

# Moles

[*Scalopus aquaticus*]

## Description

Moles are omnivores and they may be distinguished from voles by noting certain characteristics. Moles have a hairless, pointed snout extending nearly 1/2 inch (1.3 cm) in front of the mouth. Their small eyes and opening of the ear canals are concealed in fur, there are no external ears. The forefeet are long and broad, with palms wider than they are long. The toes are webbed to the base of the claws, which are broad and depressed. The hind feet are small and narrow, with slender claws. The average length of the male and female mole is 7 inches (17.6 cm) and 6 5/8 (16.8 cm) respectively.



## General Information



The mole's diet consists of insects, grubs, and worms. They eat 70% - 100% of their body weight each day. Moles do not hibernate. They are active all year long. They live in underground burrows and rarely coming to the surface. The burrows are located in high, dry spots, but the hunting areas are soils that are cool, moist, and populated with worms and grubs. Their denning area consists of irregular chambers, which are about the size of a quart jar, connected to deep runways. An individual mole may tunnel as much as 40 - 50 feet a day. Their tunnels are easily followed since they ridge up to surface soil. They leave volcano-shaped hills that are 2 - 24 inches tall (5 - 60 cm), often made up of clods of soil. In wet weather, runways are very shallow, during a dry period they are somewhat deeper, following the course of earthworms.

The offspring may complete development in less than two months. Their appetite for soil organisms can lead to intolerable damage in high quality turf locations. Moles feed primarily on earthworms. They will also eat other organisms in the soil, including white grubs. However, white grubs by themselves probably don't create mole infestations. At the same time, treating for and controlling white grubs will probably not eliminate the mole infestation.

Mole problems seem to be on the increase. There is no clear cut explanation for the increase in moles. Small mammal populations do go through fluctuations and we may simply be on an upswing. We are also invading and clearing more habitat where the moles are already present.. Building and development in new areas may be prone to infestations of moles simply due to their presence in nature. Earthworms are a favorite food of moles and many of the more environmentally-friendly products we use may be allowing earthworm populations to flourish.

## **Control and Damage Prevention**

Management is difficult. Management of white grubs may help to a small degree as well as the use of some repellants. Trapping is difficult and labor intensive. There are no easy answers to mole management and turfgrass managers often employ the services of those who specialize in rodent control.

Methods for control and damage prevention are exclusion, cultural methods such as packing the soil, frightening, repellents, toxicants, fumigants and trapping. Methods that may be effective are: exclusion, for small areas, such as seed beds; packing the soil or reducing the soil moisture which may reduce the habitat's attractiveness; reducing their food supply by killing grubs with insecticides and trapping, which is the most successful and practical method of getting rid of moles. There are several mole traps on the market. Each, if properly handled, will give good results. The so-called mole plant or caper spurge (*Euphorbia latharis*), which is advertised to act as a mole repellent when placed throughout flowerbeds, has no known research that supports this claim. The use of castor beans, which are poisonous to humans, and electromagnetic devices are also unproven methods of mole control. There are no short cuts or magic wands when controlling moles.

Before initiating a control program for moles, be sure that they are truly out of place. Moles play an important role in the management of soil and of grubs that destroy lawns. Tunneling through the soil and shifting of soil particles permits better aeration of the soil and subsoil, carrying humus further down and bringing the subsoil nearer the surface where the elements of plant food may be made available.

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