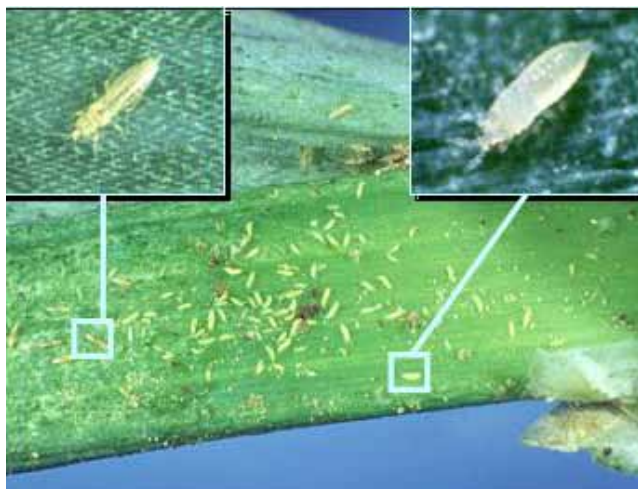


## Insect/Disease Information

### VEGETABLES

#### Onion Thrips



Onion thrips thrive in hot, arid environments, making them the most destructive pest on onions in Utah. They overwinter as adults and start feeding in early spring on volunteer onions and new plantings. Although they have a broad host range of other vegetable, field, and weed plants, onions are their primary host.

On onions, they feed on new leaves near the center of the onion neck, leaving white to silvery streaks where they have fed. Heavy feeding can cause plant withering, and during July and August (when bulbs are rapidly enlarging), it can also cause reduced bulb size due to loss of plant vigor. Thrips can also vector viruses such as the iris yellow spot virus, which is fairly new to Utah.

Onion growers in northern Utah should be scouting their fields now for thrips activity. To find them, open the leaves of the plant and look in the neck at the newest leaves and quickly count the thrips before they hide. In the early season (until July), if more than 15 thrips/plant are found, treatments should be made to prevent later population build-up. (In mid to late summer, treat when more than 30 thrips/plant are found.)

To manage this pest, consider alternate options before pesticides, as onion thrips can quickly develop resistance. Heavy sprays of water (including overhead irrigation) will dislodge and drown the thrips. Also, applying straw mulch, and interplanting with carrots as an alternate host, can reduce thrips

populations on onion.

*Treatment:* azadirachtin (Azatin, Neemix), spinosad (Success, Entrust, Green Light), spinetoram (Radiant), insecticidal soap, kaolin clay (Surround), carbamate (Lannate), permethrin (Ambush, Pounce)

For more information, see the [USU Onion Thrips Fact Sheet](#).

#### Early Blight of Tomato



Because of the wet spring weather, growers should keep an eye out on tomato plantings for early blight. Early blight is caused by the fungus *Alternaria solani*. It overwinters on old plant debris and can be a problem where tomatoes are planted in the same location in successive years. Usually symptoms become more apparent in hotter weather later in the season, but early infections occur during moist conditions and temperatures between 75 and 80 degrees. It can infect foliage and fruits.

Symptoms first show up on older leaves. Lesions appear as circular spots containing concentric rings. Fruit lesions occur at the stem end and are brownish black. Monitor plants for these distinctive lesions and apply a fungicide as a preventative if necessary.

The best way to prevent early blight is to rotate out of tomatoes and potatoes for 3-4 seasons. Also, till or remove all plant residue in infested fields.

## Insect/Disease Activity, continued

### STRAWBERRY

#### Tarnished Plant Bug



Ontario Ministry of Ag., Food and Rural Affairs

Tarnished plant bug, also known as lygus bug (*Lygus lineolaris*) is a minor pest of strawberries in Utah. It overwinters as an adult in leaf litter and lays eggs on various plant parts, including the flowers. Early feeding by nymphs results in severely deformed fruit that is not noticed until harvest. The cooler temperatures have kept populations low but they may increase as the weather warms up this weekend and next week.

Look for nymphs in the next few weeks by shaking flowers over a shallow cup or dish. The nymphs will look like aphids, and are best seen with a 10-20x hand lens. Examine at least 20 clusters. If more than 4 flower clusters have nymphs, consider treatment. Do not spray flowers during the day when pollinators are active.

*Treatment:* insecticidal soap, bifenthrin (Brigade), carbaryl (Sevin)

### BRAMBLES

#### Rose Stem Girdler

The rose stem girdler (*Agrilus aurichalceus*) is a beetle and the life stage that causes the damage is a flatheaded larva. This pest overwinters as a larva within the pith of raspberry, currant, gooseberry, and shrub rose canes. Adults are pupating and emerging now in locations along the Wasatch Front. They will begin emerging in the next few weeks in Cache and Carbon counties.



Eggs are laid near the base of the canes, and the larvae hatch and move into the plant tissue. The insect at first forms random, spiraling galleries on the inner bark of canes, and then moves into the center where it moves up or down the cane. Canes may have swellings at the feeding sites, and infested canes may break at weak areas later in the season.

The best treatment option is to remove and destroy infested canes late in the season and over the winter. There are a few insecticides that can be used to kill the eggs and newly hatched larvae, but use caution when spraying flowering plants: treat at dawn or dusk only to avoid harming pollinators, or ideally, do not spray plants in bloom.

*Treatment:* Malathion, rotenone + pyrethrin (Pyrellin EC, Bonide Liquid Rotenone Pyrethrin Spray; this material is softest on bees), Diazinon. Treat every 7 days for 3 weeks.

#### Raspberry Horntail

Adults have started laying eggs on the terminals of raspberry canes. Larvae feed within the stem tissue and later move down the cane to pupate. Adults emerge again for a second generation later in the season. Because the adult lays her eggs under the epidermis, this insect is difficult to control with chemicals. Growers should monitor plants throughout the season for terminal wilting and prune and destroy the infested plant material.



Whitney Cranshaw, Colorado State University, Bugwood.org

**Precautionary Statement:** Utah State University Extension and its employees are not responsible for the use, misuse, or damage caused by application or misapplication of products or information mentioned in this document. All pesticides are labeled with ingredients, instructions, and risks. The pesticide applicator is legally responsible for proper use. USU makes no endorsement of the products listed herein.

#### Small Fruits & Vegetables IPM Advisory

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