

Garden Bad Guys – Thrips

By Nanette Londeree

Thrips are generally bad news for the gardener, whether you have one type of thrips (the name is the same - singular and plural) or more. Not visible to the naked eye as they often feed within buds and furled leaves or in other enclosed parts of the plant, these extremely small insects cause damage that, while unsightly, is most often cosmetic rather than injurious to the plant. And not all of them are bad – a number of thrips species are considered beneficial predators that go after mites and other insects, some even prefer fungal spores and pollen.



Belonging to the order Thysanoptera or “fringe winged” insects, they have unusual, highly fringed margins on their long, narrow wings. The adults range in color from translucent white or yellowish to dark brown or blackish depending on the species, and are only 1/20 of an inch long. They feed on plants by puncturing tissue surfaces and sucking out the cell contents, scarring leaf, flower or fruit surfaces and distorting plant parts, especially flower buds and rapidly growing parts. Their damage can stunt growth and cause leaves to become stippled, papery and distorted, terminals to become discolored or tightly rolled and leaves to drop prematurely; dead spots or blotches may appear on flowers like the silver spots or brown edges on petals of light colored flowers, punctuated with small varnish-like fecal droppings. While the unsightly damage on woody plants is rarely detrimental to plant health, for some fruit and vegetable crops and herbaceous ornamentals, serious injury can result, especially to young plants.

There are types of thrips specific to particular types of plants - gladiolus, iris, avocado, bean, citrus, melon, pear, onion, privet, toyon and Cuban lustral. One of the most common pest types is the Western flower thrips, *Frankliniella occidentalis*, which favors many herbaceous ornamentals (impatiens, petunia), vegetables (cucurbits, pepper), fruits (grape, strawberry) and some shrubs and trees (rose, stone fruit).



Although thrips have wings, they tend to rely on wind currents to carry them as much as several miles, or to be transported on infested plants. As poor fliers, they tend to spread slowly through a plant or garden. Their lifecycle can be extremely short, development from egg to adult may take as little as two weeks during warm weather, resulting in multiple generations each year. Depending on the species, pupae and active stages can occur on plants, or mature nymphs may drop and pupate near the soil surface.

Managing thrips can be a challenge – there are no pesticides that provide complete control. Insecticides are often not effective due to the pests' tiny size and mobility, their feeding deep within flower buds or new growth and their protected egg and pupal stages. Prevent infestation through good cultural and sanitation practices, and where appropriate, use barriers like row covers to exclude them. Limit excessive applications of nitrogen fertilizers as these actually promote higher populations of the pests (along with aphids). If cultural controls are not effective, then physically removing infested or damaged parts should be a first step in an overall integrated pest management approach that includes encouraging beneficial predators like green lacewings and minute pirate bugs. You can also try a strong spray of water to knock them off plants. If the plant is otherwise healthy, it should outgrow the damage.