

Exotic spider mites

What are Spider mites?

Spider mites are very small (usually less than 0.5 mm long) arachnids that feed on the sap of plants. Papaya plants are affected by a number of endemic (such as the Two spotted spider mites (*Tetranychus urticae*)) and exotic spider mites such as Pierce's spider mite (*T. piercei*) and Cassava spider mite (*T. truncatus*).

What do they look like?

Spider mites feed on the plant's sap causing leaves to become covered with spots of lighter green giving the plant a mottled appearance. Spider mites also produce silk webs on the undersides of leaves, although the amount of silk produced varies between species.

Spider mites are very small (usually only 0.5 mm long). The colour of adults can assist in identification. Adult Two spotted spider mites (which occur in Australia and affect papaya) are a yellow-green or red colour with two darker spots on their bodies, while the exotic *T. piercei* and *T. truncatus* are usually a dark red colour without obvious spots. A magnifying glass (x 10) is needed to accurately look at spider mites.

What can they be confused with?

As spider mites are very small, exotic spider mites are often hard distinguish from endemic species. The colour and markings of the mite can help identify different species, as can the amount of silk produced by the mite.

What should I look for?

As spider mites are very small you are most likely to see their symptoms before seeing the actual spider mites. While feeding, spider mites damage the plant's leaves and this causes spots and mottling to occur.



Frank Peairs, Colorado State University, Bugwood.org

Two spotted spider mites are endemic. Note darker spots on the side of the body



Sonya Broughton, Department of Agriculture & Food Western Australia, Bugwood.org

Red form of the Two spotted spider mite



Daren Mueller, Iowa State University, Bugwood.org

Typical spider mite symptoms include mottling and spotting of the leaves, in this case on a soybean plant



If you see these symptoms it is important to have a closer look at the plant to see if it is being attacked by spider mites. Look for signs of silk or the mites themselves, especially on the underside of leaves.

If you see any unusual spider mites, or evidence of their presence, consult an agronomist, your state/territory department of agriculture or contact the Exotic Plant Pest Hotline on 1800 084 881.

How do they spread?

Spider mites are able to be spread over long distances by hitch-hiking on plant material and contaminated machinery. Spider mites can also be spread by the wind allowing them to spread over long distances.

Where are they now?

Tetranychus piercei occurs in tropical and subtropical areas in eastern and south eastern Asia including: China, Japan, Taiwan, Thailand, Vietnam, Philippines, Malaysia, Indonesia and Papua New Guinea.

Tetranychus truncatus also occur in south eastern Asia including: China, Japan, Korea, Mariana Islands, Philippines, Taiwan, Thailand and Indonesia.

How can I protect my orchard from exotic spider mites?

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

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



David Cappaert, Michigan State University, Bugwood.org

Look for signs of silk and spider mites on the underside of leaves especially on trees that show spotted or mottled leaves



O.P. Sharma, NCIPM, New Delhi, India, Bugwood.org

Inspect plants carefully and report unusual spider mites

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