

MONTANA DEPARTMENT OF AGRICULTURE
Registered Field Rodenticides in Montana
2009

Registered Rodenticides for Ground Squirrel Control

Zinc Phosphide Grain Baits - Restricted Use Pesticide

Registered Products

ZP Rodent Bait Ag - Bell Laboratories

Prozap Zinc Phosphide Rodent Pellets - Hacco Inc.

Use Directions: Apply by hand with calibrated dipper at one teaspoon (4 g) per active burrow. Scatter bait near mound or in runway. Do not pile. Prebait with untreated oats 2 to 3 days before toxic bait application. Test ground squirrel bait acceptance by placing clean nontoxic oats near 20 or 30 marked burrows and monitoring for consumption before application of prebait and toxic bait. Do not apply bait until squirrels show good bait acceptance. Prebaited zinc phosphide oats may also be broadcasted using ground or aerial broadcasting equipment on range, pasture, alfalfa, wheat and barley. Apply at the rate of 6 pounds per acre soon after squirrels emerge from hibernation in the early spring and before substantial green-up of crops and vegetation. Broadcasting in alternate swaths is recommended. For details, be sure to read Montana Dept. of Agriculture bulletins Broadcast Use of Zinc Phosphide on Richardson Ground Squirrels and Calibrate Cyclone Seeder for Zinc Phosphide Use on Richardson Ground Squirrels for details. Follow label instructions carefully.

Use Restrictions: Apply to cropland sites only by hand on bare ground near burrows. Broadcast application is permitted for ground squirrel control only on rangeland, pasture, alfalfa, wheat, barley, and non-crop areas. See use directions above.

Important: Use zinc phosphide baits that are formulated on oats, either whole, crimped or hulled and rolled. Zinc phosphide baits formulated into pellets or on whole or cracked corn are not as well accepted as oats. Best results occur when green vegetation is not abundant, i.e. early spring, mid-summer.

Anticoagulant Grain Bait - Restricted Use Pesticide

Registered Product

Rozol Treated Oats For Controlling Ground Squirrels - Lipha Tech Chemical Co.

Use Directions: Apply by hand with calibrated dipper at one tablespoon (0.3 oz/9 g) per burrow. Scatter bait on bare ground near burrows. Do not pile. Apply second application in 4 days. Test bait acceptance before application by placing clean nontoxic oats near 20 or 30 burrows and monitoring for consumption. Do not bait if test bait is not eaten within 2 days.

Limitations: Do not skip the second application. Poor control will result. Do not exceed 4 days between applications,

Important: Active ingredient is a multidose anticoagulant. Two applications are needed for good results. Do not make a single application or make a single application at double the rate. Time applications when dry weather is expected.

Anticoagulants in Bait Stations

Registered Products – General use

Hopkins Ramik Green (formulated into pellets) - Haco, Inc.

Registered Products – Restricted Use

Rozol Treated Oats For Controlling Ground Squirrels – Lipha Tech Chemical Co.

Use Directions: These are multidose poisons requiring that the squirrels feed on the bait several times over several days. Apply Ramik Green only in bait stations. Do not attempt to use by scattering bait around burrow openings. Use sufficient bait stations to service the squirrel population, up to 4 bait stations per acre. Space stations 50-200 feet apart, depending on squirrel density. Bait stations may be spaced along crop borders between squirrel colonies and crops.

Rozol Oat Bait may also be applied by handbaiting (see Anticoagulant Grain Bait Use Directions).

Limitations: Cost for bait stations and bait (5 - 10 lbs/acre) plus labor of maintaining stations usually limit practical use to small acreages or isolated squirrel populations.

Important: A continuous bait supply is important. If bait stations are empty for too long, squirrels may recover from the initial bait consumption and survive.

Burrow Fumigants

Registered Products

- Ignitable Gas Cartridges - General Use Pesticide
 - The Giant Destroyer - Atlas Chemical Corp
 - Dexol Gopher Gasser – Dexol Industries
 - Gas Cartridge - USDA APHIS Wildlife Services
 - Revenge Rodent Smoke Bomb - Roxide International Inc.
- Aluminum Phosphide (Tablets/Pellets) - Restricted Use Pesticide
- Several registrants

Use Directions: Place in burrows, plug with sod, then seal with soil. Best results occur when soil moisture is high. Efficacy is reduced in dry, porous soils which allow gas to escape into soil structure and slows release of phosphine gas from aluminum phosphide fumigants. Do not apply fumigants within 15 feet of building foundations.

Limitations: Cost and labor limit use to small acreages and isolated populations.

Registered Rodenticides for Pocket Gophers

Anticoagulant Baits - General Use Pesticide

Registered Products

- Rozol Pocket Gopher Bait (formulated on wheat) - Lipla Tech Chem.
- J T Eaton Answer For The Control Of Pocket Gophers - J T Eaton & Co Inc.

Use Directions: For use on pocket gophers only. Make 2 to 3 four (4) oz placements per burrow system by probe and funnel method or hand placement in burrows. Apply when gophers are actively building mounds. J T Eaton bait bars should be placed in opened burrow systems and replugged.

Limitations: May require 5 to 10 lbs. of bait per acre. Hand application is labor intensive making use over larger acreages difficult. Application of Rozol grain bait by mechanical burrow builder is not recommended.

Important: Decrease in pocket gopher activity may take 2 weeks. Retreat in areas of active mound building after two weeks.

Strychnine Grain Baits - May be classified as either Restricted or General Use

Registered Products

- Fort Dodge Gopher Bait - Fort Dodge Chemical, Inc.
- Strychnine Treated Grain Bait - USDA Pocatello Supply Depot
 - Several Formulations*
 - Elston Gopher Getter Bait - Elston Manufacturing Inc.
 - Elston Gopher Getter Jr. Bait on Milo
 - Petersen's Pocket Gopher Killer - Petersen Seeds Inc.
 - Pocket Gopher Bait – Strychnine on Oats - R & M Exterminators Inc.
 - Pocket Gopher Bait – Strychnine on Milo
 - Omega Gopher Grain Bait - RCO International
 - Martin's Gopher Bait - Control Solutions Inc.
 - Rodex - Carajon Chemical Co. Inc.

Use of strychnine baits for ground squirrel and prairie dog control is an illegal and unregistered use.

Use Directions: Apply 2 to 3 one teaspoon placements per burrow system by probe and funnel method. Apply by mechanical burrow builder at 1-2 lbs. per acre. Make applications when gophers are actively building mounds.

Limitations: Acceptance of strychnine bait by pocket gophers is highly variable. Adjust timing of application and bait formulation to determine what works best in your area. Burrow builder operation limited to soil type and soil moisture that will form a clean burrow without collapsing.

Zinc Phosphide Baits – May be classified either as Restricted or General Use.

Registered Products

- Mole and Pocket Gopher Bait - Motomco Ltd.
- Gordon's Mole & Gopher Poison Pellets - PBI Gordon Corp.
- Hi-Yield Mole & Gopher Bait - Voluntary Purchasing Groups
- Zinc Phosphide on Oats - R & M Exterminators Inc.

Use directions: Read and follow label directions.

Burrow Fumigants

Registered Products

See list under Ground Squirrels.

Use Directions: See Ground Squirrels.

Limitations: Not generally recommend for control of pocket gophers. Fumigant gases in shallow, complex tunnels of pocket gophers disperse poorly resulting in poor control unless numerous applications are made in the same burrow system. Pocket gophers may seal off treated tunnels.

Registered Rodenticides for Prairie Dogs

NOTE: STRYCHNINE AND ANTICOAGULANT BAITS ARE NOT REGISTERED FOR CONTROL OF PRAIRIE DOGS IN MONTANA.

Zinc Phosphide Grain Baits - Restricted Use Pesticide

Registered Products

- Zinc Phosphide on Steam-Rolled Oats For Prairie Dog Control - USDA APHIS Wildlife Services
- ZP Rodent Bait AG (prairie dog formulation, crimped oats) - Bell Labs.
- Prozap Zinc Phosphide Oat Bait - Hacco Inc.

Use Directions: See Ground Squirrels.

Use Restrictions: See Ground Squirrels.

Burrow Fumigants: See Ground Squirrels for Registered Products, Use Direction & Restrictions.

Important: Where labels refer to restrictions for protection of the black-footed ferret consult with Fish and Wildlife authorities or the Montana Department of Agriculture before bait or fumigant application. Notify US Fish & Wildlife authorities if more than 80 acres are to be treated.

Registered Rodenticides of Voles

Zinc Phosphide Baits – Restricted Use Pesticides

Registered Products

- Zinc Phosphide On Oats - R & M Exterminators Inc.

Prozap Zinc Phosphide Oat Bait - Hacco Inc.

Use Directions: Scatter bait near burrow openings and in runways. Do not use in crop areas. See label for specific areas and times to apply.

Use Restrictions: See label.

SAFETY PRACTICES FOR USE OF RODENTICIDES

Safety in rodenticide use is important to prevent needless death or injury to people or non-target animals. Follow a few simple, common sense precautions to avoid most potential accidents.

1. Buy only enough rodent bait for a single season. Strength of the toxicant usually does not weaken, but in the case of grain baits, the bait may dehydrate and may reduce its acceptability to rodents.
2. Store rodenticides in a locked, weather-tight, rodent proof area. Mice feeding on rodent bait will be killed but they have a higher tolerance to many rodenticides and can cause considerable bait spillage. Contamination of bait by mouse dropping or odors from other pesticides or petroleum products can reduce bait acceptance. Bait that becomes wet may be reduced in strength or mold, resulting in reduced effectiveness or poor acceptance.
3. Keep the rodenticides in their original, labeled containers. Grain baits and grain based pellets can easily be confused with livestock feed.
4. Read and review the rodenticide labels before use each season. Check for changes in use recommendations and use restrictions. Understand procedures to follow in case of accidental poisoning.
5. Use calibrated dippers to apply bait at the label recommended amount.
6. Do not over apply. Results will not improve, cost will increase, and greater quantities of residual bait will remain, increasing the hazard to non-target animals.
7. When applying surface bait, scatter the bait over a 2-3 square foot area near each active burrow. Ground squirrels and prairie dogs are surface foragers and not accustomed to finding the food in piles. Piling bait increases hazard to livestock and wildlife. Place bait on hard, bare ground or areas with short, sparse vegetation. Bait placed in dense grass will usually go unfound by the squirrels.
8. Do not apply bait in ground squirrel or prairie dog burrows or on the soft mound dirt. This usually results in the bait being soiled or buried rather than consumed. Any residual exposed bait can present a hazard to non-target animals.
9. When applying bait keep excess bait in locked or latched storage. Use canvas bags that can be zippered or tied shut when not in use. Each year livestock are killed by feeding from open bait containers left unattended on the ground or in vehicles.
10. Consider additional precautions when applying grain baits in areas frequented by waterfowl or other seed eating birds:
 - Time applications during periods when waterfowl are not using the area.
 - Patrol or use scare devices to keep waterfowl from the area for several days after bait application.
 - Consider use of alternative control methods such as burrow fumigants or bait stations in areas frequented by waterfowl or other seed eating birds.
11. Dispose of poisoned squirrel carcasses when practical to reduce risks to predators and scavengers. Bury carcasses

individually in burrows to prevent concentration of poisoned carcasses. Use gloves and a shovel to avoid contact with external parasites that may transmit diseases to humans.

12. Notify nearby neighbors of your bait application. Suggest confinement of dogs, cats or other animals for a period of time after bait application.

13. Destroy empty bait sacks. Do not reuse for other purposes.

14. Cut or untie bait bags carefully to prevent dust from billowing from bait containers. Stand up wind when transferring bait.

FOR INFORMATION ON OR ASSISTANCE WITH THE MANAGEMENT OF RODENTS OR OTHER VERTEBRATE PESTS, CONTACT:

Montana Department of Agriculture
Vertebrate Pest Program
P.O. Box 200201
Helena, MT 59620-0201
(406) 444-5400 [TDD 406-444-4687]

In Helena: Daniel Sullivan
Phone - (406) 444-5400

In Billings: Monty Sullins
Phone - (406) 652-3615

BULLETINS:

The Columbian Ground Squirrel. Its Biology and Control	Pocket Gopher Control Techniques
The Richardson Ground Squirrel. Its Biology and Control	Prairie Dog Control
Managing Ground Squirrels with Bait Stations	Using Zinc Phosphide Effectively
Controlling Burrowing Rodents with Burrow Fumigants	Voies in Montana – Their Biology, Damage, and Control
Rozol Ground Squirrel Bait - Proper Use Practices	
Broadcast Use of Zinc Phosphide on Richardson Ground Squirrels	
Calibrate Cyclone Seeder for Zinc Phosphide on Richardson Ground Squirrels	

VIDEOS:

Managing Prairie Dogs in Montana - 1992 (23 minutes)
Managing Richardson Ground Squirrels in Montana - 1994 (23 minutes)
Managing Columbian Ground Squirrels in Montana - 1995 (22 minutes)
Managing Pocket Gophers in Montana - 1994 (15 minutes)
Pocket Gopher Control in the Yard and Garden - 1994 (13 minutes)
Pocket Gopher Control Using Mechanical Burrow Builders - 1994 (13 minutes)

MONTANA POISON CONTROL INFORMATION
1-800-525-5042

ROCKY MOUNTAIN POISON CENTER
1-800-322-3073