

GOPHERS: NOT MAN'S BEST FRIEND

"My enemy, my foe, is an animal. In order to conquer the animal, I have to learn to think like an animal."

Groundskeeper Carl Spackler (Bill Murray) in [Caddyshack \(1980\)](#).

If you think gophers are cute and cuddly and fun to watch then this article is not for you; *Caddyshack* is only funny if a gopher is not yanking down plants in your plot.

Since joining Ocean View Farms in 1996, this is the very first time we have seen a gopher mound in our Upper Phase I plot. Gophers have been caught in the garden long before now but this may be the beginning of a problem at a whole new level of hurt. Gopher mounds can be seen just inside the Phase IV gate, in the parking area above Phase I, and above Phase III by Gate 7. Gophers have already been trapped in Upper Phase I and there are reports of gopher incursions into Lower Phase I as well.

This is probably due to a string of unfortunate events. Recall how much rain we had last year before the pandemic shut everything down. The vegetation was left to go wild in the areas surrounding the Little League diamonds and the unexploited area north of Phase IV. As a consequence, an increased food source for the gophers was created in moist soil that was easier for them to tunnel through [1][see citations below]. Add decreased human activity and, voilà, the perfect environment for a population explosion. Two additional events followed: a drought set in [2] which reduced the juicy roots they prefer to eat [1] and then, all those fields were weed-whacked to nubs this past May by the Department of Parks and Recreation destroying what little food sources were left.

Environmental conditions are now pushing gophers into other areas where food and moisture is available notably the juicy roots in the Little League outfields and our plots. If you want to see where the gopher population used to live, walk around any of the areas shaded red in the image below. Look for soil disturbance from their abandoned mounds. The affected area extends out to Grand View Blvd. Many of the plants OVF helped install there in 2006 have been decimated! It is particularly bad around the outfield fence of the large Little League diamond by Phase IV. Some areas do not have a square foot of soil that has not been disturbed. One garden member commented it reminded him of the minefields he had seen in Laos.

Gopher infested areas shaded in red



Gophers damage more than plants. During a recent Community Workday a crew was designated to clean out dirt in the water shutoff valve for Upper Phase I near Gate 2. Garden Master Ed Mosman said this dirt came from a gopher using the void to deposit backfill from its tunnel. Not surprising since a single gopher can move 2 ¼ tons of soil per year [3].

Phase 1 Shutoff Valve inside Gate 2



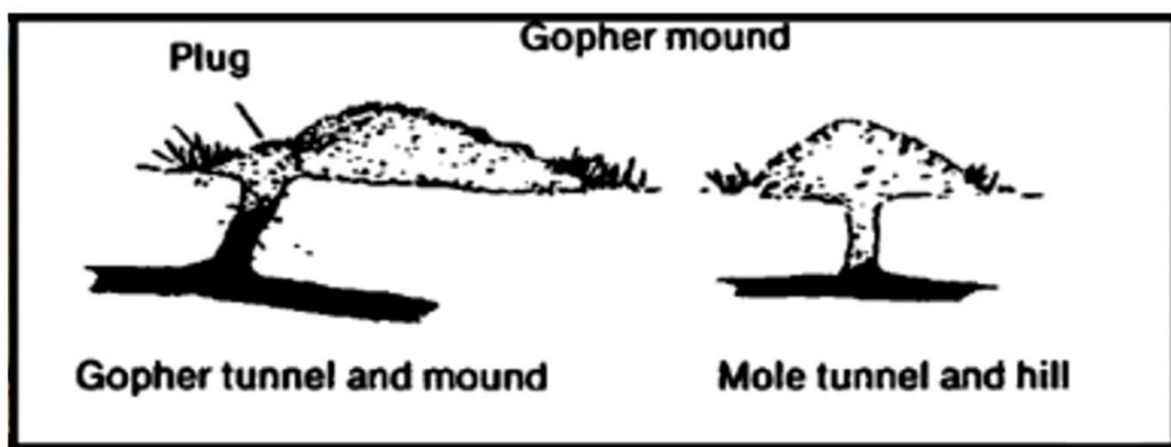
Phase 1 Shutoff Valve with Gopher backfill



Get to know your critter.

The most likely culprit is the VALLEY or BOTTA'S POCKET GOPHER (*Thomomys bottae*). This is a small rodent 5 to 7 inches long [4] living in a burrow system 6 to 12 inches below ground with nest and food storage chambers as deep as 6 feet depending on soil conditions [they really like irrigated soils]. Burrows for a single gopher can range from 200 to 2,000 square feet [5]. Pocket gophers are solitary animals and will violently expel any other gopher that invades their burrows. They will inspect the entire burrow system every 24 hours looking for intruders or damage [4]. Even family members are not welcome.

The tunnels or runways consist of a main tunnel with several short lateral tunnels which vary from 2 to 5 inches in diameter depending on the size of gopher. Shallow lateral runways branching off the main runway are used primarily to search for food. A crescent shaped surface opening is created then dirt is expelled from the burrow which the gopher will plug by pushing dirt into it [6]. The crescent mound is formed because the gopher is pushing the dirt to the surface at an angle. On the other hand, MOLE mounds can be distinguished because they push straight up perpendicular to the surface creating a perfectly round mound. Both animals plug the holes when they are done.



Source: University of Missouri Division of Plant Sciences

[7]

Gophers become sexually mature at about one year of age and generally live around 3 years. Females have a 19 day gestation period and can have as many as three litters per year in irrigated urban areas. Litters average five to six young but can be as many as thirteen. The young remain in the nest for several weeks then are expelled by the mother after they are weaned. Young gophers travel overland to start tunnels in new areas [4] looking for new territory well away from the other established burrows or risk being killed by the owners. You do the math on how fast they can multiply and over-run an area if left unchecked.

Mitigation

Getting rid of gophers is, well... let's face it, difficult. You can line all your planting areas below with wire mesh to fend them off but this is time-consuming and only effective until the metal rusts away. Poisons are out because OVF is an organic garden and other animals [cats, dogs, birds, etc.] could be poisoned as well. Sound-generating devices may have some short-term effectiveness. In my experience gophers eventually learn to ignore them. Flooding the burrows is a waste of water because the tunnels are extensive and can be blocked with dirt by the gopher. Using fumigants is also useless for the same reason. Natural enemies like snakes, raptors, and cats cannot keep up with the number of breeding females. Plants that repel gophers? Nope, sorry.

No repellents have proven effective at protecting gardens or other plantings from pocket gophers. Plants such as gopher purge, Euphorbia lathyrus, castor bean, Ricinus communis, and garlic have been suggested as repellents, but research has not substantiated these claims [5].

Trapping

Which leaves us with trapping. First, let's be clear, pocket gophers are classified by the [California Department of Fish and Wildlife's](#) Fish and Game Code as nongame mammals and can be trapped without a license [5]. Trapped and killed, not trapped and released.

As opposed to the mitigation strategies mentioned above, when you use traps you can confirm whether you were successful or not. There is a plethora of gopher traps to choose from: [Cinch](#), [GopherHawk](#), [Gophinator](#), [Macabee](#), [Sweeney's](#), [Victor black box trap](#), and [Victor pincher-style traps](#) to name a few. [Note: these link out to vendors trying to sell a product. Do some research and find a product priced to your liking]. These traps are inserted directly into the tunnel. With the exception of the GopherHawk you will need two traps for each tunnel since you need one each facing in both directions. The GopherHawk has straps which cover all or most of the tunnel cavity when inserted.

So, you want to trap the gopher. No, old dried out mounds are not good targets; the food is gone and the gopher has moved on. Find a fresh mound in your plot and just maybe you have a chance. Now is when you have to take Carl Spackler's advice and "... *learn to think like an animal.*" What does this gopher want and, more importantly, where is it? The gopher lives in the dirt under your feet; that is its environment, not yours. Think of it as a furry submarine and you need to figure out where to put the depth charges.

With something thin, firm and preferably metal probe around the mound until you find the main tunnel. The diameter of the main tunnel is good indicator of the size of the rodent using it. Gophers know when their tunnel has been messed with and they recognize it as a place where they almost got killed. Sometimes you have to try something different when a gopher gets trap shy. One of the main keys is having traps that are sized proportionally to the size of the gophers you are dealing with [9]. The gopher dug this tunnel and it has a muscle memory of how big it should be. If it senses a variation in the tunnel it does not like it may avoid it altogether.

Then you set the traps and cross your fingers. Some tips:

1. carefully research the instructions for setting the traps [YouTube videos are a good source]
2. keep your fingers and body parts away from the business end of the traps when set
3. wear gloves when sticking your hands into the excavated hole (gophers have large, sharp, powerful teeth)
4. use thin wire and sturdy stakes to keep the traps from being dragged away
5. if no luck after 48 hours move the traps; remember, they patrol the burrow every day to repair any damage

If the trap is not well placed, or the gopher is trap-wary, the trap and excavated area will be back filled by the resident gopher with tightly packed soil and will have to be relocated [10]. Once a gopher becomes trap-wary, it becomes very hard to get rid of. [This happened to me when I first used a borrowed GopherHawk. The gopher packed the soil so tight it bent one of the straps. Note to self: do not fiddle with straightening the strap while the trap is set. I was lucky I did not amputate a finger].

GopherHawk straps before inserting into tunnel (left)



GopherHawk damaged by trap-wary gopher backfill (right)



CONCLUSION: There is a strong possibility we will be seeing an uptick in gopher damage in our plots especially in the Upper Phases. Keep an eye out for evidence of gopher disturbance and deal with it as soon as you can. You will not only be protecting your plot but all the plots around you. Good luck and good hunting.

-Dean Cleverdon-
Phase I Upper, Plot G16/G18
Member since 1996

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