



Turfgrass Series

Insects – how to manage them in Guam lawns

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Insects are the most abundant animals living on earth. Most of them decompose organic matter, and the large majority are entirely harmless. Some, however, are significant pests of plants and animals. The usual description of insects as six-legged, segmented creatures actually applies most often to adult insects, which in many cases live only to reproduce, do not feed, and cause no damage. For most insect pests of turf, the larvae rather than the adults cause the damage. Some insects feed by chewing and others by sucking. Chewing insects ingest plant tissues or organic residues directly. Sucking insects use piercing mouthparts to poke through the surfaces of leaves, stems, or roots and suck the plant fluids.

Insects presenting a direct threat to the turfgrass community are root-feeding insects such as grubs, billbugs, and mole-crickets as well as shoot-feeding insects like web-worms (Figure 1) or very similar army-worms. Unlike weeds or diseases, insects are not very effectively controlled by preventive measures or cultural practices. In fact many insects are more likely to attack well-maintained turf because healthy plants with fresh growth provide a plentiful source of food. To manage insect pests effectively, homeowners must have a working knowledge of their life cycles and habits in their feeding areas.

Insect detection

Before any control is attempted, the presence of insects must be detected. Accurate diagnosis of insect infestation requires periodic visual observation of the turf and other parts of the landscape. For example, the presence of moths flying in front of shrubs shortly after the sunset is a good indication of approaching infestation with sod web-worms – the worst pest on Guam.

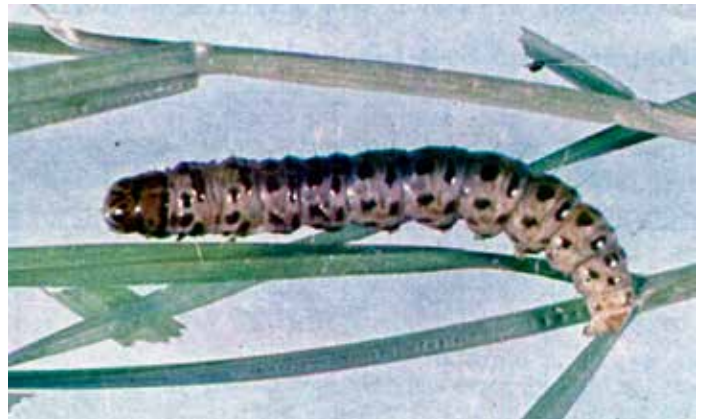


Figure 1. Leaf and shoot-feeding of sod web-worm.

Pests are never evenly distributed throughout the turf; rather, they occur in isolated spots or pockets. Turf thinning, dead or dying patches, chewed or frayed grass blades, and distinctive webbing or fecal pellets are potential evidence of insect pests. Still, the best indication of an insect infestation is to find physical presence of the insect.

Numerous sampling techniques are utilized to look for insects infesting turf. The simplest one to detect web worm involves use of 1-2 ounces of laundry detergent mixed with 2-3 gallons of water. Minutes after slow flooding of suspected turf area (usually close to shrubs) caterpillar-type larvae emerge to the surface, where they can be identified.

Methods of insect control

Chemical control is usually the most reliable means of controlling properly identified insects and even if they cannot eliminate all of the insects, they may reduce their numbers to a manageable level.

In general, insect control is a complex issue requiring extensive knowledge of both the biology of insects and chemistry of insecticides. The Internet is an

excellent source of information but cannot substitute for professional advice. Fortunately, homeowners on Guam are usually confronted with only a few species of insects that seriously damage turf and web worms are the most frequent and most damaging. When their presence is confirmed, carbaryl (sold under the brand name Sevin) an insecticide available in hardware stores in the form of granules, spray, or containers attached to a hose, works very well. Cultural practices such as proper mowing height, fertilization, soil aeration, and watering do not prevent infestation but can help the turf to resist higher pest populations without serious damage.

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