

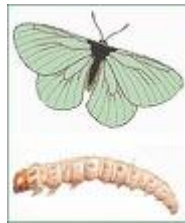


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## Sod Webworm Management in Lawns



### **David J. Shetlar**

There are several species of caterpillars called sod webworms that can be highly destructive pests of lawns. They may also become important pests of grass covered parks, cemeteries, golf courses. They have even been noted to cause damage in small grain crops such as corn, wheat and oats. Damage to grass is caused by the feeding of the larval or "worm" stage. The adult moth does not cause damage to turf, other plants or clothing.

The damage caused by sod webworms may first appear in early spring. The damage shows up as small dead patches of grass among the normally growing grass. The summer generation may cause general turf thinning or even irregular dead patches in late June into early August. Sod webworms prefer sunny areas and the larvae are often found on south facing, steep slopes and banks, where it is hot and dry. Heavily shaded turf is seldom attacked by the larvae.

The most severe damage usually shows up in July and August when the temperature is hot and the grass is not growing vigorously. In fact, most sod webworm damage is mistaken for heat and drought stress. Sod webworm-damaged lawns may recover slowly, without irrigation and light fertilizations. These thin turf areas allow weeds to establish in the lawn making it unsightly.

### **Turfgrass Attacked**

Sod webworms appear to feed on all turfgrass. However, common Kentucky bluegrass, perennial ryegrass and fine fescues are the ones showing damage the most. However, improved perennial ryegrasses with endophytes are highly

resistant to sod webworms. Likewise, tall fescue, though often attacked, usually out grows the damage. On golf courses, bentgrasses are commonly attacked.

### **Recognizing Sod Webworm Injury**

The general thinning of turf is usually not associated with sod webworm activity, and thus, goes undiagnosed. The sod webworm caterpillars live in tunnels constructed in turf thatch or extending to the soil under the turf. These tunnels are silk lined and the webbing joins soil particles and leaves together. The larvae emerge from these burrows to chew grass blades off just above the thatch line, usually at night.

In thick, green turf, injury appears as small brown patches about the size of a quarter to three inches in diameter. When many larvae are present in mid-summer, the small brown patches run together and form large irregular, thin and brown areas.

### **Confirming Sod Webworm Activity**

The surest way to tell if you have sod webworms is to find a suspected area of infestation (brown patches). Get down on your hands and knees, take your two index fingers and part the grass blades in the area between dead and live grass and look for an area with small green pellets. The pellets, called frass, are the excrement of the larvae and indicate that a larva is close by. Sod webworm adults are about 3/4-inch long, cigar-shaped and buff-colored moths. They typically roll their wings around the body when resting on a grass blade. Two small snout-like projections are visible at the front of the head.

The adult moths fly mainly in late June and again in mid-August though some species may be present any time during the summer. Seeing these moths fly up while mowing or walking around the lawn does not confirm that damage is, or will be done by the larvae. The adult moths can fly considerable distances and may be coming from other infested areas.

If you still suspect sod webworm activity but are unable to find the larvae or their frass, use a soap disclosing drench. Simply mix up two gallons of tap water with two tablespoons of liquid dishwashing detergent. Sprinkle this mix over a one square yard of the affected turf. Within a couple of minutes, the flesh-colored, spotted larvae will wriggle to the surface. If you get 10 to 15 larvae in a one square yard of turf, treatment is warranted.

### **Description and Life Cycle**

Most sod webworm larvae are less than one inch in length and are characterized by having a series of dark spots running down the body. However, some species have the spots light in color. The most common lawn damaging sod webworms in Ohio are the bluegrass sod webworm, the larger sod webworm, the striped sod webworm, and the cranberry girdler. Occasionally, the vagabond sod webworm, adults will emerge in large numbers in September that causes considerable alarm.

However, the larvae of this species feeds only in the late fall and early spring when the turf is actively growing.

The bluegrass, larger and striped sod webworm usually have two generations per year with the summer generation of larvae causing the most damage. The other species have a single generation per year. All the sod webworm larvae spend the winter as a partially grown larva buried several inches deep in the soil. At the approach of warm weather in the spring, the larvae move upward and begin feeding on the lush spring growth of grass. The bluegrass, larger and striped sod webworms finish their feeding in late May to early June. At this time they burrow deeper into the thatch or soil to pupate. After 10 to 14 days, the new adult moths emerge at night to mate and lay eggs. Mated females lay most of their eggs on the second night by randomly dropping the eggs into the turf. The larvae from these eggs feed through July into early August before pupating again. The second generation of adult moths appears in late July through August. Since the turf is usually slowly growing at this time, sod webworm feeding can cause considerable damage. The second generation of larvae feed in September until October but damage is rarely detected because the turf has begun to grow rapidly again. The sod webworms with a single generation usually emerge as adults in late June through early August and their larvae feed mainly in the late fall and early spring. These species rarely cause significant damage to turf.

### **Control Hints**

Control should only be directed towards the feeding larvae, not the flying adults. Since drought stress and turf diseases can cause thinning similar to sod webworm damage, be sure to check the turf for frass or use the soap disclosing flush to determine that larvae are present.

**Strategy 1: Cultural Control - Use Fertilizer and Water** - Damage can often be outgrown if water is continually available. Considerable damage may occur if irrigation is not possible during periods of drought or close mowing is used.

**Strategy 2: Biological Controls** - Natural parasites occur but predaceous ground beetles and rove beetles seem to be the major control factors found in turf.

**Strategy 3: Use Resistant Turfgrass Varieties** - Turfgrasses with fungal endophytes are generally resistant to sod webworm attacks. Look for perennial ryegrasses, tall fescues and fine fescues that have "Endophyte Enhanced" on their package. The seed of these grasses can be overseeded or slit seeded into existing lawns.

**Strategy 4: Chemical Control - Use Contact and/or Stomach Pesticides** - Most webworms are easily controlled if the pesticides are ingested when the larvae feed shortly after dark. Therefore, best control is achieved by spraying in the late afternoon. Late fall or early spring applications are often not effective because many larvae are hiding in deeper soil chambers.

