

Citrus red mite

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Plant Biosecurity & Product Integrity, Orange

Citrus red mite

Citrus red mite (*Panonychus citri*) damages the leaves and fruit of citrus plants.

Citrus red mite (Figure 1) was first recorded in Sydney in 1966 and is established across the Central Coast region of New South Wales.

Citrus red mite is not a serious pest on the Central Coast where high humidity and natural enemies keep population levels low. However, citrus red mite could be very damaging if it were to spread to inland areas where dry conditions would be more favourable for mite development.

Damage

Citrus red mites feed on leaves, green bark and immature and mature fruit. Feeding damage gives maturing leaves and young fruit a pale, bleached appearance (Figure 2). Initial damage is commonly seen at the base of the upper leaf surface.

Injured mature oranges and lemons turn a pale straw yellow.

When trees are under stress, heavy infestations can lead to defoliation, fruit drop and twig and branch dieback.

Light infestations of citrus red mite do not show obvious symptoms on host plants. As mite numbers increase, detection becomes easier.

Description

Adults

To the naked eye, citrus red mites appear as tiny moving dots. Adult mites are dark red to purple in colour and less than 0.5 mm long. The body shape is oval with 4 pairs of legs and long bristles on the back and sides.



Figure 1 Adult citrus red mite (approx. 0.5 mm)



Figure 2 Citrus red mite damage to navel orange leaves

Immature stages

Citrus red mite eggs are spherical, bright red in colour and invisible to the naked eye (<0.15 mm).

Citrus red mite larvae resemble adults and have only 3 pairs of legs when they first emerge from the egg.

Lifecycle

Female citrus red mites lay 2–3 eggs a day on the surface of leaves. One female can produce 20–30 eggs in her lifetime.

Larvae hatch from the eggs within 8–30 days and undergo two developmental stages before reaching maturity.

In summer, a generation may be as short as 3 weeks. Generations continue throughout the year but at a slower rate under cool conditions.

Spread

Long distance spread of mites can occur on clothes and when infested plant material or equipment is moved.

Citrus red mites are classified in the spider mite family (Tetranychidae). Spider mites are known to walk short distances within and between plants. Local dispersal may be assisted by wind.

Host range

Citrus red mite has a wide host range of around 90 different species across 30 plant families.

In New South Wales, citrus red mite is known to infest citrus species. Host citrus species include orange, lemon, mandarin, tangerine and grapefruit.

Murraya (orange jessamine) plants are closely related to citrus and have been recorded as an alternative host to citrus red mite.

Overseas, other economic plants that have been reported to host citrus red mite include almond, apple, avocado, banana, grapes, guava, olive, passionfruit, paw paw, peach, pear, pecan, persimmon, rose, soy bean, star fruit, strawberry, tea and several broad-leaved evergreen ornamentals.

Distribution

Citrus red mite is widespread in citrus growing regions of the world. Its presence was first recorded in Australia in 1966 and has since become established across the Central Coast region of New South Wales.

Established areas include near Gosford, the County of Northumberland and Sydney metropolitan homes in the County of Cumberland.

Citrus red mite has not been recorded elsewhere in Australia.

Citrus Red Mite Biosecurity Zone

The Citrus Red Mite Biosecurity Zone includes the counties of Cumberland and Northumberland.

Movement of citrus red mite host material out of the Citrus Red Mite Biosecurity Zone is restricted under the Biosecurity Act 2015.

If citrus red mite is found outside of the zone, it must be reported to NSW DPI within 1 working day. Call the Exotic Plant Pest Hotline 1800 084 881 or email biosecurity@dpi.nsw.gov.au

The Certification Assurance Scheme [CA-16 Treatment of Citrus, Fortunella or Poncirus for Citrus Red Mite](#) outlines treatment conditions required for the movement of citrus red mite host material out of the Citrus Red Mite Biosecurity Zone.

Interstate import requirements should be considered prior to any movement of citrus host material. Further information is available by contacting the relevant state authority.

Actions to minimise risk

Put in place biosecurity best practice actions to prevent entry, establishment and spread of pests and diseases:

- practice “Come clean, Go clean”
- ensure all staff and visitors are instructed in and adhere to your business management hygiene requirements
- monitor your crop regularly
- source plant material of a known high health status from reputable suppliers

A plant pest is a disease causing organism or an invertebrate which threatens agricultural production, forestry or native and amenity plants.

More Information

[CA-16 Treatment of Citrus, Fortunella, or Poncirus for Citrus Red Mite](#)

Acknowledgments

Figure 1 courtesy of L. Buss, University of Florida, Institute of Food and Agricultural Sciences

Figure 2 courtesy of David Rosen, UC Statewide IPM Program, University of California

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