

CONTROLLING MOLE CRICKETS

Mole crickets are the number one turf pest problem in Florida. They can actually kill the turf if not controlled in time.

Research at the University of Florida, Institute of Food and Agricultural Sciences (IFAS) shows mole crickets prefer to run through bare areas rather than through grass. The grass most often damaged is bahia, but they can damage or kill any of our grasses.

The most noticeable signs of mole cricket activity are fresh runs and piles of soil in the turf areas. Walking across infested areas, the turf may feel soft and spongy.

Since mole crickets are not native to the United States, controlling them is very difficult. There are no natural parasites and few effective predators to help reduce the population (75 armadillos or 125 skunks per acre may offer potential control, but most people do not like their damage or smell).

We have to use pesticides as our most effective weapon against this pest. Proper timing of the pesticide applications can make control easier and more effective.

To properly time our pesticide applications for control of mole crickets, we need to understand the life cycle of the pest. There is only one generation of mole crickets per year in north Florida and there can be two generations in central and southern Florida. They spend their whole life in the soil except for night time feeding on the surface and in the spring when mating and dispersal flights occur.

Mating and dispersal flights are occurring or will soon be occurring (depending on the area of the state). During these night time flights, these insects are attracted to lights. Lighted turf areas (even those lighted by street lights) are more likely to have mole cricket problems than those in dark areas.

Male mole crickets die after mating with a female. Most female mole crickets lay their eggs in late April and May in our area and then die. Some of the females will live and lay their eggs in late summer or early fall, but they are the exception, not the rule.

The eggs begin hatching in approximately two weeks to produce the next generation of this pest. We can reduce their damage by killing most of the young insects as they hatch.

The most effective control program for mole crickets is to apply Oftanol during May or early June. Oftanol may be commercially applied as a liquid or 5 percent granular material or as a 1.5 percent granular by homeowners.

Regardless of who applies the Oftanol, it should be watered into the soil immediately after applying it with

approximately one-half inch of water.

Research by IFAS entomologists indicated a May application of Oftanol gave season long control of this pest under ideal conditions. Heavy rainfall will leach the material down into the soil and shorten the residual control offered.

If you are unable to apply Oftanol in May or early June, plan to use an alternative control program. There is only a six to eight week period when Oftanol gives us satisfactory control of this pest.

Alternative control programs include using baits during the summer and fall or contact materials almost any time during the year.

Mole cricket baits are most effective when the insects are small and therefore should be applied during July, August, and September. Baits may offer some control at other times of the year, but the most effective control is during this time. For best control, apply baits late in the afternoon when no rain is expected and no water should be applied.

The mole crickets come to the soil surface and feed on the material at night. Watering the bait into the soil reduces its effectiveness.

Once mole crickets have reached adult size in late summer or early fall, contact materials are the most effective control available. Mocap and Sarolex are the most effective contact materials currently on the market. These materials must be applied to home grounds by a commercial company. Both materials should be watered into to soil with approximately one-half inch of water to give effective control.

Dr. Don Short, Extension Entomologist, has received many contacts concerning the use of Orthene for mole cricket control. He says the reports indicate it may be effective for short term control if applied at 3 to 5 pounds of active ingredient per acre. It should be applied to soil that is moist from rainfall or irrigation late in the afternoon. Orthene has a very short residual and should be used in combination with Oftanol in your control program.

With any of our contact materials (Oftanol, Mocap, Sarolex, or Orthene), we can increase the effectiveness of the pesticide if the soil is moist before application of the pesticide. The pesticides will penetrate into the soil better if it is moist and it is easier to water in after the application.

Remember, with any pesticide, read the entire label before applying the material and follow all label directions.

IFAS researchers are looking at several parasites that have been collected in South America where mole crickets are native. These include some nematodes and fungus diseases which attack mole crickets. We all should realize that our pesticides are just helping us buy some time until we can find effective, economical biological control of this pest. ■

from Florida Turf Digest, June 1986