

MITES: TWO-SPOTTED MITE (*Tetranychus spp.*)
 RED MITE (*Panonychus ulmi*, *P. citri*)



Predatory mite (left) attacking harmful mite (right). Note hairless body and rounded tail of predator. Colour of predator changes with food.



Female 2-spotted mite showing two dark patches



Winter eggs of red mite on bark



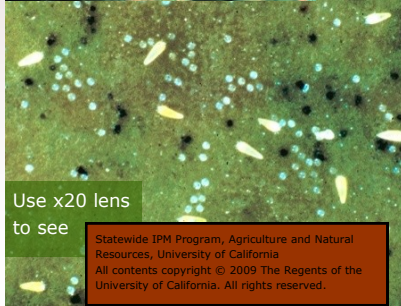
Typical male mite



2-spotted mite damage to eggplant



Citrus red mite



Use x20 lens to see

Statewide IPM Program, Agriculture and Natural Resources, University of California
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On left, rust mites and eggs. Above, damage to fruit by citrus rust mite

Description

Three important types of mite infest fruit and vegetables. 1) Two-spotted mite, recognised by the two dark patches on its back. It has many overlapping summer generations with eggs, nymphs and adults present. It attacks fruit, nut and vegetable crops. In autumn in cold areas, it turns orange and stops feeding to overwinter as an adult in 'diapause'. 2) Red and brown mites (e.g. Fruit-tree red spider mite) mainly infest fruit-trees and vines. Some overwinter as eggs on branches. These mites can be seen with a x10 hand-lens. 3) Rust mites are much smaller and a x20 lens is needed.

Mites give leaves a dusty appearance by sucking sap from cells. In bad attacks, plants are defoliated. Vines, fruit, nuts and vegetables are all attacked.

Monitoring

Winter eggs of red spider should be noted. Rust mites can also be found in winter behind buds on fruit and nut trees.

In summer, differentiate male and female harmful mites from predatory mites. It is not necessary to differentiate different species of predatory mite.

Populations of mites can increase very quickly, especially in hot weather. On fruit trees, a threshold of 4 adults per leaf on old leaves is often used. However if predatory mites are present, treatment may be delayed.

Control

On fruit and nut trees, if pesticides that harm beneficial mites are avoided, control should not be needed. Harmful pesticides are: organophosphates such as chlorpyrifos or dimethoate and pyrethroids such as cypermethrin, lambda-cyhalothrin and deltamethrin. Sulphur also harms beneficial mites.

Recommended pesticides for control of mites are: clofentezine, tebufenpyrad, fenpyroximate, fenbutatin oxide. Dicofol or pyridaben should only be used late in the season.

On vegetables, especially cucurbits and beans, populations of two-spotted mite breed faster than predators and control is necessary. At an early stage, *Phytoseiulus persimilis* can be introduced but will not control mites in