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How to Trap a Pocket Gopher

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Trapping pocket gophers represents an investment in equipment and commitment to see the effort through to its conclusion. This fact, and the difficulties some people experience in obtaining initial success, may be why people are reluctant to use trapping in an integrated pocket gopher management effort. Trapping may be used as a primary or a secondary method of control when employing an integrated management approach for small and larger areas.

Trapping requires locating an active pocket gopher tunnel, excavating the tunnel, making and checking the set. If you follow a few basic guidelines and allow yourself some time to gain experience, you will succeed and learn trapping pocket gophers is not that difficult. If you stick with it and develop proficiency, you may expect about 90% efficacy. This does not mean you should expect nine pocket gophers trapped for every ten sets. Research indicates properly conducted trapping reduces a pocket gopher population by about 90% in the area where trapping occurs. Results may vary greatly depending on environmental conditions and individual trapper abilities. A set is placement of one or more traps at a single location in the tunnel system.

Equipment

Trapping requires gathering basic equipment to make your time spent trapping efficient (Figure 1).

Figure 1. Basic pocket gopher trapping equipment includes gloves, shovel, tunnel probe, narrow trowel (soil knife), traps with tethers attached and stakes (surveyor's flags, rebar or other material).

Start with two or four traps to begin learning. If you are starting to trap in an agricultural field greater than three acres, you may wish to invest in between six and 12 traps. Attach a wire to the traps to act as a tether for staking. Bailing wire works well or you can use aluminum cable. Any of the commercially available pocket gopher traps will catch their intended target (Table 1); the best trap is the one you prefer. Surveyor's (pin) flags work well as stakes. Sometimes marauding cats, skunks, raccoons and other animals may take your trap to a safe place to eat the trapped pocket gopher. When this happens, use a heavier type of stake, such as the rebar stake seen in Figure 1 to prevent further loss. A 12 inch or longer Phillips head screwdriver

makes a great readymade probe, or use a length of 1/4 inch cold roll or similar by bending a loop in one end to protect your hand while probing. Avoid rebar, fiberglass or wood as material for probes. A soil knife or narrow trowel are useful in excavating tunnels without widening them excessively. For example, the soil knife in Figure 1 is 1 3/4 inches wide. A shovel is useful for quickly accessing the main tunnel once located with the probe. Finally, include a pair of gloves to protect your hands.

Table 1. Some commercially available pocket gopher traps and their approximate prices.

Types of Trap	Approximate Cost per Trap (USD)
DK-1	5.50
Victor	6.00
Gophinator	7.00
Macabee	7.50
Sweeney's	8.00
Victor Easy Set	8.50
DK-2 Getter Box	12.50
Gonzo Dead End	13.00
Cinch (3 sizes available)	17.00
Original Black Hole	17.00
Victor The Black Box	24.00
GopherHawk	25.00

Steps

1) Work from a fresh mound.

Start by working from a fresh mound. Working from a fresh mound increases the chances the tunnel is active and not backfilled. Pocket gophers backfill tunnels with excavate from new tunnel additions and may reopen them later if it serves their needs. Applying any control method in a backfilled tunnel will not be effective.

Begin by leveling all the mounds in the area you wish to trap. During the growing season, you should be able to go back the next day and locate fresh mounds to set traps. Outside of the growing season, pocket gopher surface activity decreases and it may take several days, to more than a week, for a fresh mound to appear. Depending on the number, use your feet, a rake or a box scraper to level mounds (Figure 2). Because Pocket gophers are territorial, leveling mounds helps you understand how many pocket gophers may be present. This step is one that people like to skip, but in the end it will save you time if you level mounds before starting, and while trapping.

Figure 2. A rake is one way to level mounds.

The tunnel plug is very easy to identify on a fresh mound (Figure 3), which aids in finding the tunnel. In addition, working from a fresh mound increases the probability a pocket gopher is near. The plug is deposited soil that seals the tunnel opening.

Figure 3. The plug in the tunnel terminus is easily identified on a fresh mound.

Locating the tunnel is necessary to make a trap set. There are two types of tunnels. The lateral tunnel runs from the mound to the main tunnel. Lateral tunnels are usually no more that about 18 inches long before intersecting with the main tunnel. The main tunnel is a long tunnel with multiple lateral tunnels branching from it. There

are two types of sets. The mound set places a trap in the lateral tunnel and the main tunnel set places two traps in the main tunnel. Using a probe is a fast and efficient approach to finding the tunnels.

The probe point should be slightly blunt to ensure positive feedback when it hits the bottom of the tunnel. Envision pushing the probe into the soil at a constant pressure and hitting the void of the tunnel, with a sudden drop and stop. A sharp point or thin blade may not provide as positive of feedback. In addition, with experience a blunt tip assists in feeling if the tunnel is backfilled with soil or open.

Start probing near the tunnel plug, about two to four inches, and move at similar intervals along the lateral tunnel until you no longer feel the tunnel (Figure 4). Return to the last known location of the lateral tunnel and probe in a perpendicular direction to validate you are in the main tunnel.

Illustrations courtesy of the University of California Cooperative Extension

Figure 4. Start probing near the tunnel plug and probe until you no longer find the tunnel. Move back to the last known spot and probe perpendicular to the lateral tunnel line; this will be the main tunnel.

When making a main tunnel set, use a shovel to dig up the intersection of the lateral tunnel and main tunnel. A main tunnel set requires two traps; one set in each direction, as you do not know from which way the pocket gopher will approach. Clear out a small amount of soil at each of the tunnel openings with a narrow trowel before placing the traps. Place the traps all the way into the tunnel and push down gently to seat the trap. Keep the tunnel narrow so the trap just fits into the tunnel. Mound sets require only one trap and do not require locating the main tunnel. However, the method of trap placement is the same and expect to use each of the sets based on circumstances.

To make a mound set, carefully excavate the plug in the mound. Run the probe through the center of the plug to understand the angle at which the tunnel descends. Place the probe in the direction and angle of the lateral tunnel as a guide to plug excavation (Figure 5). Plugs are typically about five inches thick. If you are not through the plug at about eight inches, the tunnel is probably backfilled. Move to the next closest mound, and start again.

Figure 5. Place the probe (arrow) to indicate direction and angle of lateral tunnel.

Once you have excavated the plug you may place the trap, stake it and move to the next set. When placing the trap, hold the frame of the trap with your thumb and ring fingers and keep your index and middle finger behind the pan to prevent it from firing (Figure 6).

2) **Tunnel no wider than the jaws of a set trap**.
The jaws of a set trap should touch or nearly touch the walls of the tunnel. This ensures the pocket gopher must go over the trap as they try to reseal the tunnel you left open. Jaw widths of set traps range from about 2 1/2 to 3 inches across (Figure 7). The more the tunnel width exceeds the jaw width of a set trap, the greater the chance for a miss or finding the trap buried.

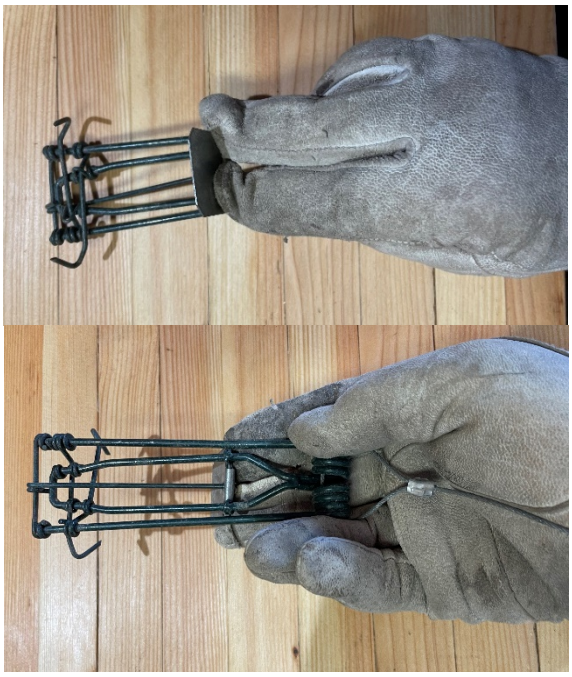

Figure 6. Hold the trap to keep the pan from firing while placing the trap.

Leaving the set open allows light and fresh air into the tunnel and alerts the pocket gopher to the tunnel breach. When the pocket gopher comes to reseal the tunnel opening, it is caught. Pocket gophers are susceptible to trap shyness and learn quickly from our mistakes, so take the time to ensure proper trap placement. In addition, having a couple of different types of traps will aid in making sets and capturing trap-shy pocket gophers. Cover sets if children, pets or livestock are in the area. Use 3/4 inch plywood as a cover when trapping in horse pastures. Pack dirt around the edges of the cover to stabilize it and seal out light and air.

Figure 7. Jaw widths of set traps range from about 2 1/2 to 3 inches across or about the average size of a pocket gopher tunnel.

3) **Trap all the way in the tunnel.**
Traps should be in far enough into the tunnel to capture the pocket gopher as it approaches the tunnel breach (Figure 8). Traps only need to be about 1/4 to 1/2 inch past the red-dashed sightlines depicted in Figure 8. Notice the trap on the far right in Figure 8 is not in far enough and may lead to the traps being buried.

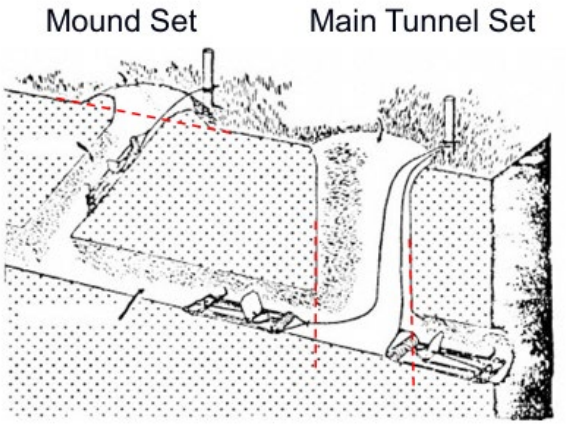

Figure 8. Traps should be placed far enough in the tunnel so the pocket gopher must go over the trap to reseal the tunnel breach.

4) **Bed the trap.**
While making the final placement of the trap, apply gentle pressure on the frame of the trap so that it seats in the loose soil underneath it (Figure 9). Make sure the trap beds in line (parallel) with the tunnel floor, applying too much pressure at the rear of the trap may raise the front of the trap making it ineffectual. Bedding keeps the trap stable.

Figure 9. Place gentle downward and forward pressure to seat the trap in the loose soil below.

Summary

If you work from a fresh mound, keep the tunnel tight to the trap jaws, place the trap all the way in the tunnel and seat the trap to limit movement, you are well on your way to success. Make sure to stake your traps with a pin flag or rebar or wooden stake. If you check a trap and it is a miss or untouched after 24 hours, pull your set and move it to the next closest mound. Following these general guidelines and adapting your approach to suit your preference will improve success when trapping pocket gophers.

Be safe and stay healthy!