

Best Management Practices

Sod Webworms

Introduction: Lawn grasses may be damaged by several species of sod webworms, which are the larval stage of lawn moths. On cool-season turfgrasses, the species commonly encountered are the bluegrass sod webworm, *Parapediasia teterrella* (Zincken); larger sod webworm, *Pediasia trisecta* (Walker); striped sod webworm, *Fissicrambus mutabilis* (Clemens); silverstriped webworm, *Crambus praefectellus* (Zincken); and western sod webworm *Pediasia bonifatellus* (Hurst). Some of these species may also be present in areas where warm-season grasses are grown. The tropical sod webworm, *Herpetogramma phaeopteralis* (Guenee) is the most damaging species infesting warm-season turfgrasses.

Description and Life History: The most common sod webworms are the crambid types, which rest as adults on grass blades and nearby shrubbery during the day and fold their wings around the body in a tubelike appearance. Tropical sod webworm moths do not roll their wings around the body when at rest. Female moths deposit their eggs randomly over the turf during nocturnal flights. The ribbed eggs of crambid types of sod webworms are dropped into the turf, while tropical sod webworms attach their flat, scale-like eggs to blades of grass. Eggs hatch in 7 - 10 days. Larvae of all species may vary from gray or light green to tan or brown. Most have dark spots scattered over their body. The newly hatched sod webworm larva is about 1/25 inch long with a brown to black head. The body ultimately reaches a length of 1/2 to 1", depending on species. Sod webworms differ from armyworms and grass loopers both in size and in their feeding habits. Although all lawn caterpillars have chewing mouthparts, sod webworms feed primarily at night and rest in a curled position on the soil surface during the day. They are smaller when full-grown than the 1 1/2 inch-long armyworms and loopers. In addition, the other lawn caterpillars usually have stripes along their sides in contrast to the spots of sod webworms. Sod webworm pupae are usually enclosed in cocoons made from debris, soil particles and fecal pellets. They are reddish brown and about 1/2 inch long and may be found in the soil and thatch. There are usually two or three generations per year for most species of sod webworms, but tropical sod webworms are present at all stages throughout the year south of Gainesville, Florida.

Damage: Turf damaged by sod webworms appears grayish and the damaged area is usually only two to three feet across. Initial feeding skeletonizes the grass blades, but there is little visible damage until the webworms are almost full-grown. The nighttime feeding habit of this pest explains how serious damage often occurs before it is noticed. Blades are eaten back unevenly and may even be completely stripped off in patches. These close cropped areas soon become yellowish or brown. Larger crambid larvae may cut grass blades and pull them into the silken tunnels that they construct. Large tropical sod webworm larvae chew notches in the margins of the leaves, which gives the turf a ragged appearance. Webworm damage is sometimes confused with chinch bug damage. However, the lawn area damaged by webworms lacks the surrounding yellow border that is typical of chinch bug damage. Another likely indication of caterpillar damage is the persistent return of flocks of birds to a lawn area. About 12 caterpillars per square foot will cause serious aesthetic damage.

Monitoring: A good way to find and identify sod webworms is to use the disclosing solution (soap flush) technique that is also effective for mole crickets, beetles and cutworms. Two tablespoons of liquid detergent in a gallon of water is sprinkled evenly over a square yard of turf. It is also possible to part the grass and look at the soil surface for the small green caterpillars or their green pellets of frass (excrement). Nighttime inspection with a flashlight allows one to see the webworms feeding in the grass canopy.

Management: Several overlapping generations of webworms are produced each year so monitoring on a regular basis is critical for optimum management. Many sod webworm problems are associated with grass that is grown under high maintenance conditions - plenty of fertilizer and generous amounts of water. Damage is often most severe in late summer when populations have had the chance to build and lawn growth may be slower. Optimum control of tropical sod webworm is possible through several common sense measures: 1) Avoid over-fertilization of grass and the resulting lush, soft growth that is so attractive to insects. 2) Manage irrigation so that excessive water is not applied to the lawn. 3) Scout the lawn regularly by observing moth activity when walking through the lawn. Scouting will also reveal webworm feeding before the lawn is excessively damaged. 4) When necessary, apply an insecticide with a long residual to help control the overlapping generations.

TalstarOne™ multi-insecticide and Talstar® GC flowable insecticide/miticide: Apply at the rate of 0.18 to 0.25 fluid ounces per 1,000 square feet as late in the day as possible to maximize the residue present on the grass blades when the webworms begin their nighttime feeding. Delay irrigation or mowing for 24 hours after application. When treating tall grass canopies, higher application volumes and/or application rates may be required during heavy infestations. The maximum application rate of Talstar Lawn & Tree Flowable for sod webworm control is 1.0 fluid ounce per 1000 square feet.

Talstar® PL, EZ, EZ Golf and GC granular insecticide: Apply at the rate of 1.15 pounds up to a maximum label rate of 4.6 pounds per 1,000 square feet. It is not necessary to water the area treated with Talstar® granulars after application. Existing soil moisture is often sufficient to release the active ingredient from the sand-based granule and subsequent dew or rainfall will ensure the release. However, irrigating the treated area with up to 0.1 inches of water after application of Talstar® granulars will usually result in quicker control (one to two days for maximum control vs three to five days without irrigation) of sod webworms.

Selected References

- Cobb, P.P. 1995. Sod Webworms. In Brandenburg, R.L. and M.G. Villani (eds.) Handbook of Turfgrass Insect Pests. Entomological Society of America, Lanham, MD.
- Niemczyk, H. 1981. Destructive Turf Insects. HDN Book Sales. Wooster, OH
- Tashiro, H. 1987. Turfgrass Insects of the United States and Canada. Comstock Publishing Associates, Cornell University Press. Ithaca, NY.
- Watschke, T.L., P.H. Dernoeden and D. Shetlar. 1994. Managing Turfgrass Pests. Lewis Publishers, CRC Press. Boca Raton, FL.

Always read and follow label directions.

The FMC logo is a registered trademark of FMC Corporation.

Talstar is a registered trademark of FMC Corporation.

© FMC Corporation. All rights reserved.

TU104R 11/03