

## Insect/Disease Information

### VEGETABLES

#### Cabbage Looper



Cabbage looper moths have been caught in pheromone traps since mid-spring, with numbers remaining fairly constant. Populations will build toward late July, but growers should monitor for feeding on all brassica crops now. Young larvae chew on the surface of the leaf while older larvae eat irregular holes. Sometimes they will move to the growing point, or within a developing cabbage or broccoli head. At that point, they are not easily washed out at harvest. Larvae can also feed on tomato leaves.

Look for damage and larvae all summer as there are three or more generations. Larvae are green and move like an inchworm.

*Treatment:* Bt and spinosad both provide excellent control. Carbaryl can also be used.

#### Imported Cabbageworm

Adults continue to lay eggs on brassica crops, so keep an eye out for larval activity. Eggs are small, yellow, oblong, and usually on the upper leaf surface. Because this is a butterfly, eggs are laid during the day. They hatch in about 4 days. The larvae mostly feed on the tops of the leaves for about 2 weeks, and then pupate. You may find their green pupae attached to leaves or other objects in the garden. There can be as many as 5 generations each summer.

Treatment is same as cabbage looper.



David Cappaert, Michigan State University

#### Spider Mites on Melons

With the prolonged heat, now is the time to scout plants for spider mites. Populations can build to damaging levels quickly, so a thorough inspection early in the season could help prevent an outbreak. The most common is the two-spotted spider mite. They can be seen (with a hand lens) on the undersides of leaves, often associated with visible webbing when colonies get large (several hundred mites can sometimes be found on a single leaf).

They overwinter in groundcover or litter, and as soon as fields are planted, they begin feeding. They thrive in hot temperatures and dusty conditions, and multiply rapidly. On melon crops, loss of photosynthetic leaf surface can reduce plant yield or lead to sunburning on fruits.

To monitor, turn leaves over and examine the petiole end first. Alternatively, shake leaves over a piece of white paper to look for their rapid movement.

Management can be tricky, as some insecticides can actually increase mite development. According to research by the UC Davis IPM program, carbaryl (Sevin) applications to mites can actually cause them to increase reproduction. Also, carbaryl, organophosphates, and some pyrethroids increase nitrogen development in leaves which favor mite development. And finally, insecticides applied during hot, dry weather caused severe outbreaks within a few days.

There are several natural predators of mites including minute pirate bug, lacewings, and predatory mites. The western predatory mite (*Galendromus occidentalis*) is one of the most

## Insect/Disease Activity, continued

important predators of spider mites in Utah. They have been used successfully when released in greenhouses, and could provide control in an outdoor field if used correctly. Biotactics ([www.benemite.com](http://www.benemite.com)) is a company in CA that sells the western predatory mite.

When applying chemicals, choose a selective material. For homeowners, insecticidal soap or oil are both very effective. (Do not apply when temperatures are above 90 degrees F.)

Commercial growers should watch for natural populations of predatory mites and apply materials when necessary. Zeal miticide now has a supplemental label for melons, and has shown to provide good, long lasting control. Note that it only kills eggs and nymphs, so results are not apparent for at least one week after treatment. But because it also sterilizes adults, only one application may be needed. It works best when applied when mite populations are low, and with high water volume for good coverage.

## SMALL FRUITS

### Raspberry Horntail



Whitney Cranshaw, Colorado State University

Continue to cut wilting terminals and destroy. Larvae tend to be toward the top of the terminal, inside the stem. When they mature, however, they will travel back down the cane to pupate. In northern Utah, it is likely that a small brood emerges in early August as a second generation, so continue to monitor and prune throughout the season.

**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.

### Grape Leafminer



The grape leafminer (*Antispila viticordifoliella*) is a minor pest of grapes. The larvae feed between the upper and lower leaf surface. They pupate within the leaf, and upon exiting, leave small holes in the leaf. Egg-laying occurs in spring, and there appears to be a single generation in Utah. No controls are recommended for this insect.

### Small Fruits & Vegetables IPM Advisory

is published weekly by Utah State University Extension

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