Asian Citrus Psyllid and Huanglongbing Disease

The Asian citrus psyllid (ACP) is an insect that can spread the deadly plant disease huanglongbing (HLB), which threaten citrus trees in backyards and on farms.

ACP arrived in Southern California in 2008 and has fully infested that region. HLB disease was first detected in Los Angeles in 2012 and is rapidly spreading in residential areas of southern California. Quarantines have been set up around HLB-infected trees to limit movement of plants and insects out of those areas to slow the spread of HLB. As infected trees are found, they are destroyed. All types of citrus—including oranges, grapefruit, lemons, and mandarins—are affected, as well as a few closely related ornamentals.

Concern about HLB and symptoms of the disease.

- The Asian citrus psyllid insect can spread HLB disease from tree to tree as it flies about and feeds.
- HLB will kill citrus trees in as little as 5 years.
- There is no cure or effective control method for HLB.
- Leaves of infected trees show an asymmetrical yellow mottling with patches of green.
- Fruit are small, lopsided, fall off the tree easily, and the juice tastes bitter.

Inspect your citrus trees for psyllids.

- Reducing ACP numbers helps to slow the spread of HLB.
- Check trees monthly in spring through fall; look for psyllid eggs, nymphs, and adults on newly forming leaves.
- Adults are about the size of an aphid with brownish mottled wings. They feed with their head down and their “tail” in the air.
- Nymphs are tiny and yellowish and excrete white waxy tubules.
- Psyllids feed on plant sap and produce sticky honeydew that may be covered with black sooty mold. Other citrus pests (e.g., aphids and soft scales) may cause this symptom too.
- ACP can damage leaves but doesn’t kill trees by itself. The fruit is safe to eat.

How can I manage the psyllid and disease?

- Purchase trees from local reputable nurseries to avoid bringing ACP or HLB into your yard.
- Don’t move citrus plants or clippings out of your area since this can spread ACP or HLB.
- Tiny parasitic wasps that attack ACP have been released in some areas to help reduce psyllid numbers but aren’t likely to stop the spread of HLB disease.
- Control the ants running up citrus tree trunks. Ants ‘farm’ the sugary honeydew psyllid nymphs produce and protect ACP from the beneficial parasites and predators that kill them.
- Reduce ACP numbers by treating infested trees with insecticides including oils, soaps, carbaryl, or systemic imidacloprid. Oils and soaps don’t last long, so need to be reapplied every few weeks. Carbaryl and imidacloprid are longer lasting but are toxic to bees, so don’t use these products when citrus trees are in bloom. Make sure foliar-applied insecticides reach the new growth where young psyllids hide.
- Only apply pesticides if ACP has been found on your trees.
- Support inspections and treatments of your citrus trees by county or state officials. HLB-infected trees must be destroyed to protect the trees around them from becoming infected.
- Consider removing your residential citrus trees if they are located near an HLB-infected tree.

If you think your tree has HLB or if you find the Asian citrus psyllid in new areas of infestation in central or northern California, contact your agricultural commissioner’s office, or call the California Department of Food and Agriculture (CDFA) Exotic Pest Hotline at 1-800-491-1899 to confirm a find.

What you do in your home and landscape affects our water and health.

- Minimize the use of pesticides that pollute our waterways and harm human health.
- Use nonchemical alternatives or less toxic pesticide products whenever possible.
- Read product labels carefully and follow instructions on proper use, storage, and disposal.

For more information about managing pests, visit ipm.ucanr.edu or your local University of California Cooperative Extension office.