

## MOLE



Common name: Eastern mole  
Scientific name: *Scalopus aquaticus*

**Biology.** Adult body length (without tail): 5 to 7 inches  
Adult body weight: 2 1/2 to 4 1/2 ounces  
Gestation period: 28 to 42 days  
Litters per year: 1  
Litter size: 2 to 5 (usually 3 to 4)  
Breeding season: February through March  
Birthing season: March through April  
Age at which young are weaned: 4 weeks  
Activity period: Anytime  
Range: 1/5 to 1/2 acre  
Primary foods: Earthworms, insect larvae, small animals in runs

**Pest status.** Moles are notorious for the damage they cause to sod nurseries, golf courses, parks, cemeteries, residential lawns, ornamental planting beds and gardens as a result of their digging and tunneling in search of turfgrass insects and earthworms upon which to feed. The eastern mole is the most common and damaging mole encountered in these habitats.

### CONTROL

**Habitat modification.** Attempts to resolve mole tunneling problems with applications of turfgrass pest insecticides often fail because moles also prey on earthworms, which may not be affected by insecticides, and because insecticide treatments may not be adequately irrigated to move the insecticide down through the thatch layer and into the root zone where most scarab beetle grubs are found.

## **Physical / Mechanical Control**

**Exclusion.** Barrier fences constructed of 1/2 inch mesh hardware cloth or sheet metal, buried to a depth of 12 to 18 inches and installed around gardens and small planting beds will protect the enclosed areas from surface tunneling but may not prevent moles from entering by way of a deep run.

## **Chemical Control**

**Toxic baits.** A metabolic toxicant, Talpirid™, has demonstrated efficacy based on field usage by a number of pest and wildlife control professionals including Rottler Pest & Lawn Solutions. This worm-mimic product is placed in the main surface runs of moles. Its placement should be marked and monitored in lawns and landscaping, to ensure efficacy of the baiting program.

**Lethal-trapping.** Rottler technicians do not employ the use of lethal traps to control moles. Two types of kill-traps are commonly available for professional use in controlling moles. Spear (a.k.a. harpoon or bayonet) traps and scissors (a.k.a. jaw) traps both work well for eliminating resident moles from a property, if properly set and maintained. Incorrectly-positioned traps will be missed or deliberately avoided by moles as they continue to move through their surface runs. If no moles are being caught in traps after several days of waiting, the traps may need to be removed and repositioned in a surface runway that is clearly active. A simple way to find out which surface runs are in use is to flatten all the runs using a lawn roller. Those which reappear within the next few days are active runs in which to set traps. Traps should be checked every 2 to 3 days.

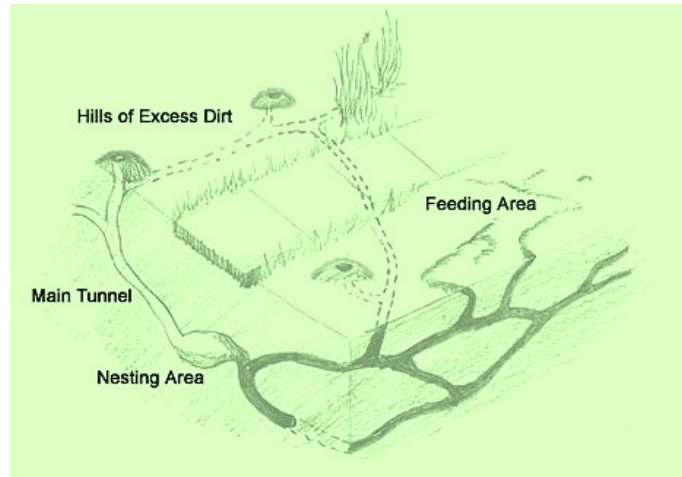
**Live-trapping.** Rottler technicians do not employ the use of pit-fall traps for control of moles. Pit-fall traps can be constructed of large coffee cans or other similar containers and buried in planting beds along frequently-used surface runs. Traps must be deep and steep-sided enough to prevent escape once moles fall into them.

**Smoke cartridges and fumigants.** Rottler technicians do not employ the use of smoke cartridges and/or fumigants for control of moles. Smoke cartridges are registered for use in controlling moles; however, this method is not always reliable because the odor-sensitive moles can quickly wall-off treated tunnels with soil and escape to other runs where the air is breathable. Furthermore, asphyxiants ventilate from dry soils quickly and may not penetrate or persist at a lethal concentration in the runways long enough to kill moles. Moist soil conditions are best suited to mole asphyxiation efforts because gasses will be retained in the runs for a longer period of time than if performed under dry conditions.

**Harassment / intimidation.** A variety of mechanical thumping devices and sonic pulse devices are marketed as being repellent to moles when installed in

lawns; however, little scientific or practical evidence exists in support of their efficacy.

Oily liquid repellents (e.g., castor oil) are commercially available for treating runways to repel moles. The result of such applications is one of temporary avoidance of treated runs by moles. They move into other areas of the lawn or landscape.



Typical mole activity in a lawn



Visit our full pest library online at [www.rottler.com/pest-library](http://www.rottler.com/pest-library)  
For more information or to speak with our on-site Certified Entomologist, contact us  
toll free at 1-877-ROTTLER or on the web at [www.rottler.com](http://www.rottler.com)