

# Lethal and Non-Lethal Prairie Dog Management

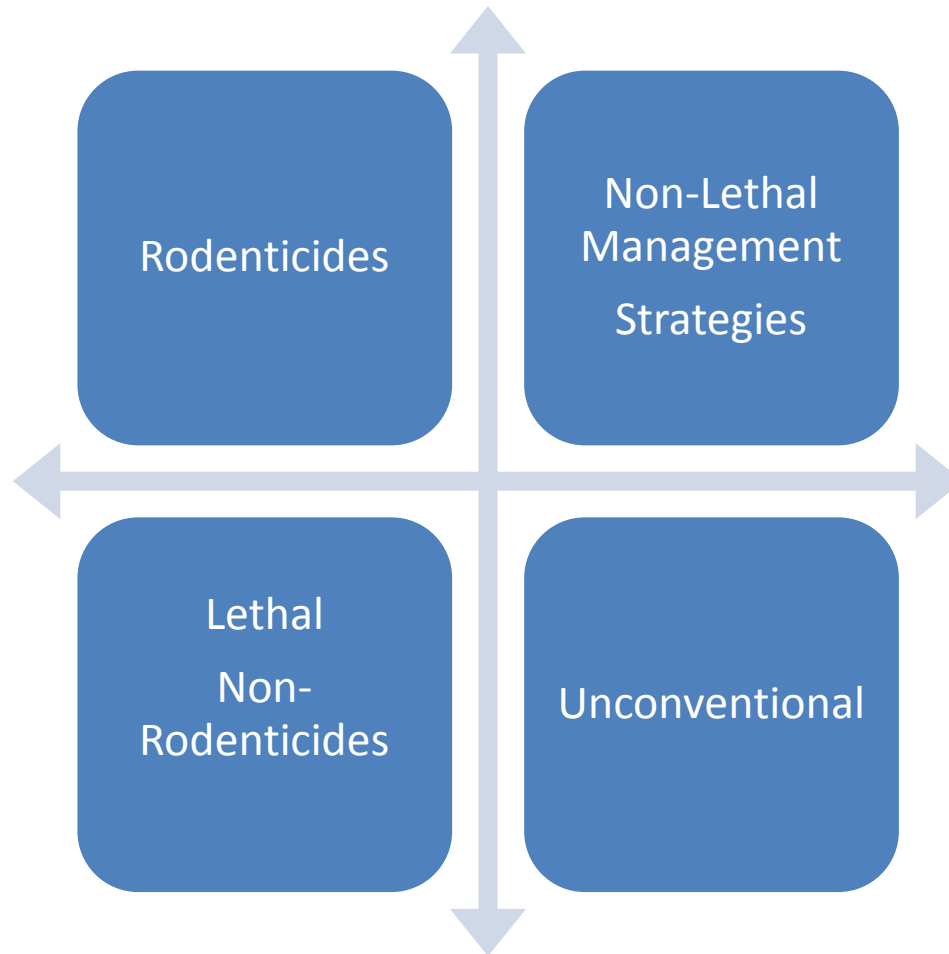


**Slade Franklin**  
**Weed and Pest Coordinator**



Wyoming  
DEPARTMENT OF *Agriculture*

# Lethal and Non-Lethal



# Rodenticides



# Rodenticides

- Label Comparison

Registered Prairie Dog Rodenticides	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	RUP	Carrier	Pre-Bait	Re-treatment	Label Water Hazard Language	Grazing Restrictions	Structures and Buildings	Cost <sup>5</sup> (Not Including Labor <sup>6</sup> )
Kaput-D Prairie Dog Bait EPA Reg. No. 72500-22													Yes	Winter wheat	No	Yes <sup>4</sup>	"Do not contaminate water, food or feed by storage or disposal." "This product is toxic to fish and wildlife." Do not apply directly to water, or to areas where surface water is present. Do not contaminate water by cleaning of equipment or disposal of waste."	"Do not allow livestock to graze treated areas for 14 days after treatment and when no bait is found above ground."	"Black-Tailed prairie dogs (Cynomys ludovicianus) on rangeland and adjacent non crop areas."	\$80.00/30 lb Bucket average coverage of 12 acres
Zinc Phosphide Prairie Dog Bait EPA Reg. No. 13808-6													Yes	Oats	Yes	Yes <sup>1</sup>	"Do not contaminate water, food or feed by storage or disposal." "This product is extremely toxic to birds, fish and other wildlife." "Do not contaminate water when disposing of equipment wash water or rinsate. Do not apply directly to water."		"This product may only be use on rangelands and pasturelands in the state..."	\$11.85/ 50 lb Bag (Pre-bait oats) \$30.00/ 50 lb Bag \$15.00/ 25 lb Bag average coverage of 12 acres
Gas Cartridges EPA Reg. No. 56228-02													No	Cartridge	No	Yes	"Do not contaminate water, food or feed by storage or disposal." To dispose of unused cartridges, soak in water, crush and bury at least 6" deep in loose soil."		"This product may only be used underground in burrow systems. It may not be used to fumigate buildings or other man-made structure. Do not use in or under buildings or near flammable material..."	\$185.00/100 Cartridge Case \$95.00/ 50 Cartridge Case average coverage of 1/2 acre
Rozol Prairie Dog Bait EPA Reg. No. 7173-286													Yes	Wheat	No	Yes <sup>3</sup>	storage or disposal." This product is toxic to fish and wildlife." "Do not apply directly to water, or to areas where surface water is present." Do not contaminate water by cleaning of equipment or disposal of wastes."	"Do not allow livestock to graze treated areas for 14 days after treatment and when no bait is found above ground."	"Black-Tailed prairie dogs (Cynomys ludovicianus) on rangeland and adjacent non crop areas."	\$69.25/25 lb Bucket average coverage of 12 acres
ZP Rodent Oat Bait AG EPA Reg. No. 12455-102													Yes	Oats	Yes	No	"Do not contaminate water, food or feed by storage or disposal." "This product is toxic to wildlife and fish." Do not apply where runoff is likely to occur. Do not apply this product directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark."	"Do not graze animals in treated areas."	"This product must not be applied on roads, near residential areas, or over water."	\$40.59/33 lb Bag average coverage of 12 acres
Prozap Zinc Phosphide Oat Bait EPA Reg. No. 61282-14 SLN No. 61282-14													Yes	Oats	Yes	No	"Do not contaminate water, food or feed by storage or disposal." "This product is extremely toxic to birds, fish and other wildlife." "Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high-water mark. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of wastes."		"Do not apply this product on roads, near residential or public use areas, or over water."	\$60.00/55 lb Bag average coverage probably close to 12 acres
Phostoxin Tablets and Pellets EPA Reg. No. 72959-4 EPA Reg. No. 72959-5													Yes	Tablet and Pellets	No	Yes	"If a sealed container is opened, or if the material comes into contact with moisture, water or acids, these products will release phosphine, which is an extremely toxic gas." "Non-target organisms exposed to phosphine gas will be killed. Do not		"The use of this product is strictly prohibited within 100 feet of any building where humans and/or domestic animals do or may reside."	\$25.73/500 Tablet Container treats average of 6.25 acres

1. "One additional application within this period is permitted only if the treated area has been re-infested by prairie dogs from neighboring lands.  
2. "It is preferable to treat burrows of either genus during the spring breeding season."  
3. "Do not use any other rodenticides containing anticoagulants (diphacinone) in prairie dog towns during the treatment period allowed on this label."  
4. "Do not use Kaput-D Prairie Dog Bait with any other anticoagulant prairie dog bait. For each treatment areas, only one anticoagulant rodenticide active ingredient (diphacinone or chlorphacinone) may be used per treatment period."  
5. Prices are based on cost from the following distributors: Van Diest; South Dakota Department of Agriculture; CPS Timberland  
6. Labor costs will vary from product... from \$14.00/hour to \$40/hour.

# First Generation Anticoagulants vs. Zinc Phosphide

- Zinc phosphide causes liberation of phosphine gas in the stomach.
- Chlorophacinone and diphacinone interfere with blood clotting and death results from hemorrhage.
- A single zinc phosphide bait pellet provides more than an LD50 dose for a small bird. In contrast, a small bird would need to eat more than twice its body weight in bait pellets to ingest a comparable dose of a first-generation anticoagulant in a single feeding.

# First Generation Anticoagulants vs. Zinc Phosphide

- Zinc Phosphide Label Restrictions

**PREBAITING (Mandatory):** To condition the prairie dogs to accept the grain used in this product readily, prebait each active mound to be treated with a teaspoon amount (4 grams or 0.14 oz) of untreated oats prior to application of toxic bait. Do not apply this product unless the prairie dogs have consumed the prebait.

## **OBSERVATIONS FOR NONTARGET SPECIES**

Before applying toxic bait, determine the potential for exposing nontarget organisms. Applicators must conduct daily observations prior to applying toxic bait. Do not apply this product if nontarget species are observed to be feeding on prebait. It is a violation of Federal Law to feed treated bait to nontarget species, including protected species, intentionally.

## **USE RESTRICTIONS**

This product may only be used to control black-tailed prairie dogs (*Cynomys ludovicianus*) and white-tailed prairie dogs (*C. leucurus*) on rangelands and

## **BAIT APPLICATION**

**HAND BAIT APPLICATION ONLY:** Using a utility spoon or calibrated, hand-operated, mechanical bait dispenser, apply a teaspoon (4 grams or 0.14oz) of bait per placement, over a six inch diameter circle on the edge of the mound within 3 feet of the opening of the active prairie dog burrow.

## **DISPOSAL OF SPILLED AND EXCESS BAIT, AND CARCASSES**

**Spilled and Excess Bait:** Wearing waterproof gloves, clean up any spilled bait immediately and collect excess bait from application equipment. If bait cannot be applied according to label directions, properly dispose of it according to the "Pesticide Disposal" text.

**Carcasses:** Wearing waterproof gloves, bury carcasses of prairie dogs (18 inches deep) in holes dug on site or in inactive burrows. Cover and pack with soil. Alternately, use other disposal methods that state and local authorities allow.

# First Generation Anticoagulants vs. Zinc Phosphide

- Anticoagulant Label Restrictions

**Follow-up:** Prairie dogs that have eaten this bait will begin to die off 4 to 5 days after they eat a lethal amount. The applicator must return to the site within 4 days after bait application, and at 1 to 2 day intervals, to collect and properly dispose of any bait or dead or dying prairie dogs found on the surface. Carcass searches must be performed using a line-transect method that completely covers the baited area. Transect center lines must be not more than 200 feet (about 60 meters) apart, and should be considerably less if searches are conducted in more densely vegetated sites. Transect lines may be traveled on foot or by vehicle at a rate not to exceed 4 mph. All carcasses found above ground must be collected and disposed of properly. Continue to collect and dispose of dead or dying prairie dogs and search for non-target animals for at least two weeks, but longer if carcasses are still being found at that time. Carcass collection should occur in late afternoon, near sundown, to reduce the potential of nocturnal animals finding carcasses and dying animals. Bury carcasses on site in holes dug at least 18 inches deep or in inactive burrows (no longer being used by prairie dogs or other species) to avoid non-target animal scavenging. Burial includes covering and packing the hole or burrow with soil. If burial is not practical (due to frozen ground, etc.) and other disposal methods are allowed by state and local authorities, collected carcasses may be disposed of by other methods to insure that the carcasses are inaccessible to scavengers.

**1. Sites/Pests:** Black-Tailed Prairie Dogs (*Cynomys ludovicianus*) on rangeland and adjacent noncrop areas.

**Application:** Apply 1/4 cup (53 grams or nearly 2 ounces) of bait at least 6 inches down active prairie dog burrows. Make sure no bait is left on the soil surface at the time of application. Applicator must retrieve and dispose of any bait that is spilled above ground or placed less than 6 inches down the burrow entrance.

**Endangered Species:** It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species. Use of this product may pose a hazard to endangered or threatened species. 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 this product, consult <http://www.epa.gov/espp/> or call 1-800-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

All dead or dying non-target animals must be reported to the National Pesticide Information Center 1-800-858-7378 as soon as possible. Any apparently injured or sick Federally listed species must also be immediately reported by calling 303-236-7540 (if located in Kansas, Nebraska, the Dakotas, Montana, Colorado or Wyoming) or 505-248-7889 (if located in Texas, New Mexico or Oklahoma).

Bulletins Live! Two -- View th x Options x +

https://www.epa.gov/endangered-species/bulletins-live-two-view-bulletins

History Search: View

Current View: June 2017 Basemaps

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- Pesticide Use Limitation Area (PULA)

Explanation

- Effective

INSTRUCTIONS RESULTS

Effective Date: June 2017

Pesticide Use Limitation Summary Table

AI/Product	Use	App Method	Formulation	Code
ROZOL PRAIRIE DOG BAIT [7173-286]	Black-tailed Prairie Dog	Bait (loose)	Bait	R3
KAPUT D PRAIRIE DOG BAIT [72500-22]	Black-tailed Prairie Dog	Bait (loose)	Bait	K3
Diphacinone	Black-tailed Prairie Dog	Bait (loose)	Bait	K3
Chlorophacinone	Black-tailed Prairie Dog	Bait (loose)	Bait	R3

11:02 PM 6/6/2017



# Other Rodenticides



# PLAN TO DESTROY ALL PRAIRIE DOGS

Experiments for Poisoning the  
Animals Prove Very  
Effective.

Attempts made last spring at poisoning prairie dogs in national forests on an extensive scale seem to have been highly successful in ridding selected areas of these small pests, and plans are now being made to carry on the work much more widely next year.

The first experiments in this line were made in New Mexico by a stockman who has since entered the forest service. In 1901, Dr. C. Hart Merriam, chief of the division of biological survey of the department of agriculture, made a report upon "The Prairie Dog of the Great Plains," in which the damage done by the dogs was pointed out, and various methods of poisoning them were suggested. This report of Dr. Merriam's may be said to have blazed the way for practical work in prairie dog extermination.

Big Horn County Rustler  
Sept. 11, 1908

## THE PRAIRIE DOG OF THE GREAT PLAINS.

BY  
C. HART MERRIAM,  
*Chief of Division of Biological Survey.*

### OBSTACLES AND DIFFICULTIES OF EXTERMINATION.

The chief obstacle to the extermination of prairie dogs on the plains is lack of cooperation among landowners. It is of little use to kill off the animals on ranches adjacent to large colonies in which the pests are allowed to go on multiplying. Many ranchmen who have again and again poisoned those on their own lands have finally given up in despair because of the rapid overflow from adjoining lands, new animals continually taking the places of those killed, until the expense and labor of repeated poisonings were too great to be continued. Complaints from this source are common in the case of ranches adjoining Government, State, or school lands, and railroad lands, and occasionally arise in the case of those adjoining lands owned by nonresidents, corporations, and certain individuals. This phase of the subject requires local legislation. In some States drastic measures have been recom-

Complaints are constantly received of the spread of the pests on farm lands adjoining Government, railroad, school, and other lands, over which the inhabitants have no jurisdiction. This is a very serious evil, and one with which it is exceedingly difficult to cope.

# Rodenticides



# Lethal Non-Rodenticides



**Kills!** PAINLESSLY Moles, Gophers, Rats, Skunks, Woodchucks and Ground Squirrels

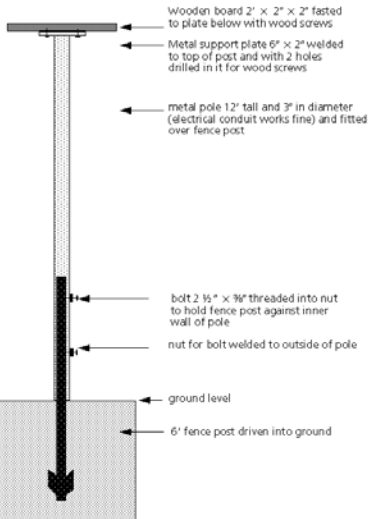
**IMMEDIATE RESULTS!**

- Kills more than one at a time.
- One solution for All rodents.
- No poisons to harm children & pets
- Minimal digging required.
- Reuse year after year.
- No need to dispose of dead or wounded rodents.

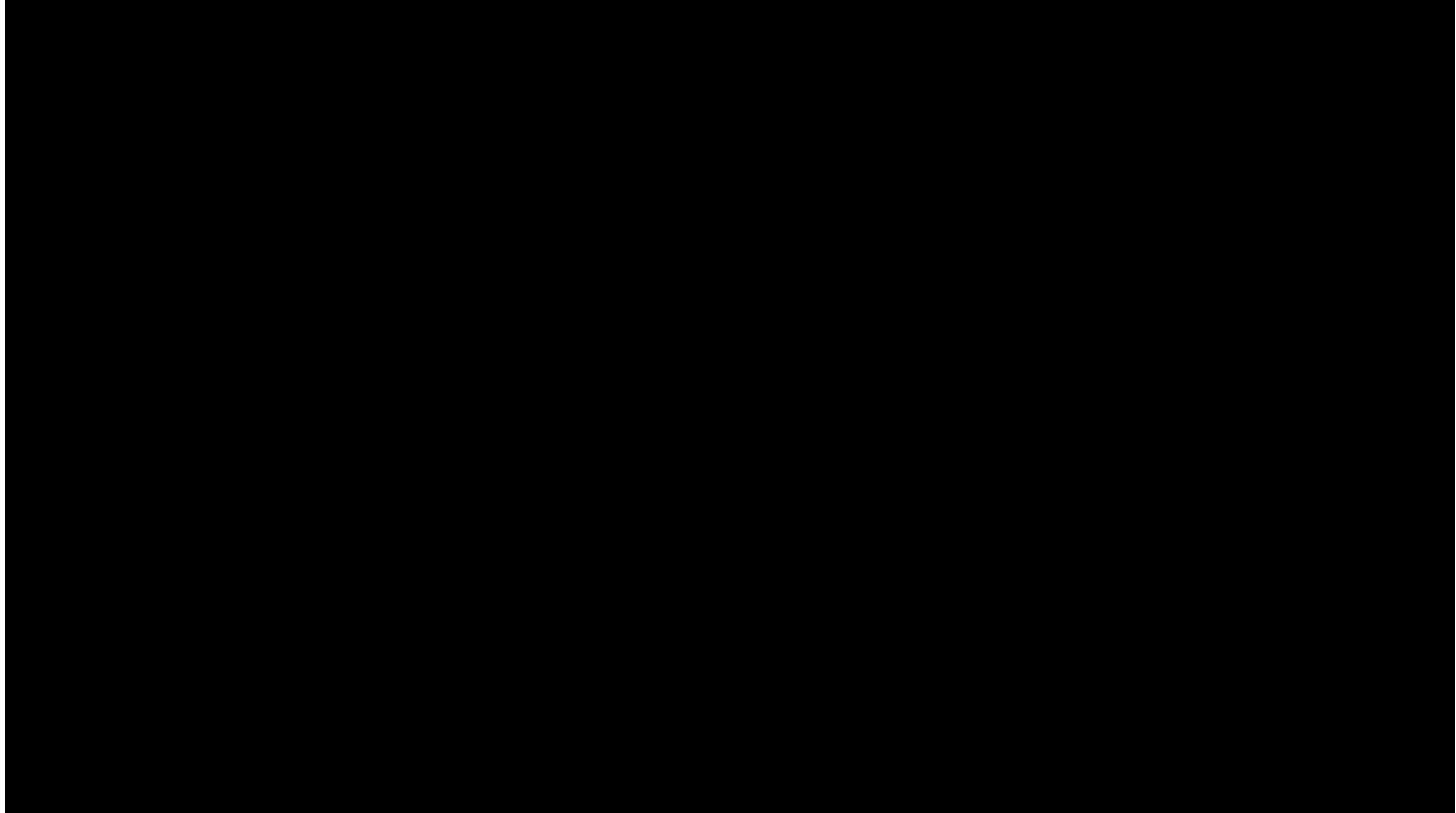
Effective up to 275 feet!

RUN ENGINE 15-30 MINUTES

## Raptor Perch Design



# Lethal Non-Rodenticides



# Non-Lethal

Parowan Municipal Airport, Utah



Intersection of 9<sup>th</sup> Street and Buckingham Street,  
Fort Collins, CO



Cimarron County Cemetery, OK Kiowa and Rita Blanca National Grasslands.



# Non-Lethal

- Fencing
- *“To prevent digging under, barriers would need to extend a considerable depth under the ground surface, as burrows for black-tailed prairie dogs commonly extend to depths of 2 to 3 m.”*
- *“The results of this study suggest that barriers constructed to prevent or slow prairie dog colony expansion will probably be only partially effective unless considerable effort and cost is invested in barrier construction and maintenance.”*
- *Witmer et al. Evaluation of physical barriers to prevent prairie dog colony expansion. Human–Wildlife Conflicts 2(2):206–211, Fall 2008*

# Non-Lethal

- Vegetation Barriers
  - “Patterns indicate a tendency towards a decrease in breakthroughs with increase in buffer width, but no significant differences were found.”
  - “The 40-m buffer width was not adequate to stop prairie dog breakthroughs with the low visual obstruction and vegetation height brought on by drought conditions in 2004.”
- Terrall, David; Jenks, Jonathan; and Smith, Arthur, "Use of Natural Vegetative Barriers to Limit Expansion of Blacktailed Prairie Dog Towns" (2005). Wildlife Damage Management Conferences -- Proceedings. Paper 119.



# Non-Lethal

- Translocation

**WYOMING GAME AND FISH COMMISSION**

Issue Date: January 26, 2012

Authority: Fred Lindzey, President

Policy Number: VII V

## **Guidelines**

All translocation requests must be approved by the Wyoming Game and Fish Commission (Commission) prior to any translocation effort. A contingency plan for managing prairie dog dispersal in reestablished colonies shall be a component of all translocation proposals.

- 1) Translocation of prairie dogs may be permitted primarily for the following purposes:
  - a. To remove prairie dogs on, or expanding onto private land;
  - b. To remove prairie dogs within 1 mile of a residence where the resident wants the prairie dogs removed due to concern for human health and safety;
  - c. To augment prairie dog colonies in a designated black-footed ferret recovery area;
  - d. To augment prairie dog colonies as described in a prairie dog management plan.

# Non-Lethal

- Translocation

Prior to permit approval, the Chapter 33/10 permit applicant or their designee shall attempt to meet with and secure a written response from potentially affected private landowners and livestock grazing permittees within 5 miles of the release site, in addition to weed and pest control district-boards, county commissioners, tribal interests, the Department, and state and federal land management agencies to resolve potential issues, minimizing conflicts with other land uses (e.g., grazing) as a result of translocation.

- 6) If approved by the Commission, not less than twenty (20) days before the translocation occurs, the permit holder shall provide potentially affected private landowners and livestock grazing permittees, weed and pest control district boards, county commissioners, tribal interests, and state and federal land management agencies notifications of the approved permit.

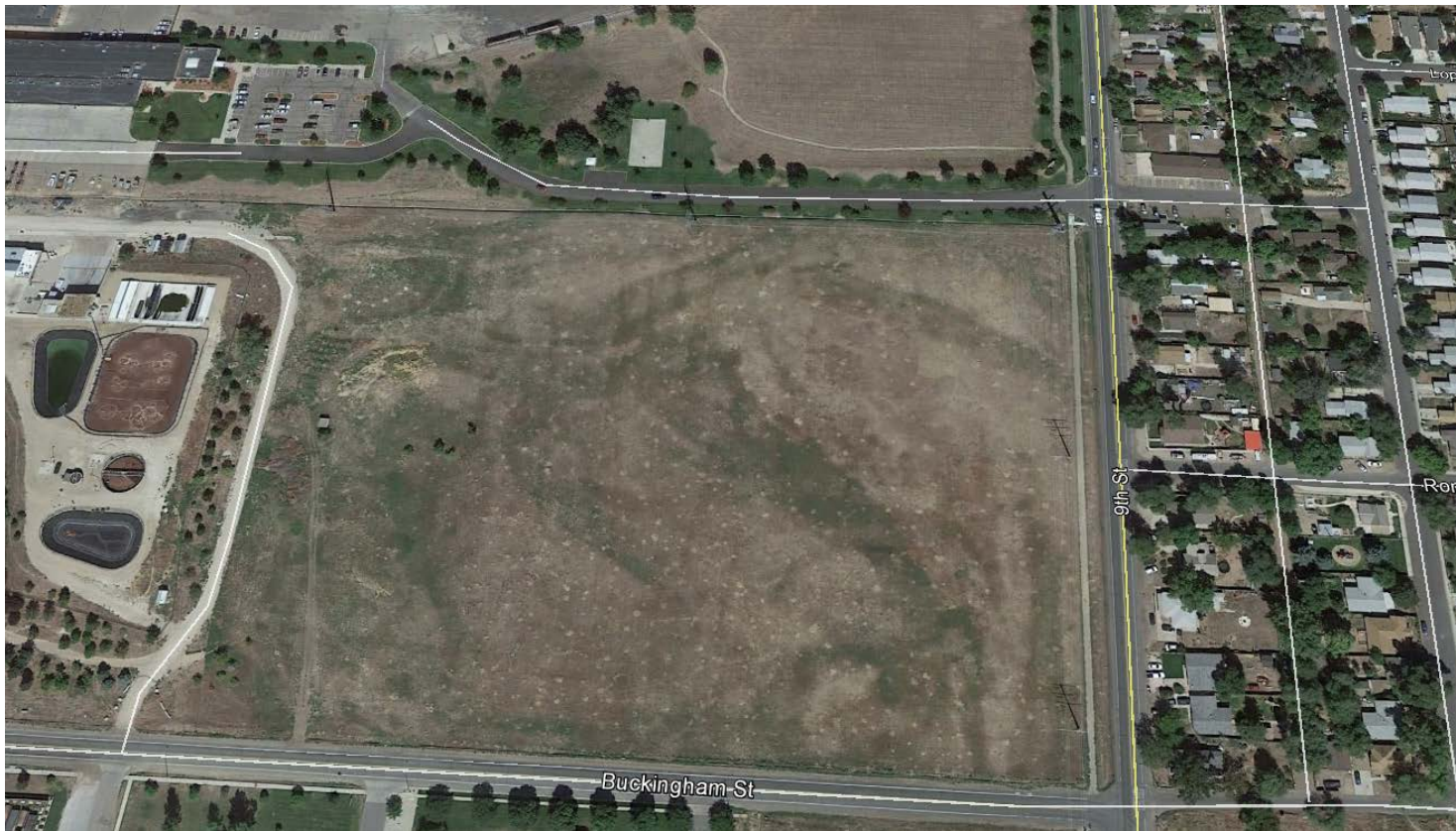
# Non-Lethal

- Translocation



# Unconventional

- Development



# Unconventional



# Unconventional

- Walmart Corn Chips



# Questions?

—An English lord is shooting prairie dogs in Kansas under the impression that they are grizzly bears.

must be stopped. He ran a prairie-dog full half a mile, in order to "tree" it, thinking it was a jack rabbit, and lost his pocket-book containing a large number of bills—against parties about town. He fell over his dog while running and hurt the dog severely; his gun fell, went off in his vest pocket and tore a thousand dollar (counterfeit) green-back into a million disintegrating fragments. He came home

— Mr. P. T. Barnum will travel next summer with a menagerie through the country. He is the gentleman that recently "entered land" out west by falling off his horse into a prairie-dog-hole. The hole will be exhibited among the curiosities.

## The Overland Journey a Fraud.

"There ain't no bottling up of things about me. This overland journey's a fraud, nothing but a fraud, sir, and you oughter know it. Don't tell me. It's a fraud. This ring must busted up. Where are your buffalers? Perhaps you'll tell me that them cows is buffalers. They ain't. Where are your prairie dogs? They ain't dogs, to begin with; they're squirrels. Ain't you ashamed to call them mean little cusses dogs? But where are they? There ain't none. Where are your grizzlies?"

CHEYENNE, Nov. 16, 1874.

[From our Special Correspondent.]

*Editor Sentinel:*

**Cheyenne still lives, all reports to the contrary notwithstanding.**

It has been reported that there are men in Colorado and elsewhere, who actually believe that Cheyenne is inhabited by coyotes, gophers and prairie dogs. If these men doubt the truth of our first statement, they are invited to come and look for themselves; they will find here the liveliest town of its size in the west, (except Laramie, of course.)