

African citrus psyllid

Have you seen this citrus pest?

What is an African citrus psyllid?

Like the Asiatic citrus psyllid (*Diaphorina citri* Kuwayama), the African citrus psyllid (*Trioza erytreae* del Guercio) is a sap-sucking insect that can transmit the lethal citrus disease, huanglongbing—also known as ‘citrus greening’.

While the insect itself is a minor citrus pest, huanglongbing is a serious threat to citrus-producing areas worldwide. The African citrus psyllid, Asiatic citrus psyllid and huanglongbing are not known to occur in Australia.

What does African citrus psyllid look like?

Adults

- Adults are small, about 4 mm long. Males are smaller than females.
- The abdomen is brown-grey, lighter underneath; the head is black.
- Male’s have an abdomen that ends in a blunt tip; the female’s abdomen ends in a sharp point.
- The forewings are large and transparent with clearly defined veins.
- Adults have a distinctive feeding posture, with the head down, almost touching the plant surface, and the body lifted at 35°.

Nymphs

- Nymphs are tiny (0.3–1.6 mm long). There are five nymphal instars.
- Colour varies from yellow, olive-green to dark grey.
- Nymphs are flat with a distinct marginal fringe of white, waxy filaments.
- On their fifth instar, two pale brown spots appear on the abdomen.
- They are mainly found on new flushing citrus growth.
- The nymphs are largely sedentary (don’t move much) and can form noticeable colonies on the underside of new leaves, sometimes moving to the upper leaf surface if populations are high and overcrowded.



Distinctive feeding posture of an adult African citrus psyllid

Photo courtesy of P. Stephens, Citrus Research International



Fifth instar nymph and egg

Photo courtesy of P. Stephens, Citrus Research International

Eggs

- Eggs are tiny, yellow or orange, cylindrical, and have an upturned, sharp point.
- Each egg has a short stalk, which is inserted into the plant.
- They are laid on leaf margins and along the midribs of young, tender, actively growing flush, and occasionally on flower buds and on young fruit.



Psylla egg

Photo courtesy of P. Stephens, Citrus Research International

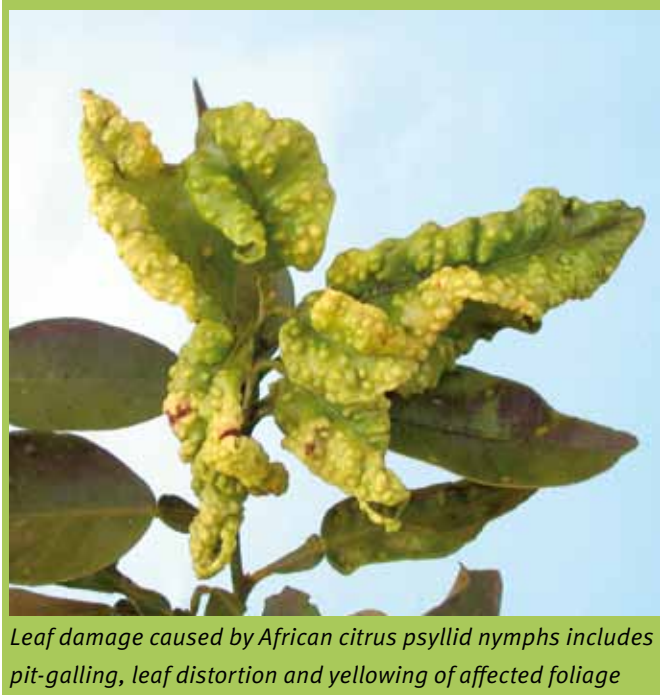
What symptoms does African citrus psyllid cause on plants?

- As African citrus psyllid nymphs feed, they can cause distinctive cup-shaped or pit-like galls to form in leaves, particularly in the lower leaf surface of immature leaves. These are often visible as bumps in the upper leaf surface.
- They can cause severe leaf distortion, curling, stunting and leaf yellowing.
- The psyllids excrete pellets of honeydew that look like tiny, white eggs. The ground or vegetation under a badly infested tree can look like it has been dusted with white powder (the excreted pellets).

Which host plants are affected?

All citrus cultivars are a host for African citrus psyllids (e.g. orange, lemon, lime, grapefruit, mandarin, kumquat, tangelo, pomelo, native citrus and citrus rootstock). Native and exotic mock orange/orange jasmine (*Murraya* spp.), white ironwood (*Vepris lanceolata*), lime berry (*Triphasia trifolia*) and horsewood (*Clausena anisata*) are also hosts of the African citrus psyllid.

They can also feed on Cape chestnut (*Calodendrum capense*), orange-climber or forest-pepper (*Toddalia asiatica*) and small knobwood (*Zanthoxylum capense*).



Leaf damage caused by African citrus psyllid nymphs includes pit-galling, leaf distortion and yellowing of affected foliage

Photo courtesy of P. Stephens, Citrus Research International

Where does African citrus psyllid occur?

The African citrus psyllid prefers cooler, moist climates. It is very sensitive to extremes of hot, dry weather. It occurs throughout sub-Saharan Africa; Saudi Arabia; Yemen; the Indian Ocean islands of Madagascar, Mauritius and Reunion; and the Atlantic Ocean islands of Saint Helena, Madeira, Porto Santo, Tenerife and Gomera.

How does African citrus psyllid spread?

Long-distance spread most commonly occurs via movement of plant material infested with psyllids. Short-distance dispersal can be wind-assisted for these short-distance fliers.

Like the Asiatic citrus psyllid, the African citrus psyllid and huanglongbing could be introduced into Australia through illegal imports of host plants. The Australian Quarantine and Inspection Service (AQIS) closely regulates approved importation of plant material and monitors for illegal plant movement.

How do I look for African citrus psyllid?

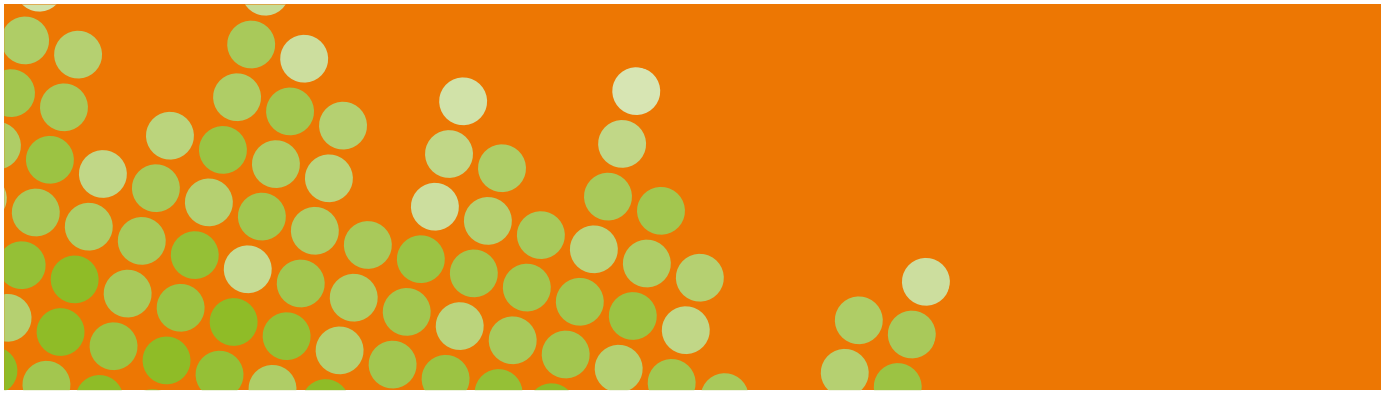
Regularly monitor common host plants, such as citrus:

- Inspect new flushing growth for adults, nymphs and eggs, especially in spring.
- While adults can be found all year round, eggs and nymphs will only be found when plants are actively flushing and producing new growth.
- Look closely at host plants with a white dusting of excreted honeydew pellets to identify the cause.
- Look closely at host plants with leaf gall formation, leaf distortion, curling, stunting or yellowing to identify the cause.

How can I protect my farm from African citrus psyllid?

There are simple steps you can take to protect your farm:

- To avoid introducing African citrus psyllid onto your property, establish new plantings with reputable pest-free and disease-free nursery stock. On receipt of any new plants, check that they are free from pest and disease. If African citrus psyllid is detected, isolate the nursery stock from healthy plants until official checks are completed.
- Do not illegally import plants or budwood from overseas.
- Make sure that you and your farm workers are familiar with all life cycle stages of the psyllid, its characteristic honeydew and deformed flush growth. Regularly check your orchard and report any unusual or unfamiliar symptoms. Be conscious that the psyllid can transmit the lethal citrus disease, huanglongbing.



Have you seen an African citrus psyllid?

Be on the lookout for this pest and immediately report them to Biosecurity Queensland. Do not move any plant material off your property—this can spread the pest.

Call Biosecurity Queensland on 13 25 23 or the National Exotic Plant Pest Hotline on 1800 084 881.

Further information

Call Biosecurity Queensland on **13 25 23** or visit our website at **www.biosecurity.qld.gov.au**

Three other fact sheets are available: *Asiatic citrus psyllid*, *Huanglongbing* and *Conditions that can be confused with huanglongbing*.

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