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# Tropical Sod Webworm: Are Bevies of Moths Flying in Your Landscape?

*Above: Tropical sod webworm damage is subtle as the leaf blades are chewed and there isn't a brown area to signal damage until it is too late. This picture shows the feeding damage as a lighter green and a shorter patch of turf where it looks as if someone took a weed-eater to it.*

*Right-top: The moths hide during the day in the grass and in nearby shrubbery and are attracted to lights at night.*

*Right. Tropical sod webworm caterpillars feed at night and hide during the day where the stolons meet the thatch.*

Doug Caldwell

This spring we have had a fairly widespread outbreak of a St. Augustinegrass turf attacking caterpillar, the TSW- tropical sod webworm (*Herpetogramma phaeopteralis*). This may have been due to the cold weather killing a parasite or predator ("attack" insects) that normally keeps this turf eating caterpillar in check. Or it just may be part of the natural life cycle peaks and valleys of most insect populations.

Anyway, there are some other cutworms and armyworms that feed occasionally on turfgrasses. But the TSW is the most damaging. Larvae feed on bermudagrass and zoysiagrass, but are most damaging on St. Augustinegrass. An indication of their presence is the light tan-brown colored moths (¾ to 1 inch wingspan) which scatter as you walk through the yard or disturb nearby shrubbery. They fly low and are adept at escaping, making it difficult to get a decent picture! These moths are attracted to lights

at night also. They do not cause damage, but they are depositing eggs which will result in their offspring, the caterpillars, which do the turf chewing. The eggs hatch in about seven days. The caterpillars do not feed on shrubs or other plants.

The larvae are gray-green, and have brown spots on each segment. Mature larvae can be about ¾ to 1 inch in length. Larvae remain curled up in the soil during the day and feed at night. Newly hatched larvae skeletonize or chew holes in the smaller grass blades, while older and larger larvae chew on grass blades near the soil surface. The life cycle can be completed in six weeks with the moths living up to two weeks. This pest is active year-round in and there may be four generations in south Florida.

**Sorting out turf damage takes some kneeling.**

Damage begins in small patches of short-clipped grass, about 1 to 3 inches in diameter. The grass may look ragged, as if someone randomly used a weed-eater here and there, and irregularly-shaped, larger brown patches may form if there is severe defoliation. I was hoping I'd have some of these caterpillars invade my yard and maybe I wouldn't have as much grass to mow, maybe even skip a week or so of mowing. However, look out, these caterpillars may save us some mowing, but they can eat all of the blades off down to the stolons (stems which run along the ground) and you may end up with bare areas of dead stolons.

To sort out whether you have chinch bugs, grubs, diseases or isolated dry spots, try this. Part the grass in suspect areas (where there is some green and some brown or affected turf) and closely examine the soil surface. Look for chewed leaves, silken webs, green frass, and larvae. Better yet, for faster action, use a watering can or bucket and do a soap flush. Soap flushes (2 tablespoons of liquid dishwashing soap mixed in 2 gallon of water) will irritate potential pests and cause them to reveal themselves as they move to drier ground. You may want to find a spot to drench near concrete or sidewalk so it will be easier to see what crawls out of the soapy turf. Pour the mixture on a 3 ft by 3 ft area of damaged grass, and see what emerges within 5 minutes. If nothing emerges in the first area, examine at least 3 or 4 other places.

**What to do.**

Turf can recover from tropical sod webworm damage if properly irrigated and kept healthy. Drought or low mowing heights may prolong or prevent grass recovery. Remember to mow your Floratam at 3.5 to 4 inches; semi-dwarf cultivars 'Delmar' and 'Seville' should be mowed at 1.5 to 2.5 inches.

Applications of high rates (double or more recommended rates) of water-soluble nitrogen fertilizers cause rapid leaf growth, and may increase the chance of lawn caterpillar problems (Dr. Jim Reinert, Texas A&M). Apparently, female moths looking for a place to deposit eggs zero-in on the lush succulent salad bar, er, leaf growth- your yard! Responsible use of slow-release nitrogen fertilizers may reduce the susceptibility

of grass to infestation. For current fertilizer and irrigation guidelines See, http://edis.ifas.ufl.edu/pdffiles/EP/EP11000.pdf

Predator insects (this includes certain beetles and ants!) and spiders play an important role in suppressing TSW populations by as much as 75 percent. Therefore, since these natural enemies must be preserved, insecticide applications should only be made when caterpillars are observed and preferably with a biorational product that is selective for caterpillars only. Unnecessary, preventive pesticide use in lawns can reduce populations of beneficial insects and by their absence, plausibly, induce sod webworm outbreaks.

**Chemical Control**

Control should only be directed against the feeding larvae, not the non-feeding, flying moths. If your soap flush tactic shows there are more than 12 larvae per square foot or you have more damage than you can tolerate, it may be time for an insecticide application. Spot treatments may be applied when infestations are first detected and the damaged area is small. Insecticide efficacy is best maximized when applied two weeks after peak moth activity and in the early evening when larvae feed. Several applications may be needed due to the moths' long flight period and repeating generations.

**Broad spectrum** (means it kills most insects) products containing Sevin (carbaryl) or bifenthrin or cyfluthrin or cyhalothrin are effective. Liquid applications will give better coverage than using granules. Another approach is to try and protect the attack insects, think no collateral damage, with your pesticide selection. Use a product such as ferti-lome's "Borer, Bagworm, Tent Caterpillar & Leafminer Spray"- [they pay marketing people lots of money to come up with these user-friendly names?! ]. Anyway, it has spinosad as the principle agent which destroys caterpillars and leaves most of the good guys unharmed. Another narrow spectrum product which will only take care of caterpillars is Bt (*Bacillus thuringiensis).* There are university reports which demonstrate products containing Bt provided satisfactory control. Read all directions on the insecticide label before a product is used, particularly the dose rates, application procedures, and precautions. For more pictures and details see: http://www.youtube.com/watch?v=OkP1Dt-5Jz4

*Doug Caldwell, Ph.D., is the commercial landscape horticulture extension agent and landscape entomologist with the University of Florida Collier County Extension Service. The Cooperative Extension Service is an off-campus branch of the University of Florida, Institute of the Food and Agricultural Sciences and a department of the Public Services Division of Collier County government. E-mail dougbug@ufl.edu ;phone, 353-4244 x203. Extension programs are open to all persons without regard to race, color, creed, sex, handicap or national origin. For updates on Southwest Florida Horticulture visit: http://collier.ifas.ufl.edu*