

Cutworms

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Ah, the joy of watching newly transplanted plants or newly germinated seedlings sending forth new growth. The anticipation of what this plant will produce and the accompanying fresh-out-of-the-garden flavor or appearance. THEN, the agony of coming out to the garden one morning and seeing nothing but a few leaves and a hole in the ground OR a cut plant laying beside the remaining stem stalk OR a wilted plant that you pull on and it comes right out of the ground, being neatly cut just below the soil line.

Cutworms are plant and dream killers. They have the dastardly custom of consuming only those plant materials very near the soil line, and chewing all the way through those materials.

When people think of cutworms, they are generally thinking of the black cutworm, *Agrotis ipsilon*. However, there are actually many species of cutworms, including some that climb up plants and feed on foliage. In our area, we primarily deal with the black cutworm and the damage that they cause early in the growing season.

BIOLOGY

The majority of Wisconsin's black cutworms come about via adults that migrate into Wisconsin from southern states. Some cutworms will overwinter in the soil as nearly mature larvae or as pupa, but these survivors are usually low in number. The adults are one of the many moths that have mottled dark brown to gray forewings, very light colored hindwings, and a 1-2 inch wingspan.

The female moths can lay hundreds of eggs, singly or in small clusters. They lay their eggs on low-growing plants, such as mustards, and also on plant residue. The young larvae feed on seedling leaves or plant roots until they reach about 1/2 inch in length. At this stage, they can begin feeding on seedling stems, either cutting through them or burrowing into them as the picture shows. At their largest, cutworm larvae may be two inches long.

Cutworms may undergo as many as three generations per year, but the first generation is the most damaging. Corn, peppers, tomatoes, beans, and the crucifer family seem to be their favorites, but they will attack many kinds of plants. The hardest part about diagnosing cutworm damage is actually finding the offending insect, as they feed at night, or under the soil surface, unless the soil is very wet or it is a dark, damp day. They may actually drag part of the plant into the soil to continue feeding during the day, or just simply feed on roots and underground stems. The larvae can usually be found hiding in the soil in the daytime near a cut plant. The thick-bodied larvae are normally dark colored and curl-up when disturbed.

MANAGEMENT

For home gardeners, the most important means of controlling cutworms is to manage weeds and residue. This discourages the moths from laying their eggs in the garden in early fall as well as in the spring. This will minimize the number of cutworms that you may have to deal with. Using compost instead of green manure will also discourage infestation. Fall plowing and tillage may help destroy or expose overwintering pupae.

The second most important thing is to protect young, valuable transplants by putting down a barrier. The easiest and cheapest is to cut both ends off of food cans and push them into the soil to a one-inch depth and leave them there until the plant stem is mature enough to avoid damage. There are also special stem collars that can serve this purpose, or you can wrap stems with aluminum foil. The use of insecticides in home gardens is rarely justified, but directed treatments using carbaryl, deltamethrin, spinosad, or rotenone, or using bait formulations can be effective if experiencing a severe problem. If using an insecticide, apply them in the evening to avoid beneficial insects and maximize effectiveness against the night-feeding cutworms.