

Squash Bugs and Cucumber Beetles

Many insects plague the vegetable gardener, but few are as lethal as the squash bug and the cucumber beetle. Plants may die from the squash bugs continual feeding or from the bacterial wilt that cucumber beetles spread as they feed. For both pests, regular scouting, identification and timing the correct control method can greatly reduce the risk of plant loss in your vegetable garden.

Squash bugs

Anyone with squash plants, including pumpkin, is well aware of the danger of the squash bug. Using piercing, sucking mouthparts, they sustain themselves with nutrients pulled from squash vines. This juice sucking can result in reduced yields and even plant death which will appear to be sudden wilting followed by deterioration of the plant.

The best place to begin planning for squash bug control is at planting. Plant resistant varieties such as Butternut, Royal Acorn and Sweet Cheese. If the variety you enjoy isn't resistant, consider a spray schedule from June until harvest. Sprays are effective after the squash bug eggs have hatched and depend on the life cycle you're seeing in your garden. Spinosad and permethrin are effective for nymphs but ineffective on adults. For adults, insecticides with the active ingredients L-cyhalothrin and cyfluthrin are effective.

As you spray, use high pressure to ensure penetration of the foliage. Extra attention should be given to spraying under leaves. A duster is also effective for chemical application as are repeat applications at intervals recommended by the product label.

Squash bugs prefer well-established plants, as opposed to seedlings to feed upon. Gardeners may begin to see the brownish-red eggs clustered on lower leaf surfaces of established plants in late June-July. This is the first generation who will lay eggs around August. Nymphs will be extremely small, greenish with black legs. As adults, this August generation is the generation that will overwinter in plant debris.

Along with variety selection and chemical control, cultural practices can be just as effective. Removing ripe fruit promptly and culling vines (removing them completely from the garden area) at the end of their production takes away the food source of the nymphs. Without food, adults and nymphs have a greatly reduced likelihood for survival over the winter.

Cucumber Beetles

Cucumber beetles come in two types; striped and spotted—and both are bad. Cucumber beetles feed primarily on cucumber, cantaloupe, squash, pumpkin and watermelon but may also feed on beans, corn, potatoes and other crops.

Unlike the sucking mouthparts of the squash bug, cucumber beetles have chewing mouthparts that they use to destroy small plants. A major similarity, however, is the overwintering habits of both bugs. The cucumber beetle also overwinters in plant debris in and around your garden. These adults appear early in the growing season and hop around feeding on various host plants.

The cucumber beetle also prefers seedlings over established plants. These ferocious beetles may burrow into the soil and destroy plants before they even emerge. Once the seedlings do emerge, the beetles have a second opportunity to strike—killing the young plants.

Cucumber beetles are fairly easy to identify. Although only a ¼ inch long, the beetles are most commonly striped black over a straw yellow thorax and wings. With three distinct parallel and longitudinal black stripes on their wings and a black head and antennae, these beetles stand out from other insects. The spotted beetles are the same coloration with black spots instead of stripes.

Cucumber beetle eggs can be found around the base of the host plant. Larval feeding on established plants can cause stunting but typically the plant can withstand the feeding. Once larvae pupate, feeding stops.

The second generation of beetles is often produced in pumpkin fields but can also feed on goldenrod, sunflowers and other ornamental plants. These adults feed until hibernation.

Cucumber beetles are a vector for bacterial wilt, a disease that can be carried from plant to plant as the beetle feeds. Cantaloupe and cucumber are highly susceptible. Affected plants wilt and die.

Cucumber beetles can be controlled with cultural practices and chemical control. Protect young plants with row covers, cones or another type of mechanical barrier. Securing the edges of these barriers is essential for successful protection. Covers should be removed to allow for growth and pollination.

Chemical control should begin when beetles are spotted and continue throughout the growing season at the intervals recommended by the product label. Suggested insecticides include permethrin and carbaryl.

Whenever any chemical control is used, product labels should always be followed exactly. Remember the label is the law! For our bee friends, spray in the evening when they are less active. Scouting and proper insect identification is always key to effective control. Utilize the Shawnee County Extension Master Gardener Response Line for assistance with insect identification and control methods.

Extension Master Gardeners are available in the Shawnee County Extension Office every weekday from 1 pm -5 pm and on Friday mornings from 9 am -12 pm. You can call them at 785-232-0062 ext. 105 or send questions electronically: <https://www.shawnee.k-state.edu/lawn-garden/garden-response-line.html>