

## Identification & Control of Turf Insects

Residential and commercial turf areas in Florida are commonly infested with insects and related arthropods. Most of these creatures go unnoticed, however several species can cause serious damage to turfgrass. Knowledge of pest biology and life cycle is needed before effective control programs can be implemented.

Some insects inhabit in the soil while others inhabit on leaves, stems and thatch. Both groups can severely damage turf. Feeding by soil-inhabitants such as white grubs, billbugs, and mole crickets usually shows up as wilted, dead or dying grass. Sod may be disturbed in areas where wildlife or pets dig up soil-inhabiting pests. Damage by thatch-inhabitants such as sod webworms, armyworms and cutworms is apparent when grass is cut off close to the ground. Damage by chinch bugs and spittlebugs, also thatch inhabitants, is similar to damage caused by soil inhabitants. Irregular spots of yellowish turf and dead spots may occur when uncontrolled.

Steps to Managing Turf: In Florida, most insect pests of turf can be controlled when damaging populations are found. However, remember the first step to management of turf pests is prevention.

Prevention: Good cultural practices are essential to prevent insect pests from destroying turf. Use approved methods of fertilization, watering, mowing, etc., to keep grass healthy and growing vigorously. A healthy lawn can tolerate light insect infestation and insect damage is masked or overcome by rapid growth of plants.

Thatch removal is one means of preventing chinch bug outbreaks. Heavy thatch accumulation, particularly in St. Augustine lawns, provides an ideal environment for chinch bugs. Thatch also interferes with insecticidal control.

Early Detection. The next step to management of turfgrass pests is early detection. This is the weakest link in pest management programs for lawns. Pests are difficult to see until damage is observed. There are, however, several techniques which are useful in detection and monitoring insects in turf grasses.

There are various ways by which sampling can be used to detect the presence of insect pests in turf. Sampling: The sweep net is a useful tool for finding caterpillars, aphids and chinch bugs. It must be used properly. The net frame should be sturdy. The net bag should be of solid cloth rather than mesh cloth. Sweep the net back and forth across the turf with the rim striking only the grass blades. Sweep in areas where you suspect pests. After several sweeps, turn the bag inside out to dump the contents into a container for inspection.

Floation uses water to detect the presence of chinch bugs. Remove the bottom from an oil can, coffee can, or similar container. Push the can into the turf (one to three inches deep) in an area of suspected chinch bug in an area of suspected chinch bug infestation. Fill the can with water and hold the water level above the grass by adding additional water for about five minutes. If chinch bugs are present they will float to the top. Irritation is another method of sampling for turf

insects. It is particularly useful in mole cricket surveys. Lemon dish washing detergent is a good inexpensive irritant. Mix the detergent with water and pour over a turfgrass area. The detergent irritates sensitive soil-inhabiting pests causing them to quickly come to the surface. Use one-fourth cup dry or one ounce liquid detergent per gallon of water. Use one gallon of water to sample a one square yard area of turfgrass.

Chemical application- Application methods are extremely important in turf insect control; you may use the most effective insecticide available, but if the method of application is poor, the level of insect control will be disappointing. When applying insecticides consider: distribution, irrigation requirements, insecticide, formulation, timing of insecticide application, and target zone of the insecticide application.

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