UNIVERSITY OF CALIFORNIA COOPERTIVE EXTENSION



RE: Current Deadly Threat to All Citrus Trees in California

Dear Homeowner:

As you may be aware, there is a very serious disease, Huanglongbing (HLB), and its insect carrier, the Asian citrus psyllid (ACP), threatening the very existence of all types of citrus and other closely related plants in the citrus family (Rutaceae).

Unfortunately, this disease, which is incurable, kills every tree that becomes infected with it. To date, it has been found in Los Angeles, Orange, and Riverside counties. The carrier for this disease, the Asian citrus psyllid, is widespread throughout Ventura County.

Experience has shown the only way to slow down the progression of this citrus-killing disease is to keep the population of its carrier, the ACP, as low as possible.

We are asking all homeowners to please inspect any citrus plants they have on a regular basis, ideally every time you water and more often when the tree is producing new leaves. Also, if you aren't attached to your citrus tree, to please have it removed entirely.

A couple of very helpful resources for your review:

- 1. The website: ucanr.edu/acp This interactive site has a short video on how to inspect your trees as well as lots of other useful and interesting information.
- 2. The UC Master Gardeners of Ventura County have a Helpline to answer any questions you might have on this disease and its carrier, or any other gardening question. Their phone number is: 805/645-1455; email: mgventura@ucdavis.edu.

Lastly but very importantly, please do not allow any ants on your citrus trees as they will kill the beneficial wasps which are being released to help keep down ACP populations.

Thank you for helping to preserve our iconic California citrus!

Are you interested in gardening? The University of California Master Gardeners of Ventura County offer a wide variety of garden-related talks and workshops and a monthly gardening ideas email. To sign up for this service, please email your contact information to: mgventura@ucdavis.edu, or call us at: 805/645-1455.

We're here to help you with science-based information on your gardening questions!

University of California, Division of Agriculture and Natural Resources

http://ucanr.edu/sites/ACP

Asian Citrus Psyllid Distribution and Management



Growers Homeowners Map of Psyillids, HLB and Parasites

Growers Commercial Citrus – How will the citrus grower manage the pest and disease? The deadly huanglongbing is spreading towards California and threatens commercial citrus production. This web site is designed to show citrus growers where the Asian citrus psyllid and the HLB disease are located. Since there is currently no cure for the disease, the best management strategy is reducing the psyllid vector with insecticides. This web site will also provide a list of the ACP-effective insecticides, information about the best timing of their use, strategies for treatment and cost

<u>Homeowners</u> Residential Citrus – What should I do to protect the citrus in my yard? There is currently no cure for the huanglongbing (HLB) disease that kills citrus trees and is spread by an insect, the Asian citrus psyllid. It is estimated that 60% of Californians have at least one citrus tree in their yard and so HLB is going to have a devastating effect on the California residential landscape. Currently the only way to control the disease is to control the pest that spreads it. This website will provide you with information about how near the insect and disease are to your home, what you can do to help protect your trees, and sample costs of psyllid treatment.

Authors of this web site are Dr. Beth Grafton-Cardwell and Dr. Matt Daugherty Extension Specialists in the Dept. of Entomology, UC Riverside, Dr. Karen Jetter, Economist with the UC Agricultural Issues Center, UC Davis and Robert Johnson with the Informatics and GIS Statewide Program at the Kearney Agricultural Center. UC Agriculture and Natural Resources provided grant funds for this project.

Inspect Your Citrus Trees!

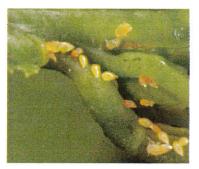
A dangerous pest called the Asian citrus psyllid has been found in your area. Learn how to protect local citrus trees from this insect.

What is the Asian Citrus Psyllid?

The Asian citrus psyllid is an aphid-like insect that feeds on the leaves and stems of citrus plants. The psyllid can carry and spread a deadly, bacterial tree disease called Huanglongbing (HLB), also known as citrus greening disease. While not harmful to human health, there is no cure for this disease and infected trees will die.

What does the Asian Citrus Psyllid look like?

Due to the small size, inspection is done more easily with a magnifying glass or hand lens.



Eggs are bright yelloworange and almond shaped, and appear in groups on the newest, most tender, unfolded leaves.



Nymphs are dull orange, have red eyes and produce waxy tubules that direct honeydew away from their bodies. They can be difficult to see because they are small and flatten themselves against twigs and

leaves. Nymphs are slow, do not fly or jump, unlike their adult counterparts, and the honeydew they produce causes sooty mold to grow on leaves.



Adults are small (3-4 mm or 1/8-1/6 inch), brownish insects that are similar in size to an aphid. They feed at a 45-degree angle with their heads down, almost touching the surface of the leaf.

Overview: Insect & Disease

The Asian citrus psyllid can carry one of the most devastating citrus diseases in modern history called Huanglongbing (HLB). Since it can take years for symptoms of the disease to appear, regular inspection of the psyllid is our best line of defense against HLB.

- · Use a magnifying glass or hand lens.
- Inspect when watering, pruning or tending trees.
- · The insect feeds on citrus leaves and stems.
- Pay close attention during times of leaf growth, or "flushing."

How to Inspect for the Asian Citrus Psyllid



When?

Inspection should be done on a regular basis and especially during periods of active plant growth or "flushing." Eggs and nymphs are only present during flushing and, while adults can be present year-round, they are easier to spot on the tender leaves of spring and fall flush.

Where?

The psyllid adults and nymphs are typically found on new shoots, along with eggs, which are often nestled in crevices of unfolded leaves. The adult psyllid also feeds on more mature leaves and will quickly move if disturbed.

How Often?

Inspect trees monthly and whenever watering, spraying, pruning or tending trees. It's especially important to inspect during active growth, or flushing.



Report psyllid finds. Act fast, time is critical. Call 800.491.1899

Save Your Citrus

Help Stop the Spread of the Asian Citrus Psyllid and Huanglongbing

The California citrus we all know and love is at risk. The devastating plant disease called Huanglongbing (HLB) has been found in Southern California. While not harmful to human health, HLB kills citrus trees and there is no cure. Diseased trees produce bitter, hard and lopsided fruit, and eventually die. The disease can be spread by a pest called the Asian citrus psyllid as it feeds from tree to tree and by grafting trees with infected budwood. Psyllids are small, about the size of an aphid, and can be seen on the tender, new growth of citrus trees. The best way to protect backyard citrus and the commercial citrus industry from the disease is to stop the spread of the pest.

We All Play a Critical Role

- · Inspect your citrus trees regularly (see reverse).
- Do not move citrus plants, or plant material in or out of your area, or across state or international borders.
- Only plant citrus trees from reputable, licensed nurseries in your area.
- Graft only registered budwood that comes with source documentation.
- · Dispose of citrus clippings properly.

- Talk to your local nursery or garden center about products that can protect your tree from the Asian citrus psyllid.
- · Cooperate with agriculture crews placing traps, inspecting trees and treating for the pest.
- · If you suspect your tree has the psyllid or the disease, act fast! Call the California Department of Food and Agriculture at 1-800-491-1899, or contact your county agricultural commissioner.

Visit the following websites for more information or call your county Master Gardeners.



Citrus Pest & Disease

Prevention Program

Recognizing the Stages of Asian citrus psyllid

Beth Grafton-Cardwell, Department of Entomology, UC Riverside



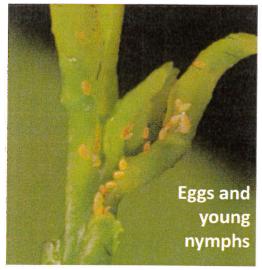
Search new flush

Eggs are deposited in the tiniest flush and are hidden until the leaves expand and the nymphs produce the waxy tubules.



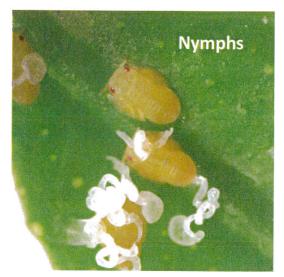
Eggs are very tiny and teardrop shaped. They may be yellow or orange.





Nymphs hatch from the eggs and initially are the same size as the eggs.

Nymphs molt 4 times and gradually get bigger. No other pest of citrus produces the white waxy tubules they use to keep the honey dew away from their bodies.







Adults feed on young stems or leaves. They prefer to feed on edges of leaves or leaf veins and are attracted to the young flush where they deposit their eggs. Adults are recognized by their shape, the fact that they sit at a 45° angle when they feed, and by the dark border broken by a clear area in the edge of the wing. Adults can be collected by tap sampling.



