

BEST MANAGEMENT PRACTICES

MOLE CRICKETS *SCAPTERISCUS SPP.*



Overview

There are 3 important turf damaging species of mole crickets, *Scapteriscus spp.*

1. Tawny mole cricket (*S. vicinus*);
2. Southern mole cricket (*S. borelli*);
3. Short-winged mole cricket, (*S. abbreviatus*) only in discrete areas of Florida

Tawny and southern mole crickets are found throughout the Coastal Southeast, as well as sandy portions of golf courses in Texas.

Bahia grass, Centipede grass, and Bermuda grass are the preferred host plants; however, St. Augustine grass can sustain severe damage from the activity of tawny mole crickets. The most consistent mole cricket damage occurs in Florida and coastal areas of the South.

The various species of mole crickets are similar in size, reaching up to 1.5 inches in length as adults. About 40 eggs are laid 3 to 12 inches below the soil surface, depending on soil moisture. Eggs hatch approximately 20 days later.

Tawny mole crickets are light honey brown, with a V-shaped dactyl spacing space in the foreleg “digger claw.” Their mating and egg-laying activity usually occurs slightly ahead of southern mole crickets.

Southern mole crickets are a duller gray/brown

color, often less robust in appearance than tawny mole crickets. There may be two pale whitish spots on each side of the prothorax and these mole crickets have a u-shaped dactyl spacing on their digger claws.

Short-winged mole crickets are flightless, having wings only 1/3 the length of the abdomen. The hind legs of the short-winged mole cricket are distinctly striped, helping to differentiate it from immature stages of tawny or southern mole crickets.

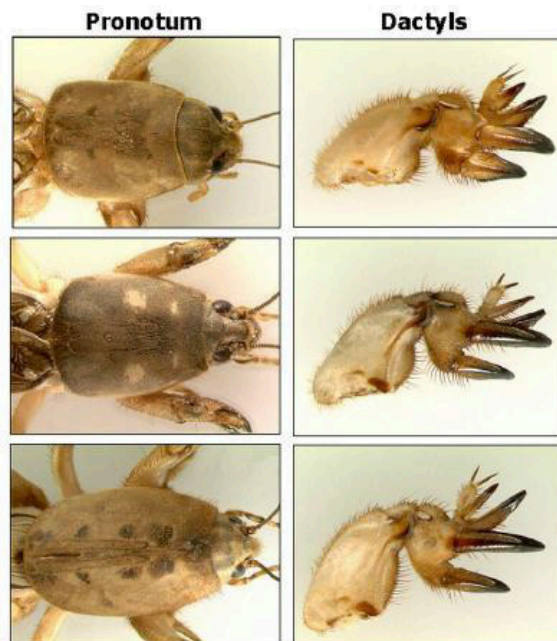
Damage

Millions of dollars in damage result from the tunneling and feeding activity of these insects on turfgrasses. Tawny and short-winged mole crickets are vegetarians, feeding on the underground and above ground portions of grass plants. Southern mole crickets are primarily predacious, feeding on earthworms and insects. Their damage to turf is mostly mechanical, resulting from tunneling activity which leads to plant desiccation.

Management

Among the most difficult turf pests to control, mole crickets can tunnel downward for several feet and escape treatment, especially during dry spells. Mating and dispersal flights can occur for several months, with adults

flying up to 6 miles to new infestation sites. Monitoring, mapping and timing are critical components in an effective mole cricket control program. Regular inspections can help to track the behavior, location, and developmental stages of the mole crickets in a certain location. Most eggs will be laid in or near the area where adult activity occurs. The optimum time period for a control program is just after peak hatch, when the nymphs are small and easier to control.

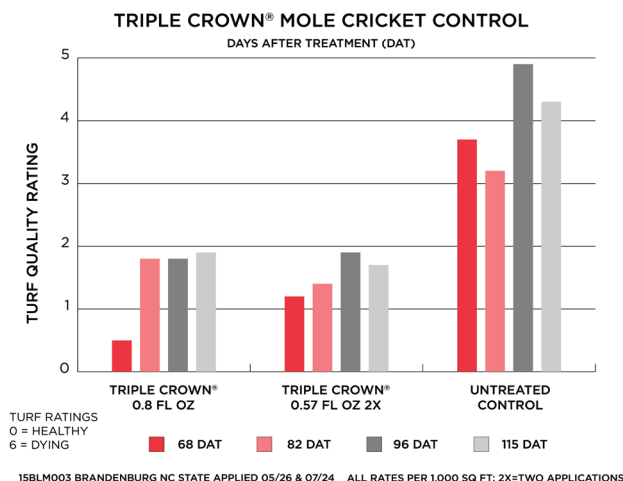


Tawny mole cricket

Southern mole cricket

Shortwinged mole cricket

Chart above courtesy of the University of Florida ENY-324 <http://edis.ifas.ufl.edu>



PREFERRED PROGRAM	TREATMENT OPTIONS
SEASON LONG (70-115 DAYS OF CONTROL)	1st app. (April-May) Apply Triple Crown T&O Insecticide or *Triple Crown® Golf Insecticide at a rate of 0.57 fl. oz. per 1,000 sq ft (25 fl. oz. per acre) 2nd app. (June-July) 60 days after 1st app., Apply Triple Crown T&O Insecticide or Triple Crown Golf Insecticide at a rate of 0.57 fl. oz. per 1,000 sq. ft. (25 fl. oz. per acre)
OVER-WINTERING NYMPHS & ADULTS (60 DAY CONTROL)	1. Apply Triple Crown T&O Insecticide or Triple Crown Golf Insecticide at a rate of 0.8 fl oz per 1,000 sq ft (35 fl. oz per acre). 2. Talstar® Xtra Granular Insecticide Featuring Verge Granule Technology can be applied at 100 pounds per acre (2.3 lb. /1,000 sq ft). Be sure to target areas that showed heavy adult activity.
PEAK EGG HATCH (60 DAY CONTROL)	1. Apply Triple Crown T&O Insecticide or Triple Crown Golf Insecticide at a rate of 0.8 fl. oz per 1,000 sq ft (35 fl. oz per acre). 2. Talstar Xtra Granular Insecticide Featuring Verge Granule Technology can be applied at 100 pounds per acre (2.3 lb. /1,000 sq ft). Be sure to target areas that showed heavy adult activity.
LATE SEASON ADULTS (60 DAY CONTROL)	1. Apply Triple Crown T&O Insecticide or Triple Crown Golf Insecticide at a rate of 0.8 fl. oz per 1,000 sq ft (35 fl. oz per acre). 2. Talstar Xtra Verge Granular Insecticide can be applied at 100 pounds per acre (2.3 lb. /1,000 sq ft). Be sure to target areas that showed heavy adult activity. 3. *Talstar® Select Insecticide or Talstar® Professional Insecticide at 20 ounces per acre (0.5 oz. /1,000 sq ft) when dispersal flights and adult activity are evident.
*Triple Crown Golf Insecticide is a restricted use product *Talstar Select Insecticide is a restricted use product	
Apply as late in the day as possible, followed by up to 1/2" of water immediately after application. The addition of a non-ionic surfactant may help increase control	
Do not exceed 50 fluid ounces of Triple Crown T&O or Triple Crown Golf Insecticide per acre per year. Do not exceed 0.4lbs a.i. of bifenthrin per acre per year	



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