

## SPIDER MITES AND APHIDS

As temperatures rise, so do populations of spider mites and aphids that feed on leaves, flowers, fruit, and even the bark of plants. These tiny creatures are often found in colonies feeding on plants. Often, they are not noticed until severe damage has occurred, causing leaves to become curled or brown.

Aphids are small, soft-bodied insects that are recognizable with a hand lens as having two tubes, called cornicles, projecting from their abdomen. Curled leaves provide protection for the aphids from predators and from treatments with pesticides. Aphids feed on the sap of plants with piercing, sucking mouthparts. The sugary waste left behind by the aphids is a shiny substance known as "honeydew" which drips from plants, leaving decks, windows, and cars sticky. Honeydew is a favorite food of ants. A fungus called "sooty mold" grows on the honeydew, turning leaves and branches black.

Though leaves and flowers of trees and shrubs may look bad, the aphid feeding usually does not harm the plants health. Aphids can destroy flowering annuals and vegetables, and leave perennials weakened and stunted through the summer months. Less than a dozen aphid "colonizers" can produce hundreds to thousands of aphids on a plant in a few weeks.

Spider Mites are a close relative of spiders. Like spiders, they have four pairs of legs, no antennae, and a single oval body region. They are very tiny, some being less than 1/50 of an inch long. Many produce fine silk webbing on leaves and needles. They feed with mouthparts that pierce individual plant cells and remove the cell's contents. This results in small, whitish spots and with heavy feeding, the leaves and needles become yellow or bronze, which can result in leaves dropping early. Bronze foliage on Spruce trees is a common sign of a spider mite infestation. During the summer months, the Two Spotted Spider Mite can build up its populations quickly and has a very diverse range of plants that it feeds on, including over 180 plants from field crops, ornamentals, houseplants, to weeds. If you suspect spider mites are a problem, shake branches over a white sheet of paper to observe the number of mites that drop onto the page. If ten or more mites are observed per sample, control may be needed.

Early detection is key to combating the populations of both spider mites and aphids. Inspection of new, tender growth should be done weekly, especially checking the underside of leaves. Integrating various control strategies can reduce the use of

pesticides.

Natural predators such as lady beetles and lacewings will feed on both aphids and spider mites. Predators can be purchased and released onto plants. For spider mites, the most commonly sold predator is a predator mite. A forceful stream of water from a hose can also help to reduce the populations of aphids and mites. Pruning out infested new growth removes the main aphid population on plants like roses and honeysuckles. The use of insecticidal soaps and horticultural oils can reduce populations, but since aphids and spider mites are tiny, it is necessary to have thorough coverage for good control. Check pesticide labels for a list of plants that may be sensitive to horticultural oils. Pesticides useful for control of aphids may not be useful on mites. Many other pesticides are labeled for control of mites and aphids and these can be found at local garden centers. It is important to read labels very carefully. Pesticides pose environmental hazards and should be used properly and disposed of in accordance with the label.

Remember that watering and fertilizing plants will help preserve the health of plants, while reducing stress caused by pests.

Ref: Master Gardener Training Manual, IPM, P. 37-39.

The **Master Gardener Hotline** is open from April to October, Monday through Friday. Lines are available 9:00 am to noon and 1:00 pm to 4:00 pm at 888-678-3464

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