

Friday's Feature

By

Theresa Friday

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### **New weapon in the fight against the mole cricket**

Mole crickets can be serious pests of Florida lawns, gardens and pastures. But before you panic and begin treating your lawn, let's learn about a new strategy for mole cricket control.

There are several pest species of mole crickets. We have a native mole cricket in this area, but it is rarely a pest. It's the introduced, or exotic, species that cause all the trouble. They were accidentally introduced to the southeastern United States in the early 1900's, almost certainly hitchhiking in ship's ballast.

How do you know if you have a mole cricket problem? Mole crickets feed on plant foliage and roots. In the lawn, they will eventually cause a brown or dead spot. Other common signs include narrow tunnels and small, raised mounds of soil. However, don't assume that every mound or every dead spot indicates mole crickets. Many things can cause a dead spot and small mounds can be created by earthworms. The only sure-fire way of knowing you have a mole cricket problem is to flush them out.

The best way to monitor for mole crickets is the soap flush technique. In a sprinkling can, mix two tablespoons of lemon liquid dishwashing soap in two gallons of water. Apply this solution to a 2-foot by 2-foot area where you suspect mole crickets. It's best to do this late in the day and after the lawn has been recently watered. Mole crickets are not evenly distributed throughout the turf, so repeat the soap flush in several areas of your lawn. If two to four mole crickets emerge within a few minutes, control measures are justified.

How do you get rid of mole crickets? Chemical control is possible but you must choose the right chemical and the right time to apply.

Late June or early July is considered to be the most ideal time to apply control measures based on extensive research and knowledge of the mole cricket life cycle. It's important to treat when the young mole crickets begin actively feeding in early summer. The longer you allow them to feed and grow the more difficult the task of managing them. Adults are very difficult to control because of their ability to tunnel. Tunneling allows the adults to avoid contact with many conventional pesticides.

There are a number of products on the market to control mole crickets. Look for products that contain

bifenthrin, cyfluthrin, fipronil, imidacloprid or lambda-cyhalothrin. Be sure to read and follow all label directions.

The exciting news is that non-chemical control measures are helping to win the battle against the mole cricket. Biological control agents including wasps, nematodes and flies imported from South America are now being used. They have helped to reduce mole cricket populations in the Gainesville area by 95 percent, and these biological controls are spreading throughout Florida.

One biological control agent is active in the Florida Panhandle. An imported wasp (*Larra bicolor*) attacks pest mole crickets. This solitary wasp, called the mole cricket hunter, stings the pest mole cricket and lays an egg. The wasp larva begins feeding on the mole cricket and kills it within two weeks.



The mole cricket hunter wasp sips nectar from the false shubby buttonweed plant.

Photo credit: Theresa Friday

The *Larra bicolor* wasp is currently present in 46 of Florida's 67 counties including Escambia, Santa Rosa and Okaloosa counties.

So help is here in the form of a solitary, copper and black colored wasp. Let's wish her well in the fight against the pest mole cricket.

Theresa Friday is the Environmental Horticulture Extension Agent for Santa Rosa County. The use of trade names, if used in this article, is solely for the purpose of providing specific information. It is not a guarantee, warranty, or endorsement of the product name(s) and does not signify that they are approved to the exclusion of others.

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