

Exotic Pest Alert: African citrus psyllid

Plant Biosecurity & Product Integrity Orange

African citrus psyllid (*Trioza erythrae*) is an exotic plant pest

This insect is a serious threat to Australia's citrus industry

If found it must be reported promptly to the Exotic Plant Pest Hotline **1800 084 881**

Introduction

African citrus psyllid is a sap sucking insect (Figure 1).

African citrus psyllid can vector both the African and Asian strains of *Candidatus Liberibacter* which causes huanglongbing (Primefact 1184).

Damage

The feeding activity of the African citrus psyllid nymphs causes pit-like depressions on the underside of the leaves. The feeding pits appear as raised bumps on the top surface of the leaf (Figure 2).

Both adults and nymphs excrete honeydew as white granules. Severely infested branches appear to be dusted with white powder.

Description

Adults

African citrus psyllids are 2.5-4.0 mm long. Females are larger than males. Males and females have clear wings but different shaped abdomens. The female abdomen ends in a sharp point.

Young adults are a pale green colour with black eyes. As they mature their colour changes progressively to a dark brown.



Figure 1 African citrus psyllid (adult female 4 mm)



Figure 2 African citrus psyllid nymphs (1.5 mm) and feeding blisters

Nymphs

All nymphal stages are small. First instars are 0.3 mm long and fifth instars grow to 1.5 mm long. On moulting to the fourth instar two pale brown spots appear on the abdomen. These darken in the fifth instar.

Eggs

Eggs are smooth, pear-shaped and tiny (less than 0.3 mm long). Eggs are attached to the leaf by a short stalk. Eggs are laid on the shoot tips of the new growth and occasionally on flower buds and young fruit.

Behaviour

After hatching the nymphs move about for a short time before settling and feeding on sap. Once nymphs settle they tend to remain in the same place unless disturbed or are overcrowded.

Nymphs prefer the underside of young leaves and are only found on top of the leaf if nymph numbers are high. Nymphs lie in the feeding pits with only the top of their body and waxy filaments visible.

Adult psyllids have a distinctive feeding posture. They feed with their heads down and wing tips pointing upwards. Their bodies form an angle of 35 degrees with the leaf surface.

Preferred environments are cool moist areas and altitudes over 500 metres. When the weather is hot and dry, eggs and first instar nymphs dry out.

Host range

All citrus plants can be a host of African citrus psyllid.

World distribution

African citrus psyllid is native to Africa. It has spread to islands off the coast of Africa and to Saudi Arabia and Yemen.

Australia is currently free of African citrus psyllid and huanglongbing.

Spread and movement

Long distance spread of African citrus psyllid occurs through the movement of infested citrus plants or plant parts.

Short distance spread can be wind assisted. Adults can fly short distances.

Actions to minimise risks

Your orchard management should include:

- sourcing propagation material of a known high health status from reliable suppliers
- practising on-farm biosecurity to prevent entry, establishment and spread of pests and diseases

- ensuring all staff and visitors are instructed in and adhere to your on-farm hygiene requirements
- regularly monitoring your orchard for psyllids
- investigating sick plants
- keeping records

Reporting

If you suspect African citrus psyllid:

Call the Exotic Plant Pest Hotline on

1800 084 881

Take photos not samples to minimise the risk of spreading the pest

Contact your local district horticulturalist

Visit the Plant Biosecurity website

www.dpi.nsw.gov.au/biosecurity/plant

An **exotic plant pest** is a disease causing organism or an invertebrate not present in Australia and which threatens agricultural production, forestry or native and amenity plants.

Resources

Biosecurity Queensland Factsheet African citrus psyllid – Have you seen this citrus pest?

Van den Berg, M.A., 1990 The citrus psylla, *Trioza erytrae* (Del Guercio) (Hemiptera:Triozidae): a review. *Agriculture, Ecosystems and Environment*, 30:171-194.

Figure 1 courtesy of S.P. van Vuuren, Citrus Research International, Bugwood.org

Figure 2 courtesy of Peter Stephen, Citrus Research International, Bugwood.org

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