



Spider Mites

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Symptoms and Damage

Numerous species of mites known as spider mites can infest forest and shade trees. These tiny spider relatives have the ability to spin fine silken webs over the foliage of trees. Some of the more notorious species are also known as red spiders due to their red color. Depending on the species or stage of maturity, colors may vary in different shades of yellow, green, orange, and red. Mites feed by piercing stylets into the surface of the foliage to draw out plant juices. Their feeding destroys the chlorophyll bearing cells at the surface of leaves or needles and results in a stippling or mottling of the foliage. Webbing may not always be readily seen on the foliage depending on the level of infestation and species. Mites, which are barely visible to the naked eye, may be detected by shaking and beating suspected foliage over a white sheet of paper. Any mites that are present appear as tiny dots crawling over the paper.

Hosts

All species of conifers and deciduous trees.

Conifers: One of the most important species on conifers is the **spruce spider mite**, *Oligonychus unungius* (Jacobi). It attacks hemlock, spruce, arborvitae, pines, and balsam fir. Feeding damage occurs as tiny chlorotic flecks on the surface of needles and the foliage appears mottled. Fine webbing is also produced between the needles and foliage may collect dirt and dust. Damaged needles may dry up and drop off. Christmas trees may be severely damaged by this mite. Trees growing on poor sites may be killed.

Deciduous trees: A number of species attack various deciduous trees - the **oak red mite**, *Oligonychus bicolor*, can occur on oak, birch, beech and elms. It causes fine flecking on the upper surfaces of leaves and occasionally causes large portions of leaves to become yellowed or bronzed in appearance when very heavy. It seldom causes serious damage and is only conspicuous when most of the foliage is infested. The **honeylocust spider mite**, *Eotetranychus multigituli* (Ewing), which occurs only on honeylocust, causes extensive browning of foliage during the summer when populations are high.

Life Cycle and Habits

Most species overwinter as eggs although a few, including the honeylocust spider mite, overwinter as adults in bark crevices. The eggs hatch in the spring, and the six legged larvae feed on foliage and can reach maturity within a week. Mature mites have 8 legs, and are less than 1 mm long. There may be numerous overlapping generations and populations can build rapidly.

Control

Non-chemical: If infestations involve only a few small trees, washing with a strong stream of water from a garden hose several times will sometimes reduce mite levels.

Chemical*: If the mite infestation is heavy and control is desired, the application of miticide such as dicofol should give effective control when applied as directed. Diazinon** also registered for use against mites. Refer to the container label for specific use instructions, dosages, and timing.

Mites have overlapping generations meaning egg nymph and adult forms may all be present at one time. Many pesticides are effective only on nymphs or adults hence a second application may be necessary 7 to 10 days after the first. Carefully read the label to determine if a second application is necessary.

***NOTE:** These recommendations are not a substitute for pesticide labeling. Read the label before applying any pesticide. Pesticide recommendations are contingent on continued EPA and Maine Board of Pesticides Control registration and are subject to change.

****Some formulations are restricted-use pesticides and may only be purchased or used by certified pesticide applicators.**

Caution

For your own protection and that of the environment, apply the pesticide only in strict accordance with label directions and precautions.