
SUNNYSIDE THYMES

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Guess Who's Coming to Dinner?

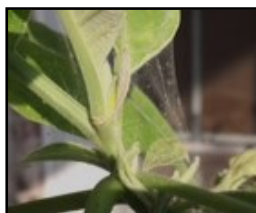
SMG Education Committee - Cathy Bond



Spider Mites

Spider mites (Class Arachnida, Order Acari, Family Tetranychidae) are plant pests that have been known to make grown men cry – and sooner or later, nearly every indoor gardener is likely to get them. They are not insects; they are tiny arthropods closely related to spiders. Unlike insects that have six legs and three body parts, spider mites have eight legs and a one-part body. They lack wings, antennae, and compound eyes. Spider Mites are tiny sap-sucking plant pests that use piercing-sucking mouthparts to attack the underside of leaves and suck the vigor from the plant, stunt growth, and can even kill a plant. Individual spider mites are nearly microscopic, yet when they occur in large numbers, they can cause serious damage.

There are about 1,200 species of mites within the Acari family of arachnids. The two-spotted spider mite (*Tetranychus urticae*) is the most well-known and the most prolific and difficult to eradicate here in the Midwest. Though there are many species of spider mites, they all have two things in common: they reproduce rapidly and eat voraciously. Early identification and treatment is key to control. You should suspect spider mites if you notice a whitish, silvered or yellowish stippled, speckled look to individual leaves or needles or an overall bronzed or yellowed discoloration on damaged parts of the plant. One way to confirm their presence is to place a sheet of white paper beneath the plant and lightly shake the stem. If specks drop onto the paper and move around the plant is infested. Another sign of a heavy infestation is that leaves may be covered with a nearly invisible webbing, although not all species of mites produce webbing. As soon as you spot an infestation, it's time to take charge and get rid of them.



Cultural Control. Spider mites thrive in hot, dry conditions and on plants that are under stress. Regularly inspect your plants including

the undersides of leaves. Be sure to keep plants cool, watered and give them adequate light and control weeds or litter around plants that give mites hiding places to reduce susceptibility to spider mites. Pick up any leaves that have dropped, pull off any damaged leaves and place in a sealed plastic bag which will prevent mites from affecting other plants. If an entire plant is infected, consider removing it to give other plants a better chance at survival. There are a number of ways to rid an infestation.

Mechanical Control. Spraying affected plants with a steady stream of water twice a week can dislodge the mites. Houseplants, including the underside of leaves, should be wiped regularly with a mild detergent solution (3 T/gallon of water) every couple of weeks.

Biological Control. There are many natural enemies in Indiana landscapes that feed on spider mites, so try to increase the numbers of mite predatory beneficial insects in your garden which include small black lady beetles, lacewing larvae, minute pirate bugs and other predatory mites.

Chemical Control. If you choose to use a pesticide for mites, you should try to use a biorational material, such as microbial insecticides for caterpillars, like *Bacillus thuringiensis* (Dipel, Thuricide), or spinosad (Conserve, Fertilome Borer Bagworm, Leafminer, and Tent Caterpillar Killer), insect growth regulators, or insecticidal soaps and horticultural oils. There are also miticides that use natural ingredients that limit harm to other insects such as Pyrethrum, Cinnamite or Neem oil.

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Other chemical insecticides that are not bio-rational include the active ingredients bifenthrin, deltamethrin, and lambda cyhalothrin. Read the label carefully to be sure the plant you want to treat is listed for the product you intend to use and follow all label instructions. Note that multiple applications of any chemical control must directly contact the mites to kill them and repeated treatments may be necessary to control all eggs and larvae. It is also recommended that you change the class of pesticide you use once every 3 weeks when not using smothering agents. It is also recommended that the same pesticide not be used more than 3 times to reduce development of tolerance or resistance.

References:

- <https://extension.entm.purdue.edu/publications/E-42.pdf>
 - <https://extension.entm.purdue.edu/fieldcropsipm/insects/soybean-spidermite.php>
 - <https://entomology.ca.uky.edu/ef438>
 - <http://www.extension.umn.edu/garden/insects/find/spider-mites/>
 - <https://extension.umd.edu/hgic/spider-mites-flowers-and-groundcovers>
 - <http://www.pubs.ext.vt.edu/444/444-221/444-221.html>
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