

# Exotic Pest Alert: South African citrus thrips

Plant Biosecurity Orange

South African citrus thrips (*Scirtothrips aurantii*) is an exotic plant pest

This insect is a serious threat to Australia's **citrus** and **mango industries**

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

## Introduction

South African citrus thrips (SACT) (Figure 1) is a pest of citrus, especially sweet orange.

SACT is sometimes a pest on mango.

SACT feeds on soft new leaves. It does not feed on mature leaves.

When leaves harden off SACT attacks young fruit.

## Damage

Silvering of the leaf surface and thickening of young leaves are signs of SACT feeding.

Feeding thrips leave brown frass on the leaves and fruit.

Feeding damage by SACT on young fruit shows as a silver grey ring around the calyx (Figure 2).

Cosmetic damage results in the fruit being downgraded for the fresh fruit market. Taste and eating quality of the fruit are not affected.

A heavy infestation can result in early death of leaves and distorted fruit.

If flushes of young leaves are severely attacked late in the season then the crop of the following season may be reduced.



Figure 1 Adult South African citrus thrips (1 mm)



Figure 2 Feeding damage by SACT on young fruit

## Description

SACT go through five development phases: egg, two active larval instars, two relatively inactive pupal instars and winged adults.

Eggs are inserted into soft, young tissues of leaves, stems and fruit. Eggs are bean-shaped, and tiny.

The first and second larval stages are yellow to orange in colour, cigar-shaped and just visible to the naked eye. They are found on green plant parts where they are actively feeding.

Pupation occurs in sheltered places such as among leaf litter on the ground, in the crevices of bark or occasionally beneath the calyx of fruit.

Winged adults are yellow-brown in colour and are less than 1 mm in length. They are normally found on the green plant parts where they feed.

Breeding is almost continuous. The lifecycle can be completed in less than 30 days. Development is slowed in winter.

## Behaviour

SACT adults and larvae feed on the surface of young leaves and on young fruit.

They do not feed on mature leaves.

SACT may be concealed under the calyx.

## Host range

SACT is usually found on sweet oranges but have a broad host range for feeding and development.

SACT has been found on more than 50 plant species from across many plant families.

In South Africa SACT is sometimes a pest of mangoes especially if they are growing near infested citrus trees.

## World distribution

SACT is native to Africa. The thrips is widespread from South Africa to Egypt and also occurs in West Africa and the Cape Verde Islands.

A biotype of *Scirtothrips aurantii* was detected in Southeast Queensland in 2002 on the weed mother of millions. Subsequent surveillance showed that it is restricted to mother of millions. SACT has not been found of fruit crops such as citrus and mango in Queensland.

## Spread and movement

Long distance spread of SACT occurs through the movement of infested plants or plant parts.

Short distance spread may be wind assisted.

## 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
- investigating sick plants
- keeping records

## Reporting

If you suspect South African citrus thrips (SACT):

Call the Exotic Plant Pest Hotline on

**1800 084 881**

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

Contact your local district horticulturalist

Visit the Plant Biosecurity website

[www.dpi.nsw.gov.au/biosecurity/plant](http://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

Queensland Department of Employment, Economic Development and Innovation – Factsheet South African citrus thrips [www.dpi.qpd.gov.au/4790\\_11303.htm](http://www.dpi.qpd.gov.au/4790_11303.htm)

(2005) *Scirtothrips aurantii*, *Scirtothrips citri*, *Scirtothrips dorsalis*. EPPO Bulletin 35:353-356

Figure 1 courtesy of the Queensland Government

Figure 2 courtesy of Didier Vincenot, SUAD/CIRAD-FLHOR, Bugwood.org

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