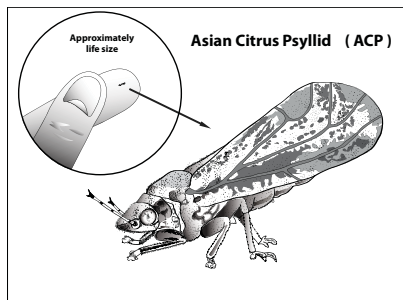


# Asian Citrus Psyllid



There is no cure for Citrus Greening Disease, or HLB disease. Infected trees will die and must be destroyed to prevent further infection.

## Quick Facts

- ▶ California citrus makes \$1.8 billion dollars
- ▶ California produces 87% of the nation's lemons and 80% of the nation's oranges that are eaten as fruit (not as a juice).
- ▶ Citrus trees include: oranges, lemons, grapefruit, tangerines, limes, kumquats, and other varieties

## Background Information

This tiny insect is from Asia and it's only 1/8th inch long. The Asian citrus psyllid is hurting citrus trees and plants around the world because it can transfer a bacterium that causes a disease called huanglongbing (HLB).

## Description and Life Cycle

The Asian citrus psyllid has a simple life cycle. Adult female psyllids can lay hundreds of eggs on young citrus shoots and leaves in their lifetime. The young psyllids, or nymphs, are yellow in color and produce waxy, white tubules from their hind ends to move the sugary plant liquid, called honeydew, away from their bodies so they don't drown. As the nymphs grow they molt 5 times before they become adults. During the last molt, the psyllids develop wing buds. When the wing buds are fully developed, the psyllids will be able to fly. Adult psyllids are as small as a sesame seed. Their wings are a mottled brown color. When adults feed, they tilt their body at a 45-degree angle, making them look like a thorn on leaves and stems.

## How does the huanglongbing disease spread?

Both adult and nymphs can get the bacterium while feeding, but the HLB disease is spread when an adult Asian citrus psyllid feeds on an infected tree and then flies to a new tree and feeds again. The disease is also spread when people move infected plants or plant debris from one area to another.

## What does an infected tree look like?

Trees infected with HLB produce fruit that is lopsided and bitter. The fruit often doesn't look like it ever ripens completely. The tree's leaves are often yellow and young leaves and stems don't grow very well.

## Why is it a problem?

There is no cure for Citrus Greening Disease, or HLB disease. Infected trees will die and must be destroyed to prevent further infection. HLB has killed many trees in Asia, India, and parts of the Middle East, South America and Florida. More recently, the psyllid has been discovered in Texas, Arizona, and California. Psyllids eat all citrus trees and related plants. Every Asian psyllid has the possibility of spreading

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the deadly HLB disease if it feeds on an infected tree. This is why all psyllid problems should be controlled.

## What can you do to help?

The best thing anyone can do to fight invasive species is prevent them coming in the first place. Invasive species can easily hitchhike on living plants and fresh fruit and vegetables. Many pests can be found in recently killed plant parts including firewood. If you think you have found HLB infestation, please check for quarantine areas at <http://www.cdfa.ca.gov/>. You can also contact your local Agricultural County office in your area and ask them what you should do. You can find your county's office here: <http://www.cdfa.ca.gov/exec/county/countymap/>.

## Follow these guidelines:

- ▶ Check ACP in your area by checking your local county agricultural office.
- ▶ Buy local citrus trees
- ▶ Do not move citrus trees, leaves and stems into a new area
- ▶ Inspect your citrus trees. Look at young leaves for psyllids that look like small thorns, and juveniles that are yellow with white and waxy tubules
- ▶ Bag or dry out citrus pruning before throwing them away
- ▶ If you are allowed to move fruit from your area, remove stems and leaves before moving fruit
- ▶ If an Asian citrus psyllid is found, treat your trees to protect them from HLB.
- ▶ Report unusual leaves or fruit, as well as stunted growth areas on the tree. These signs may mean that your tree is infested with HLB.

# Asian Citrus Psyllid Worksheet

Name: \_\_\_\_\_

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## Use the word bank to complete the sentences below:

nymph  
lemon  
thorn  
Huanglongbing

orange  
insect  
tubules  
lime

citrus greening disease  
sesame seed  
bacterium  
leaves

1. Asian citrus psyllid is an \_\_\_\_\_ that can carry a disease causing \_\_\_\_\_ called \_\_\_\_\_.
2. Another name for a young Asian Citrus Psyllid is \_\_\_\_\_.
3. Adult Asian Citrus Psyllids are as small as \_\_\_\_\_ and when they eat they look like small \_\_\_\_\_.
4. It is best to check your \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ trees for signs of \_\_\_\_\_.
5. Asian citrus psyllids eat on young \_\_\_\_\_. The nymphs form waxy \_\_\_\_\_ to keep from drowning.

## Find the definition:

Organism \_\_\_\_\_

Bacterium \_\_\_\_\_

Unicellular \_\_\_\_\_

Tubules \_\_\_\_\_

Nymph \_\_\_\_\_

Microscopic \_\_\_\_\_

Mottled \_\_\_\_\_

Infestation \_\_\_\_\_

## Answer the following questions:

1. How could huanglongbing impact your life? \_\_\_\_\_  
\_\_\_\_\_
2. How are trees cured with HLB disease? \_\_\_\_\_  
\_\_\_\_\_

# Asian Citrus Psyllid Answer Key

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**Use the word bank to complete the sentences below:**

nymph  
lemon  
thorn  
Huanglongbing

orange  
insect  
tubules  
lime

citrus greening disease  
sesame seed  
bacterium  
leaves

1. Asian citrus psyllid is an **INSECT** that can carry a disease causing **BACTERIUM** called **HUANGLONGBING**.
2. Another name for a young Asian Citrus Psyllid is called a **NYMPH**.
3. Adult Asian Citrus Psyllids are as small as **SESAME SEED** and when they eat they look like small **THORN**.
4. It is best to check your **ORANGE**, **LEMON** and **LIME** trees for signs of **CITRUS GREENING DISEASE**.
5. Asian citrus psyllids eat on young **LEAVES**. The nymphs form waxy **TUBULES** to keep from drowning.

**Find the definition: (SEE GLOSSARY)**

Organism \_\_\_\_\_

Bacterium \_\_\_\_\_

Unicellular \_\_\_\_\_

Tubules \_\_\_\_\_

Nymph \_\_\_\_\_

Microscopic \_\_\_\_\_

Mottled \_\_\_\_\_

Infestation \_\_\_\_\_

**Answer the following questions:**

1. How could huanglongbing impact your life? **SINCE THE DISEASE KILLS CITRUS TREES, IT COULD CAUSE THE PRICES OF CITRUS ITEMS TO INCREASE AND EVEN POSSIBLY DESTROY ALL CITRUS TREES.**
2. How are trees with HLB disease cured? **THERE IS NO CURE. THE TREE MUST BE DESTROYED.**