

Fact sheet

Exotic thrips

What are thrips?

Thrips are tiny insects that feed and reproduce on a wide range of economically and environmentally important plant species including citrus. Several of these species affect multiple crops and could be introduced and spread rapidly on various host plants. Thrips can seriously affect citrus by contaminating fruit, reducing fruit quality and quantity and impacting market access.

Of particular concern to citrus are the exotic bean thrips (*Caliothrips fasciatus*), Florida flower thrips (*Frankliniella bispinosa*), blossom thrips (*F. insularis*) and California citrus thrips (*Scirtothrips citri*). Although South African citrus thrips (*S. aurantii*) is present in Australia, in Queensland, this particular biotype does not appear to have a strong preference for citrus, and therefore it is likely there are more damaging biotypes not present in Australia that pose a serious risk to citrus.



Blemishing on rind of fruit caused by South African citrus thrips

What do they look like?

Exotic thrips species all differ slightly in appearance but all are tiny (about 1 mm in length) and have four wings (adults), with the front wings typically fringed and folded back over the body when at rest. Immature thrips resemble adults but are typically smaller, wingless and yellow or orange in colour. Adult thrips can retain the yellow or orange colouration (such as Florida flower thrips, blossom thrips, California citrus thrips and South African citrus thrips), although they often develop some darker markings or transition to a dark greyish-black or brown colour (such as bean thrips).



Adult South African citrus thrips

What can they be confused with?

There are several species of thrips found in Australia on citrus, although many of these do not cause obvious damage. Kelly's citrus thrips (*Pezothrips kellyanus*) is the only thrips species present in Australia that cause halo marks on citrus fruit. The exotic California citrus thrips, South African citrus thrips and Florida flower thrips also leave similar scars on fruit; however, they have a yellowish coloured body compared to Kelly's citrus thrips, which is black and roughly double the size (2 mm). Due to the difficulty differentiating between thrips species without microscopic examination, it is recommended that all thrips symptoms be investigated further.

What should I look for?

Thrips feeding on young leaves can lead to curling, distortion and brown scarring. The rinds of citrus fruit attacked by California citrus thrips or South African citrus thrips also show grey or brown scarring which may appear as a halo around the apex. Flowers damaged by Florida flower thrips and blossom thrips typically turn brownish-yellow before turning black and dropping off the plant prematurely. Florida flower thrips also damage young fruit leading to premature drop and cosmetic scarring. Bean thrips adults shelter within the cavities of navel oranges leading to cosmetic damage and impacts on market access. As it is difficult to identify different thrips species, any change in scarring from thrips feeding should be investigated further.



How do they spread?

Adult thrips can fly, however, dispersal over larger areas is typically caused by wind systems or through the human movement of infested plants or plant material. Bean thrips can spread over long distances via the movement of fruit.

Where are they now?

Most of the thrips species mentioned in this fact sheet are found throughout Central and South America, with the exception of South African citrus thrips which are widespread in South Africa and parts of North Africa. Although they have also been found in Queensland, the biotype of South African citrus thrips present appears to only affect the pasture weed mother of millions and has not been detected on citrus.

How can I protect my orchard from thrips?

Check your orchard frequently for the presence of new pests and unusual symptoms. Make sure you are familiar with common citrus pests so you can tell if you see something different.



Adult bean thrips

L. Mound, PaDIL



Adult California citrus thrips

Joseph Morse, University of California, Riverside



Immature and wingless thrips on leaf

Frank Peairs, Colorado State University

If you see anything unusual, call the Exotic Plant Pest Hotline

**EXOTIC PLANT PEST HOTLINE
1800 084 881**

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