

MOLE CONTROL IN TURFGRASS

Glenn R. Dudderar
Department of Fisheries and Wildlife
Michigan State University

The two species of moles that occur in Michigan are the eastern mole and the star-nosed mole. Although both may occur in the same place, star-nosed moles are usually found on wet sites. Moles are easily identified by their large spade-like front feet, and should not be confused with the smaller shrew or with field mice.

The presence of moles is evidenced by the uplifted soil or sod ridges immediately above their long, rambling, shallow subterranean burrows and by piles of loose earth (mole hills) created by the excavation. Although distinctive, care should be taken so as not to confuse their signs with the burrow entrances of mice and ground squirrels.

Moles are not rodents, but insectivores that feed on insect larvae and earth worms in the soil. Generally, they are beneficial because of the insects they destroy and because their burrows help aerate and irrigate the soil. However, when these burrows cause valuable turf to die or interfere with maintenance and use, mole control often becomes desirable.

Because of various factors, no control technique is universally applicable. Therefore, the readers will have to choose the most appropriate alternative.

Rolling - The rolling of turfgrass somewhat discourages mole activity. If done in the late evening, rolling may destroy moles as they burrow.

Trapping - Special mole traps are available from most feed and seed or garden supply stores. Because moles use travel burrows daily and foraging burrows only once, traps must be set on the travel burrows. Locate travel burrows by mashing down ridges; travel burrows will be uplifted within 24 hours. Set traps at these points. Since harpoon type traps do not always kill moles, it is important to check to see if the mole is dead before removing sprung traps.

Reduction of Food Supply - The application of chlordane to turf will eliminate the soil organisms that mole feed on, thus forcing the moles to leave or causing them to starve. However, before using chlordane, consider that it is peculiarly toxic to cats, may harm ground feeding birds, and destroys valuable soil organisms such as earthworms. Read label and heed all precautions.

Application rates:

10% granules - 2 lbs per 1000 sq. ft.

75% emul. sol. - 4 oz. in 25 gal. per 1000 sq. ft.

Burrow Fumigants - The following mole burrow fumigants are registered with EPA for use. However, user must check if these materials are registered for use against moles in Michigan before making purchase and application. Read label and heed all precautions.

ethylene dibromide - 100% liquid - Locate active travel burrows and place capsule every 5 to 10 ft. in burrow. Cover lightly with soil. Water turf if dry.

gas cartridges - Place ignited cartridges in active burrows every 10 feet. Cover opening but do not bury cartridge.