



# Sod Webworms in Turf

*R. Chris Williamson*

**Sod webworms** are highly destructive to lawns and are significant pests of athletic fields, cemeteries, golf courses and parks. Numerous species of sod webworms exist in the United States, but the two most common—the bluegrass and the larger sod webworm—attack cool-season turfgrass.

Adult sod webworm moths do not damage turf. Turf damage is caused as the webworm feeds in

## Sod webworm adult



## Sod webworm caterpillar



its larval, caterpillar or “worm” state. The worms live in silk-lined tunnels at or near the soil-thatch interface. The damage they cause appears as small dead patches of grass among healthy grass. These relatively small caterpillars inflict this damage by clipping off grass blades and shoots with their chewing mouth parts.

Sod webworm caterpillars are cream to gray or green in color, with many dark spots spaced evenly over their bodies. Adults are small, dull-colored moths with large snouts. At rest, their wings are folded closely against their bodies.

## Susceptible plants and damage

Sod webworms attack and feed on most of the common cool-season turfgrass species, including creeping bentgrass, fine-leaf and tall fescues, Kentucky bluegrass and perennial ryegrass. Improved cultivars of perennial ryegrass now show some resistance.

Damage caused by sod webworms typically appears in late spring with a second generation of caterpillars and resulting damage occurring in mid-summer.

The first signs of damage usually manifest as a general thinning of the turf, followed by small patches of brown, short grass. A more thorough look reveals the worms’ silk-lined tunnels in the soil-thatch interface. As feeding damage intensifies, the affected areas merge to form large irregular brown patches. Green fecal pellets are commonly found near tunnel entrances.

Sod webworms prefer sites along sidewalks, south-facing slopes or sunny spots where the turf is hot and dry. Shaded turf areas are rarely attacked. The most severe damage usually occurs in July and August when temperatures are hot and the grass is undergoing drought stress and is not growing vigorously. Early symptoms of sod webworm infestation may be masked if the turf is dormant from drought stress. Consequently, sod webworm damage is often mistaken for heat or drought stress.

Turf damaged by sod webworms may be slow to recover without sufficient rainfall or irrigation and fertilization. Symptoms of fungal pathogens such as brown patch and *Fusarium* may also be mistaken for sod webworm damage.

## Life cycle

Sod webworms overwinter as partially grown larvae in silk-lined tunnels in the thatch or soil. They resume feeding in the spring, grow rapidly, pupate (transform into adult moths), and emerge. Newly emerged adults then mate and soon after, females lay eggs for one day. Egg-laying typically occurs at or near dusk and continues for a few hours.

Moths usually live for about two weeks and each female can lay approximately 60 eggs per night and as many as several hundred during her lifetime. Eggs typically hatch in about one week and caterpillars complete their development in 4–7 weeks. A complete life cycle (egg to adult) normally requires 6–10 weeks. Most species of sod webworms have two to three generations per year depending on geographic latitude.

## Control

Controls should be directed toward caterpillars and not adult moths. However, observing moths in flight may be used to predict subsequent caterpillar infestations (10–14 days after peak flight) and the best time to make a control application.

Sod webworms are relatively easy to control with insecticides. Since most caterpillar feeding occurs at night, it is best to apply control treatments in the late afternoon or early evening. This minimizes potential volatilization and photodegradation, as well as potential exposure to humans and animals. Additionally, liquid sprays often work more effectively than granules. However, when using liquid sprays, it is necessary to withhold irrigation and mowing for at least 24 hours to ensure that insecticide residues remain on the turf foliage to maximize efficiency.

There are numerous carbamates, organophosphates and pyrethroids that are labeled for use against sod webworms.

There are also two relatively new types of insecticides, halofenozide (an insect growth regulator) and spinosad (a bacteria-based product) that are effective against sod webworm caterpillars.

As an alternative to conventional insecticides, so-called “biorational” products can also be used to control sod webworms.

Products like entomopathogenic nematodes, azadirachtin or neem oil (a botanical insecticide), and products containing *Bacillus thuringiensis* (Bt) are labeled for use against sod webworms.

These products work best against young larvae, and should be applied before sod webworm caterpillars are large enough to cause damage. Biorational products are sensitive to heat and sunlight; therefore, apply them late in the day.

For pesticide recommendations, see the University of Wisconsin-Extension publication *Managing Turfgrass Pests in Wisconsin* (A3714) or contact your county Extension agent.

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Thanks to Karen Delahaut and Phil Pellitteri for reviewing this information.

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