



The Connecticut Agricultural Experiment Station
Putting Science to Work for Society since 1875

Founded in 1875
Putting science to work for society

Katherine Dugas
Department of Entomology
The Connecticut Agricultural Experiment Station
123 Huntington Street, P. O. Box 1106
New Haven, CT 06504

Phone: (203) 974-8600

Fax: (203) 974-8502

Email: katherine.dugas@ct.gov

Website: <https://portal.ct.gov/caes>

SPIDER MITES (Family Tetranychidae)

Spider mites are damaging pests of landscape plants and trees. These mites often produce a silk webbing cover on host plants as a means of protection. They are very small, around 1/50th of an inch in size. Spider mites cause plant damage by piercing and sucking out plant cell contents on the surface of host leaves. This feeding causes ‘stippling,’ uneven areas of discoloration on the leaf surface. Further feeding damage can result in the bronzing of leaf veins and entire leaves. Most feeding will occur along leaf veins.



Fig. 1: Spruce Spider Mite Eggs

*Spruce Spider Mite**: The spruce spider mite overwinters as bright orange eggs (Fig. 1), with a curved hair coming out of the middle, laid in bud scales or underwebbing on twigs and branches. Eggs hatch in early April and the six-legged larvae begin feeding on older needles. They molt to eight-legged nymphs

which continues feeding on needles. Adults are dark green to brown on the abdomen, while the head area and legs are cream to reddish in color. All stages can be dispersed by the wind to surrounding plants. Most activity occurs in spring and fall. During hot summer weather they cease feeding and go into a diapause (suspended activity). Host plants of the spruce spider mite include spruce, pine, hemlock, juniper, arborvitae, cedar, and fir (Fig. 3).

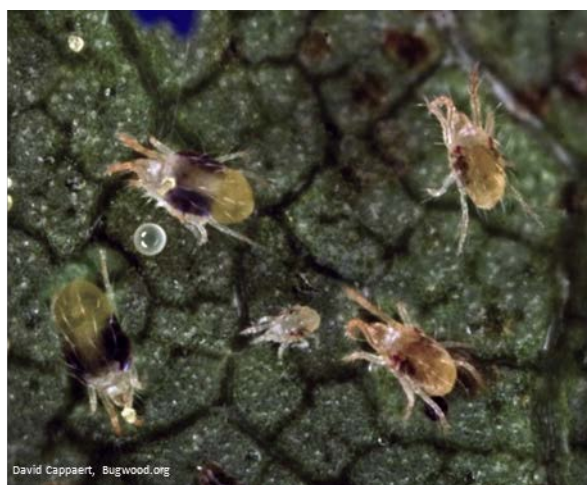


Fig. 2: Twospotted Spider Mites

*Twospotted Spider Mite***: The twospotted spider mite gets its name from a pair of dark spots on its back (Fig. 2). These mites have a wide host range of vegetable and other food crops, including blackberry, strawberry, blueberry, tomato, squash, eggplant, and cucumber. They also attack landscape



Fig. 3: Spider Mite Damage

ornamentals such as rose and Hydrangea, as well as trees including elm, cherry, redbud, and almond. Females overwinter under tree bark or leaf litter. There are multiple overlapping generations during the growing season. Activity is highest during hot, dry summer and fall weather. Plants overwintered indoors can support populations year-round.

Control**

Among the compounds registered for control of spider mites in Connecticut are insecticidal soap and ultrafine horticultural oil. Spraying with insecticidal soap will give sufficient control if applied at least twice at 7-10 day intervals. The predatory mite, *Neoseiulus fallacis*, is most commonly found feeding where there are mite infestations. A single application of ultrafine horticultural oil (1/2 - 1% dilution) can be effective if predatory mites are present. Special care should be taken with soap or oil to obtain thorough spray coverage, because they only work on contact. Consult the label for dosage rates

and safety precautions. Avoid applying carbaryl or pyrethroids, which tend to be much more toxic to the predators than to the pest spider mites. If using oil or soap, do not apply in hot weather (> 75° F) or when foliage is hot. Spray early morning when foliage is cool and there is no forecast of rain.

*pest description derived from the CAES Integrated Insect Management Pesticide Guide.

**pest description and control information derived from the CAES Plant Pest Handbook.