



Cutworms and Armyworms

O & T Guide [T-#03]



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Cutworms and armyworms are drab, nocturnal, “hairless” caterpillar pests of grass crowns, roots and blades as well as a variety of crops, landscape and rangeland plants. The night-flying adult stages are called “miller moths” because they congregate around outdoor lights. They can be annoying then and also when adults seek shelter during the day in homes and buildings. Their shed wing scales can cause allergic reactions in some people.

Metamorphosis: Complete

Mouth Parts: chewing (larvae)

Pest Stage: larvae, adults (minor)

Typical Life Cycle: Eggs are laid in the soil around shallow roots of host plants, on grass crowns or blades, or higher on host plants, depending upon species. → Series of Larvae. Larvae feed and disperse at night, hiding by day in soil crevices, thatch or other cover. → Pupae are usually found in surface litter or several inches below the surface in soil not far from host plants; most require 7-14 days to mature in summer temperatures. → Adults typically emerge, fly, mate and lay eggs at night, seeking shelter by day. Depending upon species, one to many life cycles may be completed annually. Adults of some species are “migratory,” especially army cutworms. The insects have annual life cycles, laying eggs in the fall on desert

rangelands in the lower elevations. Feeding as temperatures permit over the fall and winter, army cutworms mature and pupate in late winter. As temperatures



Fall armyworm larva, *Spodoptera frugiperda*.
Photo: Clemson Univ., USDA-Cooperative Extension Slide Series, www.forestryimages.org



Fall armyworm, showing inverted Y on the head. Photo: Steve L. Brown, Univ. Georgia, www.forestryimages.org

warm, adults fly in large numbers to New Mexico’s mountains where they live over

the summer, flying locally at night and seeking shelter in or on buildings, on tree bark or other sheltered areas. By late summer, the adults return to the lower elevation rangelands, flying at night again, where they breed and females lay eggs.

Description of Life Stages:

Egg---minute, spherical or variously flattened, white or variously colored (especially when larvae are ready to emerge), laid singly or in clutches varying in number from several dozen to over 100. Females of some species leave their eggs bare while others ovipositing on foliage may cover their eggs with scales from their bodies.

Larva---all stages are cylindrical with three pairs of short, segmented, thoracic legs and five pairs of stubby, muscular, abdominal prolegs. Mature larvae are “bare” (no prominent “hairs” visible on their bodies) and variously patterned in tones of olive green, tan, brown, black and gray. Mature caterpillars of different species may be 1 ½ to 2 inches long at maturity; cutworms often appear thicker and heavier than other caterpillars of similar lengths. Cutworms commonly chew off host foliage or seedlings at ground level. Armyworms often crawl together in large numbers from one feeding site to another. When disturbed, armyworms and cutworms may remain motionless or roll into a tight curl. Some species are pugnacious or even cannibalistic.

Common species include:

Fall armyworm (FAW), *Spodoptera frugiperda*, is nearly 1 ½ inches long at maturity and olive green with narrow black stripes along either side and down

the center of the back. It has a distinct, inverted Y marking on the head.



Fall armyworm adult. Photo: William Lambert, Univ. Georgia, www.forestryimages.org

True armyworm, *Pseudaletia unipuncta*, is similar in appearance to FAW but lacks the inverted Y.



True armyworm larva, *Pseudaletia unipuncta*. Photo: Ronald Smith, Auburn Univ., www.forestryimages.org

Variegated cutworms, *Peridroma saucia*, range in color from dark brown to gray with patterns or markings that may be difficult to see. A line running down the back of the caterpillar is broken, leaving 4-7 whitish to yellowish dashes. A narrow orange stripe may be seen close to the black spiracles and a black irregular W-shaped mark may be present on the top of the 8th abdominal segment.



Variegated cutworm larva, *Peridroma saucia*.
Photo: Lacy L. Hyche, Auburn Univ,
www.forestryimages.org

Army cutworms, *Euxoa auxiliaris*, are striped with two tones of olive green. Mature caterpillars can be nearly 2 inches long. When numerous, these caterpillars may “march” across roads, pastures and fields, defoliating turf, small grains and certain other herbaceous plants as they go.



Army cutworm adult and larva, *Euxoa auxiliaris*. Photo: G. Keith Douce, Univ. Georgia, www.forestryimages.org

Pupa--lozenge-shaped, dark brown to black, lacking a cocoon, quiescent, about an inch long.

Adults--Adults of most turf pest species have threadlike antennae, relatively plump bodies, somewhat narrowed forewings and broad, rounded hind wings. For species mentioned above, the forewings are

mottled brown, gray and/or black, with various subtle patterns useful in identification. Hind wings of these same species are pale, drab and generally lack patterns. Most moths are 1-1 ½ inches long with wingspans of 1 ¾ to nearly 2 ½ inches. Their bodies are densely covered in grayish brown scales and fine “hairs” (modified scales). When at rest, their wings are held at angles to the body like the wings of fighter jets. Some species lack functional mouth parts as adults while others have thin, flexible tubes useful only for fluid intake. Most adults fly, mate, lay eggs and feed (if they do so at all) at night, seeking shelter by day in dense vegetation, under tree bark, cracks in the soil or similar protected areas.

Habitat and Hosts: Most of the caterpillars mentioned above feed on a variety of plants but have obvious preferences for grasses or small grains.

Damage: Larvae of most species are active defoliators capable of killing young or weak turf plants. Damage is almost always spotty across any grassy area of the state and even within one stand of turf. More significant damage may occur when birds or small mammals tear up turf searching for larvae.

IPM Notes: A healthy turf will generally withstand cutworm damage. Natural enemies, including birds and small mammals, may keep cutworm and armyworm populations below damaging levels in some years. Chemical control usually is needed if natural enemies do not keep infestation below the economic threshold of one armyworm per square foot on home lawns or one per square yard on golf greens. *Bacillus thuringiensis* (Bt) or entomophagous nematodes (“insect eating” nematodes) may be effective

biological controls for young larvae of some cutworm species in some limited situations. Cutworms and armyworms on putting greens may require chemical controls to prevent unacceptable damage; thorough scouting and pest risk assessment is essential. For home lawns, thatch removal may be needed. Some people add

a little dish or laundry detergent to their irrigation water to drive the larvae to the surface prior to applying pesticides. Results may be better if treatments are applied in late afternoon or early evening.