

Turf Tips

For the Homeowner

Sod Webworm

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Sod webworms, the caterpillar stage of lawn moths, are a pest of bluegrass lawns in Michigan. Several closely related webworm species have similar life cycles and damage symptoms. The biology and management of bluegrass webworm *Parapediasia teterellas* (Zincken), will be discussed as a representative of the group.

Hosts: Most turfgrass species are susceptible to webworm damage, but bluegrass and bentgrass lawns appear to be especially vulnerable.

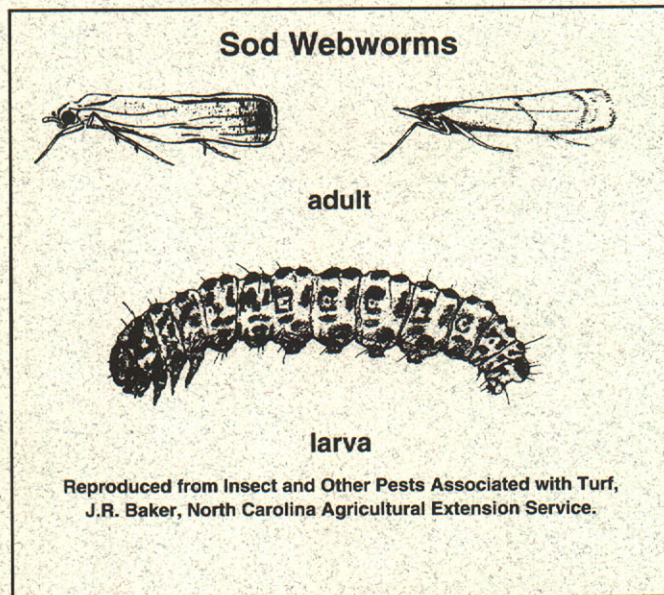
Damage Symptoms: Damage caused by sod webworms first appear as small brown patches of closely clipped grass. These patches may coalesce to form large irregular dead areas.

Similar Damage: Damage to turf caused by other agents is often attributed to sod webworms. Grass killed by white grubs may be confused with webworm damage. However, grubs kill the grass roots so that the areas of damaged turf can easily be pulled up like a carpet to reveal the C-shaped larvae of the white grub. Heat injury during very dry periods is also mistakenly attributed to webworm activity, especially when the grass is shallow-rooted in thatch or in clay.

Several lawn diseases cause brown patches resembling webworm injury. In these cases, check for the presence of larvae or other diagnostic characteristics. Generally, if no feeding injury or larvae are found, the problem is due to other agents and insecticide applications will not provide control.

Identification:

Adults (lawn moths): Grayish-tan moths 1/2- to 3/4 inch long with two fingerlike horns protruding from the head. Adults are generally active in the evening and have a characteristic short zigzag flight. At rest they fold their wings over their abdomen and appear cigar-shaped.



Larvae (webworms): Grayish-brown to dirty white larvae with four parallel rows of dark brown spots on the abdomen; 3/4 inch long when mature.

Destructive Stages: Adults do not feed; all damage is caused by larvae feeding on grass blades.

Life Cycle: Nearly mature larvae (caterpillars) overwinter in the soil and resume feeding in the spring (late April-early May) as temperatures begin to rise. Occasionally, damage will occur in the spring from overwintered webworms.

Adults begin to emerge in late May and early June and can be seen flying across lawns at dusk or just after dark. Adult moths rest during the day in deep grass, ground cover, or in shrubbery. Females may drop up to 200 eggs in the grass while they are flying.

Eggs hatch in 5 to 10 days and the young larvae begin feeding (skeletonizing) in the soft areas between the veins of grass blades. After a short time the larvae become large enough to

consume small portions of the grass blade so that the damaged leaves may appear notched. Later, the more mature larvae construct silk-lined burrows in the thatch and begin to chew grass blades off just above the thatch line and pull them into their tunnels to consume. Injury thus appears as small circular (quarter size) areas of closely clipped grass and exposed brown thatch.

Pupation takes place in late June to early July and second generation adults are usually observed shortly afterward. New eggs are deposited and second generation larvae reach peak activity in mid- to late August. Most of the damage is caused by larvae of the second generation. As the temperatures drop in the fall, webworm larvae burrow deeper into the soil to overwinter. There are only two generations a year.

Diagnosis of Webworm Damage: When sod webworm injury is suspected, check the following:

- 1) Brown patches where grass blades are missing and not simply dead.
- 2) Presence of green fecal pellets (frass) in the thatch.
- 3) Presence of webworm larvae residing in silk-lined tubes in the thatch.

Often, flocks of birds will appear on the lawn pecking small holes in the turf as they seek out the larger webworm larvae. The increased bird activity is often symptomatic of webworm presence, but is not always an accurate indication of a problem.

Larvae present in the lawn can be brought to the surface by drenching the infested turf with a soap solution. Mix 1 ounce of liquid dishwashing soap with 3 gallons of water.

Mark off two to three sections of lawn 2 feet by 2 feet in both damaged and undamaged areas. Evenly pour 1 gallon of the solution over each section. The soap irritates the larvae and they will crawl to the surface in one to ten minutes. If more than four to six larvae are found in 4 square feet, treatment is advisable.

Management: The sighting of numerous webworm adults does not mean damage will occur. Harsh environmental conditions and predators often destroy many eggs and young larvae before serious damage occurs. Wait approximately two weeks after peak moth activity is observed, and use a soapy water solution to check for larvae. If larvae are abundant (more than four in 4 square feet), treat with an insecticide.



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