

Thrips by Lloyd Eighme, retired entomologist

These tiny insects (less than 1/20 inch long) in the order Thysanoptera (thysan=fringe;ptera=wing) are not commonly seen by gardeners, but sometimes the damage they do to our plants becomes very obvious. Thrips have rasping mouthparts, that they use to scrape the surface of leaves and flowers. They do not consume very much, but their feeding often leaves white scars. That would not be too serious on a large healthy plant, but on the developing petals of flowers like gladiolus it can be very damaging.

The eggs are inserted into small slits in the leaf by the female. They hatch in a week or two into nymphs that look like adults, except for smaller size and the lack of wings. After feeding and growing, they turn into a non=feeding pupa stage that soon changes into an adult. Several generations may occur during one season, so you might see all stages of the life cycle at one time on a plant. Small black fecal pellets remain attached to the leaf where thrips are feeding and that is often a good indication of their presence.

There are many kinds of thrips, some very host specific and others that feed on a wide variety of plants. The onion thrip feeds on beans and cabbage as well as onions. Western flower thrips feed on a wide variety of flowers and vegetables and sometimes transmit virus diseases such as tomato spotted wilt and impatiens necrotic spot.

The feeding injuries on plants is noticed first as white or silvery spots on the leaves resulting from the destruction of upper cell layers by the rasping mouthparts of thrips. They feed on the nutritious sap from the broken plant cells. A heavy infestation of thrips can reduce the vigor and yield of plants. Seedlings are often distorted from damage to rapidly growing stems and leaves. Some thrips overwinter in the adult stage on dead plants and start a new population as soon as new plants start spring growth. Sometimes transplants will be infested with either adult thrips or eggs inserted into the leaf tissue. Onion sets often have thrips hiding in the papery layers just waiting for the tender new growth. When the adults have fully developed wings they can fly from one plant to another. They are so small and light the wind can carry them long distances to a new food source. Their small size and weak flight makes them susceptible to heavy rains or overhead sprinklers which can wash them off and onto the soil where predators will destroy most of them. Our rainy weather could be of some advantage couldn't it!

One reference notes that onion thrips are commonly found on most produce, so they might be the most frequently eaten insect in our part of the world. For the gourmet cooks, thrip enhanced protein!

For more information on thrips and their control read EB 1226 and PLS 36.



Thrips adult