

Managing Moles

Introduction

Moles are insectivores, eating earthworms, grubs, beetles, and insect larvae. Occasionally they may sample bulbs, root crops, and sprouting seeds, but there is disagreement among scientists on this point.

Moles live in moist, fertile, highly organic soil. They spend most of their time in underground runways, causing low ridges to form. Mole runways form a vast interconnecting network. The telltale “mole hill” is a round and symmetrical pile of dirt pushed up to the surface where moles actively excavate. The number of mounds may not be an indication of how many moles are in the area. A single mole actively invading a new area may build 3 to 4 new mounds daily, and it can produce 30 to 60 mounds in one month. Moles are also quite territorial and defend their territory from other moles. So you probably have a lot fewer moles than you think.

Moles cause damage by undermining plants with their tunnels. This creates problems keeping plant roots moist, especially in a vegetable garden. Mole tunnels also create access points for voles (also known as meadow mice) which eat most of the plant material for which the moles get blamed. Finally, many homeowners find the mounds very unsightly, especially in lawns. Tunnels may persist in clay soils for a number of years but when they collapse, the lawn area can become very uneven.

Moles require large quantities of food and may travel up to half a mile a day to find food. Their mobile habit makes controlling them difficult.

Some Considerations before Acting

- How certain are you of moles being the nuisance animal?
- How much damage may occur without any control?
- What are the benefits of control? What is the cost of damage?
- How might your action affect other animals? Humans?

Options for Control

- Extermination is challenging and takes time; removing moles from your garden does not keep the neighbor’s moles from moving in. If you are desperate for results, consider setting traps. Many other options exist but none offers consistent results. Beware of many products that claim to “repel” – none has been proven to work. If you choose to use chemicals, be sure to follow instructions on the label because the label is the law.
- Exclusion: It is possible to attach wire mesh under wooden-sided raised beds to prevent moles from getting into the beds. Use one-quarter inch galvanized mesh and secure it well to the bottom of the bed frame.

- If you choose traps, take time to locate an active tunnel. Locate active tunnels by stomping down mole hills in the day. Check the next morning for new hills, which indicate active tunnels immediately under. Probe 6-18 inches from the center of the mole hill for tunnels; a long screwdriver or steel rod will suffice. If the probe suddenly drops a couple of inches, you have found a tunnel. Probe again to map out the runway. *Controlling Moles* offers useful details and is free online at <http://extension.oregonstate.edu/catalog>. Once you locate the runway, cut out a section of soil down to the floor of the tunnel. Take care to match the width of your section with the width of the trap. Place the trap by following manufacturer's instructions. Cover the trap location with a bucket and heavy concrete block to avoid accidental injury. The average mole has a territory of ¼ acre. If the trap does not show result in a few days, move it to another active location.
- Moles are sensitive to concussion. Smacking a shovel on the ground near a working mole may stun or kill it. You have to have a lot of patience and good hand-eye coordination.
- Fumigation with lethal gases is rarely successful with moles.
- Poison bait formulations are currently available. Newer baits delivered in an earthworm shaped carrier may be the most effective but no bait has been consistently effective. Be sure to read and follow all poison bait label instructions very carefully. Moles can push baits from the tunnel out onto the surface. Always cover the bait location with a bucket and heavy block and plug the tunnel opening with a rock if possible. Baits pushed to the surface can injure other animals, pets, or children.
- Some techniques that rarely work include flooding runways, poking sharp object down runways, planting "mole plants", using "sonic" repellents, or baiting with gum.

Resources

Go to <http://extension.oregonstate.edu/catalog> for Oregon State University Extension publications
Controlling Moles EC 987
Sustainable Gardening Handbook EM 8742

Master Gardener™ advice

- Call Home Horticulture Helpline: 503-655-8631 (Clackamas County), 503-821-1150 (Washington County), or 503-445-4608 (Multnomah County).
- For 10-Minute University™ handouts and class schedule, visit www.metromastergardeners.org.
- Look for Master Gardeners at area Farmers' Markets.

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