USGA Green Section Record REGIONAL UPDATE

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Mole cricket damage – as seen in this photo – can occur quickly and has the potential to negatively impact playing conditions and increase maintenance costs.

WIN THE BATTLE WITH MOLE CRICKETS

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Mole crickets are the most devastating insect pest in the Southeast, and recently warming soil temperatures and rainfall have led to an increase in adult activity. Control can be challenging but understanding mole cricket biology and insecticide characteristics will help to improve control.

Mole Cricket Biology

The recent surge in mole cricket activity is from overwintering adults. Most of the Southeast is entering, or currently in, peak egg laying periods. Moist soils from recent rain events will likely increase egg laying activity and improve hatch success. Egg incubation periods range from two to four weeks with hatch generally coinciding with Lily of the Nile (Agapanthus spp.) flowering.

Southern mole crickets are more carnivorous than tawny mole crickets – which feed primarily on turf roots – but both tunnel extensively. Nymphs go through seven to 10 stages before becoming adults with



full development typically taking an entire season. However, warm temperature and adequate moisture expedites development. As a result, there can even be two generations of mole crickets per year in some areas of Florida. Mole crickets create more-extensive tunnels in sandy or loamy soils than heavier clays, so above-ground damage often is more severe at sites with sandy soils.

Mole Cricket Control

Small, early nymph stages that are present during early summer are easier and less expensive to control with insecticides than larger nymphs or adults found later in the year. Begin scouting for young nymphs with soap flushes approximately one week after Lily of the Nile flowers. Keep in mind that soap flushes are most effective when performed on moist soils.

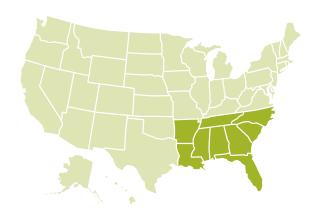
Fipronil, although costly compared to other control options, has the longest residual activity on mole crickets at 15 to 20 weeks. Consider cost of application as well as cost of product when deciding between fipronil and shorter-lived

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products. Site-specific fipronil treatments on greens and tees are common, but applications should encompass putting greens and their surrounds due to the possible repellency factor of fipronil.

Imidacloprid and bifenthrin mixtures are effective for mole cricket control. When they are tank-mixed there is a synergistic effect, offering six to 15 weeks of control. Pyrethroids should be applied with high water volumes – i.e., at least 2 gallons per 1,000 square feet – and immediately irrigated into the soil for maximum efficacy. Contact products such as trichlorfon, carbaryl and acephate have a shorter residual but can be effective. Despite only having one generation per year, mole crickets can become resistant to insecticides with detoxifying enzymes, so insecticide rotation within the same year is critical.

For more information on mole cricket biology and control, read the article, "<u>Biology and Control of Mole</u> <u>Crickets.</u>"



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