Registered Field Pesticides for Vertebrates in Montana MONTANA DEPARTMENT OF AGRICULTURE November 2024

HOW TO USE THIS GUIDE

The decision to use rodenticides to control rodent pests can be challenging due to the variety of rodenticides available. This guide is written to provide a quick survey of available products to help you narrow your choices quickly. <u>It is not a replacement for the pesticide label. Always read the label thoroughly before purchasing any pesticide to ensure that the product is right for your situation.</u> Note that tribal areas and government lands (e.g., BLM, National Forests and Parks, and State lands) have additional restrictions on rodenticide use. Please consult officials before using rodenticides in those areas.

This guide is not designed for organic growers. Organic growers should obtain the bulletin Organic Vertebrate Control available at https://agr.mt.gov/Vertebrate-Pests.

We have organized the pesticides by pest species and then by active ingredient or active ingredient category. We have endeavored to provide a complete list of lethal vertebrate pesticides registered in Montana. However, the registration status of rodenticides can change, sometimes, quickly. To check the registration of a product, visit https://mtplants.mt.gov/ProductRegFSA/BrandSearch.aspx. General Use Pesticides (GUP) are pesticides that may be purchased without a license for use on your property. Restricted Use Pesticides (RUP) are pesticides that may only be purchased by a Montana licensed pesticide applicator. If you wish to apply rodenticides on someone else's property, you will need a Commercial Pesticide Applicators License. To learn more or to obtain a pesticide applicator's license contact Montana Department of Agriculture at 406-444-4900. For more information on the control of vertebrate pests in Montana visit https://agr.mt.gov/Vertebrate-Pests. Numbers that follow pesticide names refer to the EPA's pesticide registration number. Numbers that begin with MT are special local needs (SLN) registrations that allow for expanded uses in Montana only. If the EPA and MT numbers are provided, applicators will need to have both labels in their possession, if two labels are available.

Under each pest species heading is the list of available products registered for the control of that species along with brief descriptions regarding the rodenticide's use. These descriptions are written to help you narrow your choices and fall under four categories:

- <u>Use Directions</u> briefly highlight a few label requirements governing the use of the pesticide,
- Use Restrictions describe some of the important ways the rodenticide may **not** be used,
- <u>Limitations</u> review some practical issues that you need to consider before using the rodenticide not necessarily found on the label and
- <u>Important</u> points out some considerations that research and experience have revealed about using the rodenticide in the most effective way but are not necessarily found on the product's label.

SAFER USE OF RODENTICIDES

Rodenticides must be used properly to prevent needless death or injury to people and non-target animals. Fortunately, following a few simple precautions will prevent most potential accidents.

ALWAYS READ THE LABEL BEFORE USING ANY PESTICIDES

- 1. Do not stockpile pesticides. Restrict purchases to those needed to fulfill seasonal needs. While vertebrate pesticides do not usually weaken during storage, grain baits, for example, may dehydrate and become stale, thereby reducing their acceptability to rodents.
- 2. Store pesticides in a locked, weather-tight, rodent proof area. Secure storage of rodenticides protects bait from accidental consumption by children and pets as well as contamination from other chemicals that may reduce bait

11/1/2024

acceptance. Bait that becomes wet may be reduced in strength or become moldy, resulting in reduced effectiveness or poor acceptance.

- 3. Keep pesticides in their original, labeled containers as grain baits and grain-based pellets can easily be confused with livestock feed.
- 4. Read and review pesticide labels before use each season. Check for changes in use recommendations and use restrictions. Understand procedures to follow in case of accidental poisoning and keep first aid equipment at hand.
- 5. Apply baits with designated calibrated dispensers to ensure that the label requirements are followed. Do not use pesticide dispensers for other tasks.
- 6. Do not over apply. Over-application only increases costs, residual pesticide levels, hazards to non-target animals, and is unlawful.
- 7. Ground squirrels and prairie dogs are surface foragers and not accustomed to finding food in piles. Avoid piling of bait as piles increase hazard to livestock and non-target wildlife. When applying surface bait, scatter the bait over a square foot area near each active burrow. Place bait on hard, bare ground or areas with short, sparse vegetation. Avoid scattering bait in areas of dense grass as ground squirrels and prairie dogs will usually not find it. Do not apply bait on soft mound dirt as this usually results in the bait being soiled or buried rather than consumed.
- 8. 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. Livestock can be killed by feeding from open bait containers left unattended on the ground or in vehicles.
- 9. 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.
- 10. Dispose of poisoned vertebrate carcasses 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, such as fleas, that may transmit diseases to humans.
- 11. Notify nearby neighbors of your bait application. Suggest confinement of dogs, cats, or other animals for a period of time after bait application. Use five days for zinc phosphide and strychnine-based products and 14 days for anticoagulants unless the label directs otherwise.
- 12. Destroy or recycle empty bait containers. Do not reuse for other purposes.
- 13. Cut or untie bait bags carefully to prevent dust from billowing from bait containers. Stand up wind when transferring bait. Note that some labels require additional personal protection equipment when filling application devices.
- 14. Change clothes following a pesticide application and wash separately from other laundry. Shower and put on clean clothes before performing other activities.

Definitions

25b: Products registered under Section 25(b) of the Federal Insecticide, Fungicide Rodenticide Act (FIFRA) that have been deemed to be minimum risk and thus are exempt from many EPA regulations such as needing an EPA registration number.

Bait Station: (also known as a tamper-resistant bait station). An enclosure designed to hold a pesticide while protecting it from weather and non-target access including children and pets.

Crop: Areas where a product is harvested e.g. hay, wheat, barley, fruit, etc.

Lawns: Regularly mowed areas that are non-residential.

Non-crop: Non-crop is a pretty broad use site but it includes anywhere not used for crop production. That includes rangeland, residential, O&T and more as long as site(s) are not explicitly restricted somewhere else in the label. Sometimes labels will give use rates for "non-crop" applications then later on restrict use on other various use sites that would fall under the umbrella of "non-crop". Areas that are not crops, pastures, rangeland, parks, residential lawns. Vague term. Suggest contacting MDA before making an application under this site heading.

Pastures: Land primarily used to produce adapted, domesticated forage plants for livestock.

Prebaiting: The application of untreated grain to the entire treatment area to condition the vertebrate pests to eat the treated grain that will be applied in a few days. The goal of prebaiting is to enhance the consumption of the treated grain.

Pretesting: The application of untreated grain to a portion of the vertebrate pest damaged area to determine if the pests will consume grain. If the vertebrate pests are not consuming the untreated grain then there is no value in applying pre-bait or bait. Compare prebaiting.

Rangeland: Areas with native vegetation, which is predominantly grasses, grass-like plants, forbs or shrubs suitable for grazing and browsing use. Rangelands include natural grassland, savannas, many wetlands, some deserts, tundra, and certain forb and shrub communities.

Reproductives: Pesticides designed to interfere with the rodent's fertility (i.e. birth control).

Residential: Location where people live. The portion of the ground that is mowed on a regular basis (e.g., weekly, biweekly) is considered the residential part of the property.

Symbols and Abbreviations

A Alfalfa Adi Adjacent Air **Airports Barley** B Be **Beans Be-Dry Bean Dry** Broadcast Br Bu **Bushberries**

BS Bait Station in parentheses following site where allowed.

C Crop

Ca Caneberries

Chlor Chlorophacinone, a FGAR

CL Commercial Lawn

Co Corn

CoNt Corn No-Till
Cu Cucurbits

DB Denatonium Benzoate (a bittering agent to deter child consumption)

Diph Diphacinone, a FGAR

F Forests

FGAR First-generation Anticoagulant Rodenticide (i.e. warfarin, chlorophacinone,

diphacinone)

GUP General Use Pesticide (may be purchased without a license)
IN In burrow in parentheses following site where allowed.

LC Lawns-Commercial
LnonR Lawns-non-residential
LR Lawns-Residential

MTFWP MT Fish, Wildlife & Parks

N Nurseries

Nnf Nurseries non-food

NA Non-Anticoagulant (i.e. bromethalin, cholecalciferol, strychnine, zinc phosphide)

NC Non-Crop O Orchards Oat Oats

Orn Ornamentals

P Pasture
Par Parks
Po Potatoes
R Rangeland

RA Recreation Areas ROW Right-of-Way

RUP Restricted Use Pesticide (License required to purchase & use)

S Sewers SB Sugar Beets

SGAR Second-generation Anticoagulant Rodenticide (i.e. brodifacoum, bromadiolone,

difenacoum, and difethialone).

Str Structures

USFWS U.S. Fish & Wildlife Service (federal agency)

V Vineyard W Wheat WA Wet Areas

To legally use a vertebrate pesticide:

The label must mention

- 1. The pest you want to control
- 2. The site where you want to use the pesticide
- 3. The method you want to use to apply the pesticide

For example, if you want to use a rodenticide with a bait station in a forest, the label MUST state that bait station use is legal for the pest listed on the label and in a forest location where the bait station will be placed.

Warning:

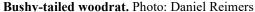
Rodenticide labels have been undergoing EPA review which has resulted in numerous changes. Do not assume that the product you used last year has the same restrictions and requirements this year.

Always read the label prior to purchase.

Always read the label prior to use.

Registered Rodenticides for Bushy-tailed Woodrats (AKA packrats)







Bushy-tailed woodrat. Photo: USFWS

Anticoagulants in Bait Stations Must be used within 100 ft of permanent agricultural structure.

Registered Products -

Non-Anticoagulants (NA)

Cannon Soft Bait 7173-304 Liphatech, Inc. (GUP) Bromethalin

Anticoagulants (All are GUP unless noted otherwise)

Attax Soft Bait 7173-308 Liphatech, Inc. (FGAR)

FastDraw Soft Bait 7173-297 Liphatech, Inc. (SGAR)

FastDraw40 Soft Bait 7173-258 Liphatech, Inc. (SGAR)

FirstStrikeTM Soft Bait 7173-258 Liphatech, Inc. (SGAR)

FirstStrike40 Soft Bait 7173-258 Liphatech, Inc. (SGAR)

Flatline Soft Bait 7173-308 Liphatech, Inc. (FGAR)

Promar® Blox All-weather Rodenticide 61282-12 Hacco, Inc. (FGAR)

Ramik® Bars All-weather Rat & Mouse Killer 61282-12 Hacco, Inc. (FGAR)

Renegade Mini Blocks 7173-288 Liphatech (SGAR)

Resolv® Soft Bait 7173-297 Liphatech, Inc. (SGAR)

Resolv® 40 Soft Bait 7173-297 Liphatech, Inc. (SGAR)

Revolver® Soft Bait 7173-297 Liphatech, Inc. (SGAR)

Revolver®40 Soft Bait 7173-297 Liphatech, Inc. (SGAR)

Rozol Borderline 7173-242 Liphatech, Inc. (RUP) (FGAR)

Rozol® Pellets 7173-151 Liphatech, Inc. (FGAR)

Rozol Vole Pellets 7173-242 Liphatech, Inc. (RUP) (FGAR)

Reproductives (GUP-25b low risk product)

EvolveTM No EPA Reg #. Active ingredient is Cottonseed Oil.

Use Directions: In 2020, the EPA allowed pesticide manufacturers to add bushy-tailed pack rats to their structural rodenticide labels. MDA expects additional products to be available as the re-registration process continues.

Use Restrictions: When applied outdoors, bait must be secured within tamper-resistant bait stations capable of preventing access by larger non-target animals, pets, and children. This may require you to use steel stations in some areas.

Limitations: Bait stations must be placed within 100 feet of a permanent structure.

Important: Be patient. It may take several weeks before the packrat is comfortable enough to enter the bait station and feed on the bait.

Registered Pesticides for Coyotes





Coyote. Photo: USFWS Coyote. Photo: USFWS

Fumigants

Registered Products –(GUP) Large Gas Cartridge 56228-62 USDA-APHIS: R, C, NC.

<u>Use Directions</u>: Must be used in active coyote dens only.

<u>Use Restrictions</u>: Must obtain Endangered Species Bulletin prior to use. Must contact USFWS regional office (406-449-5225) for information on endangered or threatened species in your area.

<u>Limitations</u>: Cannot use in or near buildings or flammable material.

<u>Important</u>: Use of ignitable gas cartridges is safer and more effective after rainfall. In 2026, a separate license category will be required to use fumigants in Montana.

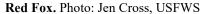
Toxicants

Registered Products - (RUP)

M-44. Use requires an additional pesticide license beyond the traditional license. Contact the Vertebrate Pest Specialist at the end of this document for more details.

Registered Pesticides for Red Fox







Red Fox. Photo: Karen Laubenstein, USFWS

Fumigants

Registered Products -(GUP)

Large Gas Cartridge 56228-62 USDA-APHIS: R, C, NC.

<u>Use Directions</u>: Must be used in active coyote dens only.

<u>Use Restrictions</u>: Must obtain Endangered Species Bulletin prior to use. Must contact USFWS regional office (406-449-5225) for information on endangered or threatened species in your area. Must wear protective eyewear.

<u>Limitations</u>: Cannot use in or near buildings or flammable material.

<u>Important</u>: Use of ignitable gas cartridges is safer and more effective after rainfall. In 2026, a separate license category will be required to use fumigants in Montana.

Toxicants

Registered Products – (RUP)

M-44. Use requires an additional pesticide license beyond the traditional license. Contact the Vertebrate Pest Specialist at the end of this document for more details.

Registered Rodenticides for Ground Squirrels



Columbian ground squirrel. Photo: Fredly Fish 4.



Richardson's ground squirrel. Photo: Stephen M. Vantassel

Zinc Phosphide Baits - Restricted Use Pesticides (RUP)

Registered Products

Prozap® Zinc Phosphide Oat Bait 61282-14 Hacco Inc.R, P, CL (BS), Ornamentals, (BS) Parks (BS), O (RGS only),

Prozap® Zinc Phosphide Pellets 61282-49 Hacco, Inc. A (BS & IN), B, O, Oat, R, P, V, W, Adj. NC, Adj ROW

Wilco Zinc AG Bait 36029-10 Wilco Distributors, Inc. Spot or broadcast; Numerous Crop sites often with (BS), Berry (BS), Noncrop, ROW, LC

Zinc Phosphide on Oats 4271-16 R & M Exterminators, Inc. R only

ZP AG Oats 12455-102-3240 Motomco, Inc. Mostly for Richardson's

ZP® AG Pellets 12455-17-3240 Motomco, Inc. Richardson's B, O, R, P, adjacent NC, NC ROW, W,

ZP Rodent Oat Bait Ag 12455-102 Bell Laboratories. Mostly for Richardson's, W, B, A, Orn, GC, Par.

ZP Rodent Oat Bait Ag 12455-102; MT-18-0005 Bell Laboratories. R, P, A, W, Oat, B, adj NC.

ZP Rodent Bait Ag 12455-17; Bell Laboratories. Richardson's Only, R, P, adj. NC, B, W, O,

ZP Rodent Bait Ag 12455-17; MT 18 0005 Bell Laboratories. Richardson's Only, fallow ground (Mar 1 July 31)

<u>Use Directions</u>: (Recommended) Pretest 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. Prebaiting with untreated grain two to three days before toxic bait application is <u>strongly</u> recommended and sometimes mandated. Apply by hand with calibrated dipper at one teaspoon (4 g) per active burrow. Scatter bait near mound or in runway. Do not pile. Some labels allow broadcast baiting by hand, ground-driven or aerial devices in crops provided pre-harvest intervals are observed (e.g., 50 days before harvest, dormancy, or post harvest). Some site applications are restricted to only one of the two species of ground squirrels. Use in orchards is generally restricted to dormant periods as is some alfalfa applications. Some labels allow in burrow applications (usually stated as below ground) and bait station application.

<u>Use Restrictions</u>: Consult with the U.S. Fish and Wildlife Service (Helena: 406-449-5225) or MT Fish, Game & Parks (Helena 406-841-4000) for current information on habitats occupied by endangered species. Some labels restrict application to bait stations in alfalfa and barley (during post-harvest or dormancy periods) or on non-residential lawns, golf courses, parks, and ornamental sites. Apply bait only once per year. Site restrictions can vary wildly so read labels carefully. Broadcast application is permitted on R and NC areas <u>where ground cover is less than 50 percent.</u>

<u>Limitations</u>: Do not apply bait when inclement weather is expected in the two to three days following application.

Note: not all labels allow bait to be placed in bait stations.

<u>Important</u>: Best results occur when green vegetation is not abundant, i.e., early spring, mid-summer. Pelleted bait holds up better in rain events.

Anticoagulants in Bait Stations

Registered Products – SLNs & RUPs (Chlor)

Rozol® Ground Squirrel Oat Bait– (No Federal Label) MT 00-0007 Liphatech, Inc. (RUP) Non-public areas in NC, R, P, and in infested bare ground areas within A, W, O, or B fields.

Rozol Ground Squirrel Bait 7173-305 Liphatech, Inc. (RUP) V, O & groves, tree & forestry plantations, nurseries, R, fallow agricultural land, fence rows, highway medians & ROW, rail & utility ROW, ditches, canal banks & levees, ornamental gardens, campgrounds, and other recreational areas. Searches for carcasses required. Allows broadcasting for some sites.

<u>Use Directions</u>: These toxicants require squirrels to feed on the bait several times over several days to achieve a lethal dose. Apply baits only in bait stations of sufficient strength to inhibit destruction by livestock or non-target wildlife. Bait stations must be anchored well enough to prevent movement by children and non-target wildlife. Use sufficient bait stations to service the squirrel population. Space stations 20 to 200 feet apart, depending on squirrel density and label recommendations. Bait stations may be spaced along crop borders between squirrel colonies and crops. Fill each station with 1 to 4 pounds of bait as label states. Maintain bait supply as the label requires.

<u>Use Restrictions</u>: May NOT be applied to residential lawns. May not be used in orchards during the growth period.

<u>Limitations</u>: Cost for bait stations and bait plus labor of maintaining stations usually limit practical use to acreages of 500 or less or to isolated squirrel populations. The 7173-305 label requires pretesting to ensure ground squirrels will take grain and a 30-day grazing restriction for treated areas. Follow-up searches for ground squirrel carcasses required.

<u>Important</u>: Maintain bait supply for the period suggested on the label. One station will control ground squirrels within a 100-foot radius.

Anticoagulants—Ground Application

Registered Product—RUP

Rozol[®] Ground Squirrel Oat Bait (7173-184) MT 00-0007 Liphatech, Inc. (RUP) Non-public areas in NC, R, P, and in infested bare ground areas within A, W, Oat, or B.

Rozol Ground Squirrel Bait 7173-305 Liphatech, Inc. (RUP) Richardson's ground squirrel ONLY. vineyards, orchards & groves, tree & forestry plantations, nurseries, R, fallow agricultural land, fence rows, highway medians & ROW, rail & utility ROW, ditches, canal banks & levees, ornamental gardens, campgrounds, and other recreational areas. Search for carcasses required.

<u>Use Directions</u>: This is a multi-dose poison requiring that the squirrels feed on the bait several times over several days to achieve a lethal dose. Labels differ on amount to be applied. The SLN requires scattering only 1 tablespoon of bait on bare ground around (not in) active ground squirrel burrows. While the 7173-305 requires a ¼-cup. Do not allow bait to pile. Do not scatter bait on a soft dirt mound. Apply when weather will be dry for at least 4 days. Apply a second application 2 to 4 days after the first. Use in orchards is restricted to dormant periods.

<u>Use Restrictions</u>: Use care when choosing sites for spot or broadcast baiting as bait is palatable to domestic and other non-target animals. The 7173-305 label requires testing to ensure ground squirrels will take grain but the practice is advisable for the SLN. May not be used in orchards during the growth period.

<u>Limitations</u>: Spot baiting may be practical for small acreages.

<u>Important</u>: Place an orange surveyor's flag at burrows that were spot treated. Flags will help you locate the burrows faster during the second application.

Burrow Fumigants: In 2026, a separate license category will be required to use fumigants in Montana.

Registered Products-General Use Pesticides (GUP)

Ignitable Gas Cartridges - General Use Pesticides (GUP)

Amdro Gopher Gasser 73342-8 Ambrands L, ornamental & flower gardens, open fields. The Giant Destroyer® 10551-1 Atlas Chemical Corp NC, R, L, open fields

Gas Cartridge 56228-61 USDA APHIS Wildlife Services L, NC, R

Victor® V® Quick Strike™ Mole & Gopher Gasser 36488-67 Woodstream Corp. R

Revenge® Rodent Smoke Bomb 9086-4 Roxide International Inc.

<u>Use Directions</u>: Use only in outside burrows at least 15 feet from structures that contain the target species. 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 diminishes the level of toxic gases in the burrow.

<u>Use Restrictions:</u> Some fumigants are registered only for residential use. Do not apply ignitable gas cartridge fumigants within 15 feet of building foundations, porches or items that can catch fire. Never use ignitable gas cartridges inside, under or beside buildings. Protective eyewear may be required. Some labels prohibit use within proximity of prairie dog towns. Must investigate whether endangered or threatened species may be harmed by your treatment. Consult the EPA's Bulletins Live! Two.

<u>Limitations</u>: Cost and labor limit use to small acreages and isolated populations. Consider fire risk.

Registered Products General Use Pesticides (GUP)

IGI Carbon Dioxide™ 7173-313 Liphatech, Inc. ROW, residential areas, N, GC, public parks and lands, sports complexes, farms, R, levees,

<u>Use Restrictions</u>: Must wear protective eyewear when connecting hoses. Gas is under pressure so care must be taken to avoid damaging or dropping cylinders. Additional PPE required when fumigating inside structures. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using the product, consult http://www.epa.gov/espp/ or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

<u>Limitations</u>: Moles do not occur in Montana. Product is not labelled for prairie dogs.

Registered Products-Restricted Use Pesticides (RUP)

Aluminum Phosphide (Pellets/Tablets) - Restricted Use Pesticides (RUP)

Degesch Phostoxin Pellets 72959-5 D & D Holdings, Inc.

Degesch Phostoxin Tablets 72959-4 D & D Holdings, Inc.

Detia Phos Tablets 72959-4 D & D Holdings, Inc.

Fumitoxin® Pellets 72959-2 D & D Holdings, Inc.

Fumitoxin® Tablets 72959-1 D & D Holdings, Inc.

PH₃ Aluminum Phosphide Fumigant Pellets 1015-74 Douglas Products & Packaging Co.

Phosfume 2 Aluminum Phosphide Fumigant Pellets 1015-74 Douglas Products & Packaging Co.

Weevil-Cide® Tablets 70506-13 United Phosphorus, Inc.

Weevil-Cide® Pellets 70506-14 United Phosphorus, Inc.

<u>Use Directions</u>: Must create a written Fumigation Management Plan prior to use. A template is available at https://agr.mt.gov/Vertebrate-Pests</u>. Place in outdoor burrows occupied by the target species, 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.

<u>Use Restrictions</u>: Note that five pellets = one tablet. Maximum application is 20 pellets OR four tablets per burrow system. Do not apply product within 100 feet of buildings that may house humans or animals. Do not use in residential, nursing homes, schools, day care facilities and hospital areas. It may be used to treat playing fields. Warning signs

must be posted and left for at least two days following the application.

<u>Limitations</u>: Cost and labor limit use to small acreages and isolated populations. In addition, you must obtain air testing equipment to monitor phosphine gas levels to ensure applicators are not exposed. Must have an appropriate gas mask available in the event that phosphine gas levels are exceeded.

Important: Product may be used year-round (unless local restrictions apply) and as a follow up to other pesticides. Most applicators find that tablets are easier to handle than pellets. Research suggests that placing two tablets (or ten pellets) in each ground squirrel burrow is sufficient to provide effective control. Most effective when temperatures are above 70° F.

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Registered Rodenticides for Deer Mice & White-footed Mice (Peromyscus spp.)



Deer Mouse. John Good, National Park Service



White-footed Mouse. Charles Homler, Wikimedia

Information on rodenticides for control of Peromyscus spp. is still under development.

Non-Anticoagulant Baits – General (GUP) and Restricted Use Pesticides (RUP)

Zinc Phosphide Registered Products

Prozap® Zinc Phosphide Oat Bait 61282-14 Hacco Inc. (RUP), O, V

Prozap® Zinc Phosphide Pellets 61282-49 Hacco Inc. (RUP) Cucurbits, No-till Corn, V, B

TakeDown Soft Bait 7173-304 Liphatech, Inc. (GUP)

Wilco Zinc Ag Bait 36029-10 Wilco Distributors, Inc. (RUP) B, Cucurbits, No-till Corn, V,

Zinc Phosphide on Oats 4271-16 R & M Exterminators, Inc. (RUP) O, ROW, Lawns (non-residential), V, Commercial/Ag Bldgs

Zinc Phosphide on Oats 56228-14 USDA APHIS Wildlife Services (RUP)

ZP® AG Oats 12455-102-3240 Motomco, Inc. (RUP) [white-footed mice only, O, airports], V,

ZP® AG Pellets 12455-17-3240 Motomco, Inc. (RUP) V, Cucurbits, No-till Corn, Beans

ZP® Rodent Bait AG 12455-17 Bell Laboratories, Inc. (RUP) V, Cucurbits, No-till Corn, Beans

ZP® Rodent Oat Bait AG 12455-102 Bell Laboratories, Inc. (RUP) O for white-footed mice, V, B,

Bromethalin Registered Products

Assault[®] All Weather Bait 61282-75 Hacco, Inc. Bait stations within 100 feet of structures only Cannon Soft Bait 7173-304 Liphatech, Inc. Bait stations within 100 feet of structures only

Anticoagulant Baits -

Registered Products General Use Pesticides (GUP) All are for control of both species unless otherwise noted. List may not be complete. These baits will likely be labelled for Norway rats and house mice. Baits are categorized according to how far away from structures the bait may be applied.

Baits designated as FGAR or NA have lower secondary poisoning risk. Baits labelled as Bitrex have a bittering agent to reduce consumption risk by non-target animals and children.

100 Feet Restriction

AttaxTM Soft Bait 7173-308 Liphatech, Inc. (FGAR) DoubleTapTM Soft Bait 7173-308 Liphatech (FGAR) FastDraw Soft Bait 7173-297 Liphatech, Inc. (SGAR) FastDraw40 Soft Bait 7173-258 Liphatech, Inc. (SGAR) Flatline Soft Bait 7173-308 Liphatech, Inc. (FGAR) Hombre[®] Mini Blocks 7173-218 Liphatech, Inc. (SGAR) Renegade Mini Blocks 7173-288 Liphatech, Inc. (SGAR) Resolv[®] Soft Bait 7173-297 Liphatech, Inc. (SGAR) Resolv[®] 40 Soft Bait 7173-297 Liphatech, Inc. (SGAR)

Revolver® Soft Bait 7173-297 Liphatech, Inc. (SGAR) Revolver®40 Soft Bait 7173-297 Liphatech, Inc. (SGAR)

Use Directions: Restrictions on use typically follow the guidelines for control of house mice and Norway rats.

Use Restrictions: Read labels carefully as many rodenticides for the control of house mice and Norway rats do not list deer mice or white-footed mice.

Important:

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Registered Rodenticides for Pocket Gophers



Pocket Gopher. Photo: Motomco, Inc.



Mixture of old and fresh pocket gopher mounds. Photo: Stephen M. Vantassel/MDA

Anticoagulant Baits - General Use Pesticides (GUP; FGAR)

Registered Products—hand baiting

Rozol® Pocket Gopher Bait 7173-184 Liphatech, Inc.(Chlor) L, A, R, O, NC

J. T. Eaton Answer For The Control of Pocket Gophers 56-57 J. T. Eaton & Co, Inc.(Diph)

Kaput[®]-D Pocket Gopher Bait 72500-9 Scimetrics Ltd. Corp. (Diph) C, R, NC, Lawns, Levees, Nurseries, Parks

Ramik® Mole & Gopher 61282-65

Sierra® Gopher Bait 72500-9-79717 Sierra Industries, Inc. (Diph) C and adjacent areas, R, O, NC, turf areas, ditches

<u>Use Directions</u>: For use on pocket gophers <u>only</u> in below ground applications. Use probe and funnel method, dig hole and hand placement or sub-station to apply bait in burrows as directed by label. Apply active burrow systems identified by fresh mounds. Always ensure to reclose hole openings after application. J. T. Eaton bait bars should be placed in opened burrow systems and re-plugged.

<u>Use Restrictions</u>: Some products cannot be used on cropland. May not be applied by mechanical burrow builder. Note restrictions about control of pocket gophers in prairie dog towns.

<u>Limitations</u>: Hand application is labor intensive making use over larger acreages difficult. Note: moles do not occur in Montana.

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

Anticoagulant Baits – Restricted Use Pesticide (RUP; FGAR)

Registered Products—application by mechanical burrow builder

Kaput®-D Burrow Builder Pocket Gopher Bait 72500-12 Scimetrics Ltd. Corp. (Diph) C, R, N, O, NC, Levees, Parks, and around Ag buildings.

Ramik® green AG 61282-63 Hacco, Inc. (Diph) A, L, F, V, Nurseries, vegetable crops, grain fields, forage crops, hay crops.

Rozol® Pocket Gopher Bait II 7173-244 Liphatech, Inc. (Chlor) L, A, R, O, NC & hand application

<u>Use Directions</u>: For use on pocket gophers <u>only</u> in below ground applications. Place six to eight pounds of bait per acre. Treat areas of the field where active burrow systems are identified by fresh mounds. Ensure that burrow builder recloses the furrow created by the torpedo. Remove any bait found on the ground surface. Some products allow application by hand as well.

<u>Use Restrictions</u>: Some products cannot be used on cropland. Note restrictions about control of pocket gophers in prairie dog towns.

<u>Limitations</u>: Use burrow builders only when soil conditions are suitable for creating burrows. May require 5 to 10 pounds of bait per acre.

<u>Important</u>: Decrease in pocket gopher activity may take 2 weeks. Retreat in areas of active mound building after two or three weeks as inactive pocket gophers may become active during that time.

Strychnine Baits (Application by Hand) – Registered Products

General Use Pesticides (GUP)

Strychnine Oats – Hand-Baiting 56228-20 USDA APHIS Wildlife Services R, P, C, F, and non-agricultural areas. No Residential.

Strychnine Milo - Hand-baiting Pocket Gophers 56228-19 USDA APHIS Wildlife Services R, pastures, C, F, and non-agricultural areas.

Martin's Gopher Bait 50 53883-23 Control Solutions, Inc. R, P, C & NC.

Monterey® Go-Die® Gopher Bait 53883-23-54705 Brandt Consolidated, Inc. R, P, C & NC.

Omega Gopher Grain Bait 5042-32 RCO International, Inc. food crops, non-food, & F.

Restricted Use Pesticides (RUP)

Martin's® Gopher Bait 50R 53883-24 Control Solutions, Inc. R, P, C & NC

Petersen's Pocket Gopher Killer III 10031-3 Petersen Seeds, Inc. Hand baiting, Burrow Builder, R. P. C & NC

Pocket Gopher Bait – Strychnine 1-10 on Oats 4271-10 R & M Exterminators, Inc. O, A, Hay, P, R & NC

Pocket Gopher Bait – Strychnine 1-10 on Milo 4271-17 R & M Exterminators, Inc. O, A, Hay, P, R & NC.

<u>Use Directions:</u> Apply one teaspoon of bait by probe and funnel, spoon or bait probe dispensing methods at one to seven locations into active burrow systems (check label for rates). Applications must be below ground. Make applications when gophers are actively building mounds. RUP versions often allow use in burrow builders as well.

<u>Use Restrictions</u>: GUP baits <u>cannot</u> be applied by mechanical burrow builder. Bait <u>cannot</u> be applied to ground surface. Must wear NIOSH-approved respirator during application. When disposing of bags you must wear eye or face shield protection and a respirator. Some formulations do not allow use in cropland areas. Some restrict use to outdoor residential areas. May require pets to be kept out of treated areas.

<u>Limitations</u>: 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. Labels with special safety requirements (e.g. respirator & face shield) must be followed when loading hand-baiting probe. In addition, specific disposal instructions of product bags may be mandated.

Strychnine Baits (Application by Mechanical Burrow Builder) – Restricted Use Pesticides (RUP)

Registered Products—Application by mechanical burrow builder

0.5% Strychnine Milo Pocket Gopher Bait 56228-11 USDA APHIS Wildlife Services R, P, C, F, and NC

Strychnine Oats – Burrow Builders 56228-12 USDA APHIS Wildlife Services R, P, C, F, and non-agricultural areas

Martin's Gopher Bait 50R 53883-24 Control Solutions, Inc.

Petersen's Pocket Gopher Killer III 10031-3 Petersen Seeds, Inc. R, P, C & NC Pocket Gopher Bait – Strychnine 1-10 on Oats 4271-10 R & M Exterminators, Inc. Pocket Gopher Bait – Strychnine 1-10 on Milo 4271-17 R & M Exterminators, Inc.

<u>Use Directions</u>: For use on pocket gophers <u>only</u> in below ground applications. Place one to three pounds of bait per acre depending on label instructions. Treat areas of the field where active burrow systems are identified by fresh mounds. Ensure that burrow builder recloses the furrow created by the torpedo. Remove any bait found on the ground surface.

<u>Use Restrictions</u>: Applicators must wear eye protection and respirator when loading mechanical application equipment. Must wear NIOSH-approved respirator during application. Bait may not be applied to ground surface. Some products may not be used in areas with food or feed crops.

<u>Limitations</u>: Use burrow builders to apply bait only when soil conditions are suitable for creating burrows that will not collapse and bury bait. Special safety requirements (e.g. respirator & face shield) must be followed when loading device and disposing of product bags may be mandated.

Zinc Phosphide Baits – May be classified either as General (GUP) or Restricted Use Pesticides (RUP)

Registered Products

Amdro Mole & Gopher Bait 12455-30-73342 Ambrands (GUP)

Bonide Moletox II[®] Mole & Gopher Killer 4-285- Bonide Products, Inc. (GUP)

Go-die Gopher Bait II 36029-12-54705 Lawn & Garden Products, Inc. (GUP)

Gophertox 4-285 Bonide Products, Inc. (GUP)

Gordon's Mole & Gopher Killer Poison Pellets 12455-18-3240 PBI Gordon Corp. (GUP)

Moletox® Mole & Gopher Killer 4-285 Bonide Products, Inc. (GUP) L

Motomco Gopher Killer 12455-18-3240 Motomco, Inc. (GUP) L

Prozap® Rodent Oat Bait 61282-51 Hacco, Inc. (GUP)

Prozap[®] Zinc Phosphide Rodent Pellets AG 61282-56 Hacco, Inc. (GUP)

Prozap® Zinc Phosphide Oat Bait 61282-14 Hacco, Inc. (RUP), O,

Prozap® Zinc Phosphide Pellets 61282-49 Hacco, Inc. (RUP) V, cucurbits, no-till corn, Be

Surestop Mole & Gopher Bait 12455-30-1663 Grant Laboratories, Inc. (GUP)

Sweeney's Poison Peanuts Pellets Mole & Gopher Bait II 149-16 Senoret Chemical Co., Inc (GUP)

Tomcat Mole & Gopher Bait 90780-4 Tomcat Brands (GUP) L

Tomcat® Mole & Gopher Bait 12455-30-3240 Motomco (GUP)

Victor® Kills Moles & Gophers 149-16 Senoret Chemical Co., Inc. (GUP)

Wilco Zinc AG Bait 36029-10 Wilco Distributors, Inc. (RUP) Hand baiting, Burrow Builder; A, Lawns, F, Orn, P, Adj. NC, V, C.

Wilco Zinc Homeowner Bait for Gopher Control 36029-12 Wilco Distributors, Inc. (GUP) L

Zinc Phosphide on Oats 4271-16 R & M Exterminators, Inc. (RUP) R, Non-residential Lawns,

Xmas tree, plantations, C, Conifer hardwood plantations

Zinc Phosphide Rodent Pellets 61282-56 Hacco, Inc. (GUP)

ZP AG Oats 12455-102-3240 Motomco, Inc. (RUP)

ZP AG Pellets 12455-17-3240 Motomco, Inc. (RUP) Hand baiting, Burrow builder, O, Non-residential lawns,

ZP® Rodent Oat Bait AG 12455-102 Bell Laboratories, Inc. (RUP)

ZP Rodent Bait AG 12455-17 Bell Laboratories, Inc. (RUP)

<u>Use Directions</u>: Open active pocket gopher tunnels either by digging through the mound plug or by locating the main runway using a probe. Place one teaspoon of bait into the active tunnel. One to five placements per burrow system may be made depending on label instructions. Carefully close the hole so as not to smother bait with soil.

<u>Use Restrictions</u>: Applications of bait may <u>only</u> be made below ground. Some labels restrict applications to lawns.

Others prohibit use in crop, lawns or garden areas. When loading product into mechanical application equipment applicators must wear a respirator. Due to the pesticide's toxicity, careful attention must be paid to restrictions related to endangered and threatened species.

<u>Limitations</u>: Check labels carefully. Not all permit use with burrow builders. Use burrow builders to apply bait only when soil conditions are suitable for creating burrows that will not collapse and bury bait.

<u>Important</u>: Due to zinc phosphide's sensitivity to moisture, avoid using in wet ground or when rain is expected in two to three days following application.

Burrow Fumigants: In 2026, a separate license category will be required to use fumigants in Montana.

Registered Products: Consult list under Ground Squirrels. Note that EPA #56228-61 is NOT registered for pocket gophers.

Victor® V® Quick Strike™ Mole & Gopher Gasser 36488-67 Woodstream Corp. meadows, reforested areas

<u>Use Directions</u>: See Ground Squirrels.

Use Restrictions: See Ground Squirrels.

<u>Limitations</u>: Not generally recommended for control of pocket gophers. Fumigant gases disperse poorly in shallow, complex tunnels of pocket gophers unless numerous applications are made in the same burrow system. Pocket gophers may seal off treated tunnels. However, there is a device called Gopher General that uses a burrow builder to apply aluminum phosphide tablets. Montana Department of Agriculture (MDA) has deemed to the device to be a legal way to apply the product (March 2021). While lack of research data on the Gopher General prevents the Vertebrate Pest Specialist from recommending the application method, the Specialist would welcome reports from users about their experience. Contact info for the Vertebrate Pest Specialist is at the end of this document.

Registered Rodenticides for Black-tailed Prairie Dogs







Black-tailed Prairie Dog Burrow. Photo Stephen M. Vantassel/MDA

Zinc Phosphide Baits - Restricted Use Pesticide (RUP) Hand baiting only

Registered Products

Prozap® Zinc Phosphide Oat Bait 61282-14 Hacco, Inc. (July-Feb) R, P, Adj NC Prozap® Zinc Phosphide Pellets 61282-49 Hacco, Inc. (July-Feb) R, P, Adj. ROW Wilco Zinc Ag Bait 36029-10 Wilco Distributors, Inc. (July-Feb) R (<50% cover), P Zinc Phosphide on Oats 4271-16 R & M Exterminators, Inc. (July-Dec) R/reforestation Zinc Phosphide on Oats 56228-14 USDA APHIS Wildlife Services (July-Feb) R, P Zinc Phosphide Prairie Dog Bait 13808-6 SD Dept of Agriculture (July-Feb) R/Pasture ZP AGTM Oats 12455-102-3240 Motomco, Inc. (July-Jan) R/NonCrop ZP Rodent Bait AG 12455-17; MT 05 0005 Bell Laboratories, Inc. (YrRound) R/Adj timber only ZP® Rodent Oat Bat AG 12455-102 Bell Laboratories, Inc. (July-Jan) R

<u>Use Directions</u>: Some labels require a pretest, which is the application of untreated grain to 20 to 30 active burrows 30 feet or more apart to determine if prairie dogs will eat grain. All labels require prebaiting of active burrows with untreated grain to condition prairie dogs to accept the toxic bait readily. Never apply toxic bait if prairie dogs are not feeding on untreated grain. Apply to R and pastures. Some labels allow application to adjacent NC areas and median strips. Some labels restrict application on R when ground cover is less than 50%. Typically, grain must be spread out over a six to 12-inch diameter circle within 3 feet of the active prairie dog burrow opening. Some require application to be placed at edge of mound or in adjacent feeding areas. Read label carefully. Survey landscape for non-target animals before each application.

<u>Use Restrictions</u>: Consult with the USFWS (Helena: 406-449-5225) or MTFWP (Helena 406-841-4000) for current information on habitats occupied by endangered species. Application windows vary from July to December, January or February depending on label. However, if you use the supplemental label (MT 05-0005) in conjunction with the 12455-102 labeled product and your site meets the requirements (R or adjacent timber), the date restrictions are significantly reduced. Read and follow label restrictions. Consult with U.S. Fish & Wildlife authorities if more than 80 acres are to be treated or the town is less than 80 acres and not isolated. Applications can only be made by hand. Hand-operated dispensers attached to four-wheelers are allowed. Must wear respirator when filling containers. Application may be made only once per year.

<u>Limitations</u>: Check labels carefully. Some require daily monitoring of sites to determine the potential for exposing non-target animals to toxic bait. Carcasses must be picked up and disposed of in accordance to label. Second applications within the application window are typically prohibited, however some labels allow a second application to treat prairie dogs that have migrated into the original treatment area.

Important: Due to zinc phosphide's sensitivity to moisture, avoid using in wet ground or when rain is expected in 2 to

3 days following application. To prevent bait from being buried or trampled, avoid placing the bait directly in front of the burrow hole or on any trails used by the prairie dog.

Anticoagulant Baits – Restricted Use Pesticides (RUP) ALL are FGARs

Registered Products

Rozol® Prairie Dog Bait 7173-286 Liphatech, Inc.

Kaput® Combo Prairie Dog Bait 72500-27 Scimetrics Ltd. Corp. (kills fleas too) R and adjacent NC

Kaput®-D Prairie Dog Bait 72500-22 Scimetrics Ltd. Corp. R, adjacent NC

<u>Use Directions:</u> Apply on rangeland and adjacent non-crop areas only. Apply so that all the bait is at least six inches inside the burrow. Must conduct at least six post-treatment grid searches looking for sick and dead prairie dogs. All carcasses must be disposed at least 18 inches below ground. Read and follow label directions.

<u>Use Restrictions:</u> Read and print out the Endangered Species Bulletin for your application area (http://www2.epa.gov/endangered-species). Apply only during the period between October 1 through March 15. Other locations have more restricted application time periods. Do not apply within the exterior boundaries of the Crow Reservation or the Blackfeet Reservation in MT. Read and follow label restrictions. Do not graze livestock in treated areas for 14 days after application. You cannot use an anticoagulant bait with a different anticoagulant bait in the same treatment period. You may, however, apply a second application of the same rodenticide to control remaining prairie dogs provided application requirements can be met.

<u>Limitations</u>: Requires a great deal of post-treatment surveys of treatment areas to remove dead and dying prairie dogs.

<u>Important</u>: In burrows that have a low-grade slope, insert bait further into the burrow to prevent grain-feeding birds from walking in the burrow and accessing bait.

Burrow Fumigants: In 2026, a separate license category will be required to use fumigants in Montana.

Registered Products

Ignitable Gas Cartridges - (GUP)

Gas Cartridge 56228-61 USDA APHIS Wildlife Services (yr round) Golf courses, L, NC, open fields, R, reforested areas.

<u>Use Directions</u>: Use only in outside burrows at least 15 feet from structures that contain the target species. 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 diminishes the level of toxic gases in the burrow.

<u>Use Restrictions:</u> Do not apply ignitable gas cartridge fumigants within 15 feet of building foundations, porches or items that can catch fire. Never use ignitable gas cartridges inside, under or beside buildings. Protective eyewear is required.

<u>Limitations</u>: Cost and labor limit use to small acreages and isolated populations. Consider fire risk. Best used when ground is moist.

Registered Products

Aluminum Phosphide (Pellets/Tablets) - Restricted Use Pesticides (RUP)

Degesch Phostoxin Pellets 72959-5 D & D Holdings, Inc. (Yrnd) Except residential

Degesch Phostoxin Tablets 72959-4 D & D Holdings, Inc.

Detia Phos Tablets 72959-4 D & D Holdings, Inc.

Fumitoxin® Pellets 72959-2 D & D Holdings, Inc.

Fumitoxin® Tablets 72959-1 D & D Holdings, Inc.

PH₃ Aluminum Phosphide Fumigant Pellets 1015-74 Douglas Products & Packaging Co.

Phosfume 2 Aluminum Phosphide Fumigant Pellets 1015-74 Douglas Products & Packaging Co.

Weevil-Cide® Tablets 70506-13 United Phosphorus, Inc.

Weevil-Cide® Pellets 70506-14 United Phosphorus, Inc.

<u>Use Directions</u>: Must create a written Fumigation Management Plan prior to use. A template is available at https://agr.mt.gov/Vertebrate-Pests</u>. Note that fumigants for prairie dogs often require additional survey work to ensure non-targets and endangered species will not be harmed.

Insert the maximum application of 4 tablets (or 20 pellets) per prairie dog burrow for best results. Note that five pellets = one tablet. Maximum application is 20 pellets OR four tablets per burrow system. Place in outdoor burrows occupied by the target species, 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.

<u>Use Restrictions</u>: Do not apply product within 100 feet of buildings that may house humans or animals. Do not use in residential, nursing homes, schools, daycare facilities and hospital areas. It may be used to treat playing fields. Warning signs must be posted and left for at least two days following the application.

<u>Limitations</u>: Cost and labor limit use to small acreages and isolated populations. In addition, you must obtain air testing equipment to monitor phosphine gas levels to ensure applicators are not exposed. Must have an appropriate gas mask with phosphine filter available to wear, if phosphine gas levels are exceeded.

<u>Important</u>: Product may be used year-round and as a follow up to other pesticides. Most applicators find that tablets are easier to handle than pellets. Research suggests that placing two tablets (or ten pellets) in each ground squirrel burrow is sufficient to provide effective control. Most effective when temperatures are above 70° F.

Registered Pesticides for Skunks



Striped Skunk. Photo: Wallace Keck, National Park Service

Fumigants (all are GUP) In 2026, a separate license category will be required to use fumigants in Montana.

Large Gas Cartridge 56228-62 USDA. Victor® V® Quick StrikeTM Mole & Gopher Gasser 36488-67 Woodstream Corp. NC

Revenge Rodent Smoke Bomb 9086-4 Bonide Products, LLC. Non-crop areas.

<u>Use Directions</u>: Must use in active dens. Be sure cartridge fits in burrow before lighting. Place cartridge deep enough into burrow so that it is not smothered with soil during back filling.

<u>Use Restrictions</u>: Do not treat burrows near structures.

Important: Cartridges burn vigorously and can cause fires. Best used following rainfall.

Registered Rodenticides for Voles



Meadow Vole. Photo: Japanese Tea, Wikimedia



Vole damage to a field. Photo: Stephen M. Vantassel/MDA



Vole damage to turf. Photo: Wildlife Control Consultant, LLC.

Non-Anticoagulant Baits – General (GUP) and Restricted Use Pesticides (RUP)

Zinc Phosphide Registered Products

Eraze™ Ag 12455-131-3240 Motomco, Inc. (Meadow vole; GUP; Bait stations placed within 100 feet of structures only)

Prozap® Zinc Phosphide Oat Bait 61282-14 Hacco Inc. (RUP) A, Air (grasses), Nnf, Non-residential L, O, Orn, P, V (grape),

Prozap[®] Zinc Phosphide Pellets 61282-49 Hacco Inc. (RUP) A, B, Beans, O, Orn, Lnr L, V, W, Bushberries, Caneberries, Cucurbits, No-till Corn, Sugar Beets, Potatoes, Airport grasses.

Wilco Zinc Ag Bait 36029-10 Wilco Distributors, Inc. (RUP) Hand baiting, broadcast; A, Airport grasses, B, Bush & Caneberries, Cucurbits, Non-crop ROW (BS), Cnt, SB, Potatoes, W

Zinc Phosphide on Oats 4271-16 R & M Exterminators, Inc. (RUP) O, Conifer & Hardwood seedling plantations, ROW, Non-residential Lawns, V, around Commercial/Ag Bldgs

Zinc Phosphide on Oats 56228-14 USDA APHIS Wildlife Services (RUP) Must be in BS within 50 ft of structures; Air, highway medians, other NC, A, B, O (dormant), W,

ZP® AG Oats 12455-102-3240 Motomco , Inc. (RUP) Structures (BS), A, Air, B, Be, Bu, Ca, Co, Cu, GC, L, O, Orn, P, Po, SB, V, W

ZP® AG Pellets 12455-17-3240 Motomco, Inc. (RUP) Hand, Trailbuilder, Broadcast, Aerial, A, B, O, Tree plantations, V, Bushberries, Cucurbits, Sugar beets, Po, W,

ZP® Rodent Bait AG 12455-17 Bell Laboratories, Inc. (RUP) A, Be-Dry, Bush & Ca, CoNt, Cu, LnonR, Nnf, O (dormant), Orn, SB, W,

ZP® Rodent Oat Bait AG 12455-102 Bell Laboratories, Inc. (RUP) Structures (BS), A, Air, B, Be, Bu, Ca, Co, Cu, GC, L, O, Orn, P, Po, SB, V, W

Bromethalin Registered Products (All are GUP and allow bait stations within 100 feet of structures unless otherwise indicated)

Agrisel Gladiator All Weather Bait Blocks 72159-18 Agrisel USA, Inc.

Agrisel Gladiator Place Packs Pellets 72159-17 Agrisel USA, Inc.

Assault® All Weather Bait Blocks 61282-75 Hacco, Inc.

Assault® Mouse/Rat Pellets 61282-80 Hacco, Inc.

Cannon Soft Bait 7173-304 Liphatech, Inc.

CyKill™ blocks Kills Rats and Mice 356488-53-61282 Hacco, Inc.

CyKill™ rodenticide bait 61282-76 Hacco, Inc.

Farnam[®] Just One Bite[®] Ex Bait Blocks 61282-75-89459 Central Garden & Pet Co.

Farnum[®] Just One Bite[®] Ex Pellet Place Packs 61282-87-89459 Central Garden & Pet Co.

Fastrac All-Weather Blox 12455-95 Bell Laboratories, Inc.

Gunslinger® Mini Blocks 7173-301 Liphatech, Inc.

ProwlerTM All-Weather Rodent Block 12455-154-3240 Motomco, Inc. (DB)

ProwlerTM Bait Chunx 12455-95-3240 Motomco, Inc. (DB)

ProwlerTM Bait Chunx I 12455-150-3240 Motomco, Inc. (DB)

ProwlerTM Pelleted Bait 12455-137-3240 Motomco, Inc. (DB)

ProwlerTM Place Pacs 12455-97-3240 Motomco, Inc. (DB)

ProwlerTM Soft Bait 12455-149-3240 Motomco, Inc. (DB)

Rampage® All-Weather Bait Chunx® 12455-95-3240 Motomco, Inc. (DB)

Rampage® Meal Bait 12455-141-3240 Motomco, Inc. (DB)

Rampage® Pelleted Bait 12455-137-3240 Motomco, Inc. (DB)

Rampage® Rodenticide Place Pacs 12455-97-3240 Motomco, Inc. (DB)

Rampage® Soft Bait 12455-149-3240 Motomco, Inc. (DB)

TakeDown™ Soft Bait 7173-304 Liphatech, Inc.

TakeDownTM Soft Bait 7173-304 Liphatech, Inc.

Tomcat® with Bromethalin Bait Chunx 12455-132-3240 Motomco, Inc. (DB)

Tomcat® with Bromethalin Meal Bait 12455-141-3240 Motomco, Inc. (DB)

Tomcat® with Bromethalin Pelleted Bait 12455-96-3240 Motomco, Inc. (DB)

Tomcat® with Bromethalin Place Pacs 12455-143-3240 Motomco, Inc. (DB)

Topgun™ All-weather Rodenticide Bait Blocks 61282-75-56 J.T. Eaton & Co., Inc.

Topgun™ Pellet Place Packs Rodenticide 61282-81-56 J.T. Eaton & Co., Inc.

Victor V Fast Kill Brand Blocks II 61282-53 Woodstream Corp.

Chlolecalciferol Registered Products (All are GUP and in bait stations with 100 feet of structures unless otherwise indicated)

Agrid₃® Bait Chunk 12455-116-3240 Motomco, Inc.

Agrid₃® Blox 12455-116 Bell Laboratories, Inc.

Selontra® Rodent Bait 7969-382 BASF Corp.

Terad₃® Blox 12455-106 Bell Laboratories, Inc. Mold/moisture resistant

<u>Use Directions</u>: RUP products, depending on label, may be applied to airports, alfalfa fields, bushberries, caneberries, crop borders, cucurbits, ditch banks, golf courses, grain fields, lawns, no-till corn, orchards, nurseries, parks, vineyards, and man-made structures. See label for specific areas and times to apply. Application methods, depending on label, include, hand, ground broadcast, trail builder, bait station, and aerial broadcast. Bait stations often required when product is applied around structures or highly managed areas, such as golf courses, non-residential lawns, and ornamentals.

<u>Use Restrictions</u>: Consult the U.S. Fish and Wildlife Service office regarding endangered species that may be in your application area (Helena 406-449-5225). Must wear respirator when loading bait into aircraft or mechanical ground equipment, and, in some cases, when broadcasting. Do not allow bait to pile. Do not apply when rain or snow is expected within three days of application. Do not graze animals in treated areas. Read labels carefully to be certain that listed uses are legal in Montana.

<u>Limitations</u>: Applications often must be done during dormant, post-harvest stage or well in advance of harvest. In alfalfa, applications must occur after cutting and before next growth reaches 2". Regular monitoring for the presence of voles is essential to ensure that you can control them during the appropriate time window. Do not apply to bare ground or allow bait to pile.

<u>Important</u>: Some labels allow for second application. To reduce the likelihood of winter damage by voles, control during the fall season, ideally prior to first snow.

Anticoagulant Baits -

Registered Products General Use Pesticides (GUP) All are for control of meadow vole unless otherwise noted. List may not be complete. Many baits labelled for rats and mice will include meadow voles on the label. Read the label carefully to see if the rodenticide handles voles before purchasing. Baits are categorized according to how far away from structures the bait may be

applied.

Baits designated as FGAR have lower secondary poisoning risk. Baits labelled as DB have a bittering agent to deter consumption by children.

50 Feet Restriction

Kaput® Rat & Mouse Bait 72500-6 Scimetrics, Inc. (FGAR; Meadow & Montane vole)

Kaput® Combo Bait® Pellets 72500-13 Scimetrics, Inc. (FGAR; Meadow & Montane vole; Fleas)

Kaput® Combo Bait® Mini Blocks 72500-14 Scimetrics, Inc. (FGAR; Meadow & Montane vole; Fleas)

100 Feet Restriction

AttaxTM Soft Bait 7173-308 Liphatech, Inc. (FGAR)

BootHill® Kills Rats & Mice Dead Mini Blocks 7173-202 Liphatech, Inc. (SGAR)

BootHill Kills Rats & Mice Dead Paraffin Blocks 7173-189 Liphatech, Inc. (SGAR)

BootHill® Kills Rats & Mice Dead Paraffinized Pellets 7173-187 Liphatech, Inc. (SGAR)

Brigand SB Soft Bait Rodenticide 87235-1 PelGar Intl (SGAR, DB)

Brigand WB Wax Block Rodenticide 87235-2 PelGar Intl (SGAR)

Contrac[®] All-Weather Blox 12455-79 Bell Laboratories, Inc. (SGAR)

Contrac® Rat and Mouse Bait 12455-36 Bell Laboratories, Inc. (SGAR)

Contrac® Rat and Mouse Bait Ready-To-Use Place Pacs 12455-75 Bell Laboratories, Inc. (SGAR)

Contrac® Rodenticide 12455-69 Bell Laboratories, Inc. (SGAR)

Contrac® Rodenticide Place Pacs 12455-86 Bell Laboratories, Inc. (SGAR)

Contrac® Rodenticide Ready to Use Place Pacs 12455-76 Bell Laboratories, Inc. (SGAR)

Contrac® Soft Bait 12455-146 Bell Laboratories, Inc. (SGAR) (Contains DB)

Contrac® with Lumitrack 12455-133 Bell Laboratories, Inc. (SGAR)

Decimax® soft bait 87235-1-61282 Hacco, Inc. (SGAR)

Ditrac[®] All-Weather BloxTM 12455-80 Bell Laboratories, Inc. (FGAR)

Ditrac® All-weather Cake 12455-5 Bell Laboratories, Inc. (FGAR)

DoubleTapTM Soft Bait 7173-308 Liphatech (FGAR)

Dry Up Bars Rat & Mouse Killer 61282-12-3 P.F. Harris Mfg. Co., LLC (FGAR)

EZ Block – Bromadiolone All Weather Bait Block 87235-2-88689 VM Products (SGAR) (Contains DB)

EZ Soft-Soft Bait Rodenticide 87235-1-88689 (SGAR)

Farnum[®] Just One Bite[®] Bar 270-373 Farnum Companies, Inc. (SGAR; DB)

Farnum® Just One Bite® II 270-373 Farnum Companies, Inc. (SGAR; DB)

Farnum® Just One Bite® II Place Packs (Pellets) 270-372 Farnum Companies, Inc. (SGAR; DB)

FastDraw Soft Bait 7173-297 Liphatech, Inc. (SGAR)

FastDraw40 Soft Bait 7173-258 Liphatech, Inc. (SGAR)

Final® All-Weather Blox 12455-89 Bell Laboratories, Inc. (SGAR)

Final® Rodenticide Ready-To-Use Place Pacs 12455-91 Bell Laboratories, Inc. (SGAR)

Final Soft Bait 12455-139 Bell Laboratories, Inc. (SGAR)

FirstStrikeTM Soft Bait 7173-258 Liphatech, Inc. (SGAR)

FirstStrike40 Soft Bait 7173-258 Liphatech, Inc. (SGAR)

Flatline™ Soft Bait 7173-308 Liphatech (FGAR)

Generation® Bluemax Meal 7173-238 Liphatech, Inc. (SGAR)

Generation® Bluemax Mini Blocks 7173-288 Liphatech, Inc. (SGAR)

Generation® Mini Blocks 7173-218 Liphatech, Inc. (SGAR)

Generation Pellets 7173-218 Liphatech, Inc. (SGAR)

Generation® Pellets Place Packs 7173-211 Liphatech, Inc. (SGAR)

Havoc® Attack blocks 61282-27 Hacco, Inc. (SGAR)

Havoc® rodenticide bait pack pellets 100-1056-61282 Hacco, Inc. (SGAR)

Havoc®-XT blok 100-1368-61282 Hacco, Inc. (SGAR, DB)

Hawk® All-Weather Bait Chunx 12455-79-3240 Motomco, Inc. (FGAR)

Hawk® Meal Bait 12455-36-3240 Motomco, Inc. (SGAR)

Hawk® Rodenticide 12455-69-3240 Motomco, Inc. (SGAR)

Hawk® Rodenticide Pelleted Bait 12455-69-3240 Motomco, Inc. (SGAR, DB)

Hawk® Rodenticide RTU Place Pacs 12455-76-3240 Motomco, Inc. (SGAR; DB)

Hawk® Soft Bait 12455-146-3240 Motomco, Inc. (SGAR) (Contains DB)

Hombre[™] Mini Blocks 7173-218 Liphatech, Inc. (SGAR)

Hombre™ Pellets 7173-205 Liphatech, Inc. (SGAR)

Hombre™ Pellets Place Packs 7173-211 Liphatech, Inc. (SGAR)

Jaguar® All-Weather Bait Chunx 12455-89-3240 Motomco, Inc. (SGAR; DB)

Jaguar® Rodenticide Pelleted Bait 12455-90-3240 Motomco, Inc. (SGAR; DB)

Jaguar® Rodenticide Place Pacs 12455-94-3240 Motomco, Inc. (SGAR;DB)

Jaguar Soft Bait 12455-139-3240 Motomco, Inc. (SGAR)

Judgement Soft Bait 87235-4-61282 Hacco, Inc. (SGAR)

Kaput® Mouse Blocks 72500-7 Scimetrics, Inc. (FGAR)

Maki Mini Blocks 7173-202 Liphatech, Inc. (SGAR)

Maki® Paraffin Blocks 7173-189 Liphatech, Inc. (SGAR)

Maki® Paraffinized Pellets 7173-187 Liphatech, Inc. (SGAR)

Maki[®] Pellets Place Packs 7173-188 Liphatech, Inc. (SGAR)

Monark SB Defenacoum Soft Bait 87235-4 PelGar Intl (SGAR, DB)

Promar® Blox All-weather Rodenticide 61282-12 Hacco, Inc. (FGAR)

Ramik® bars Mold and Moisture Resistant 61282-12 Hacco, Inc. (FGAR)

Ramik® Green 61282-46 Hacco, Inc. (FGAR) Fish flavored, weather resistant

Ramik® Green Mini Bait Pack 61282-23 Hacco, Inc. (FGAR)

Ramik® Green Bait Packs 61282-48 Hacco, Inc. (FGAR)

Ramik® Green Kills Rats & Mice Fish Flavored Weather Resistant Rodenticide 61282-46 Hacco, Inc. (FGAR)

Ramik® Mini Bars All-Weather Rat & Mouse Killer 61282-26 Hacco, Inc. (FGAR)

Renegade® Meal Bait 7173-238 Liphatech, Inc. (SGAR)

Renegade® Mini Blocks 7173-288 Liphatech, Inc. (SGAR)

Resolv® Soft Bait 7173-297 Liphatech, Inc. (SGAR)

Resolv® 40 Soft Bait 7173-297 Liphatech, Inc. (SGAR)

Revolver® Soft Bait 7173-297 Liphatech, Inc. (SGAR)

Revolver®40 Soft Bait 7173-297 Liphatech, Inc. (SGAR)

Rodentex® Multi-feed Bars 61282-12-270 Farnam Companies, Inc. (FGAR)

Rozol® Pellets 7173-151 Liphatech, Inc. (FGAR)

SureKill® Guardian blocks 61282-26 Hacco, Inc. (FGAR) S, WA

Tomcat® All-Weather Bait Chunx 12455-80-3240 Motomco, Inc. (FGAR)

Tomcat® All-Weather Rodent Block 12455-5-3240 Motomco, Inc. (FGAR)

Tomcat® Rat and Mouse Bait Pelleted Bait 12455-81-3240 Motomco, Inc. (FGAR)

Tomcat® Rat and Mouse Bait Place Pacs 12455-83-3240 Motomco, Inc. (FGAR)

Victor® V® Rodent Killer 36488-46-47629 Woodstream Corp. (FGAR)

Registered Products Restricted Use Pesticides (RUP) Labeled for all voles unless otherwise noted.

BorderLine® 7173-242 Liphatech, Inc. (FGAR) Same formulation as Rozol Vole Bait, hand spot baiting or broadcast, NC, F, adjacent to C.

Kaput® Mouse Blocks 72500-7 Scimetrics, Inc. (SGAR; Meadow & Montane vole)

P.C.Q.® Pro 12455-136 Bell Laboratories, Inc. (Meadow vole; Fruit Trees, Industrial/Commercial Hand, BS, Burrow; Residential/Parks/Athletic Fields, BS; FGAR)

Ramik® brown Weather-Resistant 61282-45 Hacco, Inc. (Meadow vole; Hand, Broadcasting & Aerial baiting Only; FGAR) O, Christmas tree farms, Nurseries, tree plantations

Ramik® green AG 61282-63 Hacco, Inc. (FGAR) O, Christmas tree farms, Nurseries, tree plantations

Rozol® Vole Bait 7173-242 Liphatech, Inc.(FGAR) Same formulation as BorderLine; Hand, BS, Broadcast, L, N, NC, O, Orn, Par, Forestry plantations, Stru (BS)

<u>Use Directions</u>: GUP baits typically require use of bait stations placed no farther than 100 feet from a structure. Some limit use to within 50 feet of a structure. Cannot use in gardens or where food is produced. Bait must be maintained in the stations for the required period of time. Some products are formulated for wet environments. Some products control fleas as well. RUP baits may be used in fruit tree orchards, nurseries, tree farms, buffer strips, lawns, ornamental turf areas and areas adjacent to crops. May apply by bait stations, spot baiting, ground broadcast baiting or aerial means depending on site. Apply only when weather forecast is rain/snow free for the next three days.

<u>Use Restrictions</u>: Rozol/BorderLine requires consultation with the Endangered Species Bulletins for your application area (https://www.epa.gov/endangered-species/bulletins-live-two-view-bulletins). The Ramik Brown label requires applicators to contact USFWS (Helena 406-449-5225) or MTFWP (Helena 406-841-4000) to ensure that protected species are not in, or will be migrating to, the application area. Do not apply where raptors are feeding on voles. Do not apply to food or feed crops. Do not graze animals in treated areas. Do not use hay cut after application for feed or bedding. Do not apply within 50 feet of any body of water. Do not apply to bare ground.

<u>Limitations</u>: Note that buffer strip applications often have an exclusion zone to prevent the rodenticide from reaching crop areas or water.

<u>Important</u>: In small acreages, use of bait stations can be a cost-effective method. To reduce the likelihood of winter damage by voles, control during the fall season, ideally prior to first snow.

<u>Caution</u>: Pine voles do not occur in Montana.

Fumigants – GUP. In 2026, a separate license category will be required to use fumigants in Montana.

Registered Products Labeled for all voles unless otherwise noted.

IGI Carbon Dioxide™ 7173-313 Liphatech, Inc. ROW, residential areas, N, Golf courses, public parks and lands, sports complexes, farms, R, levees,

<u>Use Restrictions</u>: Must wear protective eyewear when connecting hoses. Gas is under pressure so care must be taken to avoid damaging or dropping cylinders. Additional PPE required when fumigating inside structures. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using the product, consult http://www.epa.gov/espp/ or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

Limitations: Moles do not occur in Montana. Product is not labelled for prairie dogs.

SUPPORT FROM THE MONTANA DEPARTMENT OF AGRICULTURE

BULLETINS

Detailed instructions on the management of a variety of vertebrate pests is available for download at https://agr.mt.gov/Vertebrate-Pests

Topics include but are not limited to:
Bait Stations
Pocket Gopher Control Techniques
Prairie Dog Control
The Columbian Ground Squirrel - Its Biology and Control
The Richardson Ground Squirrel - Its Biology and Control
Voles in Montana – Their Biology, Damage, and Control
& More

MONTANA POISON CONTROL (Emergencies) 1-800-222-1222

MONTANA DEPARTMENT OF PUBLIC HEALTH & HUMAN SERVICES Public Information 1-406-444-0936

https://dphhs.mt.gov

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

Stephen M. Vantassel, ACE® Vertebrate Pest Specialist 625 NE Main St., Ste 3 Lewistown, MT 59457 (406) 538-3004 svantassel@mt.gov https://agr.mt.gov/Vertebrate-Pests

Montana Department of Agriculture Vertebrate Pest Program Helena, MT 59620-0201 (406) 444-5400

Disclaimer: Reference to commercial products or trade names is made with the understanding that no discrimination is intended of those not mentioned and no endorsement by the Montana Department of Agriculture is implied for those mentioned.