

The Western Spotted Cucumber Beetle

By Meredith Kaplan, Master Gardener

Western spotted cucumber beetle.
Photo by Jack Kelly Clark.



These days, many of us have noticed in our gardens a greenish yellow beetle with twelve black spots on its back. Some may also have noticed damage to vegetable leaves, scarring on fruits, or girdling of stems of plants. You are probably seeing the western spotted cucumber beetle (*Diabrotica undecimpunctata*), a common pest in vegetable gardens. Although there is a western striped cucumber beetle (*Acalymma trivittata*), it is not prevalent in our area.

Identification

Adult beetles are shiny with black heads, long antennae, and about 0.25 inch long. Larvae are whitish and slender with three pairs of short legs; the head and tip of the abdomen are darker. Adults may be striped or spotted, depending upon species. Don't confuse it with the predaceous lady beetle that looks similar but which has short, stubby antennae. Those of the cucumber beetles are long and threadlike.

Damage

Cucumber beetle damage is fairly easy to spot: eaten leaves, scarring on the fruit, and girdled stems from feeding larvae. Most commonly, this damage is found on cucumbers, squashes, melons, and pumpkins, but may also be found on tomatoes and other garden crops if cucurbits are unavailable or there are more beetles than the available cucurbits can support.

The most serious damage comes from bacterial wilt. The bacteria are secreted in the beetle's stomach and are spread to the plant by the beetle chewing on it. The bacteria spread to the plant's vascular system and cause the leaves to wilt. If not contained by pruning off infected stems, the wilt will eventually spread and kill the entire plant. Also, plants infected with bacterial wilt attract more cucumber beetles, which will eat the infected leaves and continue spreading the bacteria throughout the garden.

Life Cycle

Adult cucumber beetles overwinter, and emerge in spring. They feed on weeds and other plants until their preferred food source, cucurbits (such as cucumbers, squashes, and melons) are available. Once they locate cucurbits, they will feed on the plants, and the females will lay their eggs in the surrounding soil. The eggs hatch, and the larvae feed on belowground cucurbit roots and stems until they pupate. Larvae of the spotted

cucumber beetle feed on the roots of corn, small grains, beans, sweet pea, and several grasses but do not usually cause noticeable damage in gardens. Then they emerge as adults, and the cycle starts all over again.

Management

Management of cucumber beetles is difficult. Older plants can support substantial numbers without serious damage. But if you know that cucumber beetles are attracted to your garden, you can protect young cucurbit seedlings by covering them right after planting with protective cloth or cones and removing it when plants are old enough to tolerate damage. It may also be a good idea to plant cucurbits later in the season after the beetles may have been attracted to those planted early by other gardeners in your area, thus sparing your garden.

Also, remove and destroy (do not compost) plants infected with bacterial wilt immediately so that they won't attract more beetles to the area. Adult beetles found on plants can be hand-picked and squashed.

Sources for this article are UC Davis Integrated pest management website on which you can find information on most garden pests

<http://www.ipm.ucdavis.edu/pmg/garden/veges/pests/id>

and <http://organicgardening.about.com/od/pestcontrol/p/cucumberbeetle.htm>

Alameda County Master Gardeners (ACMGs) are adult volunteers of all ages and from all walks of life who want to help the diverse communities of Alameda County learn more about gardening. ACMGs are trained through the University of California and UC Cooperative Extension to extend research-based knowledge and information on home gardening issues. The Master Gardeners have two demonstration gardens in the county and offer a number of outreach programs to serve the public. For more information, visit our website at <http://acmg.ucdavis.edu/>

FREE TALKS

At 12 P.M. on the fourth Saturday of the month, Master Gardeners offer a series of free talks on timely gardening topics that will help home gardeners grow beautiful, productive gardens. The talks are held in our Trials Garden, Lakeside Park, 666 Bellevue Ave, Oakland.

Join us at noon on August 27 for "Planning and Planting a Fall Vegetable Garden" with Sam Foushee who will talk about benefits of a fall and winter garden, the wide array of vegetables you can grow in the cooler months, the special needs vegetables have in the fall and winter, as well as how to plan your garden and plant for success.