## **Moles Are Busy Tilling Up the Soil**

## **AGRI-VIEWS**

by Chuck Otte, Geary County Extension Agent

If you live in a house in this part of Kansas, and have a lawn or a garden that you take care of, you have, or you eventually will, have to deal with moles. I lived in my house for over 20 years and never saw evidence of a mole. I was to the point that I thought that the heavy clay soil and rocks would pretty well keep moles out of my yard. Then one morning, my thoughts of moles went from theoretical, to personal!

Moles are a native insectivore (they eat insects) in Kansas. It is not a rodent and is more closely related to shrews and bats, which are also insectivores. Moles live in the ground, rarely coming above ground and never leaving a surface opening into their tunnel system. They are primarily loners. Young moles, usually four per litter, one litter a year, are born in late March and early April. At this time the mother is busy caring for them and her food consumption is very high. The young are totally dependent on their mother for the first three weeks, and stay pretty close to Mom for the next month to six weeks. By early summer they have left and are out trying to find their own territories.

Moles have to eat a lot to survive. Estimates place daily food requirements at one half to three fourths their body weight every day. With an adult mole weight two to four ounces, that's a lot of insects. Moles literally swim through the soil waiting for their sensitive snout to touch anything that moves. If their snout touches an insect, worm, anything insect like that moves, they bite down on it and try to eat it. This motion detection system works very well for them and explains why poison baits, which just lay there and do nothing, don't work very well.

Moles have two types of tunnels. Feeding tunnels are close to the surface and are frequently used just once, sort of like a one trip buffet line. These tunnels raise up the soil surface noticeably and cause the infamous spongy feel that you get when you walk across them. These tunnels are made by just pushing up the soil from just below the surface. These tunnels connect to deeper permanent tunnels that have to excavated. They deal with the excavated soil by pushing it up to the surface. These soil piles literally look like they were just pushed up from below in contrast to the pocket gopher soil piles that look like piles of finely granulated dirt. Gophers are also native to our area, they are plant eaters and in comparison to moles, are very easy to trap or poison.

I've already hinted that poison baits are ineffective on moles. Don't waste your money. Also ineffective are noise making devices including electronic noise making devices. They just don't work. Placing chewing gum in the tunnel doesn't work. Spraying castor oil on the soil surface doesn't work. Do you see a trend here? Trapping can work but it takes dedication and patience. We have a good bulletin that describes how to go about trapping moles. You can sometimes obtain results by treating for soil insects, but if you are next to a pasture or wooded area, they'll probably still make forays into your yard looking for food. A few people have had success by flooding them out with a full open hose in a fresh tunnel.

Ultimately, the easiest approach is to let them eat up the food supply and leave. Keep stomping the tunnels down to eliminate air pockets around plant roots that can damage plants. Of course, then there's the pitchfork and lawn chair method.... but that's a story for another day.