

Sod Webworm

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Kentucky bluegrass is grown in many lawns throughout southern Idaho. It is green throughout the summer months and is used for many purposes. In good condition, a lawn will have a fine texture, uniformity, and a healthy green color (Turgeon, 1999).

The bluegrass webworm, *Parapediasia teterrella*, feeds mainly on Kentucky bluegrass, but will also eat ryegrass, some fescues, and varieties of weed grasses (Watschke, 1995).

Symptoms

Symptoms of the bluegrass webworm are more easily seen in short turf grasses that have been mowed than in taller, unkept lawns (Watschke, 1995). In the summer months, small patches of yellow or brown leaves start to appear, which become larger daily. The webworm damages the grass blades by eating them at the base. They burrow through the soil, close to the surface, feeding on blade after blade. Holes through the thatch, down to the soil from where birds have pecked at the larvae will also be noticeable (Tashiro, 1987).

The small patches of dead or dying grass will grow into irregularly shaped patches, usually where there is the most sun, while shaded areas of turf will remain green (Tashiro, 1987). Since drought conditions cause bluegrass to go dormant, these dead patches are often mistaken for the grass undergoing summer dormancy, whether in home lawns or golf course fairways (Tashiro, 1987, Watschke, 1995). This is why any dead-looking spots should be carefully

watched, and treated if the patches seem to be growing larger. The return of fall rains usually revives dormant turf, so if patches of turf are still brown, there is a possibility of webworm in the lawn (Tashiro, 1987).

Signs



Figure 1. Sod Webworm, Adult Stage (Bradenburg, 1995)

The webworm has four life stages. Any of these can be seen as signs in an infested lawn. The adults, which are in the form of moths, are evident when resting on the grass blades or at dusk, when they may be seen flying above the turf (Tashiro, 1987). Close up, these moths have a wingspan of about 15-21 mm. The heads are white on top and light brown underneath. The forewings have seven spots along the tips, while the hind wings are lighter in color and possess a thin brown line down the margin. Veins of the forewings are also lighter in color, and across each wing is a brownish-orange line.

Adults mate in the middle of the night, and females lay their eggs the next night. Females may lay as many as 200 eggs before dying (Watschke, 1995). The eggs of the bluegrass webworm, which fall down into the thatch, are roughly 0.31 by 0.51 mm. They have longitudinal



Figure 2. Sod Webworm Larva ("Problem:...", 2001)

ridges and when laid, are white, then change to a deep straw yellow before hatching (Tashiro, 1987, Watschke, 1995). In warm summer weather (21°C), eggs will hatch in about six days. Young larvae are about 1-2 mm long and have translucent creamy bodies. After eating, the food in the gut gives the body a more greenish color (Watschke, 1995). Larvae can be seen in soil underneath the turf when it is cut and pulled up (Fermannian, 1997). When full grown, after 40-45 days, the larvae are 9-13 mm long and the same color of straw yellow, with rust colored spots (Watschke, 1995). The larvae develop their cocoons from soil and turf particles. The cocoons look very much like small soil aggregates (Tashiro, 1987). After 5-15 days, the pupae are mature and emerge after dark as moths (Watschke, 1995).

Testing for Sod Webworm

If webworm symptoms are noticed in the lawn, it is best to sample for the worm, rather than treat before confirmation of webworm infestation. To get the larvae to emerge, two gallons of a soap solution can be sprayed over an area of one square yard. This will bring caterpillars to the surface, making them easier to count. If five or more larvae emerge in a square foot of lawn, action should be taken (Fermannian, 1997).

Solutions

The sod webworm can be controlled in a number of ways, one being the use of resistant turfgrass varieties. Two cultivars of somewhat resistant Kentucky bluegrass are 'Windsor' and 'Park' (Tashiro, 1987).

Watering regularly will greatly reduce the risk of an infestation, since the webworm tends to appear in drought-like conditions (Fermannian, 1997).

Natural predators include birds, ground beetles, and predator wasps. Certain fungi, nematodes, and the bacteria *Bacillus thuringiensis* can also be used (Bradenburg, 1995). Insecticides include Sevin, Dursban, and Proxol and can be applied as a spray

Proxol® 80 SP

Figure 3. Chemical label (Proxol)

or in granules when adults are present, however the liquid sprays have been found to work better. The insecticides are either ingested by the worms, or penetrate the silk webbing cocoons. Three gallons of spray per 1000 square feet of turf are to be applied in the late afternoon, since the larvae feed just after dark. Also, mid-summer is a better time to apply chemical than early spring or late winter, since larvae overwinter deep in the soil (Fermannian, 1997).

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