



UNIVERSITY OF
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IFAS EXTENSION

Friday's Feature

By

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Long lasting control of pest mole crickets is finally here

Pest mole crickets have been problems in most parts of Florida for about 100 years. The tawny, southern and shortwinged mole crickets arrived as stowaways in ships' ballast. As their populations increased and spread, they became significant pests of crops, turfgrasses, and pasture grasses.

In 1978, the University of Florida began researching mole crickets. In 1985, they began concentrating their efforts on biological control methods. Biological control is defined as the use of living organisms or their products to control pest populations. Three biological control methods were studied and released—a wasp, a fly and a nematode.

The mole cricket hunter, or *Larra bicolor* wasp, was released in the Gainesville area in 1989 and has proven to be helpful in controlling pest mole crickets.

Adult *Larra* wasps are usually seen feeding at certain types of flowers. When they are not feeding at flowers, these wasps are seldom seen. A lucky or patient observer may see a female wasp running on the ground during the brightest hours of the day. With luck, the observer will see the female wasp enter a tunnel made by a mole cricket. Shortly thereafter, a mole cricket may be seen emerging from the ground, with the wasp in pursuit. She will pounce on it, wrestle with it, and sting it on its soft underside, thus



immobilizing it for a few minutes. As the mole cricket lies immobile on the ground, the wasp lays a single egg on its underside. Once an egg has been laid, the wasp leaves the mole cricket. The mole cricket soon recovers from its temporary paralysis and burrows back into the ground. After the wasp larva hatches from the egg, it feeds externally on the mole cricket and eventually kills it.

The *Larra* wasp is not an aggressive wasp and will not harm animals or humans unless intentionally bothered. The sting of the *Larra* wasp is unpleasant, but by no means as painful as that of paper wasps or bees.

The Larra wasp was due to be released in Santa Rosa County in the fall of 2005. However, following Hurricane Dennis, the wasp showed up on its own.

In order to successfully utilize this biological method of controlling pest mole crickets you should attract them to your pasture or landscape by providing host plants that provide nectar for the adults. One such host plant is *Spermacoce verticillata*, or shrubby false buttonweed.

Shrubby false buttonweed is not commercially available. If you would like to receive a free shrubby false buttonweed plant or seeds, join us for the UF/IFAS Santa Rosa County Extension Fall Field Day on Saturday, October 14 from 8 a.m. to noon. More information is available on our Extension website at www.santarosa.fl.gov/extension/index.html.

The deliberate planting of this wildflower helps to sustain year-round Larra wasp populations in Florida. In time, as the Larra wasp populations spread, they will reduce mole cricket populations. This biological control does not have a quick “knock-down” result but it’s more permanent and is, in the end, a far cheaper method of control.

Theresa Friday is the Residential 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. For additional information about all of the county extension services and other articles of interest go to: <http://www.santarosa.fl.gov/extension>