



Solution sheet

Mole Cricket

// The Problem

Mole crickets damage turf by tunneling and feeding on the plant roots, stems and leaves. Northern mole crickets (*Neocurtilla hexadactyla*) are seldom found in turf. Three other species can cause significant turf damage but their food preference is different. The southern mole cricket (*Scapteriscus borellii*) is primarily a predator feeding on small soil animals. The tawny (*Scapteriscus vicinus*) and short-winged (*Scapteriscus abbreviatus*) mole crickets are vegetarians. Fortunately mole cricket feeding is not considered as damaging as their tunneling. The size and extent of tunneling increases as the mole cricket ages. The extensive tunneling breaks up the soil around the turf roots and often produces mounds of soil that are considered unsightly by most golf course superintendents. In addition, the heavily-infested turf has virtually no root system, making it very susceptible to environmental stress and traffic damage.

What To Look For

The tawny mole cricket and the southern mole cricket are the most destructive mole crickets found in the United States. They are commonly found south of a line running from mid-North Carolina to mid-Louisiana to southeastern Texas. The short-winged mole cricket is found mainly in southeastern Florida and areas around Tampa and Fort Myers.

Life cycles of the short-winged mole cricket are not well understood, as it apparently breeds continuously with all stages present in the field at all times. The tawny and southern mole cricket produce one generation per year, except in South Florida, where the southern mole cricket has two generations. Mating and dispersal flights for mole crickets occur in the spring, starting in February and continuing through June, depending on the species. After finding a suitable site, females spend two weeks feeding and tunneling while their eggs mature. She constructs a small chamber, eventually laying the eggs below the soil surface and sealing the entrance. Eggs hatch within 20-30 days, and the young spend the summer feeding and growing. While the adults are present in the fall, there is limited mating and no egg laying until the following spring.

// The Solution

Effective control requires monitoring mole cricket activity and developing a management program according to the condition and demands of the turf, and the life stage of the mole crickets. Different management approaches might be taken in the spring (March-May), summer (June-September) and fall.

Bayer offers one of the premiere solutions for mole cricket control in fipronil, the active ingredient in Chipco® Choice, which works by both contact and ingestion.

Chipco Choice has a long soil residual and is very effective in controlling overwintering adult mole crickets and newly-hatched nymphs, as well as mole cricket populations causing unacceptable damage to turfgrass.

Merit® insecticide is very effective prior to or during the peak egg-hatch period. Tank mix Merit with a curative insecticide when applying during periods of adult and nymph activity.

Solution	Rate (per acre)	Application Notes
Chipco® Choice	12.5 - 25.0 lbs	<p>// Apply using slit-placement application equipment. Depth of the slit should be targeted at the thatch/soil interface.</p> <p>// Use higher rate against heavy insect infestations or older insect life stages.</p> <p>// Repeat application should be directed at heavy mole cricket infestations causing unacceptable turfgrass damage.</p> <p>// Do not apply more than 25 lbs of product per acre per application. Do not exceed 50 lbs of product per acre per year.</p>
Merit® 0.5 G	80.0 lbs	
Merit 2 F	1.6 pt	
Merit 75 WSP	1.6 oz (1 packet) per 8,250 sq ft	<p>Make application prior to or during the peak egg-hatch period. When adults or large nymphs are present and actively tunneling, Merit application should be accompanied by a curative insecticide to minimize turf damage.</p>



Turf injury as a result of mole cricket activity. (Bayer)



Close-up of an adult mole cricket. (Bayer)

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