

CERTIFIED PESTICIDE
APPLICATOR TRAINING FOR
ANTICOAGULANT
RODENTICIDES TO CONTROL
BLACK-TAILED PRAIRIE DOGS

2013

Training Outline

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- Training Topics
- Before Application
- Applying the Product
- After Application

Goals for the Training

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1. Ensure label compliance
2. Minimize exposure to non-target wildlife, particularly to listed species
3. Clarify label requirements and terminology

Training Topics

- Laws Protecting Wildlife and Penalties
- Product Use Highlights
- Key Use Changes
- Anticoagulant Rodenticide Concerns
- Non-Target Exposure

Laws Protecting Wildlife

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- Endangered Species Act (ESA)
 - With the purpose “to provide a means whereby the ecosystems upon which endangered species or threatened species depend may be conserved...” (ESA Section 2b)
- Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)
 - No unreasonable adverse effect to humans or the environment
 - The product label, including all materials referenced on the it (e.g., Endangered Species bulletins), is the law

THE LABEL IS THE LAW!

Penalties for Violating the Endangered Species Act

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- If label directions are followed and there is “take” of a listed species (e.g., a protected animal is injured or killed):
 - ▣ no violation of FIFRA
 - ▣ no violation of ESA (FWS has permitted this take in its Biological Opinion)
- If label directions are NOT followed and there is take of a listed species
 - ▣ violation of FIFRA
 - ▣ violation of ESA (FWS has only permitted take for lawful application)
 - ▣ penalties may apply

Migratory Bird Treaty Act

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- It is unlawful to pursue, hunt, take, capture, kill, possess, or sell birds or bird parts
 - ▣ Over 1000 migratory birds listed in the act
 - ▣ Does not discriminate between live or dead birds
 - ▣ Includes all bird parts such as feathers, eggs and nests
 - ▣ List of protected birds:
www.fws.gov/migratorybirds/RegulationsPolicies/mbta/mbtintro.html
- Fines were established for violation of this law, including misdemeanor charges (16 U.S.C. 707)
- Contact the U.S. Fish and Wildlife Service and the applicable State wildlife agency to obtain all necessary kill or collecting permits under this Act

Bald and Golden Eagle Protection Act

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- Prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" eagles.
 - ▣ Taking is described to include their parts, nests, or eggs, as well as molesting or disturbing the birds.
- Includes criminal penalties for interfering with eagles' normal breeding, feeding or sheltering behavior.



Training Topics

- Laws Protecting Wildlife and Penalties
- **Product Use Highlights**
- Key Use Changes
- Anticoagulant Rodenticide Concerns
- Non-Target Exposure

Product Use Highlights: Rozol and Kaput-D

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- ❑ Target Pest: Black-tailed prairie dog
- ❑ Product Classification: Restricted Use Pesticide (RUP)
- ❑ 10 States Where Used: CO, KS, MT, NE, ND, NM, OK, SD, TX and WY
- ❑ Use Site: Rangeland and adjacent non-crop areas



Product Use Highlights

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- ❑ Application Method: Apply at least 6 inches down active burrows by hand scoop or mechanical application machine
- ❑ Application Season: October 1 to March 15 (check Bulletins Live!)
- ❑ Grazing Restriction: No grazing for 14 days post-application
- ❑ Follow-up: Search for carcasses for at least 14 days



Training Topics

- Laws Protecting Wildlife and Penalties
- Product Use Highlights
- **Key Use Changes**
- Anticoagulant Rodenticide Concerns
- Exposure

Key Use Changes

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- Consult EPA's Bulletins Live! website for your county and month in which you intend to apply:
www.epa.gov/espp/bulletins.htm
- Use is prohibited within all black-footed ferret reintroduction areas
- Delayed application date in Preble's meadow jumping mouse areas: 11/1
- Restricted application dates in grizzly bear habitat: start date, 12/1; early end date, 3/1

Key Use Changes, continued

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- Use line-transect method to perform carcass searches
- New Notification Requirements
 - ▣ National Pesticide Information Center (NPIC) - dead or dying non-targets
 - ▣ U.S. Fish and Wildlife Service (FWS) - dead or dying listed species
 - ▣ Black-Footed Ferret Coordinator – live or dead black-footed ferrets

Training Topics

- Laws Protecting Wildlife and Penalties
- Product Use Highlights
- Key Use Changes
- **Anticoagulant Rodenticide Concerns**
- Exposure

Anticoagulant Rodenticide Concerns

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- Delay between ingestion of bait and death
- Increased chance of non-target species (scavengers/predators) exposed to poisoned animal



Training Topics

- Laws Protecting Wildlife and Penalties
- Product Use Highlights
- Key Use Changes
- Anticoagulant Rodenticide Concerns
- **Exposure**

Exposure Routes

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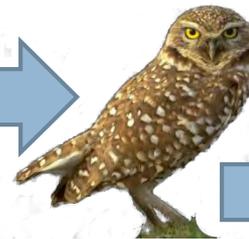
Rodenticide Bait is Applied to Burrows



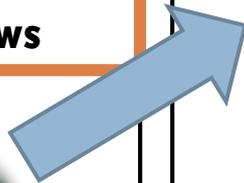
**Primary Exposure:
Bait is Eaten Directly**



**Secondary Exposure:
Predator Eats
Poisoned Wildlife**



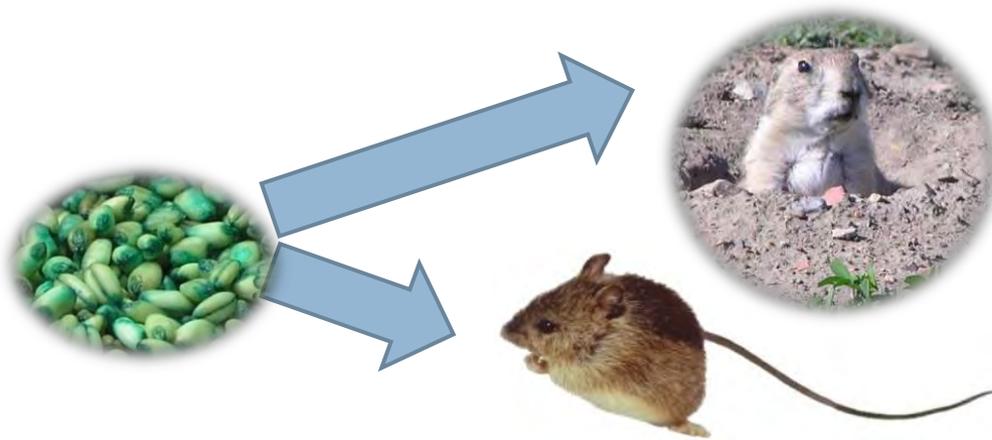
**Tertiary Exposure:
Poisoned Predator is Eaten By Another
Species**



Primary Exposure

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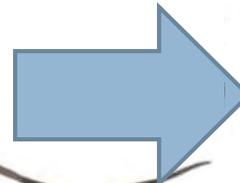
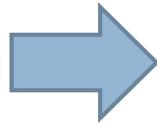
- Primary Exposure: direct ingestion of the bait
 - Example: A prairie dog or mouse eats the bait
 - Mitigation Actions:
 - Use Bulletins Live!
 - Treat only active burrows
 - Place the bait 6 inches down the burrow
 - Clean up bait above ground



Secondary Exposure Mitigation

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- Secondary Exposure: consumption of a poisoned black-tailed prairie dog or other poisoned wildlife by a non-target species
 - Example: A scavenger/predator eats a mouse
 - Mitigation Action:
 - Conducting line transects and carcass searches
 - Disposing of poisoned carcasses

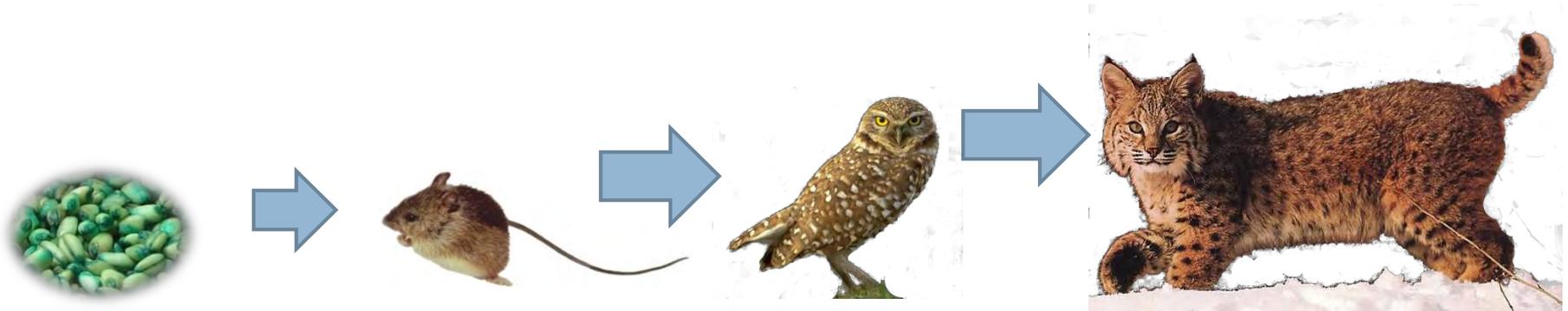


Tertiary Exposure Mitigation

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Tertiary Exposure: a poisoned scavenger/predator is eaten by another species

- Example: A bobcat eats an owl that has consumed a poisoned mouse
- Mitigation Action:
 - Disposing of poisoned carcasses
 - Reporting dead/dying listed species and non-target animals



Before Application

- Consult Bulletins Live!
- Follow Geographically Specific Use Restrictions for Specific Listed Species
- Perform Site Assessment
- Conduct Line Transects

EPA's Bulletins Live!

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- Consult EPA's Bulletins Live! website for geographic restrictions or limitations currently in place for CO, KS, MT, NM, SD, WY and TX
 - www.epa.gov/espp/bulletins.htm
- Bulletins can be accessed up to six months prior to pesticide application.
- Be sure that you follow the correct Bulletin for the month and year of your pesticide application

EPA's Bulletins Live!

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[Insert Bulletins Live! video here]

EPA's Bulletins Live!

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1. Steps to Access Bulletins
2. Go to www.epa.gov/espp/bulletins.htm
3. Click on Bulletins Live! link
4. Select your state and county
5. Select application date
6. Retrieve Bulletin
7. Scroll to bottom, click 'Printable Bulletin'
8. Print or save PDF

Bulletins Live! Access Page

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U.S. ENVIRONMENTAL PROTECTION AGENCY

Pesticides: Endangered Species Protection Program



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You are here: [EPA Home](#) » [Pesticides](#) » [Environmental Effects](#) » [Endangered Species Protection Program](#) » Endangered Species Protection Bulletins

Endangered Species Protection Bulletins

Endangered Species Protection Bulletins are a part of EPA's Endangered Species Protection Program. Bulletins set forth geographically specific *pesticide use limitations* for the protection of endangered or threatened species and their designated critical habitat. You can obtain Bulletins using EPA's [Bulletins Live!](#) system.

If your pesticide label directs you to this Web site, you are required to follow the pesticide use limitations found in the Bulletin for your county, pesticide active ingredient and application month.

EPA's Bulletins contain the following information:

- Map of the county to which it applies
- Description of the species being protected
- Pesticide(s) of concern
- Pesticide use limitations
- Month for which the Bulletin is valid

The term "county" refers to counties, parishes and municipios found within the United States and its territories.

Important notes

- Bulletins may be accessed up to six months prior to pesticide application. Be sure that you follow the correct Bulletin for the month of your pesticide application.
- When referenced on a pesticide label, Bulletins are enforceable use limitations under FIFRA.
- The pesticide use limitations found in [Bulletins Live!](#) are part of EPA's federal program to protect listed species. Your state may have pesticide use limitations beyond those found in your Bulletin. Bulletins are not intended to replace or override any restrictions that your state may impose. You need to be aware of and follow pesticide use limitations in your area by both the state AND federal EPA requirements.

Bulletins Live!

[Go to Bulletins Live!](#)

QUICK START:

1. Click the Bulletins Live! link above to enter the system.
2. Select your state and county.
3. Select the month of pesticide application.
4. Follow the numbered steps found in the Bulletin.
5. To print your Bulletin, click the print button at the bottom of the Bulletin. This will open a print version (a PDF file) for you to print an official copy.

EPA recommends taking the [Tutorial](#) (6 pp, 431 K, [about PDF](#)) for a demonstration of Bulletins Live! before using the system for the first time.

- Pesticides Home
- Environmental Effects Home
- Endangered Species Protection Program Home
- Basic Information
- Frequent Questions
- Species Information
- Bulletins Live!
- Risk Assessment Process
- Effects Determinations
- For Kids:
 - Coloring Book
 - Poster

Bulletins Live! Selection Pages

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Step 1

Bulletins Live!

Protecting Endangered Species



Choose a state

Choose a county

Directions: To access your Endangered Species Protection Bulletin, either use the drop-down menu to select your state and county OR use the map to select the state you wish to view.

Quick Resources

- Search by active ingredient or by State

Step 2

Bulletins Live!

Protecting Endangered Species

[Main](#) > [Montana](#) > [Phillips](#)

Directions: Select a pesticide application month from the drop-down menu and then click "Go!".

Note: Bulletins Live! will allow you to access a Bulletin up to six months from the current month. If you plan to apply your pesticide more than six months in the future, please check back within six months of your intended application month.

Application Date:

[EPA Home](#) | [ESPP Home](#) | [B-Live! Home](#) | [Contact Us](#)

Quick Resources

- Search by active ingredient or by State

Bulletins Live! Example: Black-Footed Ferret in Montana

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Endangered Species Protection Bulletin



Valid For: DEC 2012

Phillips County, Montana



1 On the county map below, general areas where pesticide use must be limited are identified by colors or patterns. Colors or patterns correspond to species needing protection. Find the colors or patterns on the map that cover or are close to the area where you intend to apply pesticides. The *Species Protection Key* will identify the species represented by these colors and patterns.



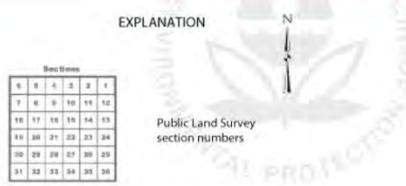
Map Insets



This inset map shows a detailed area (zoomed in) of the above county map. This inset map is zoomed in to show the border of the pesticide use limitation area within the county boundary. This inset map also includes the available Public Land Survey Sections (PLSS) to help you determine if your application area is within the pesticide use limitation area specified in the county map seen above. You must check both the above county map as well as this inset map to determine if the area in which you plan to apply is identified by colors or patterns indicating a pesticide use limitation.

Bulletins Live! Example: Black-Footed Ferret in Montana

EXPLANATION



Public Land Survey section numbers

Species Protection Key

-  Ferret, Black-footed - *Mustela nigripes*
-  Ferret, Black-footed - *Mustela nigripes*

2 Look at the table of *Pesticide Active Ingredients*. This column lists the pesticide active ingredients and uses of a pesticide for which there are use limitations to protect certain species. Locate the active ingredient(s) in the pesticide you intend to apply. Note that there may be more than one row for each active ingredient.

3 Look in the *Pesticide Limitation Codes* column to the right of each row for your active ingredient(s) and use pattern(s). Locate the code(s) for all species within the geographic area in which you intend to apply the pesticide (see map and species key). These codes indicate the specific limitation(s) necessary to protect the species.

Pesticide Active Ingredients	Pesticide Limitation Codes	
		
	Ferret, Black-footed	Ferret, Black-footed
Chlorophacinone (Baits) Black-tailed Prairie Dog	R1	R2
Diphacinone (Baits) Black-tailed Prairie Dog	K1	K2

4 The limitations that apply to each code are described in Codes and Limitations. Follow the limitations for all codes that apply.

If your product contains multiple active ingredients for which there are use limitations, you must follow all the limitations for each active ingredient for your pesticide use. If multiple codes address the same type of limitation (i.e., buffer distance, wind speed, etc.) follow the most restrictive code.

Codes and Limitations

- K1** Kaput-D Prairie Dog Bait use is prohibited in this area.
- K2** Kaput-D Prairie Dog Bait use is prohibited within the Indian Reservation.
- R1** Rozol Prairie Dog Bait use is prohibited in this area.
- R2** Rozol Prairie Dog Bait use is prohibited within the Indian Reservation.

Bulletins Live!

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- If there is no enforceable bulletin in your county, you will see the following on Bulletins Live!

“There are no pesticide use limitations in place for the county and month you selected, beyond what is indicated on your pesticide label. Follow the use instructions on your label. Please check back if you plan to apply your pesticide in a month other than the one for which this Bulletin is valid.”

Before Application

- Consult Bulletins Live!
- Follow Geographically Specific Use Restrictions for Specific Listed Species
- Perform Site Assessment
- Conduct Line Transects

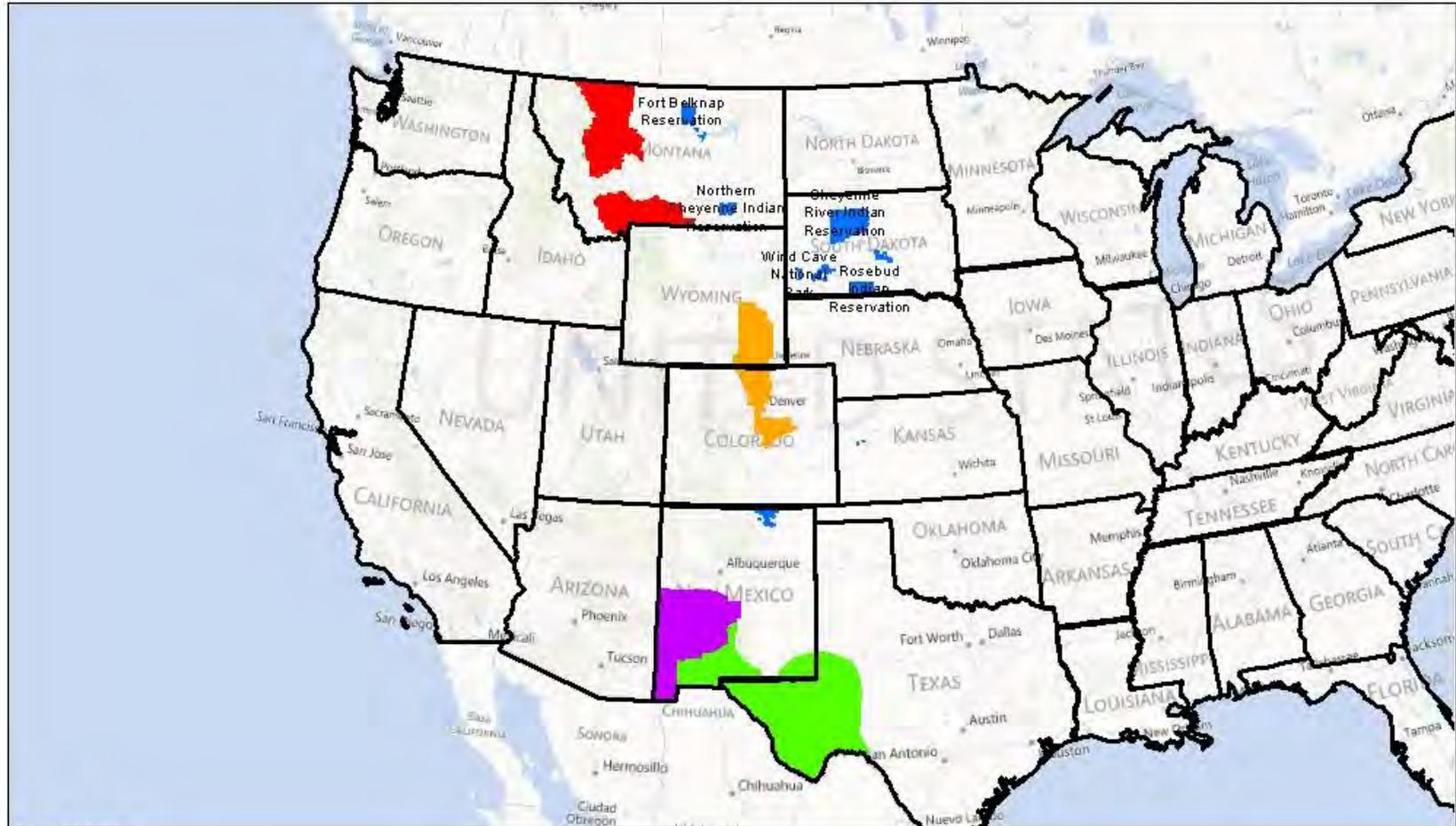
Existing Bulletins for Listed Species

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- ❑ **CO:** Black-footed Ferret, Preble's Meadow Jumping Mouse
- ❑ **KS:** Black-footed Ferret
- ❑ **MT:** Black-footed Ferret, Grizzly bear
- ❑ **NM:** Mexican Gray Wolf, Mexican Spotted Owl, Chiricahua leopard frog, jaguar, New Mexican ridge-nosed rattlesnake, Black-footed Ferret, Northern Aplomado Falcon
- ❑ **SD:** Black-footed Ferret
- ❑ **TX:** Northern Aplomado Falcon
- ❑ **WY:** Preble's Meadow Jumping Mouse

Pesticide Use Limitation Areas

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Legend

- Grizzly bear
- Black-footed ferret
- Preble's meadow jumping mouse
- Five county exclusion area in NM - Mexican gray wolf, Mexican spotted owl, Chiricahua leopard frog, jaguar, and New Mexican ridge-nosed rattlesnake
- Northern aplomado falcon

Black-Footed Ferret

(in CO, KS, MT, NM, SD)

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Habitat and Range

- Habitat: same as prairie dog species
 - ▣ Short, midgrass prairie



Use Restrictions

- Habitat Use Restrictions: No use allowed in re-introduction areas
- The Black-footed Ferret Coordinator must be contacted at (970) 897-2730 ext. 224, if black-footed ferrets are found anytime, before, during, or after application, or during carcass searches

Black-Footed Ferret (in CO, KS, MT, NM, SD)

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Restricted Areas



Preble's Meadow Jumping Mouse (in CO, WY)

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Habitat and Range

- Lives primarily in heavily vegetated, shrub dominated streamside habitats
- Also along adjacent upland habitats along the foothills of southeastern WY south to CO Springs along the eastern edge of the Front Range of CO
- Eastern boundary is likely defined by the dry shortgrass prairie

Restrictions

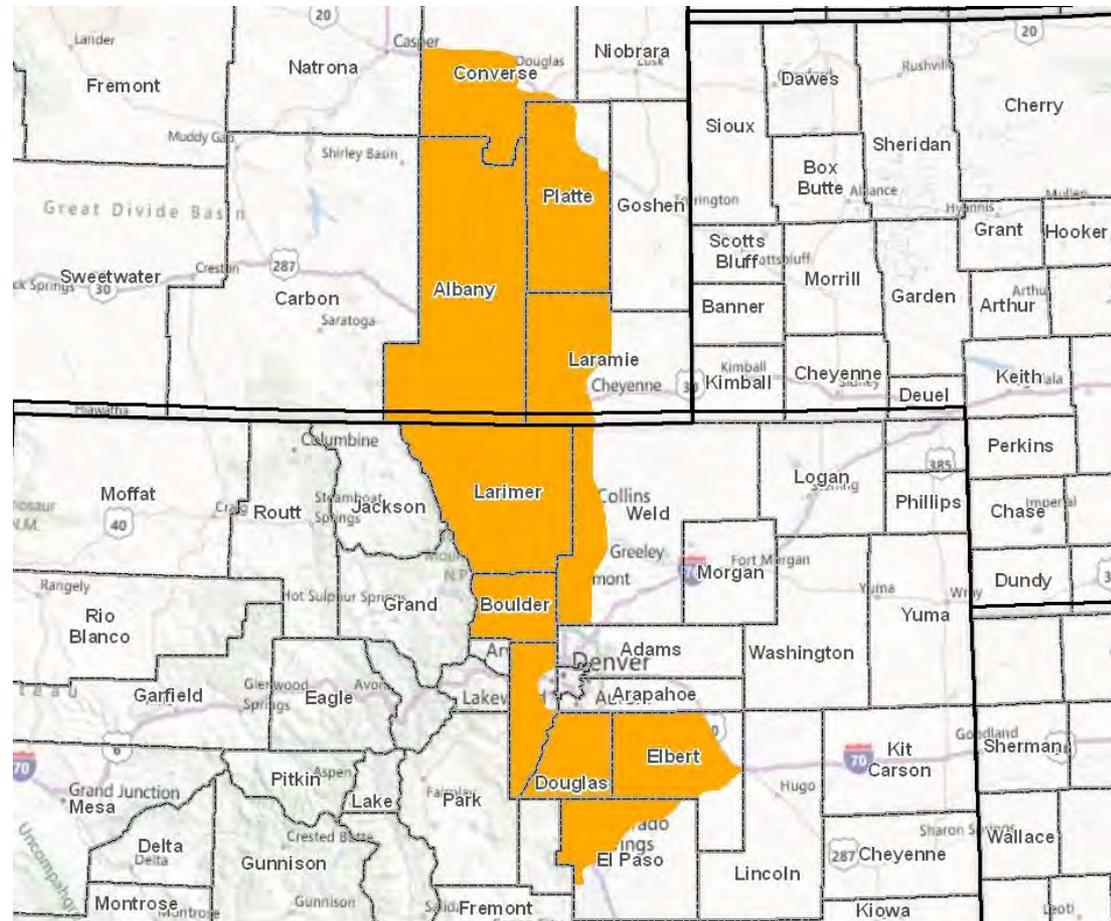
- Timing Restrictions:
Delayed start of application (Nov. 1st) to ensure they are hibernating



Preble's Meadow Jumping Mouse (in CO, WY)

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**Restricted
Areas**



Grizzly Bear (in MT)

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Habitat and Range

- Spring: Lower elevations such as
 - ▣ next to waterways
 - ▣ wet meadows
 - ▣ alluvial plains
- Summer and fall: Higher elevation forests, meadows, and open grassy timber sites
- Now occupy only 5 ecosystems in ID, MT, WA and WY in the lower 48 states

Use Restrictions

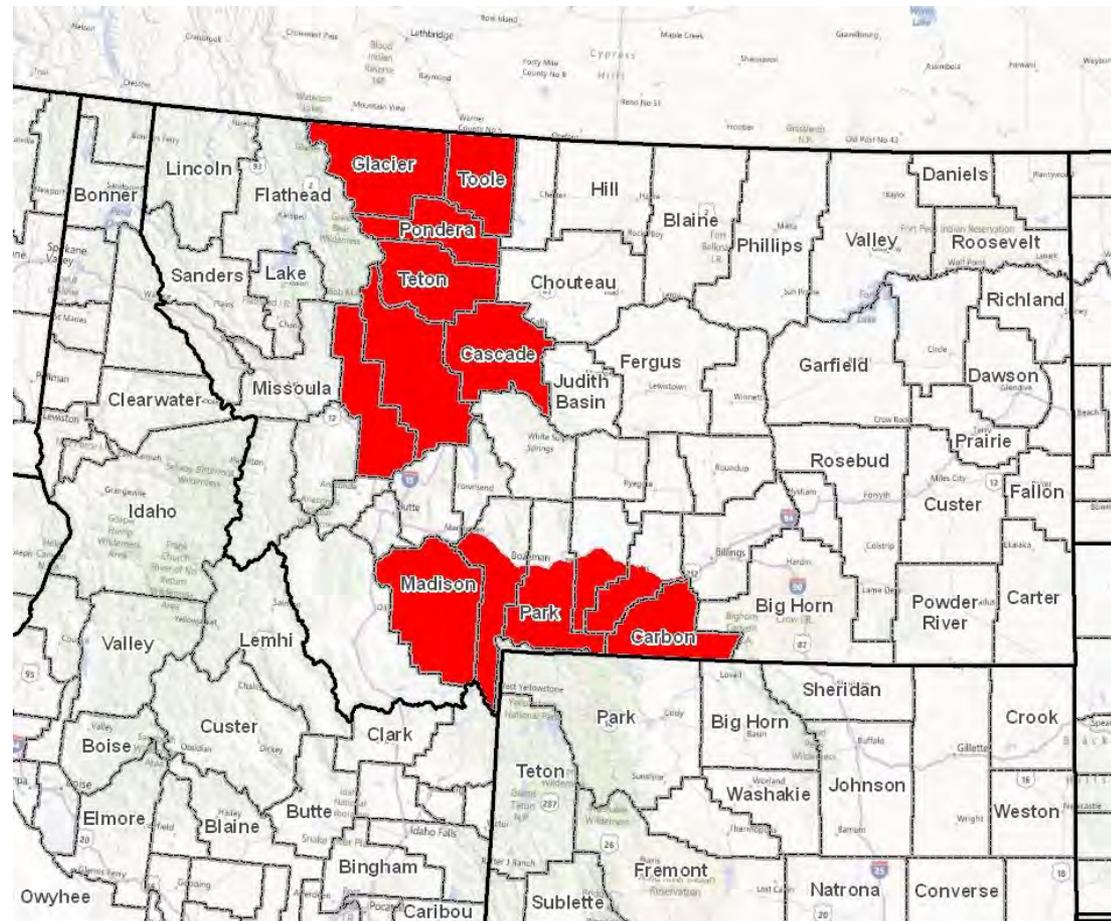
- Delayed start: Dec. 1st (after hibernation); Early end date: March 1st



Grizzly Bear (in MT)

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**Restricted
Areas**



Northern Aplomado Falcon (in NM and TX)

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Habitat

Habitat includes:

- palm and oak savannahs
- various desert grasslands
- open pine woodlands

Essential habitat elements are:

- open terrain with scattered trees
- relatively low ground cover
- an abundance of insects
- small to medium-sized birds
- a supply of nest sites

Special Actions

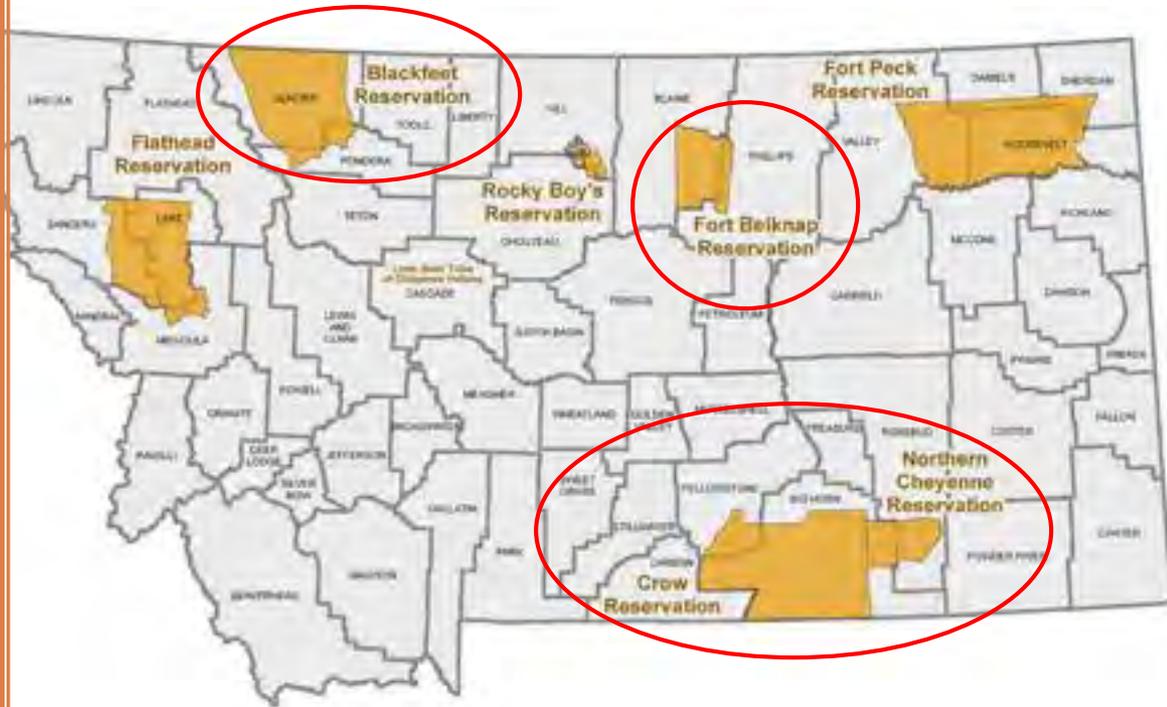
- In New Mexico and Texas, *if indicated for your specific county*, USFWS must be contacted prior to use to find out where the falcons occur:
 - ▣ New Mexico: (505) 346-2525
 - ▣ Texas: (817) 277-1100
- If necessary, leave a message including name and phone number.
- If USFWS does not respond within three business days, applicator can apply bait.

Geographic Restrictions in Indian Country: MONTANA

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Black-tailed prairie dog bait may not be applied within the boundaries of the following Indian reservations:

- Ft. Belknap
- Northern Cheyenne
- Blackfeet
- Crow



Before Application

- Consult Bulletins Live!
- Follow Geographically Specific Use Restrictions for Specific Listed Species
- **Perform Site Assessment**
- Conduct Line Transects

Site Assessment

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- Identify active burrows. Look for:
 - Prairie dog feces
 - Openings with freshly turned earth without:
 - Leaves
 - Seeds
 - Spider webs
 - Other debris
- Only apply to active burrows
- If black-footed ferrets are found during site assessment, the Black-footed Ferret Coordinator must be contacted at (970) 897-2730 ext.224

Before Application

- Consult Bulletins Live!
- Follow Geographically Specific Use Restrictions for Specific Listed Species
- Perform Site Assessment
- **Conduct Line Transects**

Line Transect Method

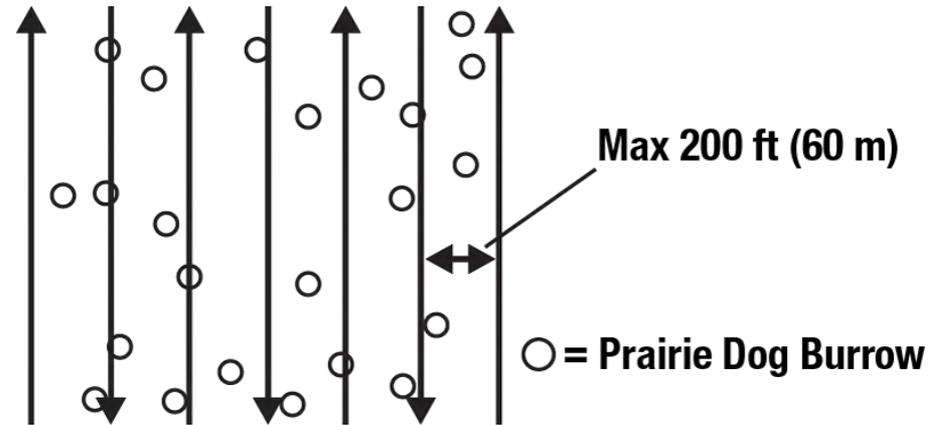
48

- [Insert Line Transect Method Video Here]

Line Transect Method

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- Divide the treated area into line-transects (i.e., straight, parallel lines)
- Use GPS, landmarks, stakes or flags to define the width & ends of the transects on opposite ends of the treated area
- Use these tools within and over the length of the treated area to ensure a thorough inspection



Line Transect Method

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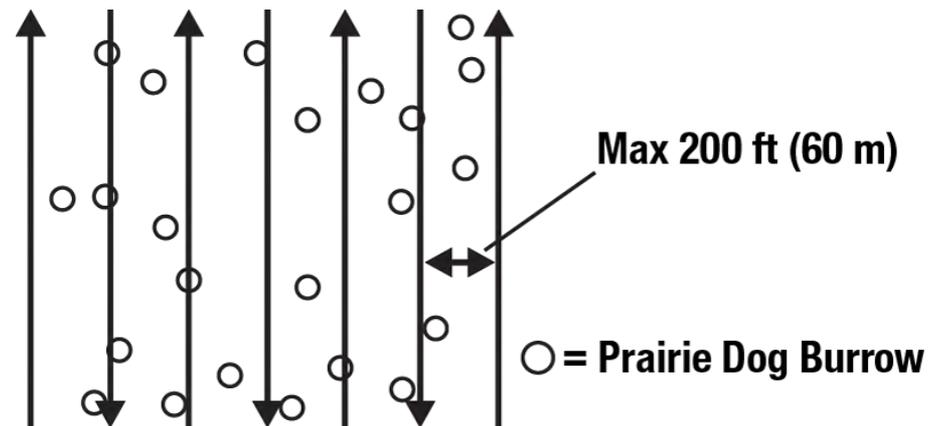
- Set transects at a distance which will allow for unobstructed view
- Use natural breaks and create new transects at:
 - ▣ fence lines,
 - ▣ hedgerows,
 - ▣ ditches,
 - ▣ washouts/arroyos,
 - ▣ hillcrests



Line Transects

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- Transect lines must be no more than 200 feet (60 meters) apart
- Treated areas with heavier vegetation need to use closer transects.



Applying the Product

- Application Timing and Rate
- Non-applicator Restriction
- Application Method

Application Timing and Rate

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Application Timing

- ❑ October 1st – March 15th *unless otherwise specified in Bulletins Live!*
- ❑ Pick one anticoagulant active ingredient (chlorophacinone or diphacinone) to apply for each use season

Application Rate

- ❑ Application rate: ¼ cup of bait (about 2 ounces or 53-56 grams) per active burrow

Applying the Product

- Application Timing and Rate
- **Non-applicator Restriction**
- Application Method

Non-applicator Restriction

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Do not allow children, pets, domestic animals or people not involved in the application to be in the area where product is being applied.



Applying the Product

- Application Timing and Rate
- Non-applicator Restriction
- **Application Method**

Application Methods

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Hand Application

- ❑ Treat ACTIVE burrows ONLY
- ❑ Apply at least 6 inches down the active burrow
- ❑ Recover spilled bait



Mechanical Application

- ❑ Treat ACTIVE burrows ONLY
- ❑ Apply bait with mechanical bait application machine that is properly calibrated to ensure the right amount of bait is applied
- ❑ Apply at least 6 inches down the active burrow
- ❑ Recover spilled bait



After Application

- Restrict Grazing
- Perform Carcass Search
- Carry Out Notification Requirements
- Dispose of Carcasses
- Re-apply (if necessary)

Grazing Restriction

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- Do not allow livestock to graze in treated areas for 14 days after treatment and when no bait is found above ground.



After Application

- Restrict Grazing
- **Perform Carcass Search**
- Carry Out Notification Requirements
- Dispose of Carcasses
- Re-apply (if necessary)

Carcass Search

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- Carcass searches must be performed using the line-transect method that completely covers the treated area
- Applicator is responsible for conducting the search, however the applicator or someone under their direct supervision can physically conduct the search
- Carcass collection should occur by late afternoon to reduce the chances of nocturnal animals finding carcasses

Carcass Search

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- ❑ Frequency: 1-2 day intervals for at least 14 days but longer if carcasses are still being found.
- ❑ A greater frequency of searches will help to minimize risks of secondary poisoning to predators and scavengers.
- ❑ Black-tailed prairie dog carcasses must be properly disposed of, to make them unavailable to predators/scavengers

After Application

- Restrict Grazing
- Perform Carcass Search
- **Carry Out Notification Requirements**
- Dispose of Carcasses
- Re-apply (if necessary)

Notification Requirements

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Steps to follow if dead/dying non-target species are found:

- Call the National Pesticide Information Center: (800) 858-7378
- If a Federally Listed species is found, call:
 - ▣ (303) 236-7540 in CO, KS, MT, ND, SD, NE or WY
 - or
 - ▣ (505) 248-7889 in NM, OK or TX
 - ▣ Check www.fws.gov/endangered for listed species
- If black-footed ferrets are found before, during or after applications, or carcass searches, call the Black-footed Ferret Coordinator: (970) 897-2730 ext. 224



After Application

- Restrict Grazing
- Perform Carcass Search
- Carry Out Notification Requirements
- **Dispose of Carcasses**
- Re-apply (if necessary)

Proper Carcass Disposal

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To help prevent secondary poisoning, bury carcasses:

- ❑ On-site in holes dug at least 18 inches deep or
- ❑ In inactive burrows
- ❑ Pack the hole with soil to avoid scavenging
- ❑ By other methods allowed by state and local authorities to insure inaccessibility by scavengers
 - Removal of carcass from site is the preferred option to reduce secondary poisoning



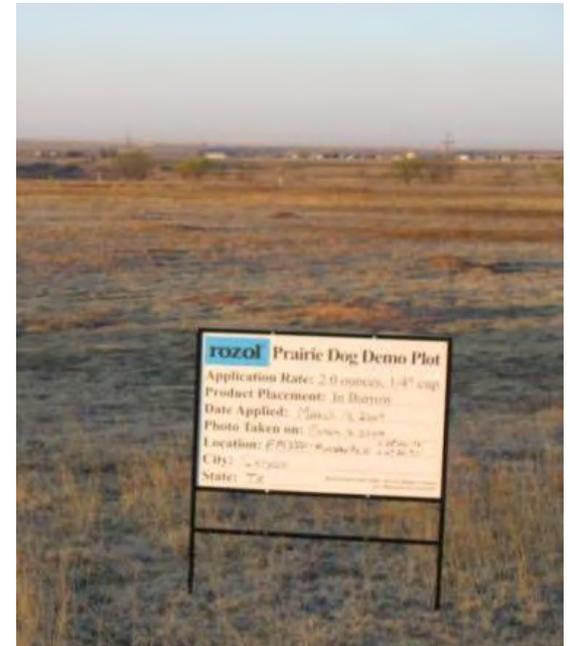
After Application

- Restrict Grazing
- Perform Carcass Search
- Carry Out Notification Requirements
- Dispose of Carcasses
- Re-apply (if necessary)

Re-Application

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- If black-tailed prairie dog activity persists several weeks or months after the bait was applied, a second application may be made by re-treating burrows in the same
 - manner,
 - time period,
 - procedure,
 - and active ingredient as the first application.



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Recap!

Product Use Highlights

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- Target Pest: Black-tailed prairie dog
- Product Classification: Restricted Use Pesticide (RUP)
- 10 States Where Used: CO, KS, MT, ND, NE, NM, OK, SD, TX and WY
- Use Site: Rangeland and adjacent non-crop areas
- Application Method: Apply at least 6 inches down active burrows
- Application Season: October 1 to March 15 (check Bulletins Live!)
- Grazing Restriction: No grazing for 14 days post-application
- Follow-up: Search for carcasses for at least 14 days post-application

Key Use Changes

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- Consult EPA's Bulletins Live! website for your county and month in which you intend to apply
- Use is prohibited within all black-footed ferret reintroduction areas
- Delayed application date in Preble's meadow jumping mouse areas: 11/1
- Restricted application dates in grizzly bear habitat (Montana): start date, 12/1; early end date, 3/1
- Use line-transect method to perform carcass searches
- Notification Requirements

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Any Questions?