

Brad Tipton

Extension Educator, Ag/4-H Youth Development & C.E.D
Canadian County OSU Extension Office
Phone 262-0155, Fax 262-2267
e-mail: brad.tipton@okstate.edu

Mole Control

In order to be effective in controlling moles it helps to know a little about mole biology. Even though little information exists in the area of mole biology, the information that is known can prove useful in combating moles in yards and gardens.

Two main reasons that there is not volumes of information on moles is that moles don't live well in captivity while being studied and are hard to observe in nature because of their underground habitat. What is known is that moles are from the family Talpidae and that in North America there are six kinds of moles. The most common is the eastern mole also called the common or grey mole.

All moles live in underground burrows with volcanic shaped plow-outs, have large broad feet and are solitary animals. Moles are insectivores and seem to prefer earthworms when available, but will eat white grubs and other insects.

Moles usually pick up their food and orient it to be eaten headfirst. Moles have special nerve endings in their nose and tail, which are very sensitive to any vibrations. These vibration sensors and the prey's scent allow moles to detect earthworms and white grubs crawling several feet away through solid soil.

Moles rarely consume plants or plant roots. Damage of this type is more often attributed to voles, white-footed or house mice that occasionally utilize mole tunnels. Moles are extremely territorial and will not voluntarily leave a productive feeding area.

A mole will consume between 70 to 100 percent of their body weight in insects per day. In addition, moles have an extremely high metabolism and complete digestion of food takes only about 90 minutes.

Moles can dig at about 18 feet per hour and can move through an existing tunnel at a speed of 80 feet per minute. To help moles exist in their low oxygen, underground environment they have twice as much blood and red hemoglobin as other mammals of similar size. This allows moles to be able to deal with the low oxygen and high carbon dioxide environment inside tunnels.

Controlling moles begins with control of white grubs. Products like imidacloprid (Merit) and halofenozide (GrubX or Mach 2) are long lasting preventative treatments but must be applied prior to grub hatch in July. After grubs hatch, trichlorfon (Dylox) and carbaryl (Sevin) would be the choices for chemical control. Always read and follow the label directions on any grub control products.

Trapping is another reliable method to control moles. Trapping can be done anytime of the year, however, spring is a very productive time to trap moles as the females are pregnant and the next generation can be controlled as well. Early fall is good for trapping before moles move into deeper tunnels for winter hibernation.

Mole traps work because moles usually try to reopen any blocked tunnels. As the mole clears a tunnel, it pushes soil upward which triggers a lever that releases a spring loaded harpoon or crushing device.

The third and final method of controlling moles is a new product called Talpid. It is advertised as the only product submitted to EPA with "laboratory efficacy tests" on moles. The product is designed to resemble an earthworm and is anatomically correct, with scent similar to that of a real earthworm.

Talpid's active ingredient is Bromethalin, which is a fast acting chemical that works in the moles digestive track. Once again, read the label of this product carefully before using it to kill moles. Folks having mole problems should use one of these three methods before resorting to home remedies that are usually a waste of valuable time and money.

Oklahoma Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, or veteran status and is an equal opportunity employer. The information given herein is for educational

purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Oklahoma Cooperative Extension Service is implied.