

Townsend's mole is the creature most commonly found in Northwest lawns, flowerbeds, and fields. It generally has a long, pointed snout, a short tail, inconspicuous eyes, and rounded, outturned front paws with stout claws.

Moles spend their lives almost entirely underground, emerging infrequently at night. They are most active in the late evening and early morning hours. The amount of tunneling and/or mounding activity you notice is not indicative of population size. Moles generally create two types of "runs." Their permanent "active" runs are usually deep and unapparent. They often run along sidewalks and driveways or underneath fences or pipelines. "Feeding" runs are the ones usually noticed. They are usually at or just below the surface of the soil, where the moles' food—soil-dwelling insects, grubs, slugs, larvae, and earthworms—live. Moles thrive best in loose, uncompacted soils where they can use their front claws to "swim" through the earth.

Contrary to popular opinion, moles do not eat much vegetation. Most damage to plants in an area is either caused by plant-eating rodents using the mole runs, or by plants being lifted and disturbed as moles tunnel by their roots. Note that moles do perform the beneficial functions of mixing and aerating soil and eating grubs and slugs; they're not all bad. When we see a molehill in our nice lawn, however, we tend to forget moles' good points.

Mole populations can be controlled by reducing their food sources, by using barriers or repellents, or by using poison to kill them or traps to capture or kill them.

Controlling moles' food source requires applying some form of insecticide applied to the ground. This is sort of the nuclear option in that these products do not distinguish between desirable and undesirable insects. In other words, you'd kill all soil-dwelling insects—good, bad, or indifferent.

A mole-stopping barrier would consist of an underground fence built of heavy duty hardware cloth or root barrier or a trench filled with compacted gravel. A barrier fence should extend into the soil a minimum of 18-24". If using hardware cloth, it should go down that deep and then extend out at a 90° angle (away from the protected area) another 12". All connections and joints must be solid with no gaps. Alternatively, dig a 12" wide, 24-36" deep trench. Fill it with 5/8" minus gravel and compact it heavily to create an area moles can't dig through.

Repellants can be electronic or vapor-based. Electronic mole repellers (like the Sonic Spike) work by emitting high frequency ultrasound into the soil. A mole's ears, although hidden, are extremely sensitive. The high frequency sound is not only uncomfortable, it also disrupts the mole's ability to locate food. Vapor-based ones introduce natural substances into the mole runs that the moles find distasteful. Repellents used include castor bean oil, capsaicin (hot pepper extract) or concentrated garlic oil.

Strategically, when using repellants, think of the space you're protecting like a big, three-ring target. Treat the bulls-eye first. Then in ten days to two weeks, treat the middle third. Finally, after another ten days to two weeks, treat the outer third. If you try to treat the whole area at one time, the mole will not know where to go and will just stay put.

Poison baits are exactly what they sound like: poison. The active ingredient is usually Warfarin or zinc phosphide. They are non-selective. This means that anything that eats the bait will be affected (including wildlife, companion animals, or people). Moreover, if a mole killed by those poisons is eaten by another animal, the second animal may become sick or even die. The other type of poison used against moles is a gas bomb. It uses a combination of sodium nitrate, sulfur, and charcoal to suffocate the mole. It is lit and placed in an open run, and then the run is sealed. Gassers work best over small areas. They are less effective over large areas or in very sandy soils.

The last way to eliminate moles is to trap them. Initiative 713, passed in 2000, banned most body-hold style traps. Mole traps, like rat- and mousetraps, were supposed to be exempt, however that exemption was not written into the initiative as passed. It is therefore legal to sell, buy, or possess body-hold style mole traps, but not to capture a mole with them. Homeowners are advised to use their own discretion in using these or any products. Sky also stocks the Molecat, a legal “trap” which uses shockwaves to kill the moles. Traps would be set in “active” runs at least 12-18” away from intersections or mounds. Follow the instructions to set the trap. Make sure no part of the trap is exposed in the tunnel, and put an upside down bucket or box over the trap (so it won’t be disturbed, and to block out light). Check traps daily. If there is no activity within 2-3 days, relocate the trap.

You can also live trap moles by making a “pit” style trap. Again, find an active run. Dig a hole deep enough to accept a #10 can (a 3 pound coffee can, or ask a restaurant for an empty #10 can). The top of the can should be flush with the floor of the run. When the mole falls into the can, it will be unable to get itself out. You can then carefully remove the mole (wear very heavy gloves) and relocate it. (You could make this a lethal trap by filling it 2/3 full of water.)

#### **Mole control products available at Sky:**

##### **Repellants (least toxic form of control):**

- Sonic Spikes – Solar or battery powered ultrasonic device
- Bonide MoleMax – Castor oil, available as granules or liquid
- Mole Scram- Castor oil granules
- Repellex Systemic Tablets- Capsaicin (hot pepper)
- Plant ProTec Repellent Spikes- Garlic Oil

##### **Insecticides (eliminate soil-dwelling insects, moles’ primary food source) :**

- Bonide Grub Beater – Imidacloprid
- Bayer Season Long Grub Control – Imidacloprid
- Bayer Complete Insect Killer – Imidacloprid and  $\beta$ -cyfluthrin
- Garden Tech Sevin Insect Granules – Carbaryl

##### **Poison Baits and Gassers:**

- Moletox - Warfarin baited gel
- Moletox II - Zinc phosphide baited gel
- Sweeney’s Moleworms- Bromethalin
- Sweeney’s Poison Peanuts- Zinc phosphide
- Giant Destroyer – Gasser

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