



**Pest Common Name**  
**(Scientific Name of Pest)**

- Army cutworm (*Euxoa auxiliaris*)
- Black cutworm (*Agrotis ipsilon*)
- Pale western cutworm (*Agrotis orthogonia*)
- Variegated cutworm (*Peridroma saucia*)
- Glassy cutworm (*Apamea devastator*)
- Redbacked cutworm (*Euxoa ochrogaster*)
- Winter cutworm (*Noctua pronuba*)
- Many others

**Host Plants**

- Crops: alfalfa (seed and hay), canola, clovers, cereals, corn, mint, potato, pulses (green and dry), sugar beet, oilseeds, pasture and grass hay, hops, mint, and others
- Nearly all vegetables, many tree fruits, and berries
- Landscaping, ornamentals, and turfgrass
- Weeds: curly dock, dandelion, lamb's-quarters, pigweed, and others

# Integrated Pest Management of Cutworms

## Description

Adult cutworms (Figures 1–6) generally are mottled grey and brown moths, with wingspans ranging from 1¼–2¼ inches (30–56 millimeters). Larvae (caterpillars) are usually dull gray to dark brown and range in length from ¼–2 inches (1.5–50.0 mm), depending on the species and the larval growth stage (instar). Larvae are generally smooth, with three pairs of legs near the head and five pairs of fleshy leg-like appendages near the posterior end (prolegs). Cutworm larvae curl into a “C” shape when disturbed. Eggs are usually laid in clusters and vary widely in color depending on the species.



**Figure 1.** Army cutworm (*Euxoa auxiliaris*) larva (left) and adult (right). Courtesy of Joseph Berger, Bugwood.org.



**Figure 2.** Black cutworm (*Agrotis ipsilon*) larva (left) and adult (right). Courtesy of Adam Sisson, Iowa State University, Bugwood.org.

## Authors

**Desireè Wickwar**, Entomologist,  
University of Idaho Integrated Pest  
Management Program, University of Idaho  
Kimberly Research and Extension Center



**Figure 3.** Pale western cutworm (*Agrotis orthogonia*) larva (left) and adult (right). Courtesy of Frank Peairs, Colorado State University, Bugwood.org (left) and John Capinera, University of Florida, Bugwood.org (right).



**Figure 4.** Variegated cutworm (*Peridroma saucia*) larva (left) and adult (right). Courtesy of Whitney Cranshaw, Colorado State University, Bugwood.org (left), and Mark Dreiling, Bugwood.org (right).



**Figure 5.** Glassy cutworm (*Apamea devastator*) larva (left) and adult (right). Courtesy of Joseph Berger, Bugwood.org (left) and the Ken Gray Insect Image Collection (right).



**Figure 6.** Winter cutworm (*Noctua pronuba*) larva (left) and adult (right). Courtesy of Whitney Cranshaw, Colorado State University, Bugwood.org.

## Biology

Most cutworm species overwinter as larvae in the soil or under plant debris. Some (e.g., redbacked cutworms) overwinter as eggs and during very mild winters some (e.g., black cutworms) also overwinter as pupae. Adults emerge anywhere between March and July, depending on the species. After emergence, adults quickly mate and begin laying eggs. Eggs generally hatch in 4–7 days. Just-hatched larvae are tiny, but often remain in groups near the egg mass and skeletonize leaves or completely defoliate small seedlings. As they grow larger, they disperse within the same plant or travel to new host plants. In many species, larvae are nocturnal, feeding on plants during the night, and rest in cracks and crevasses in the soil during the day. There are two overlapping generations of black and variegated cutworms per year, while army, pale western, glassy, and winter cutworm have just one generation per year.

## Damage

Cutworms are primarily of concern during the spring and early summer, the most active period when they inflict serious damage to young plants, especially in agricultural fields. In young plants in particular, cutworms sever the stem or consume the entire shoot. Damage often appears as if someone used scissors to cut the plant off near the soil surface, giving cutworms their common name (Figure 7).

Later in the season, cutworms cause damage to plant leaves ranging in severity from rough, irregular holes to complete skeletonization. Larvae also bore into the bases of older plants. Occasionally, cutworm damage can be mistaken for slug damage, but whereas slug



**Figure 7.** Black cutworm and the type of damage it causes to young corn plants. Courtesy of W.M. Hantsbarger, Bugwood.org.

fecal deposits are sludge-like and slimy, cutworm fecal pellets are dry. Cutworm infestation and damage often begin at field edges, particularly next to weedy areas, and progress inward. Cutworm infestation is sporadic and economic damage is not common. However, damage may be severe if a cutworm outbreak occurs while plants are in a vulnerable stage (e.g., seedling) or if weather conditions are unfavorable after defoliation occurs and plants are unable to recover.

## Monitoring

Some cutworms may be monitored with commercially available pheromone-baited traps that attract males. However, because pheromones target specific species, make sure to get one designed to lure the species most likely to be problematic in your crop and area. Larvae can also be monitored using a beat sheet or sweep net, though keep in mind that many species only actively feed during the night. Watching for cutworm pellets near defoliated plants is also a useful monitoring tool.

Very few crops have formal economic injury levels or thresholds established for the treatment of cutworms. When deciding if treatment is warranted, check the [PNW Pest Management Handbooks](#) website to see if guidelines exist. If no formal threshold exists, consider the vulnerability of the crop and the likelihood and severity of damage. Also consider that older plants usually tolerate much more damage than younger plants before any economically significant damage develops. In some crops, such as alfalfa, as few as one larva per square yard can cause economic damage.

## Management

### Primary Management Tactics

#### *Cultural Control*

- Control weeds and grasses and don't allow debris to accumulate on the soil surface.
- For home gardens and landscaping with a known cutworm infestation, going out at night and picking off larvae reduces damage.
- For home gardens, insert a popsicle stick into the soil directly at the base of the plant (so it is touching the stem) to prevent cutworms from circling/severing the stem.

## Biological

- Avoid using broad-spectrum insecticides to conserve natural enemies of cutworms, such as big-eyed bugs (*Geocoris*), damsel bugs (*Nabis*), and many species of ground beetle (Carabidae), rove beetle (Staphylinidae), and parasitic wasps and flies.
- Avoid unnecessary applications of broad-spectrum fungicides since many fungal pathogens naturally occur in the field and hold populations in check.
- There are multiple biological insecticides [e.g., *Bacillus thuringiensis* (Bt) and Spinosad] available; see the [PNW Pest Management Handbooks website](#) for more information.

## Chemical

- Consider spot treating infested sites, since cutworm infestations tend to be spotty and sporadic, often occurring near field margins or weedy patches.
  - Diatomaceous earth can reduce cutworm populations in home gardens and landscaping, though it needs to remain dry to be effective.
  - When possible, consider irrigating before treating for subterranean species such as the redbacked and army cutworm, since this brings larvae to the surface.
- Foliar sprays are most effective at night, when most larvae are actively feeding.
  - Reduced-risk insecticides containing Bt as the active ingredient are effective in targeting cutworms (larval Lepidopterans).
  - Recommendations for pesticides to use in the management of armyworms can be found on the [PNW Pest Management Handbooks website](#).

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### Caution: Read Pesticide Labels

Pesticide labels override other recommendations.

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ALWAYS read and follow the instructions printed on the pesticide label. The pesticide recommendations in this UI webpage do not substitute for instructions on the label. Pesticide laws and labels change frequently and may have changed since this publication was written. Some pesticides may have been withdrawn or had certain uses prohibited. Use pesticides with care. Do not use a pesticide unless the specific plant, animal, or other application site is specifically listed on the label. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

**Trade Names** — To simplify information, trade names have been used. No endorsement of named products is intended nor is criticism implied of similar products not mentioned.

**Groundwater** — To protect groundwater, when there is a choice of pesticides, the applicator should use the product least likely to leach.