



GROWING TIMES



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Ground Squirrels & Burrowing Owls

Factors to consider when planning ground squirrel control (Photo by Jack Kelly Clark, UC IPM Project)



Ground Squirrels (*Spermophilus beecheyi*)

Ground squirrels can become a major problem in both agricultural and urban settings. They damage crops, ornamentals, vines, trees, lawns, and compete with grazing animals for forage. Furthermore, their burrowing undermines the soil structure creating hazards to people and livestock.

The Department of Fish and Game classifies ground squirrels as non-game animals. Property owners and pest control companies can, therefore, use any legal method to control populations found to be damaging property.

A variety of methods are available to control ground squirrels. The best method will depend on the specifics of the situation such as the squirrels' population level and season of the year.

Fumigation is most effective in spring when the soil is moist. Fumigants such as aluminum phosphide require the user to obtain a Restricted Materials permit from our office. Treated grain baits are effective in summer and fall when ground squirrels typically feed on seeds. Traps or devices, such as Rodenator Pro, are options that can be used at any time of the year. (If you choose to use the Rodenator Pro device and your field is near a residential area, we highly recommend you alert your neighbors before using the device.)

For more information about ground squirrels or control options, visit this UC website: <http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7438.html>

An important factor that must be considered when performing any type of pest control is the potential impact to non-target wildlife. In the case of ground squirrel control in Santa Clara County, we are concerned about the presence of burrowing owls.

Burrowing Owls

(*Athene cunicularia*)



Burrowing owls stand approximately 8.5-11 inches tall, are brown with cream flecks, and have long legs. They typically inhabit open dry grasslands, agricultural and range lands, and desert habitats. They are often found along the margins of airports, golf courses, levees, and in vacant urban lots. The Santa Clara Valley Audubon Society estimates about 120 nesting pairs of burrowing owl remain in Santa Clara County. Their nesting season is generally from February through August and they often prefer to nest in abandoned ground squirrel burrows.

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Burrowing owls feed on a range of prey such as mammals (pocket gophers, mice, rats, voles), reptiles, and insects (grasshoppers, crickets, beetles). The Imperial Valley is home to 70% of California's burrowing owl population and wildlife experts in Southern California estimate the birds are responsible for eating 65 million grasshoppers a year in the valley!

Habitat destruction due to development and poor land management practices have been the biggest threat to burrowing owl populations. Burrowing owls are listed as a Species of Special Concern by the California Department of Fish and Game and are federally protected under the Migratory Bird Treaty Act. The law prohibits anyone from taking, harassing, or destroying any burrowing owl, nest, or egg. Harming an owl can be punishable by a fine of not more than \$15,000, by imprisonment for not more than six months, or both. There are no statutes or regulations of any State or of the United States, including any applicable health, quarantine, agricultural, or customs laws or regulations that can be construed to relieve a person from the requirements of the Migratory Bird Treaty Act.

What should you consider when planning ground squirrel control?

1) Presence of ground squirrels

Obviously, for control to be effective the pest must be present. This may sound simple, but it can be difficult to determine if ground squirrels are currently utilizing a burrow. Look for signs that would indicate an inactive burrow system such as a lack of tracks, spider webs covering the burrow entrance, or the germination of weeds on excavated soil. Applications using fumigants require the squirrels to be inside the burrow, so make sure they're home before you apply!

Something else to keep in mind is squirrels enter periods of inactivity during the winter and during the hottest summer months. Do not fumigate during these hibernation periods. The squirrels usually plug their burrows with soil, which can prevent the fumes from reaching the nest chamber. This plug cannot be seen by examining the burrow entrance!

2) Presence of burrowing owls



The presence of burrowing owls can be determined by observing the burrow systems over a period of time. Owls like to perch on fence posts or on top of mounds outside their burrows. Feathers, droppings, or insect parts around burrows may also indicate the presence of owls. If burrowing owls are present, a pest control operation using fumigants or Rodenator Pro type devices cannot proceed!

If burrowing owls are living side-by-side with ground squirrels, the best-case scenario would be to leave the site alone. In a case where that is not an option and a treatment must take place, baits or live trapping may be the only alternative. If you use baits in the area, we suggest that you place the baits in a tamper-proof bait station and place the station as far away as possible from active owl burrows. Burrowing owls hunt near their burrows and an active hunting area will usually encompass a 300+ meter radius from the burrow. Though the majority of a burrowing owl's diet is comprised of insects, they do predate on small mammals. Be sure to regularly check your bait stations and the surrounding area to monitor for dead rodents. Dead rodents should be removed as promptly as possible to avoid any problems with secondary poisoning.

Weed and Insect Control in Burrowing Owl Habitat Areas:

The burrowing owl breeding season corresponds with the busiest time of year for weeds and insects. If you have a burrowing owl on your land, you can still farm the land and apply pesticides, you just have to take a few precautions.

If pesticides are needed in an area, choose a pesticide that is exempt from registration or one with a Caution label. It is also a good idea to leave as large of a buffer zone as economically possible around the burrowing owl burrow.

If you have burrowing owls on your land, give our office a call. We developed a burrowing owl guideline that will give you suggestions and helpful information about how to work with this owl.

West Nile Virus In California



Article submitted by Kriss Costa
Santa Clara County Vector Control District

In 2003, West Nile virus (WNV) struck over 9,800 people in the US and killed 264. Towards the end of last season, California reported its first 3 cases of WNV. What does that mean for this year? History has shown us the area where the disease appeared the previous year, will likely be hit the hardest the next season. For example, Colorado reported its first cases (14) of WNV in late 2002. In 2003, Colorado reported over 2,900 cases and 63 deaths, almost ¼ the total of US cases!

On June 8, 2004, California reported its first human case in Southern California. The 40-year old San Bernardino County woman suffered mild symptoms and has since fully recovered.

California has an advantage over most of the other states in the US. California has 54 mosquito and vector control districts, some in existence since 1915. So although WNV is new to California, mosquito abatement is not.

But we need your help!

The primary carrier of WNV, the *Culis* mosquito, is also known as the “artificial container mosquito”, preferring to lay its eggs, not in the natural waterways we routinely check, but in many areas found on private property. Any water that sits for more than a week can produce hundreds of mosquitoes that may transmit WNV.

It is important to check your property for any standing water, including water troughs, irrigation ditches, stock ponds, and drainage basins.

Birds, especially corvids (crows, black birds) and raptors (hawks, falcons) are very susceptible to WNV. If you find a dead bird, call 1-877-WNV-BIRD. Contact the SCC Vector Control District at 408-792-5010 if you are being bothered by mosquitoes, would like to report possible mosquito development sources, have any questions concerning WNV or would like a free brochure. Mosquito eating fish are also available free of charge to county residents.

We cannot prevent WNV from entering Santa Clara County, but with your help we can reduce the threat it poses to you, your family, and neighbors.

Honeybee Regulations



State Law and Local Ordinances

Pollinating crops with honeybees is essential for the production of many of our local crops. However the field placement of bee hives can be a difficult task with encroaching residential areas. What are the laws for using bees to pollinate your crops? What if you have a residential area adjacent to your land?

Honeybee apiaries are regulated under state law and local ordinance. Food and Agricultural Code Section 29044 requires all beekeepers to register their apiaries with the county agricultural commissioner and pay an annual \$10 registration fee. Local ordinances may differ, depending where your land is located. Many cities in Santa Clara County have their own apiary ordinances. Commercial beekeepers and hobbyists should contact the appropriate local jurisdiction to determine the ordinance requirements applicable to their apiaries.

Santa Clara County's Apiary Ordinance:

Location

Apiaries must be located at least 300 feet from any public road and a 1,000 feet from the nearest residence, church, school, public building, dairy, corral, or water area. - The only exception to this rule is if the neighbor provides written permission to have the apiary closer than 1,000 feet.

Water Supply

An adequate amount of water for the apiary must be provided and maintained.

Notice to move an apiary

An apiary cannot be moved into the county until a written notice is given to the agricultural commissioner 5 days prior to the movement. The notice must contain the following:

1. The number of colonies to be moved
2. The location of the property, and the name and address of the owner of the apiary
3. The distance of the apiary from the nearest public road intersection.

For questions or comments, please contact:
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