

# Moths in Turf: Identifying, Scouting, & Management

## Sod Webworms

Family Pyralidae, Order Lepidoptera

*Crambus* spp.

*Parapediasia* spp.

### Identification



Sod webworm adult (Jessica Lawrence, [bugwood.org](http://bugwood.org))

The adults of sod webworms are called lawn moths. They are light-colored moths, which make short, erratic, darting flights above the turf and are attracted to lights at night. When resting they fold their wings back closely against their bodies, which gives them a very narrow appearance. Also, their heads appear to have a long snout. The moths lay their eggs in the lawn. The older larvae are a dirty white to light brown with darker spots and are about 3/4 inch long with a black head.

### Damage, Scouting, & Management

The larvae feed at night on grass blades. During the day the larvae hide in silk-lined tunnels or burrows at or slightly into the soil surface. Some species damage plant crowns or roots as well as blades. Two or more generations can occur in Minnesota. Heavy infestations of the second generation may seriously damage large areas of turf. Although webworm adults are commonly seen, larval damage is uncommon in Minnesota. Look for dew sparkling on the webs in the early morning or at dusk. Use the flotation method to force the caterpillars to the surface, where they can be counted. In the flotation method, a soapy solution is poured inside a topless and bottomless can. The soapy solution is made by adding one ounce of mild dishwashing detergent to one gallon of water. Tolerance is around 12 larvae/ft<sup>2</sup>. Water the lawn thoroughly a day or so before applying an insecticide, then delay further water for at least three days after treatment.

### Pesticides

**Biorational insecticides:** *Bacillus thuringiensis* var. *kurstaki*, *Steinernema glaseri* nematodes, *Heterorhabditis bacteriophora* nematodes, halofenozide, spinosad

**Conventional insecticides:** acephate, azadirachtin, bifenthrin, carbaryl, chlorpyrifos, cyfluthrin, lambda- cyhalothrin, trichlorfon, permethrin

## Cutworms

Family Noctuidae, Order Lepidoptera

Black cutworm (*Agrotis ipsilon*)

Bronze cutworm (*Nephelodes minians*)

Variegated cutworm (*Peridroma saucia*)

### Identification

Full-grown cutworm larvae are about 1-1 1/2 inches long. The black cutworm is dark gray to black with a pale stripe down the back, but with few other distinguishing markings. Bronzed cutworms are dark brown to black on the upper side of the

body and paler on the underside. The upper surface has three narrow yellow stripes and a broad white-yellow stripe running down each side. The entire body has a distinctive bronze sheen. The variegated cutworm is grey to brown with an orange lateral stripe and a series of darker lateral markings with a row of yellow or white dots runs down the middle of the back. When disturbed, cutworms roll into a ball.



*Black cutworm larva* (Roger Schmidt, [insectimages.org](http://insectimages.org)).



*Bronzed cutworm larva* (Whitney Cranshaw, [insectimages.org](http://insectimages.org)).



*Variegated cutworm larva* (Frank Peairs, [insectimages.org](http://insectimages.org)).

## Damage, Scouting, & Management

The black cutworm (three generations per year) does not overwinter in the upper Midwest. Moths migrate northward from southern states in early spring and deposit clusters of 10 to 20 eggs on grasses and weeds. Bronzed cutworms (one generation per year) overwinter as eggs that hatch in early spring. Fully-grown larvae are present by late April and pupation occurs during mid-August. Variegated cutworms (one generation per year) overwinter as partially grown larvae and resume feeding as grasses start to green. Cutworms feed at night leaving trails that can be seen in the dew. Cutworms hide during the day in aeration holes or in the thatch.

## Pesticides

**Biorational insecticides:** *Bacillus thuringiensis* var. *kurstaki*, *Steinernema glaseri* nematodes, *Heterorhabditis bacteriophora* nematodes, halofenozide, spinosad

**Conventional insecticides:** acephate, azadirachtin, bifenthrin, carbaryl, chlorpyrifos, cyfluthrin, lambda- cyhalothrin, trichlorfon, permethrin

## Armyworms

Family Noctuidae, Order Lepidoptera

Armyworm (*Pseudaletia unipunctata*)

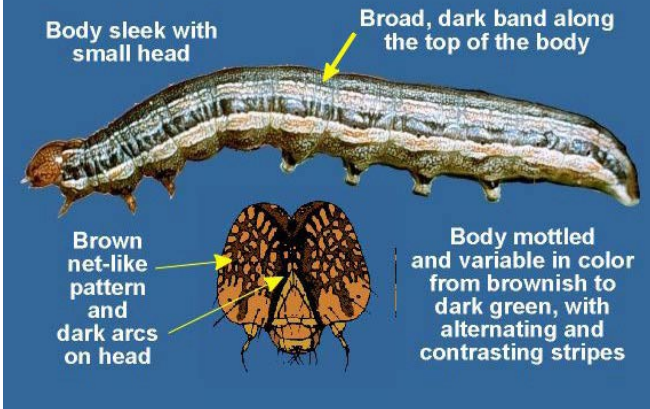
Fall armyworm (*Spodoptera frugiperda*)

These caterpillars feed on a variety of grasses including agricultural grass crops such as small grains and corn. Turf grasses are not commonly infested. Mature larvae reach 1-1/2 to 2.0 inches in length. Armyworms feed at night, and damage may occur before the larvae are detected.

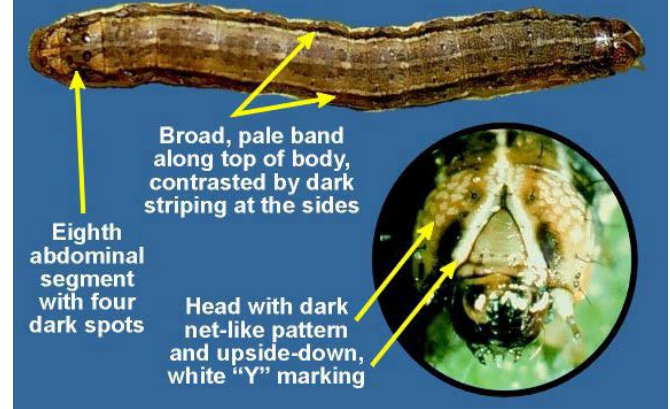
Armyworms are 1 1/2 to 2 inches long at maturity and vary in color from gray to yellowish green tinged with pink. They have a narrow, broken stripe down the center of the back and a lighter stripe along each side. The head is light brown with a distinct honeycomb pattern. Armyworm adults are light reddish brown with a small white spot near the center of each forewing. The moths fly at night and are highly attracted to lights. Armyworms complete 2 to 3 generations in the Midwest. The most serious turf grass injury occurs in mid to late summer.

Fall armyworms are 1 1/2 to 2 inches long when fully grown and range in color from pink to yellow- green or gray to almost black. The fall armyworm has stripes on the body and an inverted white "Y" marking on the front of the head. The fall armyworm completes only a single generation in Nebraska.

### Armyworm Identification



### Fall Armyworm Identification



### Damage, Scouting, & Management

Populations arrive as annual flights from overwintering southern populations. Populations of armyworms are typically kept in check by natural means, though population booms can occur, generally after a drought. Thresholds are not developed.

### Pesticides

**Biorational insecticides:** *Bacillus thuringiensis* var. *kurstaki*, *Steinernema glaseri* nematodes, *Heterorhabditis bacteriophora* nematodes, halofenozide, spinosad

**Conventional insecticides:** acephate, azadirachtin, bifenthrin, carbaryl, chlorpyrifos, cyfluthrin, lambda- cyhalothrin, trichlorfon, permethrin

Krischik Lab  
Dept. of Entomology  
Saint Paul, MN 55108



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