



Don't Bug Me!

Bugs, or more properly, insects are just another part of the turf management challenge facing golf course superintendents. Just when we get the turfgrass lush and healthy the bugs move in for a feast. If they aren't watched carefully, they can turn a velvety-smooth putting green into a ragged, pock-marked embarrassment.

If there is a trend in insect control, it would be that more and more superintendents are applying chemicals less often and to smaller areas on the golf course. Superintendents, who once used to spray all 18 greens if any signs of insect activity were spotted, now spray only those greens where actual damage is seen. If there are concerns about additional infestations, soap flushes are used to bring potential turf gobblers to the surface to evaluate populations and make more intelligent spraying decisions.

The good news is that insects have pretty consistent and definite life cycles which can be monitored to avoid surprises. The bad news is that, thanks to the 1996 Food Quality Protection Act, some of our familiar weapons against the creepy-crawlies are becoming endangered or extinct. There's more good news in that manufacturers are coming up with new products that require lower doses, are less toxic and are highly effective. The down side is that they tend to be specific to one kind of insect and they are more expensive than the older products. The cost factor added to reduced broad-spectrum control has superintendents looking for new ways to combat insect pests.

The following articles will look at some strategies and products for keeping the bugs on your course under control. Other suggested references for insect control are the *2000 University of Florida Pest Control Guide for Turfgrass Managers* and *Best Management Practices for Florida Golf Courses*. Both publications are available from your county extension offices or by calling the UF/IFAS Publications office at 800-226-1764.

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New Weapons for Old Enemies in Y2K

Even in the new millennium, and the computer age continuing to give us new technology, it is still the same age-old problems with insects that our men-

tors faced. I would have to say that the "big three" are nematodes, mole crickets and grubs.

"Todes" are probably the most frustrating to all superintendents because of the difficulty in controlling them. The majority of control needs to be done in the spring (March and April) to allow

the grass to set roots and get healthy for the summer heat.

My application weapon of choice has been Toro's high-pressure injector, and spot treating using liquid NemaCur 3 at a rate of 3 gallons per acre, with good results. Critical to good application coverage is to make sure the swaths are close together to avoid a zebra-stripe look that will not "green up" like the treated areas. An added benefit of using the injector is that the product is applied directly into the soil and doesn't sit on the grass surface waiting to be watered in after the entire area is treated, which equates to less exposure.

When it comes to controlling "crickets," scouting and timing are everything! The IPM specialist must scout and map the areas that need to be treated. Adults that have over-wintered become active in the spring and one or two treatments are required immediately.

And right away we have to prepare for the nymphs. Monitoring the adults and the egg development is an ongoing process. When the eggs get hard and become a pearl color, it indicates that they are ready to be laid.

At that point, we begin treating with a long-term-residual product, such as Merit. What we are looking to do is create a generation gap in the life cycle of the crickets, and grub control. By reducing the number of nymphs that survive, then you reduce the amount of adults to deal with later. After nymphs are controlled, adult mole crickets and grub control can be reduced.

For instance, we spot treat, and alternate spraying between the front nine and the back nine, once a week, with Turcam or Orthene (depending on the target), on approximately 6 acres, for the rest of the summer. Our IPM specialist continually scouts and maps areas that need treating, reducing wasted time looking for problems while out on the spray rig, and can go right to the areas that need treating.

Our greens get foliar fed at least once a week, year round. We treat for worms on a preventive basis with Dipel during periods of pressure. The results are usually very effective, yet, when the rains are