

Rodenticides for Ground Squirrel Control

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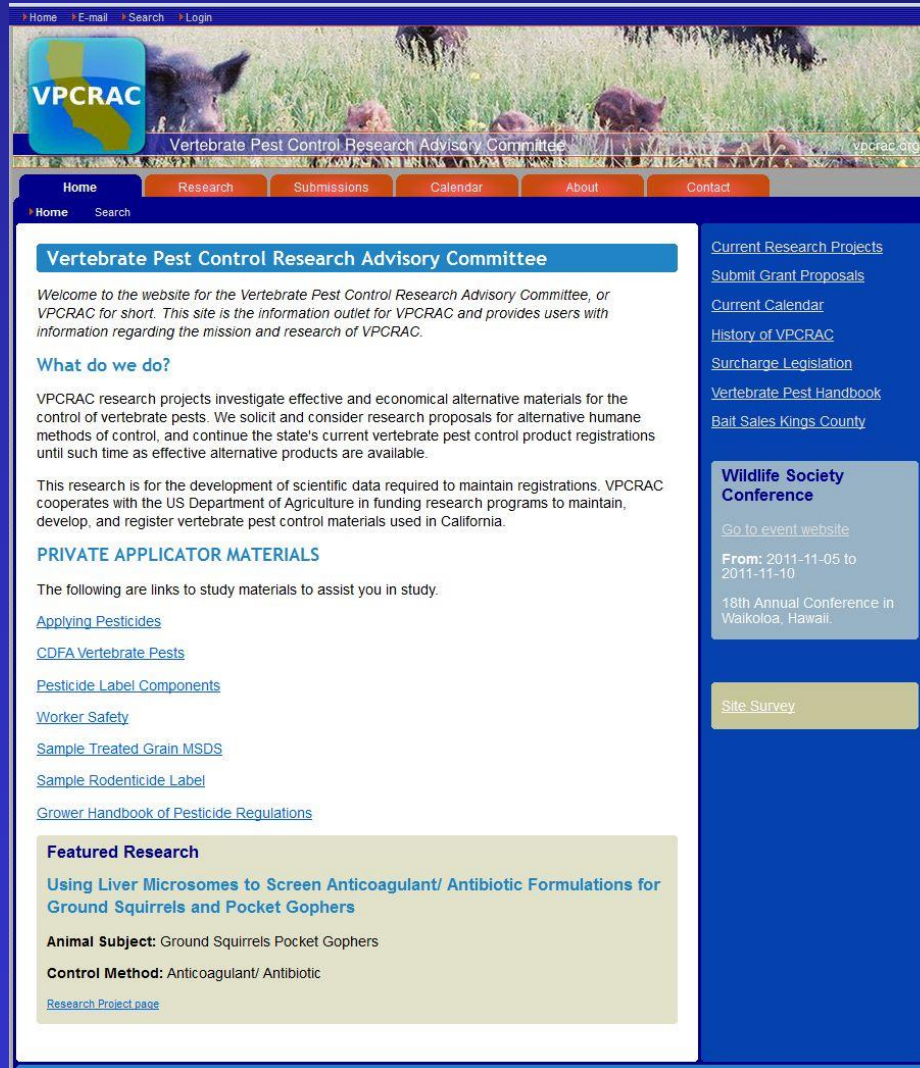
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**California Department of
Food and Agriculture**


Purpose of this training?

- Overview of Vertebrate Pest Control Research Advisory Committee, VPCRAC
- Rodenticide registration issues
- Overview of CDFA registered baits
- Trapping Regulations
- Pending Legislation

Vertebrate Pest Control Research Advisory Committee



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Vertebrate Pest Control Research Advisory Committee

Welcome to the website for the Vertebrate Pest Control Research Advisory Committee, or VPCRAC for short. This site is the information outlet for VPCRAC and provides users with information regarding the mission and research of VPCRAC.

What do we do?

VPCRAC research projects investigate effective and economical alternative materials for the control of vertebrate pests. We solicit and consider research proposals for alternative humane methods of control, and continue the state's current vertebrate pest control product registrations until such time as effective alternative products are available.

This research is for the development of scientific data required to maintain registrations. VPCRAC cooperates with the US Department of Agriculture in funding research programs to maintain, develop, and register vertebrate pest control materials used in California.

PRIVATE APPLICATOR MATERIALS

The following are links to study materials to assist you in study.

- [Applying Pesticides](#)
- [CDFA Vertebrate Pests](#)
- [Pesticide Label Components](#)
- [Worker Safety](#)
- [Sample Treated Grain MSDS](#)
- [Sample Rodenticide Label](#)
- [Grower Handbook of Pesticide Regulations](#)

Featured Research

Using Liver Microsomes to Screen Anticoagulant/ Antibiotic Formulations for Ground Squirrels and Pocket Gophers

Animal Subject: Ground Squirrels Pocket Gophers

Control Method: Anticoagulant/ Antibiotic

[Research Project page](#)

- [Current Research Projects](#)
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- [Current Calendar](#)
- [History of VPCRAC](#)
- [Surcharge Legislation](#)
- [Vertebrate Pest Handbook](#)
- [Bait Sales Kings County](#)

Wildlife Society Conference

[Go to event website](#)

From: 2011-11-05 to 2011-11-10

18th Annual Conference in Waikoloa, Hawaii.

[Site Survey](#)

Vertebrate Pest Control Research Advisory Committee

How is VPCRAC Funded?

In 1990, the Rodenticide Surcharge Program (Assembly Bill 2776) requested each agricultural commissioner to collect a fee or surcharge of 50 cents for each pound of vertebrate pest control material sold, distributed, or applied by the county. The money generated by this surcharge is used to fund the research required by the EPA to maintain current registrations, payment of registration fees, to improve existing rodenticides, and to find new materials and methods to solve vertebrate pest problems.

Anticoagulants

- Toxic bait that inhibits the coagulation of blood in the target pest.
- Widely used for commensal rodent control (in and around homes) and agricultural uses for field rodents.
- Can be separated into two distinct groups:
 - first generation anticoagulants
(warfarin, chlorophacinone, diphacinone)
 - second generation anticoagulants (brodifacoum, bromadiolone, difenacoum, difethialone)

1st Generation Anticoagulants

- Warfarin, the first anticoagulant rodenticide, discovered in 1943.
- The first generation anticoagulants are chronic in their action. Continuous feeding for 3-5 days. Animals die in 7-10 days

2nd Generation Anticoagulants

- Genetically linked resistance in rats and mice to 1st generation anticoagulants.
- Research led to the development and marketing of brodifacoum, bromadiolone, difethialone, and difenacoum.
- Acutely toxic to rodents. A single feeding can be toxic. Animals die within 7-10 days.

Acute Toxicants

- **Acrolein, Aluminum Phosphide, Gas Cartridges, & Strychnine** - Registered for controlling burrowing rodents (i.e. California ground squirrels and pocket gophers).
- **Avitrol®** - Bird management chemical registered for blackbirds, cowbirds, starlings, grackles, house sparrows, and feral pigeons as a flock-frightening repellent.
- **Zinc Phosphide** - Used on grain baits and bait blocks to successfully control meadow voles, pocket gophers, ground squirrels, Norway rats, Polynesian rats, cotton rats, and nutria.

Field Uses of Anticoagulants And Acute Toxicants

- 1998 Reregistration Eligibility Decision made field uses of anticoagulant baits Federally Restricted Use pesticides. This requires a Private Applicator Certificate to purchase and apply.
- CDPR temporary vertebrate based P.A.C. exam for field users of anticoagulants. (VPCRAC website)
- Agricultural use or professional applicators:
 - Does not have to be sold in a bait station, but label must require if children or non-target animals have access.
 - Any form of bait acceptable.
 - Must contain more than 4 pounds of product.

US EPA Risk Mitigation Decision

In 2008 US EPA released a Risk Mitigation Decision for Ten Rodenticides. The decision included two major components to reduce children's exposure to rodenticides used in homes and to reduce wildlife exposures and ecological risks.

US EPA Risk Mitigation Decision

Ecological/Non-Target Risk Mitigation:

- Bait stations required for all outdoor above-ground placements of 2nd gen. anticoagulants.
- Sale/Distribution Restrictions. 2nd gen. products will only be sold in agricultural, farm and tractor supply stores or directly to PCO's.
- Minimum package size. 2nd gen. anticoagulants in packages 8-16 lbs. Labeled for use inside and within 100' of agricultural buildings.
- 16+ lbs. packaged for use in and within 100' of man-made structures.

DPR 2nd Generation Restricted Use

- Designate all SGARs as California restricted materials
 - Only certified applicators can purchase and use these products
- Limit the aboveground use of baits within 50 feet of a man-made structure unless there is a “feature” associated with the site that is harboring or attracting the target pest between the 50-foot limit and the limit specified on the label (typically 100 feet)
- Revise definition of private applicator to refer to the federal definition of agricultural commodity.
- Effective July 1, 2014

Aluminum Phosphide

- **Restricted Material – Permit required**
- Use is strictly prohibited around all residential areas: homes, hospitals, nursing facilities, day care and schools (except athletic fields, where use may continue).
- The products must only be used outdoors for control of burrowing pests, and are for use only on agricultural areas, non-crop areas and non-residential institutional or industrial sites.
- Products must not be applied in a burrow system that is within 100 feet of a building that is or may be occupied by people or domestic animals.
- Posting requirements: the applicator shall post a sign at the application site containing the signal word DANGER/PELIGRO (Athletic fields: DO NOT ENTER/NO ENTRE, FIELD NOT FOR USE), skull and crossbones, the name and EPA registration number of the fumigant, and a 24-hour emergency response number. Signs may be removed 2 days after the final treatment.
- Fumigant Management Plan.

EPA Review of small gas cartridges

- Periodic Registration Review
- Ecological Risk Assessment indicates some endangered species could be at risk
- Waiting on USFWS to release Biological Opinion
- Geographic restriction as means of mitigation to be considered
- Next step – release Proposed Interim Decision for public comment

AB 634 Carbon Monoxide

This bill would authorize the use of carbon monoxide for the control of burrowing rodent pests, only until January 1, 2018, and only if the carbon monoxide delivery device is permanently affixed with a specified warning label in plain view of the operator, subject to specified provisions governing (1) the protection of endangered species, (2) the mode of taking a fur-bearing animal, and (3) pest control operations and the use of agricultural chemicals, as specified.

* Never use in structures inhabited by humans or livestock.

CDFA Maintained Labels

Product	Pests	Use Sites	Methods
Diphacinone Grain .005%	Ground Squirrels , Norway and Roof Rats, Wood Rats, Voles, Jack Rabbits, Cottontail, Chipmunks, Muskrats	Ag Buildings, Crops, Range, Forestry, NonCrop, Waterways (muskrat)	Bait Stations, Spot Baiting
Diphacinone Grain .010%	Ground Squirrels , Deer Mice, House Mice	Vineyards, Orchards, Groves, Forestry, Pasture, Range, NonCrop	Broadcast Baiting
Chlorophacinone Grain .005%	Ground Squirrels , Voles, Chipmunks, Muskrats, Jackrabbits	Ag Buildings, Crops, Range, Forestry, NonCrop, Waterways (muskrat)	Bait Stations, Spot Baiting
Chlorophacinone Grain .010%	Ground Squirrels , Voles, Deer Mice, House Mice, Pocket Gophers	Vineyards, Orchards, Groves, Forestry, Pasture, Range, NonCrop	Broadcast Baiting, Mechanical (gophers)
Zinc Phosphide.Grain 2%	Ground Squirrels , Voles, Norway and Roof Rats	Dormant Fruit, nonbearing nursery stock, Tree Plantations, Vineyards, Range, Pasture, NonCrop, Ornamentals. NonResidential Lawns, Golf Courses	Handbaiting, broadcast, aerial, trail builder, bait stations
Diphacinone .005% Wax Block	Norway Rats, Roof Rats, House Mice	Within 100' of buildings and transport vehicles	Bait stations
Chlorophacinone .010% Artichoke	Voles	Artichoke fields	spot baiting

PRECAUTIONARY STATEMENTS**Hazard to Humans and Domestic Animals****CAUTION**

Keep away from children, pets, and domestic animals. Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wear long-sleeved shirts and long pants, socks and shoes, and gloves. Wash thoroughly with soap and water after handling. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Any person who retrieves carcasses or unused bait following application of this product must wear gloves. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove personal protective equipment (PPE) immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Keep and wash PPE separate from other laundry. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water.

Environmental Hazards

This product is toxic to fish, birds, and other wildlife. Bait exposed to soil surfaces may be hazardous to birds and other wildlife. Dogs and other predatory and scavenging animals might be poisoned if they feed upon animals that have eaten this bait. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the high-water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

ENDANGERED SPECIES CONSIDERATIONS

Notice: Killing of an endangered species may result in fine and/or imprisonment under the Endangered Species Act. The use of this product may pose a hazard to a Federally designated endangered/threatened species. For protection of federally listed species, users shall consult the U.S. EPA Endangered Species Bulletin for the county in which the application will occur. A copy of the bulletin may be obtained from the county agricultural commissioner or downloaded from the internet at the following website: <http://www.cdpr.ca.gov/docs/colist.htm>

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available.

Pesticide Storage: Store in a dry place. Do not store around the home. Store in a locked enclosure or other location not accessible to children, pets, domestic animals or wildlife.

Pesticide Disposal: Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by the user according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill, or by incineration, or if allowed by State or Local authorities, by burning. If burned, stay out of smoke.

**RESTRICTED USE PESTICIDE
Due to Hazards to Nontarget Organisms**

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

**RODENT BAIT
CHLOROPHACINONE
TREATED GRAIN (0.01%)**

Active Ingredient:
Chlorophacinone (2-[[p-Chlorophenyl]phenyl acetyl]-1,3-indandione).....0.01%
Other Ingredients..... 99.99%
Total.....100.00%

**CAUTION
KEEP OUT OF REACH OF CHILDREN****FIRST AID****Anticoagulant (Bis-hydroxycoumarin class)**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

If Swallowed	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
If on Skin	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If Inhaled	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
If in Eyes	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

For more information on this pesticide product (including health concerns and medical emergencies), call the National Pesticide Telecommunications Network at 1-800-658-7378.

NOTE TO PHYSICIAN

This product contains chlorophacinone, an anticoagulant of the bis-hydroxycoumarin class. Vitamin K is antidotal. If ingested, administer Vitamin K intramuscularly or orally, as indicated in bis-hydroxycoumarin overdose. Repeat as necessary based on monitoring of prothrombin times.

NOTE TO VETERINARIAN

Contains chlorophacinone, an anticoagulant with a half-life in the dog of unknown days. For dogs that have ingested or that are suspected of having ingested chlorophacinone, and/or have obvious poisoning symptoms, such as bleeding or have elevated prothrombin times, give Vitamin K as follows: intramuscular injection. For anticoagulants with long half-lives, if known, it might be necessary to check prothrombin times every 3 days until values return to normal. See "Note to Physicians" for additional information.

California Department of Food and Agriculture
1220 "N" Street, Room A-357
Sacramento, CA 95814

EPA SLN No. CA 890024
California Reg. No. 10963-50006

EPA EST. No. XXXXX-CA-X
Net Contents:

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

THIS PRODUCT MAY ONLY BE DISTRIBUTED AND USED IN CALIFORNIA AND MAY ONLY BE SOLD BY THE OFFICES OF CALIFORNIA'S COUNTY AGRICULTURAL COMMISSIONERS.

READ THIS LABEL: Read this entire label and follow all use directions and precautions.

IMPORTANT: Store product not in use in a location out of reach of children, pets, domestic animals, and wildlife. Dispose of product container, unused, spoiled, or unconsumed bait as specified in the "STORAGE AND DISPOSAL" section of this label.

USE RESTRICTIONS - FOR ALL USES

This product may only be used to control CALIFORNIA GROUND SQUIRRELS (*Spermophilus beecheyi*), MEADOW MICE, CALIFORNIA VOLES (*Microtus californicus*), and MONTANE VOLES (*M. montanus*), DEER MICE (*Peromyscus spp.*), HOUSE MICE (*Mus musculus*), and POCKET GOPHERS (*Thomomus spp.*) at the use sites and using the application methods identified in the "USE RESTRICTIONS" paragraphs indicated below for the target species groupings. Contact your local County Agricultural Commissioner's office if you need help in identifying the target species you intend to control or are not sure about the limits of the site designation.

Do not apply this product in or around homes or other human residences. Do not apply this bait at sites or to control pests not indicated on this label. Do not apply this product by application methods not specified in this label. Do not pile bait.

Do not apply this product in occupied habitat of endangered species that may be harmed by exposure to this bait or to animals that have consumed it. Contact your local County Agricultural Commissioner's office or <http://www.cdpr.ca.gov/docs/endpac/precant.htm> for information on endangered species that use of this product in your area might impact.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. Keep all other persons out of the treatment area during application.

Do not apply bait in or near actively growing food or feed crops or in areas where contaminating food or surfaces that may contact food is likely. Do not apply bait by aircraft at sites where bait may contaminate bodies of water. When applying bait along canals and other waterways, use equipment that directs bait away from the water.

FOLLOW-UP OPERATIONS - FOR ALL USES

Collect dead rodents and dispose of them by deep burying, burning (if permitted in your County or community), or by double-plastic bagging or wrapping in newspaper and discarding in trash. Wear disposable plastic gloves or other suitable hand protection if you must pick up carcasses by hand.

VINEYARDS, ORCHARDS, GROVES, FORESTRY PLANTATIONS, PASTURES, RANGELAND AND SELECTED NONCROP AREAS**CALIFORNIA GROUND SQUIRRELS**

USE RESTRICTIONS: This product may be used to control California Ground Squirrels (*Spermophilus beecheyi*) in broadcast bait applications in vineyards, orchards and groves (non-bearing season only), non-crop borders, and fallow lands; along outside of fence rows and rights-of-way adjacent to canal banks, ditch banks, highways, levees, railroad lines, and utilities; and in campgrounds, recreational areas, horticultural nurseries, plantations of forest trees, pastures and rangeland.

Do Not graze livestock or plant food or feed crops in spot-treated areas while bait is present. Applications in orchards, groves, and vineyards may only be made after harvest and during the dormant period and may not be made after tree and vine growth resumes in the spring.

BAIT ACCEPTANCE TRIALS: Before applying toxic bait, test for target species' readiness to accept this product by manually scattering untreated crimped oat groats to portions of the infested area. Using flagging or other suitable items, mark areas where oats were scattered and return on the following day to observe where oats are being consumed to assess whether consumption is by ground squirrels or nontarget species. Do not apply toxic bait if it appears that nontarget species are primarily responsible for consuming the oats. Apply toxic bait only if ground squirrels appear to have accepted the oats readily. Untreated crimped oat groats may be obtained from the County Agricultural Commissioner's office.

BROADCAST BAITING: Using a ground-based mechanical spreader or aircraft, apply bait at 10 pounds per acre, depending upon the density of ground squirrels. Make a second application 4 days after the first treatment.

Use Restrictions

- Use only in rodent infested areas where exposure to agricultural crops or commodities will not occur. **Do not** contaminate food or food stuffs.
- **Do not** apply this product in or around homes or other human residences.
- **Do not** apply this bait at sites or to control pests not indicated on this label.
- **Do not** apply this product by application methods not specified in this label.
- **Do not** pile bait.
- **Do not** apply this product in occupied habitat of endangered species that may be harmed by exposure to this bait or to animals that have consumed it. Contact your local County Agricultural Commissioner's office or CDPR PRESCRIBE for information on endangered species that use of this product in your area might impact.

Use Restrictions cont.

- **Do not** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. Keep all other persons out of the treatment area during application.
- **Do not** apply bait in or near actively growing food or feed crops or in areas where contaminating food or surfaces that may contact food is likely. Do not apply bait by aircraft at sites where bait may contaminate bodies of water. When applying bait along canals and other waterways, use equipment that directs bait away from the water.

Use Restrictions cont.

- **Do not** graze livestock or plant food or feed crops in spot-treated areas while bait is present. Applications in vineyards, orchards, and groves may only be made after harvest and during the dormant period and may not be made after tree and vine growth resumes in the spring.

Bait Station Applications

It may take several days or longer for target animals to become accustomed to a bait station and to begin to accept bait from it.

Maintain an uninterrupted supply of bait in the bait stations for as long as target species are taking bait, which often will last from 1 to 4 weeks after feeding begins. Check stations one or more times per week and replace consumed, spoiled or contaminated bait. Properly dispose of bait that is removed from bait stations or is spilled or scattered from bait stations.

When feeding of toxic bait by target species discontinues and there is not a threat of continued reinvasion remove and dispose of bait from the station properly. Bait stations may be removed at the time or left in place if reinfestation is likely. Stations left in place may be baited periodically with nontoxic feed to aid in the detection of target species attempting to recolonize the site and to condition them to feeding in the bait stations. If target rodents return, census baits may be replaced by this product.

FOLLOW-UP OPERATIONS – FOR ALL USES

Collect dead rodents and dispose of them by deep burying, burning (if permitted in your County or community), or double plastic bagging or by wrapping in newspaper and discarding in the trash. Wear disposable plastic gloves or other suitable hand protection if you must pick up carcasses by hand.

CDFA Diphacinone .005%

Active ingredient:

Diphacinone .005% treated grain

Target Pests:

CALIFORNIA GROUND SQUIRRELS, NORWAY RATS, ROOF RATS, WOOD RATS, MEADOW MICE, BLACK-TAILED JACKRABBITS, COTTONTAIL RABBITS, CHIPMUNKS, MUSKRATS and DEER MICE.

CDFA Diphacinone .005%

Use Sites (Ground squirrels):

Bait station applications in and around livestock buildings (e.g., cattle barns, poultry houses); around (but not within) livestock pens; in and around vineyards, orchards, and groves; in rangelands, noncrop borders, and fallow lands; along outsides of fence rows and rights-of-way adjacent to canal banks, ditch banks, highways, levees, railroad lines, and utilities; and in campgrounds, recreational areas, horticultural nurseries, and plantations of forest trees.

This product may also be used in **spot-treatment** applications in vineyards, orchards, and groves after harvest and during the dormant season, and in rangeland. Do not graze livestock or plant food or feed crops in spot-treated areas while bait is present.

CDFA Diphacinone .005%

BAIT ACCEPTANCE TRIALS:

Before applying toxic bait, test for target species' readiness to accept this product by applying untreated crimped oat groats, to portions or all of the infested area, using the same application method (bait station or spot baiting) that is to be used for toxic baiting. Observe prebaited areas to determine whether nontarget species have found and consumed the oats. Adjust treatment methods to minimize nontarget hazards. Do not apply toxic bait if it appears that nontarget species are primarily responsible for consuming the oats. Apply toxic bait only if ground squirrels appear to have accepted the oats readily. Untreated crimped oat groats may be obtained from the County Agricultural Commissioner's office.

CDFA Diphacinone .005%

BAIT STATION BAITING:

Secure tamper-resistant bait stations near active ground squirrel burrows or runways. Place stations at intervals of 20 to 100 feet. Load 1 to 5 pounds of bait into bait station. Inspect stations at least weekly and replenish bait as needed. Remove and properly dispose of spoiled or fouled bait.

SPOT BAITING:

Using a bait spoon, evenly scatter 1/3 cup (0.1 lb) of bait over 40 to 50 square feet near active squirrel burrows and runways. Do not over-bait. Do not place bait in piles. Using the same procedure, make a second application 4 days after the first. Do not apply more than 10 pounds of bait per acre per treatment.

CDFA Diphacinone .010%

Active Ingredient:

Diphacinone .010% treated grain

Target Pests:

Ground Squirrels, Deer Mice and House Mice

Use Sites:

broadcast bait applications in vineyards, orchards and groves (non-bearing season only); non-crop borders, and fallow lands; along outsides of fence rows and rights-of-way adjacent to canal banks, ditch banks, highways, levees, railroad lines, and utilities; and in campgrounds, recreational areas, horticultural nurseries, plantations of forest trees, pastures and rangelands.

CDFA Diphacinone .010%

Do Not graze livestock or plant food or feed crops in spot-treated areas while bait is present. Applications in orchards, groves, and vineyards may only be made after harvest and during the dormant period and may not be made after tree and vine growth resumes in the spring.

BAIT ACCEPTANCE TRIALS: Before applying toxic bait, test for target species' readiness to accept this product by manually scattering untreated crimped oat groats to portions of the infested area. Using flagging or other suitable items, mark areas where oats were scattered and return on the following day to observe where oats are being consumed to assess whether consumption is by ground squirrels or nontarget species. Do not apply toxic bait if it appears that nontarget species are primarily responsible for consuming the oats. Apply toxic bait only if ground squirrels appear to have accepted the oats readily. Untreated crimped oat groats may be obtained from the County Agricultural Commissioner's office.

BROADCAST BAITING: Using a ground-based mechanical spreader or aircraft, apply bait at 10 pounds per swath acre, depending upon the density of ground squirrels. Make a second application 4 days after the first treatment.

CDFA Zinc Phosphide 2%

- **GROUND SQUIRRELS**
- **PREBAITING: (Strongly Recommended).**
Prebaiting with 6 lbs. of untreated steamed crimped oats per acre, one or two days prior to using toxic bait is likely to enhance bait acceptance by California ground squirrels.
- **HANDBAITING:** Apply one teaspoon (4 grams) of bait on the ground within 3 ft of active burrows.
- **GROUND BROADCAST:** Treat only once during treatment period. Broadcast bait evenly using hand or ground-driven dispensing devices at the rate of 6 to 10 lbs. per acre (0.12 – 0.20 lb ai/A). Concentrate in areas with heaviest vegetative cover.

Motomco PCQ

Active ingredient:

Diphacinone .010% Pelleted formulation

Target Pests:

California Ground Squirrels (*Spermophilus beecheyi*) and Belding's Ground Squirrels (*Spermophilus beldingi*)

Motomco PCQ

Use Sites:

Vineyards, fruit tree orchards (stone and pome), nut tree orchards (only after harvest and during the dormant season), in rangeland and pastures and immediate borders of the listed use sites such as along the outsides of fence rows, rights-of-way, canal banks, ditch banks and levees. Do not graze livestock or plant food or feed crops while bait is present.

Motomco PCQ

APPLICATION DIRECTIONS

HANDBAITING: Wearing gloves, scatter about one handful (2 oz.) of bait evenly over 40 to 50 square feet near active burrows or runways. Retreat every other day for 3 to 4 applications.

MECHANICAL BAITING: Use a mechanical seed spreader calibrated to evenly spread 2 oz. of bait to cover 40 to 50 square feet near active burrows or runways. Retreat every other day for 3 to 4 applications.

Wilco Ground Squirrel Bait

Active Ingredient:

Diphacinone .005% pelleted formulation

Target Pests:

California Ground Squirrel and Townsend
Ground Squirrel

Wilco Ground Squirrel Bait

Use sites:

Around buildings, in noncrop areas (such as along levees and ditch banks, along fence lines) in rangeland and pasture land, and in stone and pome fruit orchards.

Application Method:

Bait stations only, may not be broadcast.

Recent Legislation

- AB 711 Hunting: nonlead ammunition
- AB 789 Trapping
- AB 2657 Anticoagulants
- SB 1332 Carbon Monoxide
- AB 2210 Nongame Animals

AB 711, Rendon. Hunting: nonlead ammunition

PASSED

- 1) Requires use of nonlead ammunition for the taking of all wildlife in California, including mammals, game birds, nongame birds, and nongame mammals, with any firearm.
- 2) Requires the Fish and Game Commission (FGC), by July 1, 2014, to certify by regulation, nonlead ammunition for these purposes.
- 3) Expands the FGC's existing authority to establish a process to provide hunters with nonlead ammunition at no or reduced charge within certain hunting zones, to instead apply statewide.
- 4) States legislative findings and declarations regarding the threats to public health and wildlife posed by lead in the environment, and the availability of nontoxic ammunition alternatives.

AB 789, Williams. Trapping

PASSED

- 1) Reduces the maximum size of conibear traps (spring-loaded body-crushing traps, without teeth) used to kill mammals, except where they are submerged, partially submerged, or set in a managed wetland, from 10' X 10" to 6" X 6".
- 2) Requires a sign warning that dogs should be kept away from areas where conibear traps are set on publicly owned land or land that is open to the public.
- 3) Prohibits killing any trapped mammal by intentional drowning, injection with any chemical not sold for the purpose of euthanizing animals, or thoracic compression.

AB 2657, Bloom. Anticoagulants

- Prohibits the use of second generation anticoagulants in “environmentally sensitive” areas.
- Environmentally sensitive areas - any wetlands, animal sanctuary, conservancy, state or national park, and any area or habitat that is protected for any endangered or threatened species, including animals, birds, fish, and insects.

SB 1332, Wolk. Carbon Monoxide

- “**carbon monoxide** pest control device” means any method or instrument using **carbon monoxide** to prevent, eliminate, destroy, or mitigate burrowing rodent pests.
- The director may regulate the use of **carbon monoxide** pest control devices, and may adopt and enforce regulations to provide for the proper, safe, and efficient use of these devices for the protection of public health and safety, and the environment.

AB 2210, Williams. Nongame Animals

- Specifies nonnative eastern fox squirrel (*Sciurus niger*) replacing red fox squirrel. Depredation permits not required.
- Changes once daily trap check to once every 24-hour period.
- Requires nontarget species be released unharmed and not taken.

Endangered Species

Sources for info.

- Ag. Comm. - County Bulletins
- CA Dept. Fish and Wildlife – CNDDDB
- CA Dept Pesticide Regulation - PRESCRIBE

CA Natural Diversity Database

The screenshot shows the California Natural Diversity Database (CNDDDB) website. The browser window title is "California Natural Diversity Database Home - Mozilla Firefox". The address bar shows "www.dfg.ca.gov/biogeodata/cnddb/". The website header includes the California Department of Fish and Wildlife logo and navigation links for Home, Recreation, Resource Management, Enforcement, Marine, Spills, Education, Science Institute, and Data & Maps. A search bar is located in the top right corner.

BDB PROGRAMS

- ACE-II
- BIOS
- Vegetation Classification and Mapping Program
- CNDDDB
- CWHR
- GIS Services
- Data Products
- Support
- About BDB
- Staff
- Partners

CNDDDB Links

- CNDDDB Quick Viewer
- CNDDDB and Spotted Owl Data Viewer
- RareFind 3
- RareFind 4
- CNDDDB Training
- Monthly CNDDDB Data

California Natural Diversity Database

The California Natural Diversity Database (CNDDDB) is a program that inventories the status and locations of rare plants and animals in California. CNDDDB staff work with partners to maintain current lists of rare species as well as maintain an ever-growing database of GIS-mapped locations for these species.

What is the CNDDDB?
Additional information about CNDDDB.

CNDDDB Key Facts
[PDF] An important document to read prior to working with the CNDDDB data.

Maps & Data
Online Map Viewers, RareFind, and other products.

Plant & Animal Information
Rare lists, T&E lists, survey guidelines, photos and more.

Submitting Data to CNDDDB
Detailed instructions on submitting data to the CNDDDB.

Subscribe to the CNDDDB
Subscription information.

CNDDDB Training
Training course information.

Natural Communities and Vegetation
Vegetation Classification and Mapping Program

CNDDDB NEWSLETTERS

- January 2011
- September 2010
- January 2010
- December 2008
- February 2007
- October 2006
- June 2005
- March 2004
- Oct./Nov. 2003
- Aug./Sept. 2003

Questions about the CNDDDB?

CNDDDB Coordinator

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Botanist	Ryan Elliott	916-327-0715

Zoology:

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Department of Fish & Wildlife
Biogeographic Data Branch
1807 13th Street, Suite 202
Sacramento, CA 95811

CA Natural Diversity Database

California Department of Fish and Game - CNDDDB Quick Viewer - Mozilla Firefox

File Edit View History Bookmarks Tools Help

cnddb - Yahoo! Search Results CNDDDB Maps and Data California Department of Fish and Ga...

imaps.dfg.ca.gov/viewers/cnddb_quickviewer/app.asp

About CNDDDB Quick Viewer Zoom to quad: Select a quad Go

Refresh

Legend Help ?

- Counties (100K)
- Quadrangles (24K)

v2.11 [CNDDDB Website](#) GDFG Viewer 0 524mi

Welcome to the CNDDDB Quick Viewer!

The tools at the top of this window allow you to move around the map, zoom-in and zoom-out, and list all CNDDDB elements (species or natural communities) that have been documented by the CNDDDB to occur on a particular USGS 7.5' topographic quad or in a California county. For more information about these tools, click on the Help tab in the left-hand column. Clicking on the Refresh button will redraw the map and legend.

CDPR PRESCRIBE

The screenshot shows a web browser window titled "PRESCRIBE Online Database Application - Mozilla Firefox". The address bar contains the URL "www.cdpr.ca.gov/docs/endspec/prescint.htm". The page header features the "CA.GOV" logo and "California Department of Pesticide Regulation". A search bar is located in the top right corner with the text "cdpr prescribe" and a "GO" button. Below the header is a navigation menu with tabs for "Home", "Health & Safety", "Enforcement", "Pest Management", "Licensing", "Registration", "Monitoring", and "Laws/Regulations". A secondary menu below it includes "Complaints", "County oversight", "Actions", "Compliance", "Restricted materials", "Endangered species", and "Product compliance".

POPULAR LINKS

- » A-Z Index
- » Consumer Fact Sheets
- » FAQ
- » Licensing
- » News, OP-eds & Publications
- » Programs & Services
- » Progress Report

PRESCRIBE Online Database Application

[Back to Endangered Species Project Main Page](#)

Welcome to Pesticide Regulation's Endangered Species Custom Realtime Internet Bulletin Engine (PRESCRIBE). The PRESCRIBE online database application was developed to help pesticide applicators find out if they have any endangered species in the vicinity of their application site, and the use limitations applicable to the pesticide product(s) they intend to use.

This site provides information consistent with the U.S. Environmental Protection Agency (U.S. EPA)'s Interim Measures Bulletins for Protection of Endangered Species for user-selected sites and pesticides. Habitat data is from the Department of Fish and Game (DFG) Natural Diversity Database, the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. Pesticide toxicology follows U.S. EPA standards and advice of DFG Pesticide Investigations Unit. Habitat protection measures are from U.S. Fish and Wildlife Service biological opinions and local plans developed through the cooperation of the County Agricultural Commissioners and Sealers Association, the California Department of Fish and Game and the California Department of Food and Agriculture. This program is implemented by the Department of Pesticide Regulation on behalf of U.S. EPA under Section 7(a)(1) of the Endangered Species Act.

- » [How to Navigate PRESCRIBE](#)
- » [Start a PRESCRIBE query](#)

If you have any questions regarding PRESCRIBE, please contact us at: pmoreno@cdpr.ca.gov

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CDPR PRESCRIBE

California Pesticide Information Portal - Mozilla Firefox

California Pesticide Information Portal

calpip.cdpr.ca.gov/county.cfm

Skip to: [Content](#) | [Footer](#) | [Accessibility](#) | [A-Z Index](#)

CA.gov California Department of **Pesticide Regulation**

[Home](#) [Health & Safety](#) [Enforcement](#) [Pest Management](#) [Licensing](#) [Registration](#) [Monitoring](#) [Laws/Regulations](#)

» CalPIP Home
» My Selections

DATA SOURCE:
PRESCRIBE

Endangered Species Bulletin

Location
» County
» MTRS
» Zip Code

Product
» Name Search
» Help

CDPR

» About DPR
» Contact Us
» Customer Service Survey
» Join E-Lists

CALIFORNIA PESTICIDE INFORMATION PORTAL (CALPIP)

Endangered Species Custom Bulletin

Select County

[About PRESCRIBE \(Endangered Species Bulletin\)](#)

Step 1. Select County

To begin, select a county where your pesticide use will occur then click on the Select button.

Available Counties(58):

01 ALAMEDA
02 ALPINE
03 AMADOR
04 BUTTE
05 CALAVERAS
06 COLUSA

NOTE: You must specifically select one or more county(s) before making a Meridian/Township/Range /Section (MTRS) selection.

Select

Countries Selected (0):
Default:
All potential counties

Unselect Unselect All

To continue, click on Next.

Next Reset Start Over

Version 2011.12 (2010 PUR Data Update)

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Web Sites

- <http://icwdm.org/>
- [UC Statewide Integrated Pest Management Program](#)
- www.vpcrac.org