

Spider mites (exotic species)

Compiled by Lewis Wilson (CSIRO)

What are Spider mites?

Spider mites are pests of a range of economic field, orchard and glasshouse plants, including cotton.

Three spider mite species are found on cotton in Australia (the major pest *Tetranychus urticae*, and the minor pests *T. ludeni* and *T. lambi*). However, other spider mite species are present overseas and are a threat to the Australian cotton industry because they are more damaging (e.g. *T. turkestanii* and *T. pacificus*).

The exotic spider mites have different host ranges or may carry new acaricide resistance genes, making them more difficult to control. For instance in California, *T. pacificus* and *T. urticae* have developed resistance to dicofol, propargite or abamectin and in some cases all three.

What do they look like?

Spider mites are small (less than 0.5 mm in length), have eight legs and are green or red. Exotic species look very similar to species already present in Australia and will be difficult to spot.

What can they be confused with?

Exotic spider mites look very similar to species already present in Australia. Any spider mite that does not respond to treatment or attacks crops not normally affected by spider mites should be reported immediately.



Mite feeding damage on the underside of a cotton leaf

Jack Kelly Clark, UC Statewide IPM Program



Adult *T. cinnabarinus* spider mite next to eggs deposited on the underside of a leaf

Merle Shepard, Gerald R. Carner, and P.A.C. Ooi, Bugwood.org



Feeding can cause whitish-yellow spots on leaves

Merle Shepard, Gerald R. Carner, and P.A.C. Ooi, Bugwood.org





What should I look for?

Indicators of the presence of exotic species could be very intense damage, poor control with registered acaricides or mites with unusual spot patterns or colour (see pictures).

Mites on the upper surface of leaves could indicate the presence of Pacific mites (*T. pacificus*).

How does it spread?

Mites can be spread over long distances on infected nursery plants. In the field they spread from plant-to-plant by walking and can also be dispersed on wind currents over longer distances. Mites can also be spread on clothing.

Where are they now?

A range of exotic mite species that are a threat to the Australian cotton industry are found in the USA, South America, SE Asia and Africa.

How can I protect my farm from Spider mites?

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

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



Adult Pacific spider mite (*T. pacificus*)

Jack Kelly Clark, UC Statewide IPM Program



Infestation of *T. turkestani* on the underside of a strawberry leaf

Natalie Hummel, Louisiana State University AgCenter, Bugwood.org



Cotton leaf turns upward and later turns red where *T. turkestani* infestation occurs on the underside

Jack Kelly Clark, UC Statewide IPM Program

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