UNITED STATES GOLF ASSOCIATION
GREEN SECTION
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SOD WEBWORMS

The Damage

Widespread damage to turfgrasses from deceptive small worms--sod webworms--has occurred in the Southeast. Several golf clubs not familiar with the insect have not grown enough grass to satisfy both golfer and worms. Even those familiar with the insect suffered some damage. Why can't damage be prevented? Frankly, the pest is just that.

Injury is first noticed by a thinning of the grass in small irregular areas which are often mistaken for disease. Such damage results from small worms eating leaves off the grass stems and may occur in spots, or generally over a large area. If the insect is not controlled the turf begins to appear thin, ragged, turns brown in color, and does not respond normally to water and fertilization. Continuous feeding of sod webworms gives the turfgrass a brown or dead looking appearance with nothing but stems observable.

Damage has been noticeable on many non-irrigated fairways. Attacks of the insect seem to increase the damage to grasses suffering from a lack of water. In fact, many Bermudagrass fairways damaged during the drought, received increased injury from such insect attacks as sod webworms.

Evidence of the Insect

The presence of birds feeding on putting greens or other areas has been a sign to superintendents that an insect is active. One golf club observed small black wasp swarming around its putting greens. Within a few days the grass began to thin and turn brown. The club called the Green Section Office for a control method. It was found that the small wasp was feeding on sod webworms which were causing the damage. Sod webworms construct small tunnels (diameter of a match stem) at the soil surface. These are often visible. A thin ragged appearance of turfgrass, plus the flutter of small debrie attached to the web of the insect are other indications that sod webworms are present.

Since webworms are sensitive to light, they hide during the day in small tunnels or in the soil and feed at night. Thus, early stages of an attack may be overlooked. The insect may be observed by examining the top inch of sod; checking the area during night; shading a small area during the day by placing boards, canvas, etc., on the turf, and letting the webworms start feeding; thoroughly flushing an area with water, etc.

The Pest

Sod webworms are present each year, but not usually in sufficient numbers to cause damage. Large numbers of the insect are thought to occur as a result of past dry mild weather. The past few years have been ideal for the buildup of large populations.

The insect is the larvae (worm) of a small gray moth. About 12 species are damaging to grass in the United States. Eggs are dropped into the grass by the moth while flying, and hatch within a few days. The young start feeding and form silken webs and tunnels, thus, "webworms". They are about 1/8 inch in diameter, 3/4 inch long when grown, and have a brown-green color.

During an average lifetime a worm may eat 7 to 13 linear feet of grass leaves or 4 to 7 inches daily. As many as 400 sod webworms have been found per square yard of turfgrass.

In Tennessee and North Carolina the insect may first appear in May, and in Florida it may feed most of the summer and winter. Three generations per year often occur in North Carolina and Tennessee, while five or more may be observed in Florida. This means that turfgrasses are subject to attack during the entire warm growing season.

Sod webworms feed principally on Bermudagrass, but also attack St. Augustinegrass.

Control

The first step in the control of insects is proper identification. Sod webworms and their damage can be recognized from the discussion herein. Several insecticides are effective for controlling webworms. Formulators are mixing insecticides with fertilizers. These are satisfactory in many cases and give control when applied several times during the warm season. The following table is given as a guide for applying a few insecticides. In addition to those listed, two pounds lead arsenate per 1,000 square feet applied in 20 gallons water gives good control. Sprays generally give better results than dusts. The new granulated materials look good. The lower rates are generally used for fairway control.

Insecticide	Rate Per Acre		Rate per 1,000 Square Feet	
	50% wettable powder	Emulsion containing 2 lbs. per gallon	50%	Emulsion
DDT	5-10 lbs.	1-2 1/2 gal.	1 3/4 - 3 1/4 oz.	3-6 oz.
Dieldrin	4-8 "	1-2 gal.	1 1/2 - 3 oz.	3-6 oz.
Malathion	4-8 "	1-2 gal.	1 1/2 - 3 oz.	3-6 oz.
Chlordane	5-10 "	1-2 1/2 gal.	1 3/4 - 3 1/4 oz.	3-6 oz.

FOR UP-TO-DATE INFORMATION
Attend Turf Conferences In Your Area

Southwestern Louisiana Institute Turf Conference, Lafayette, La. -- Sept. 12 & 13.
Fourth Annual University of Florida Turf Conference, Gainesville, Fla.--Sept. 25, 26, & 27.

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