



Twospotted spider mite

Tetranychus urticae

Order Acari, Family Tetranychidae; spider mites

Native pest

Host plants: Many deciduous trees and shrubs, such as euonymus, apple, ash, black locust, elm, maple, pear, redbud, and tuliptree. This is the most common mite pest of annual and perennial plants in the flower garden and greenhouse.

Description: Adult mites are approximately 0.5 mm long and oval, with eight legs. Coloration varies throughout the year. During the growing season, mites are greenish yellow with a black spot on each side of the body. Overwintering females and mites in their non-feeding stage are reddish orange. Eggs are transparent to off-white.

Life history: This is a warm season mite, and is active during hot temperatures of summer. There are several generations a year.

Overwintering: Eggs or adults in debris and grass.

Damage symptoms: Spider mites remove plant juices from leaves causing white to yellow stippling to appear on foliage as chlorophyll is removed. Heavy infestations lead to much more generalized discoloration as stipples coalesce. Leaves may turn white, yellow, and ultimately grayish bronze. Premature leaf drop occurs and plant vitality may be seriously affected. Infested annuals are commonly killed.

Monitoring: Look for white or yellow stippling on leaves in hot summer weather. Look on the underside of damaged leaves or shake leaves over white paper to detect nymphs and adult mites. Look also for natural enemies feeding on the mites. Adult spider mites are dark and move slowly. Predatory mites are light colored and move rapidly.

Chemical control: To conserve natural enemies of spider mites, apply biorational pesticides, such as horticultural oil or soap sprays, to reduce mite infestation. If natural enemies are not present and mite populations develop to the point where damage may occur, treat with a residual miticide.

Biological control: A predatory mite, *Amblyseius fallacis*, occurs throughout the U.S. It feeds on twospotted and other spider mites. Some populations of this mite have become highly resistant to organophosphate insecticides. Other natural predators of mites include bigeyed bugs, minute pirate bugs, lacewings, lady beetles, the rove beetle *Oligata oviformis*, and predaceous midges. Mites are also susceptible to viral and fungal pathogens.

Plant mortality risk: Medium to high



Damage to winged euonymus caused by twospotted spider mite. Plants in full sun suffer most serious damage. (251)
Photo: John Davidson



Yellowing and leaf curl caused by twospotted spider mite on phlox. (252)
Photo: John Davidson



Webbing produced by twospotted spider mite. (W107)
Photo: Whitney Cranshaw



Twospotted spider mite (continued)

Biorational pesticides: abamectin, bifenazate, clofentazine, hexythiazox, horticultural oil, insecticidal soap

Conventional pesticides: bifenthrin, chlorpyrifos (nursery only), deltamethrin, dicofol, fenpropathrin, fenbutatin oxide, lambda-cyhalothrin, pyridaben



Leaf stippling on forsythia caused by twospotted spider mite feeding. (252)
Photo: John Davidson



Twospotted spider mite adult females, one egg, and six nymphs. This species commonly feeds in dense colonies on the underside of leaves, resulting in yellowish stippled areas on the tops of leaves. (254)
Photo: John Davidson



Twospotted spider mite adult, nymphs, and conspicuous white shed skins that are often easier to detect than the camouflaged mites. (253)
Photo: John Davidson



Twospotted spider mite adult. (255)
Photo: John Davidson