



Crop Pest

Cucumber Beetle

Acalymma, Diabrotica

Description

The spotted cucumber beetle (*Diabrotica*) is about 1/3 inch long, greenish yellow with a black head and lime green thorax. It has 12 black spots on its wing covers. The larval stage is known as the southern corn rootworm. The striped cucumber beetle (*Acalymma*) is 1/5 inch long, yellow green with a black head and yellow thorax. Along the length of its wing covers are three parallel black stripes. Species vary by region.

Target Crops

Cucumber beetles are nuisance pests as they feed on roots, seedlings, flowers and foliage. They can also transmit bacterial wilt and squash mosaic virus, both deadly diseases. Cucumber beetles prefer cucurbit crops such as squash, cucumbers and melons, but they will also eat other vegetables including corn, potatoes, tomatoes and beans. Flower blossoms are attacked by this pest as well and you can find them on dahlias, roses and zinnias. In Spring they will feed on the blossoms of early season plants like dandelions, apples and hawthorn until their host crops are available.

Life Cycle

Adults overwinter in plant debris, in protected crevices of buildings and fence posts and in wooded areas. They can live for 60 days in the summer and 200 days in the winter. Once the temperatures reach 60-70°F they emerge to feed and lay their eggs 2-3 weeks later. Eggs are yellow ovals and laid in groups of 25-50 in the soil at the base of cucurbit plants or below the leaf surface. Larvae are white and wormlike, feeding on the roots of plants. After three weeks they pupate in the soil and the adults emerge to feed and start the life cycle again. Generally, there are two generations per year, but there may be three in warmer climates.

Beneficial Insect Control

Beneficial nematodes—Both *Steinernema carpocapsae* and *Heterorhabditis bacteriophora* are effective for beetle larvae. The [3-way blend](#) is a good option. These parasites can be applied to the soil to infect and kill soil dwelling pests. While nematodes will not kill adult stages, they will lower cucumber beetle populations by decreasing the larval stages. Nematodes can be used in an irrigation system. Refer to our [Beneficial Nematode Tech Sheet](#) for rates and further information.



Spotted Cucumber Beetle *Diabrotica undecimpunctata*, photo by Brett Hondow



Striped Cucumber Beetle *Acalymma vittatum*, photo by Katja Schultz

Insecticide Options- Use in rotation for best results.

Azadiractin or neem oils act as insect growth regulators, antifeedants and ovipositional deterrents. These include [Azaguard](#) and [Molt-X](#).

Mycoinsecticides containing entomopathogenic fungal spores. These include [Botanigard](#), [Mycotrol](#), [NoFly](#) and [PFR 97](#). [LalGuard M-52 OD](#) used as a drench is especially good for the soil dwelling grub stage.

For a quick knockdown, use [Pyganic](#) with Pyrethrin for an organic adulticide. Surround WP is another option. This contains kaolin clay which acts as a mechanical barrier, irritant and disrupts the beetle's ability to find host plants.

Cultural Control Tips

In the Spring

- Monitor populations with weekly scouting of plants and sticky traps to help make informed and timely pest management decisions.
- Delayed planting. Keep fields cucurbit free for the first generation of cucumber beetles. For flower growers, don't plant cucurbit crops near flower fields.
- Row covers for the first 30-40 days of new crops to exclude beetles.
- Mulch crops to prevent beetles from laying eggs at the base of plants. Use straw or plastic sheet mulching. Aluminum coated plastic mulch is highly effective.
- Plant trap crops to keep pests away from valuable crops. See [ATTRA](#) publication for further information.
- Use pheromone lures in sticky traps to attract and capture adult beetles.
- Treat with above insecticides before feeding injury is too much and to prevent mating and egg-laying, use LalGuard M52 OD as a drench to target larvae in the soil.
- Rotate crops to prevent pests from establishing in one area.

In the Summer

- Continue monitoring populations with weekly scouting of plants and sticky traps to help make informed and timely pest management decisions.
- Apply beneficial nematodes to target larvae in the soil. Green lacewing larvae are especially good for cut flower growers, applied before full bloom.
- Target adults with insecticide applications, rotate products for best results. Make sure spray coverage comes in contact with insects. Spray under and above leaf surfaces.
- Include [insectary strips](#) in the garden to attract beneficial insects. Flowers and herbs like alyssum, calendula and lemon balm invite ladybugs, lacewings, ground beetles and tachinid flies, all natural predators of the cucumber beetle.

In the Fall

- Cultivate soil and remove plant debris, especially roots and fruits, to reduce overwintering populations.
- Remove weeds in and around the garden that could provide habitat for adults.

Find us at [Sound Horticulture](#) for more specific recommendations for your region.