Two-Spotted Spider Mite

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Attack of the two-spotted spider mite

Is your favorite houseplant drooping and looking pale and sickly? Is the green color in the leaves becoming stippled, taking on a silvery or bronze patina? With the help of a magnifying hand lens, examine your plant closely, especially the underside of the leaves. If you see fine webbing and tiny creatures, along with cast-off skins and round translucent eggs, you have found the reason for your plant's problem.

The culprit is *Tetranychus urtecae*, more commonly known as the two-spotted spider mite. Under magnification these little mites appear to be greenish-white, with an oval body about 1/50 inch long and dark spots on either side of their backs. The spots are accumulations of body wastes, becoming darker as the mites mature. They have four pairs of legs and needle-like mouth parts designed to pierce plant skin and suck the juices. When you find telltale gray or yellow speckling on the top surface of the leaves, the two-spotted spider mite has attacked. Complete defoliation may occur if the mites are allowed to continue unchecked. Isolate affected plants. Spider mites are very small and will ride air currents, easily spreading from one plant to another.

Learn the pest's life cycle
Controlling any pest means understanding its life cycle and knowing when it is most vulnerable to methods that won't harm either the plant or the beneficial predators who kill pests. The life cycle of the two-spotted spider mite depends on the weather. In ideal conditions, when the temperature is high and humidity is down, they reproduce rapidly. A female only lives two to four weeks, but can lay hundreds of eggs during her short lifetime!

Adults overwinter in plant litter on the ground and under loose bark. They appear in the spring or early summer, ready to mate and start new colonies. In the cool temperatures and high humidity of the Pacific Northwest, two-spotted spider mites are not usually a big problem outdoors. However, they are attracted to greenhouses and indoor settings, where they continue their life cycle throughout the year. Spider mites are particularly attracted to certain plants, including beans, cucumbers, soybeans, raspberries, roses, marigolds and hollyhocks. Tomatoes are a special favorite. They are not fussy eaters, though, and have been known to attack 180 different plant species! Drought-stressed plants are especially vulnerable to damage from two-spotted spider mites.

Beneficial insect predators to the rescue: your pest is their treat
Predatory mites, minute pirate bugs and some specialized lady beetles prey on spider mites. These beneficial insects can keep down populations of two-spotted spider mites, but large

infestations may require intervention from the gardener. Once you learn to recognize the symptoms, it is easier to stop the problem before it spreads. Knocking off the pest with a strong stream of water is effective if you take care to spray the underside of the leaves. This remedy should be repeated regularly.

Examine susceptible plants often for a new buildup of pests. Remove and destroy infected leaves. Also, remove weeds from around your plants. Two-spotted spider mites are likely to be found feeding on weeds such as mallow, bindweed, white clover and knotweed. If a strong spray of water is not enough to take care of the problem, you may have to spray the underside of the leaves with organic insecticidal soap or agricultural oil.

Spider mites and cast skeletons on a plant. *Photo by Virgene Link / WSU Skagit County Extension Master Gardeners.*

Be careful with those insecticides

One thing to remember: Never spray chemicals on a wilted plant. Chemicals, even soaps and oils, will burn and may even kill a stressed plant. In addition, chemical intervention may upset the natural balance by killing the predators at work.

Spider mites have many natural enemies. The western predatory mite is one of the most important, along with general predators such as minute pirate bugs, big-eyed bugs and lacewings.

Some predators can consume 20 spotted spider mite eggs or five adults, every day!
You can invite many of the beneficial insects into your garden by including plants such as dill, calendula and yarrow. While you enjoy these lovely herbs and flowers, predatory insects depend on these plants to provide nurseries in which to rear their young. Cultivate this beneficial partnership and you can enjoy fewer pests and a healthier garden.

Spider Mites. *Photo by Virgene Link.*

The two-spotted spider mite is not an insect. Insects have six legs, but the two-spotted spider mite has eight, like a spider. Its scientific classification is "Arachnida"' from "Arachne," the Greek word for spider. This classification includes over 100,000 named species, such as spiders, scorpions, ticks, *opiliones* (better known as 'daddy longlegs') and, of course, mites.

RESOURCES:

- "Suppliers of Beneficial Organisms in North America." University of Kentucky. https://entomology.ca.uky.edu/ef125
- Pests of the West. Whitney Cranston. Fulcrum Press. Golden, CO. 1998.
- *Pacific Northwest Insect Management Handbook.* Extension Services of OSU, WSU, and University of Idaho.
- "Two Spotted Spider Mite." *Organic Gardening Magazine.* vol. 57:2. Robin Chotzinoff.
- "A Pocket Guide to Common Natural Enemies of Crop and Garden Pests in the Pacific Northwest" OSU Extension Service. https://catalog.extension.oregonstate.edu/ec1613
- "How to Manage Pests in Gardens and Landscapes." University of California Integrated Pest Management. www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7405.html

Note: some hyperlinks in this article have been updated since its initial publication.