*
- Via qPCR, CDFA will test the perimeter of the orchard within 250-meters of the detection.
 - CDFA will also use qPCR to test the perimeter twice a year during late spring and late fall to ensure that no CLas-positive ACP has spread the disease.

If CLas-infected ACP is found in an organic grove

- The grower will be notified by CDFA about the detection.

- A quarantine will not be established on the detection of a positive psyllid.
 - CDFA will test the perimeter of the orchard where the CLas-positive ACP was found.
- Again, while treatment is not mandatory, the grower should apply insecticides to all HLB host material within 250-meters of the detection.
- It is critical to follow best practices and seek advice from UC ANR on how to protect groves from HLB. (*See general messaging above.*)

Q: WHAT IF HLB IS FOUND IN OR NEAR AN ORGANIC GROVE?

If HLB is found within 5 miles of an organic grove

- Although there are no mandatory treatments required if an HLB positive tree detection is made within 5 miles of a commercial grove (unless the grove is within 250-meters of the detection), it is important that growers stay informed by communicating with their local grower liaison, UC Cooperative Extension, local pest control advisors and CDFA.
 - Additional mitigation techniques will be required for growers in this area before they can legally move fruit from the property.
 - It is important that growers educate themselves and their neighbors about the threat of HLB by visiting CitrusInsider.org.
- Growers must remain vigilant in scouting for ACP, and if found, treat their entire orchard with the UC ANR recommended methods.
 - Although organic methods require complete coverage of the tree with frequent applications, it is important that growers remain persistent if they want to effectively ward off the threat of HLB in their groves.
- In order to protect your grove and your neighbor's groves, it is important to remain observant and survey your own grove for HLB.

If HLB is found within 250-meters within of a grove

- If Huanglongbing is found within 250-meters of a commercial grove, all growers – including organic growers – are required by law to treat with conventional insecticides to best manage the pest.
 - Currently, CDFA/DPR/USDA does not have any organic products on its list of approved products for use in this type of regulatory response.
 - While a one-time application of conventional insecticides will not revoke the groves' organic certification, the current fruit harvest may not be marketed as organic according to USDA guidelines. That said, we understand these treatments may have an impact on the long-term IPM practices of organic operations.
- Once an HLB positive tree is confirmed, all growers within the 250-meter area will be notified by CDFA or the county's grower liaison and be required to apply both foliar and systemic insecticides to all HLB host material that is within the designated boundaries.
 - If the grower does not show proof of treatment, CDFA or the County Ag Commissioner's office will treat the property and the grower will subsequently be billed for the treatment.
- Via qPCR, CDFA will test the perimeter of groves within 250-meters of the initial detection.
 - CDFA will also use qPCR to test the perimeter twice a year for two years following the first detection, so long as another HLB+ tree is not confirmed.
- When choosing a treatment, growers should always consult the list of recommended products and use rates recommended by UC ANR.

HLB in a grove

- If a commercial citrus tree is confirmed to be HLB positive via the qPCR method, the grower is required to remove the tree and conduct treatment with a conventional insecticide within 250-meters of the HLB-positive tree's location in a quick and timely manner.
 - Tree removal and treatment is critical to protect nearby trees and maintain the long-term health of commercial citrus in our state.
 - *If appropriate:* If a grower does not conduct treatment and removal in a timely manner, CDFA will perform the service and charge the grower for the cost.
- Currently, CDFA/DPR/USDA does not have any organic materials on its list of approved products for use in this type of regulatory response.
- While a one-time application of conventional insecticides will not revoke the groves' organic certification, the current fruit harvest may not be marketed as organic according to USDA guidelines. That said, we understand that these treatments may have an impact on the long-term IPM practices of organic operations.
- After the infected tree has been treated, it will be properly removed and destroyed. If the grower does not have the ability to remove the tree, it will be removed by CDFA and the grower will be billed for the cost.

Other Organic Questions/Pushback (i.e., having to change packinghouses, impacts to the sales price of fruit if marketed as conventional, implementing field cleaning mitigation techniques, etc.)

- CDFA recognizes there may be a variety of business and IPM impacts for organic operations related to the mandatory treatments in response to an HLB detection. It is our hope these operational changes will help protect California's \$3.4 billion citrus industry from this deadly plant disease.

PESTICIDE/EPA MESSAGING:

Safety of pesticides/chemicals used for treatment

- When evaluating the safety of the products to be used to combat the Asian citrus psyllid in California, the California Department of Food and Agriculture follows comprehensive, science-based guidance from leading authorities including the Environmental Protection Agency and the California Department of Pesticide Regulation to determine the best products to fight this pest and deadly disease.
 - The EPA has determined the pesticides used to combat Asian citrus psyllid are safe for people and pets when applied as instructed on the label.
 - Once a product has been confirmed to be registered by the EPA, it will go through a vigorous review by the State of California to determine its requirements for use, efficacy and impacts it may have on wildlife.
 - If the product has been cleared by the State, CDFA will then run a Programmatic Environmental Impact Report to determine any potential impacts on human health and environmental risks.
 - Lastly, the Department of Pesticide Regulation Medical Toxicology Department will conduct a full review of the product to ensure its fully in compliance with Cal/OSHA regulations.
 - Only then can CDFA treatment crews use these products for residential or commercial treatments. Treatment crews apply them safely and follow label instructions closely. Treatments are applied by hand only to citrus trees.

- If you do not want pesticides to be sprayed on your property, voluntary tree removal (prior to a Huanglongbing find) is an option and there are programs to help with the cost of removal.
 - If your tree is within 250-meters of a Huanglongbing find, you will be notified about the mandatory treatment that will be conducted on your property, and local ag officials will work with you to find a time that works best for you and your family.

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SAMPLE REACTIVE Q & A:

The following questions and answers are topics we can expect to arise during the meeting, along with appropriate responses that focus on our key messages, while acknowledging residents' concerns.

Q: How are antibiotics being used on California's citrus trees?

- The California Department of Food and Agriculture does not use antibiotics to treat citrus trees.
- Citrus growers in certain areas of the state have the option to use specific bactericides on their trees to help fight Huanglongbing as part of an integrated pest management strategy.
- In February 2018, the Environmental Protection Agency and California Department of Pesticide Regulation approved the use of the bactericides streptomycin and oxytetracycline on citrus for the management of Huanglongbing. The use is only approved within HLB quarantine areas.

Q: The State of Washington recently denied the use of imidacloprid pesticides on oyster beds, another agricultural product, saying it was too risky for the environment. How is California still using them on our backyard trees?

Q: How do you know pesticides used to treat for the Asian citrus psyllid are safe?

- When evaluating the safety of the products to be used to combat the Asian citrus psyllid in California, the California Department of Food and Agriculture follows comprehensive, science-based guidance from leading authorities including the Environmental Protection Agency and the California Department of Pesticide Regulation to determine the best products to fight this pest and deadly disease.
 - The EPA has determined the pesticides used to combat Asian citrus psyllid are safe for people and pets when applied as instructed on the label.
 - Once a product has been confirmed to be registered by the EPA, it will go through a vigorous review by the State of California to determine its requirements for use, efficacy and impacts it may have on wildlife.
 - The Department of Pesticide Regulation Medical Toxicology Department will conduct a full review of the product to ensure its fully in compliance with Cal/OSHA regulations.
 - If the product has been cleared by the State, CDFA will then run a risk assessment as part of a Programmatic Environmental Impact Report to determine any potential impacts on human health and environmental risks.
- The EPA classified imidacloprid as having no evidence of causing cancer.

Q: What are our options if we don't want pesticides used on our citrus trees?

- If residents take proactive care of their trees, there's a higher likelihood those trees can remain healthy and producing fruit. Residents can proactively treat with traditional or organic treatments, but keep in mind that organic treatments are proven to be less effective against Asian citrus psyllid. If your property is within 250-meters of a Huanglongbing find, the California Department of Food and Agriculture officials will be conducting mandatory treatment on your property.

Q: Why does the state have to use pesticides when there are other options?

- Insecticides are an important part of the integrated pest control plan for Asian citrus psyllid management. CDFA also uses biocontrol organisms in the program, but insecticides have been determined by experts to be the best method for controlling Asian citrus psyllids.

Q: Are there biological/organic options the state can use instead of pesticides?

- Biocontrol agents are used as part of the integrated pest control plan for Asian citrus psyllid management; however, they are not effective enough to control Asian citrus psyllids on their own.

Q: How long will the state be using pesticides?

- All products used by crews have been scientifically deemed safe and effective for Asian citrus psyllid management. Unfortunately, no organic methods have been found that meet the criteria of researchers and federal authorities.
- The California Department of Food and Agriculture also operates a robust biological control program, which uses a natural predator of the Asian citrus psyllid to curb populations. All efforts are important as we fight together to save the community's citrus trees.
- We support all research into organic solutions to the Asian citrus psyllid or Huanglongbing, and the scientific community across the nation is fervently looking for solutions. Until then, this treatment approach is the best option for protecting the community's citrus trees.

Q: Pesticides have been proven to cause cancer, what if I don't want pesticides on my property?

- If you do not want pesticides or ag officials on your property, voluntary tree removal (before an Huanglongbing find) is an option and there are programs to help with the cost of removal.
- The EPA has determined the pesticides used to combat Asian citrus psyllid are safe for people and pets when applied as instructed on the label. Products used in Asian citrus psyllid treatments are regulated by the Environmental Protection Agency and California Department of Pesticide Regulation, and treatment crews apply them safely and follow label instructions. Treatments are applied by hand only to citrus trees.
 - *If pressed on specific pesticides:*
 - The International Agency for Research on Cancer (IARC) has not stated imidacloprid has potential to cause cancer.
 - The EPA stated that beta-cyfluthrin, a pyrethroid, does not pose risk to children or adults.
- If your tree is within 250-meters of a Huanglongbing find, you will be notified about the mandatory treatment that will be conducted on your property, and local ag officials will work with you to find a time that works best for you and your family.

Q: My child has health issues that were caused by exposure to pesticides, I don't want these chemicals on my property? What are my options?

- We understand your family's health and safety are a top priority. Because of the severity of the issue, treatments in certain areas are mandatory.
 - *If pressed:*
 - The EPA has determined the pesticides used to combat Asian citrus psyllid are safe for people and pets when applied as instructed on the label. Products used in Asian citrus psyllid treatments are heavily regulated by the Environmental Protection Agency and California Department of Pesticide Regulation, and treatment crews apply them safely and follow all label instructions. CDFA staff will take special precautions when notified of health concerns, including tarping gardens, ponds, children's play equipment and windows.

Q: What are you doing to make sure kids at schools aren't being exposed to pesticides?

- We understand you and your family's health and safety are a top priority. That's why any treatments being conducted adhere to the California Department of Pesticide Regulation's requirements for pesticide use near school sites, which prohibits applications of pesticides near schools or daycare facilities during school hours. CDFA takes special care when working on or around schools, scheduling treatments on non-school days.
 - *If pressed:*
 - The EPA has determined the pesticides used to combat Asian citrus psyllid are safe for people and pets when applied as instructed on the label. Products used in Asian citrus psyllid treatments are heavily regulated by the Environmental Protection Agency and California Department of Pesticide Regulation, and treatment crews apply them safely and follow label instructions closely.

Q: What will happen to my cat/dog/turtle/hamster/snake/lizard if they get exposed to the pesticides?

- If mandatory treatment is necessary on your property, ag officials will work with you to schedule a time for treatment that works best for you and your family. That said, the EPA has determined the pesticides used to combat Asian citrus psyllid are safe for people and pets when applied as instructed on the label. Products used in Asian citrus psyllid treatments are heavily regulated by the Environmental Protection Agency and California Department of Pesticide Regulation, and treatment crews apply them safely and follow all label instructions. CDFA will make special arrangements to ensure the health and wellbeing of your family's pets, including rescheduling treatments, temporarily moving cages and animals, or tarping cages to prevent exposure.

Q: Doesn't the pesticides used in treatment harm bee populations? How are you protecting the bees?

- Because of their important role in agriculture, home gardens, orchards and wildlife habitats, the California Department of Food and Agriculture, along with the citrus growers in our state, take great care to protect bees, as a healthy bee population is critical.
- The U.S. Department of Agriculture studies found that there are many factors that could be contributing to bee population declines.
- The EPA ensures that pesticides applied by the California Department of Food and Agriculture are applied safely and according to label instructions. By following the label, pesticides can be used to help stop the Asian citrus psyllid while maintaining the health of pollinators and the environment.

Q: Why have we not been given more notice about these treatments?

- CDFA strives to inform homeowners of upcoming treatments as soon as possible, this is done through mailers, hand delivered information and by public meetings. CDFA also works with local County Ag Commissioners and local elected officials to provide information.

Q: How come residents know nothing about this? What are you doing to the word out? Why is this the first time I am hearing about this?

- We understand the importance of communicating with residents about the activity on their property. Local ag officials have been in contact with property owners regarding any surveying and treatment being done on their properties. This communication is done via physical notices left at the property, as well as in-person visits by ag officials to communicate the need and details of the visit/treatment.

- Furthermore, our outreach team has been communicating with homeowners through a number of means including news articles, social media, public service announcements and more.

Q: My tree has been cared for three generations of my family, why do you have to take out our citrus trees?

- We understand the emotional connection and nostalgia associated with our citrus trees – in fact, I have many beloved trees on my property, so I understand. Sadly, once a tree is infected with Huanglongbing it will die and there is no cure. To prevent the tree from becoming a reservoir for the disease, our best defense is to remove the infected tree as soon as possible. Even if the tree were to remain on the property, the disease will create rancid-tasting, misshapen fruit that isn't good for consumption.

Q: Can I eat the citrus fruit on my tree after pesticide treatment?

- Yes, however as with any fruit, we recommend washing before you eat.

Q: What kind of pesticides are being used – can you name them?

- There are a number of insecticides that are approved for use against Asian citrus psyllid. These treatments have been identified for their effectiveness against Asian citrus psyllid; resident, worker and environmental safety; and their registration with the California Environmental Protection Agency's Department of Pesticide Regulation.
- Foliar (leaf) treatments: Tempo (cyfluthrin)
- Soil treatments: Merit and CoreTect (imidacloprid)

Q: Why is the treatment area growing ... will it just keep growing forever? When will it end?

- As the disease continues to spread throughout Southern California, so must our treatments in order to slow the disease's progression. Residents can help limit the spread of the disease by checking their tree for symptoms, alerting ag officials if they believe they see signs of the disease, cooperating with ag officials, proactively treating for Asian citrus psyllid or removing any uncared for trees on their property.

Q: How often will they be back to check my backyard?

- California Department of Food and Agriculture officials may visit your property for a variety of reasons, including collecting plant samples, surveying for the Asian citrus psyllid, or for treatment or removal of a tree. In each case, officials contact homeowners to notify them of a visit or need to access their property.

Q: What happens if I refuse?

- If your property falls under the mandatory treatment area, a warrant will be issued to access your property, conduct survey, treatment and if necessary, tree removal.

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