

# SOD

By Dr. David Shetlar

# webworms



**S**od webworms are the larvae of several species of small moths. Cutworms and armyworms are considered to be medium-sized caterpillars, usually reaching 1.5 to 2-inches long and nearly 1/4-inch wide. Sod webworms are rarely more than an inch long and only about 1/8-inch wide. They are also typified by having their bodies covered by rows of squarish-shaped spots on a background of pale cream, tan, or light olive-green.

Sod webworms rarely damage turf since the larvae are primarily leaf and stem eaters, so in higher-cut turf or turf that is rapidly

growing, their damage is not visible. However, in non-irrigated, slow growing turf during summer heat and drought stress, sod webworm larvae can substantially thin the turf that is not replenishing its foliage.

Only on the extremely short cut turf of golf course greens and tees or occasionally on bowling greens or turf tennis courts does sod webworm damage become a factor even when the turf is growing well. In these cases, the webworm larvae construct silk-lined burrows into the soil profile from which they extend these tunnels across the surface, just below the mowing level. These tunnels show up as short,



Sod webworm larva emerging after a soap flushing.

Above: Typical crambid sod webworm and frass within turf thatch zone.



irregular yellow to brown marks on the surface, which are commonly probed by foraging birds. This bird pecking can cause major damage to the playability of the turf surface.

Sod webworms are divided, taxonomically, into two groups, the crambid or cool-season or (true) webworms and pyralid or tropical sod webworms. The adults of the crambid webworms roll their wings around their bodies and the heads possess prominent forward-projecting mouthparts, the palps. The palps look like furry snouts. The rolled wings and palps are used by the adults in a kind of camouflage. When the adults land on a grass stem, they immediately turn head down, press their palps along the grass blade and extend their wings and abdomen outward at a 45-degree angle. This makes them look like a dead grass blade and they can be really difficult to see in tall turf. The tropical webworm adults have shorter snouts and elongate, triangular wings, which are held flat over the body. This gives these adults a sleek, jet airplane shape. The larvae of both webworm groups are nearly identical in shape and form and only an expert can tell them apart.

Cool-season sod webworms are most common in the transition and cool-season turf zones, but they are also found in true warm-season turf. About a dozen species are common turf inhabitants in North America. Some species have only one generation per year while others can have two to three generations each season. The tropical sod webworms can not withstand freezing temperatures, so they are restricted to true warm-season turf zones. Tropical sod webworms can have up to five generations in a season.

## Damage

As stated before, visible sod webworm damage to most sport turf is relatively rare, especially in irrigated, high-maintenance fields. In non-irrigated fields, moderate to large sod webworm populations can add to thinning of the turf canopy during periods of slow growth, especially during summer heat and/or drought. Fortunately, this won't kill the turf nor significantly affect its ability to hold up to traffic. The adult moths can sometimes become distracting. As players move across the field, many of these buff-colored moths can fly up, dart away a few feet and land again in the turf. Insect-eating birds often frequent turf infested with moderate

to high sod webworm populations. These annoying animals can leave considerable amounts of droppings that can be a nuisance.

If turf continues to thin during summer months or you see some dollarspot-like areas in the spring before true dollarspot season, spread the turf canopy and look for the tell-tale frass (fecal) pellets left behind by sod webworm

uncertain of a detergent, try it on an inconspicuous area before using it more extensively.

## Management

In general, sod webworms are rarely controlled in higher cut turfgrasses, but if they are causing thinning of slow growing turf, attracting birds or causing other nuisances, curative con-



Topical sod webworm adult resting on a St. Augustine grass stem.

larvae. If green pellets are found, the larvae are still feeding and can be controlled. If no frass or other signs of larvae are present, but birds are persistent, try using a soap disclosing solution. Use about two tablespoons of a dishwashing detergent in a bucket containing two gallons of water. Flood an approximate one square yard area of turf with this soap solution and flag the area. Come back in about 20 minutes and look for any of the tiny sod webworm larvae that will have crawled to the tops of grass blades in order to dry out. Joy, Dawn and Ivory detergents generally do not cause turf burn but other detergents may cause turf yellowing or burn-back. If

controls are available. Low rates of almost any of the pyrethroid insecticides will quickly eliminate sod webworm larvae. If liquid applications are made, leave as much of the spray on the turf foliage as is possible since this is what the webworm larvae will ingest at night. Granular formulations will need a light irrigation to activate the insecticides. Endophytic perennial ryegrasses and tall fescues are generally lethal to sod webworm larvae, so select cultivars that have these symbiotic fungi when possible. ■

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