Cutworms and Armyworms

Larval forms of many moth species, of which the following are among the most important: Black cutworm *(Agrotis ipsilon)*, Variegated cutworm *(Peridroma saucia)*, Spotted cutworm *(Amathes c-nigrum)*, Bertha armyworm *(mamestra configurata)*

Host/Site

These caterpillars can be pests of both the vegetable garden and perennial beds. Most susceptible to damage are young seedlings or early shoots. Many cutworms have a strong preference for certain varieties of grasses and weeds, and gardens bounded by grassy or weedy areas may suffer more damage.

Identification/appearance

There are more than 650 species of cutworms in Washington alone. The cutworm is a plump, soft-bodied caterpillar, often dull gray or brown in color—some have multi-colored stripes—measuring 1 or 2 inches in length. They curl up when disturbed. The adult form is a drab-looking, night-flying moth of the group generally called "Millers." They hide in the soil or on the undersides of leaves of low-growing plants during the day; they feed at night.

Top: Black cutworm in base of corn plant.

Bottom: Cutworm damage. Photos courtesy of Ohio State University IPM program

Life Cycle

Moths lay eggs, usually in weeds or debris. The caterpillars pupate in the soil and can overwinter as pupae or larvae. There can be several generations per year, but damage is often greatest in the spring.

Natural Enemies

Cutworms are parasitized or killed by a wide variety of predators, including parasitic wasps, predacious beetles, disease, birds, and bats.

Monitoring

Look for telltale signs of cutworm damage. Cutworms cut through emerging plants near ground level (see lower photo above). Affected plants look as if they have been cut by a lawnmower. Larger plants may show ragged leaf edges or chewed holes. Confusion with slug damage is possible, but absence of slime on plants or on the ground rules out slugs. During the day, cutworms will likely not be visible, although they may perhaps be found by digging in the soil or mulch near damaged plants or by looking under leaves. It is possible to check at night with a flashlight to catch them in the act. Disturbed caterpillars will be rolled up into a "C" shape.

Action Threshold

Take action at the first sign of damage. If problems occur every year, protect seedlings with barriers as detailed below.

Cultural/Physical Controls

Physical removal of caterpillars may be helpful. Look in mulches or soil and under leaves. Since many caterpillar pests are hard to locate, this method alone may not give sufficient control. Cages of screen door hardware cloth can be placed over developing plants to keep caterpillars out. Placing a simple collar around the plant made from a tin can with both ends removed may deter damage until plants are large enough to survive unprotected.

Weeding can help by reducing habitat, and tilling the soil helps to expose hidden larvae for predation by birds.

Biological Controls

The biologically derived control *Bacillus thuringiensis* (B.t.) is a selective caterpillar killer that has low toxicity to most beneficial insects but is toxic to the larvae of moths and butterflies. B.t. has demonstrated satisfactory results against most cutworm larvae. The effectiveness of B.t. is enhanced by adding a spreader-sticker when applying this control to plants with waxy leaves. B.t. is applied to the leaves of the plants and must be eaten by the caterpillar in order to be effective.

(continued/over)

GREEN GARDENING PROGRAM

The Green Gardening Program is sponsored by Seattle Public Utilities to promote alternatives to lawn and garden chemicals. Funded by the Local Hazardous Waste Management Program in King County.

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Chemical Controls

Cutworm baits containing carbaryl (Sevin™) are widely available but are highly toxic to beneficial predators of cutworms, as well as birds, bees, and aquatic species. Carbaryl is especially dangerous to bees because the bees don't die immediately and take the chemical back to the hive. Larger cutworms are quite resistant to most chemical insecticides.

References

Antonelli, A. *"Caterpillar Pests of the Cabbage Family," WSU Cooperative Extension Bulletin EB 1414*. http://www.cahe.wsu.edu/infopub/eb1414/eb1414.html

Sunset. *Garden Pests & Diseases*. Sunset Publishing Corporation, Menlo Park, California, 1993.