



## Onion Thrips

*Authored by Eric Day, Lab Manager, and Theresa A. Dellinger, Insect ID Lab, Department of Entomology, Virginia Tech*

### Description

Adult onion thrips are yellowish-brown, slender, elongated insects about 1 mm (0.04 inch) long (Fig. 1). They have two pairs of light-colored, fringed wings and dark eyes. The abdomens have dark brown bands across their width. Larvae are pale with red eyes and lacking wings, but otherwise similar to adults in appearance.



Figure 1. Onion thrips (Alton N. Sparks, Jr., University of Georgia, Bugwood.org).

### Life Cycle

The thrips life cycle consists of egg, larval, prepupal, pupal, and adult stages. Adult females deposit their

eggs in tender leaf tissue. Larval thrips feed on the onion plant. A pre-pupal, non-feeding but actively mobile third stage is found on the soil surface around bases of plants and in the leaf axils. This stage is followed by the pupal stage, during which the insect transforms into the adult stage. The time span from egg to adult can occur in 3-4 weeks. Multiple, overlapping generations occur each year in Virginia. Onion thrips overwinter as adults and immature nymphs in plant debris and weeds.

Populations of thrips do very well in hot, dry weather. They can be carried on the wind into new fields and gardens.

### Plants Attacked

Primarily onion, but also beans, beet, carrot, cabbage, cauliflower, celery, cucumber, garlic, melons, peas, squash, tomato, and turnip. They are also found on cereal crops and weedy plants.

### Damage

Both adults and larvae rasp leaf tissue and feed on the released juices from plants. Feeding damage on onion appears as white blotches or silver streaks on leaves (Fig. 2), with the tips of leaves withering and browning. Tiny spots of dark fecal droppings may be found on damaged plant tissue. Examine damaged plants for thrips, but thrips are very active and can quickly leave a plant when disturbed. Yellow sticky cards can be helpful in documenting the presence of thrips and monitoring population levels.

### Distribution

Throughout the United States.

### Cultural Control

Some varieties of sweet onion are resistant to thrips. Clean up plant debris at the end of the season to

discourage thrips from overwintering in and near the garden.



Figure 2. Adult onion thrips with their characteristic feeding damage (Whitney Cranshaw, Colorado State University, Bugwood.org).

## Organic/Biological Control

Apply a dust of diatomaceous earth to control thrips. Minute pirate bugs and some lady beetles are predators of thrips.

## Chemical Control

Treat with a registered insecticide when thrips appear in damaging numbers. Materials should be applied into the leaf axils where thrips feed (Fig. 3). Consult the most recent edition of the Virginia Pest Management Guide for current information on registered insecticides labeled for thrips. Homeowners should see “thrips” in Home Grounds and Animals (VCE 456-018). Commercial growers should consult the section appropriate for their specific crop in Horticultural and Forest Crops (VCE 456-017) or in the Mid-Atlantic Commercial Vegetable Recommendations (VCE 456-420).

## Remarks

Thrips is the correct word whether referring to singular and plural insects in the order Thysanoptera.



Figure 3. Onion thrips in the leaf axil of an onion plant (Whitney Cranshaw, Colorado State University, Bugwood.org).

## Revised

Theresa A. Dellinger, March 26, 2020.

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