

Understanding Burrowing Pest Eradication

As you will see when you read the following pages about garden pests, both ground squirrels and gophers are burrowing pests, but with two distinct differences.

Typically, a gopher will stay in its burrow and if it should venture out, it is never far from the hole. On the other hand, although a ground squirrel lives in its burrow, you will see it out and about at various times during the day gathering food.

This is what makes the ground squirrel more difficult to exterminate than the gopher. Because the squirrel is not in the burrow system at all times. You may destroy a tunnel area; however the animal may or may not be in the tunnel. Because of this, it may require more than one visit to eradicate all of the ground squirrel infestation. Gophers on the other hand are most likely to be in their tunnel system at all times during the day making them somewhat easier to eradicate.

However, both species have developed a keen sense of survival and are wary of various enemies (including man), which has made the task of eradication more difficult. While you will do your best to be 100% successful, understand that we are dealing with live animals who have mastered a sense of survival so eradication may take multiple attempts. This is why we suggest when dealing with ground squirrels or other rodents that are often out of their burrow system you cover up all of the burrow entrances first and then come back the next day to begin eradication. This way you will only be dealing with burrows that are currently being used and after eradication, recover these burrows up with dirt. Returning the next day will reveal the percentage of success. While you will be normally 85% to 90% successful on your attempt at eradication, returning later and reapplying the CO₂ gas will dramatically increase your success rate. Understand that even if you only get 95% of the eradication to be successful this will make your property much better off than when you initially started the process.

This following holds true for all borrowing rodents:

According to the University of California documents attached:

"For those who live next to wildlands or other areas where squirrels are common, an ongoing control program will be necessary, since squirrels will reinvade over time."

Pests in Gardens & Landscapes – Ground Squirrels & Gophers

GROUND SQUIRRELS

Ground squirrels are troublesome pests for homeowners and gardeners and they live in a wide variety of natural habitats. However, they usually avoid thick chaparral, dense woods and wet areas. Populations can be particularly high in grazed rangelands and in areas disturbed by humans, such as road or ditch banks, fencerows, around buildings and in, or bordering, many crops.

Ground squirrels damage many food-bearing and ornamental plants. Particularly vulnerable, are grains as well as nut and fruit trees such as almond, apple, apricot, orange, peach, pistachio, prune, and walnut. Ground squirrels will enter gardens and devour vegetables in the seedling stage. They can damage young shrubs, vines, and trees by gnawing bark, girdling trunks (the process of completely removing a strip of bark from a tree's outer circumference), eating twigs and leaves and burrowing around roots.

Ground squirrels will gnaw on plastic sprinkler heads and irrigation lines. They will also eat the eggs of ground-nesting birds and can limit attempts to attract quail to the yard.

Burrowing can be quite destructive. Burrows and mounds make it difficult to mow and they present hazards to machinery, pedestrians and livestock. Burrows around trees and shrubs can damage and desiccate (dry out) roots and sometimes can topple trees. Burrowing beneath buildings and other structures will sometimes produce damage that can necessitate costly repairs.

Ground squirrels can harbor diseases harmful to humans, particularly when squirrel populations are numerous. A major concern is bubonic plague transmitted to humans by fleas that the squirrels carry. Ground squirrels are quite susceptible to these plagues, which have wiped out entire colonies.

If you find unusual numbers of squirrels or other rodents dead for no apparent reason – Notify public health officials immediately. Do not handle dead squirrels under these circumstances.

For those who live next to wildlands or other areas where squirrels are common, an ongoing control program will be necessary, since squirrels will reinvade over time.

Once you have controlled ground squirrels, periodically monitor the area for reinfestation. Check for new burrows and start control actions as soon as you notice any new arrivals, as it is easier and less expensive to control a small population.

Source: *University of California Agriculture & Natural Resources: UC – IPM Online – Statewide Integrated Pest Management Program*

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GOPHERS

Pocket gophers, often called gophers, are burrowing rodents that get their name from the fur-lined, external cheek pouches (pockets) they use to carry food and nesting materials. Pocket gophers are well equipped for a digging, tunneling lifestyle: With their powerfully built forequarters; large-clawed front paws; fine, short fur that doesn't cake in wet soils; small eyes and ears; and highly sensitive facial whiskers that assist with moving about in the dark.

Pocket gophers live in a burrow system that can cover an area that is 200 to 2,000 square feet. The burrows are usually about 2-1/2 to 3-1/2 inches in diameter. Feeding burrows usually are 6 to 12 inches below ground and the nest and food storage chamber can be as deep as 6 feet. Gophers seal the openings to the burrow system with earthen plugs. Short, sloping lateral tunnels connect the main burrow system to the surface. Gophers create these tunnels while pushing dirt to the surface to construct the main tunnel.

Gophers do not hibernate and are active year round, although you might not see any fresh mounding. They also can be active at all hours of the day.

Pocket gophers often will invade yards and gardens, feeding on many garden crops, ornamental plants, vines, shrubs and trees. A single gopher moving down a garden row can inflict considerable damage in a very short time. Gophers also gnaw and damage plastic water lines and lawn sprinkler systems. Their tunnels can divert and carry off irrigation water, which may cause soil erosion. Mounds on lawns may also interfere with mowing equipment and can ruin the aesthetic appeal of well kept turf grass.

Gophers usually live alone within their burrow system, except when females are caring for their young or during breeding season. Gopher densities can be as high as 60 or more per acre in irrigated alfalfa fields or in vineyards. Gophers reach sexual maturity at about 1 year of age and can live up to 3 years. In non-irrigated areas, breeding usually occurs in late winter or early spring, resulting in 1 litter per year. In irrigated sites, gophers may produce up to 3 litters per year. Gopher litters usually average 5 to 6 young.

Pocket gophers are herbivorous and feed on a wide variety of vegetation, but generally prefer herbaceous plants, shrubs and trees. Gophers use their sense of smell to locate food. Most commonly, they feed on roots and the fleshy portions of the plants they encounter while digging. However, they sometimes feed aboveground, venturing only a body length or so from their tunnel opening. Burrow openings used in this manner are called "feed holes." You can identify them by the absence of a dirt mound and by a circular band of clipped vegetation around the hole. Gophers also will pull entire plants into their tunnel from below.

**Source: *University of California Agriculture & Natural Resources;
UC – IPM Online – Statewide Integrated Pest Management Program***