

Bug-Wise

No. 7

May 3, 2004



Office: 1-662-325-2085

Hibiscus Sawfly: Something's eating the leaves on my hibiscus! Hibiscus sawfly (*Atomacera decepta*) is a small caterpillar-like insect that often causes severe defoliation of certain types of hibiscus, reducing the leaves to only the lacy veins. Actually this insect is not a caterpillar, but the larva of a sawfly, a group of insects related to bees and wasp.

Because the spiny green larvae are less than 3/8 of an inch long when fully mature, they are easy to overlook. However, they are not too difficult to spot if one carefully examines the undersides of leaves that are being damaged. The wasp-like adults are less than 1/4 inches long, and are mostly black with a distinct orange thorax. Because of their striking coloration, they are relatively easy to spot, despite their size. Seeing the adults congregating on the leaves of a hibiscus plant is a sure sign that that plant will soon be under attack. Eggs are inserted into the leaves, usually near the tip end of the leaf.

Hibiscus is by far the most common host for this insect, **especially the large-flowered 'dinner-plate' types, (H. mosheutos)**. Other types of hibiscus are less preferred, and susceptibility to this pest is now being considered in hibiscus breeding programs. This pest also occasionally occurs on hollyhocks and other malvaceous plants. These insects are relatively easy to control with foliar insecticide sprays, but because they have multiple generations, several sprays may be required throughout the summer. Some treatments that are effective against hibiscus sawfly are shown below. Several of these active ingredients are available as 'Ready-to-Spray' formulations in trigger-pump bottles, which is a convenient way to treat when there are only a few plants.

Some Insecticides Recommended for Control of Hibiscus Sawfly

Active Ingredient	Brand Name (example)
Acephate + fenbutatin-oxide	Ortho Systemic Insect Killer
Carbaryl	Garden Tech, Sevin Concentrate Bug Killer
Cyfluthrin	Bayer Advanced Garden Multi-Insect Killer
Cyhalothrin	Spectracide, Triazicide Soil & Turf Insect Killer
Permethrin	Bonide Eight Vegetable, Fruit & Flower
Spinosad	Ferti-lome Borer, Bagworm, Leafminer & Tent Caterpillar Spray

This information is for initial planning purposes only. Always read and follow product label.

Hit and Run Defoliators: Something ate all of the leaves off that little oak tree that I set out 3 years ago! May beetles have already begun to fly in the central portion of the state. These heavy-bodied brown beetles are the adult stage of white grubs. It is the larval stage that causes the most damage by feeding on the roots of turf grass, as well as many other crops. The adults are foliage feeders, but normally their feeding goes largely un-noticed, because it is not concentrated. However, occasionally large numbers of May beetles will congregate on a young hardwood tree in the lawn or landscape and feed heavily on the leaves. Young trees are sometimes totally defoliated and damage can occur over a

period of just one to a few nights. Because the beetles do not remain on the tree during the day, it is often difficult to determine the cause of this defoliation.

Unfortunately, there is nothing that can be done to treat this damage, and little that can be done to prevent it. These beetles are attracted to light, and trees planted near lights may be more likely to be attacked. When populations are high, these insects can also cause a nuisance by accumulating on patios and garages. Fortunately, hardwood trees can usually recover from being severely defoliated once in a season with little long-term ill effects. Therefore, the best response to such damage is simply to see that the tree is well maintained for the remainder of the season. Providing adequate water and nutrition for the remainder of the season will give the tree an opportunity to recover. Because a second defoliation within the same season would be especially stressful to the tree, it is also important to protect the tree from excessive damage by other defoliators for the remainder of the season.

Squash Vine Borer: My squash plant just wilted and died! This is a typical complaint from a home gardener who has encountered squash vine borer. This is one of the most serious pests of squash and pumpkins, especially in home gardens. Very early-planted crops often escape heavy attack, but later crops can sustain damage unless protected. There are two generations per year, with populations being heaviest during the latter part of the year.

The orange and black, wasp-like, day-flying moths lay their eggs on the vines and leaf petioles and newly hatched larvae quickly bore into the vines, where they are safe from insecticides. Large larvae bore within the vines and often girdle them from the inside out, causing them to wilt and die. Often an accumulation of jelly-like frass can be seen exuding from the base of the plant. Some varieties of squash are more susceptible to attack than others. Yellow squash is much more ‘borer prone’ than zucchini and most types of winter squash, and ‘*C. maxima* type’ pumpkins are more ‘bore-prone’ than cushaws. Occasionally this insect will attack cucumbers or melons, but this is rather uncommon.

Successful insecticidal control depends on having the insecticide on the plant when the larvae hatch so that they are controlled before they have a chance to bore into the plant. Commercially available pheromone traps can be used to help time sprays, but these traps catch only the males, not the egg-laying females (Sources include Great Lakes IPM and Gemplers). In the absence of trapping information, initiate sprays when vines begin to run and apply at approximately weekly intervals.

Because most eggs are laid near the base of the plant, it is important to direct sprays to thoroughly cover this area of the plants. The following treatments are also effective against squash bugs, especially when used at the highest labeled rate. Insecticides should be applied very late in the day in order to minimize bee kill.

**Insecticides Recommended for Control of Squash Vine Borer
In Home Grown Squash and Pumpkins**

Active Ingredient	Brand Name (one example)	PHI
esfenvalerate	Monterey Bug Buster	3 days
permethrin	Martin’s Vegetables Plus	1 day
endosulfan	Bonide Thiodan Spray	1 day

This information is for initial planning purposes only. Always read and follow product label.