

Ground Squirrel Control

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Pest Identification

∞ Never attempt a pest control program until you are sure of what the pest is.





"HOW DO YOU KNOW THEY'RE MORMON CRICKETS?"

Pocket Gopher vs Ground Squirrels

Pocket Gophers



Ground Squirrels



Townsend Ground Squirrel



- ∞ Is a small gray squirrel found in Nevada and Western Utah.
- ∞ Adults may be up to 7 inches long and the belly and flanks are mostly white.

- ∞ Hundreds of acres of alfalfa ground in western Beaver County are infested.
- ∞ The Townsend Ground Squirrels are also found in Iron, Milliard, Sanpete and Sevier Counties.
- ∞ The problem has increased substantially the last few years.





The infestations began along the fence lines but have now moved into the fields.

IPM/Sustainable Ag Grant

∞ I received a several grants to conduct research trials to compare the effectiveness of different rodenticides.



Start Control Early

- ∞ Once the alfalfa greens up it is hard to get the squirrels to eat the bait.
- ∞ The squirrels will eat a lot of different things early in the spring but after the alfalfa greens up they only eat the alfalfa.



Eliminating Piles



- ❧ The old cement ditches are a great place for squirrels to build their burrows.
- ❧ You should burn brush piles and eliminate trash piles

Shooting



Trapping Squirrels

- ∞ Trapping squirrels would work well in towns and around homes where you can't use baiting, shooting or you only have a few squirrels to control.
- ∞ We tried many different baits and found that cabbage and apples, (fresh material) works best.



Live Animal Trap

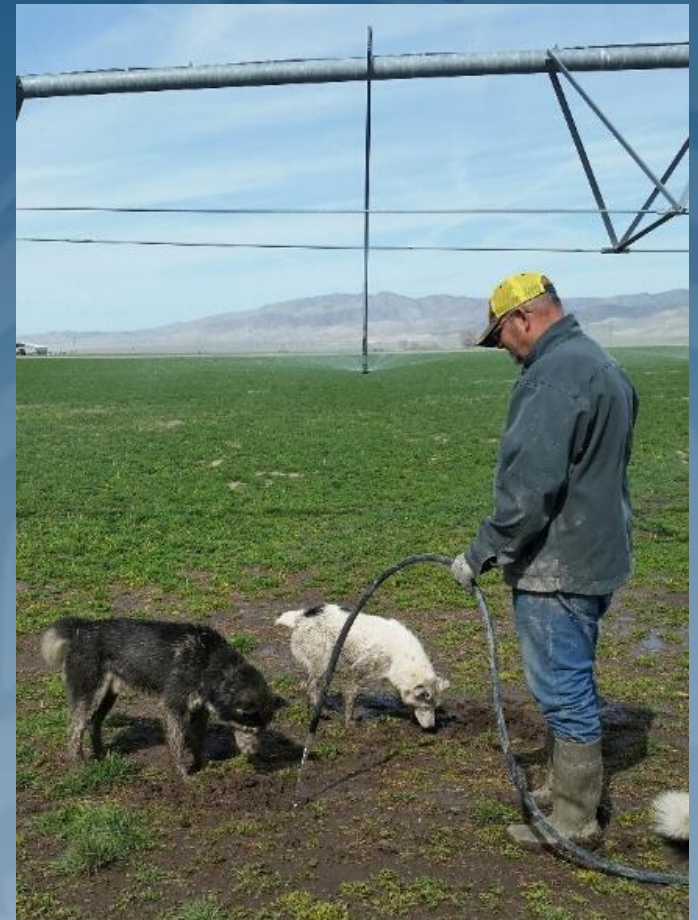


∞ Animals must be humanely euthanized after being caught.

∞ Trapping is not a science it's an art.

Flooding

- ∞ Flooding is an effective way to kill the squirrels.
- ∞ The water forces the squirrels out of the holes but you have to have dogs or some other method to kill the squirrels.





Fumigants



Aluminum Phosphide



- ∞ Comes in tablet form
- ∞ Reacts with the moisture in the soil to produce a lethal phosphine gas that is toxic to all mammals.
- ∞ You must add water if the soil is dry.

- ∞ These squirrels were killed by Aluminum Phosphide.
- ∞ This gas can be very dangerous and should never be close to houses.



Burrow Exploders



Rodenator



- ∞ The burrow is filled with a mixture of propane and oxygen gases; the gases are then ignited by a spark created by the trigger on the applicator.
- ∞ It can be effective but you have to treat every active hole.

Gas Cartridges

- ⌘ Gas cartridges are available, but they are costly and time-consuming to use and give varying results.
- ⌘ Because squirrel tunnels are extensive, gas may not disperse through the entire system.



Pressurized Exhaust Rodent Controller PERC



- ∞ Pure exhaust (2.5% carbon monoxide, Co) is captured off a gas engine that drives a compressor, cooled, pressurized, and injected into the burrow of a gopher or squirrel.

PERC Machine

- ∞ Several farmers on the Milford Flat have purchased PERC machines
- ∞ These machines have proven effective in controlling the ground squirrels



PERC



- ☞ Every hole has to be treated.
- ☞ These machines are expensive.
- ☞ Some of the squirrels come out of their hole to die.

Anticoagulants

- ∞ Chlorophacinone – 0.005% and 0.01%
- ∞ Diphacinone 0.005% and 0.01%

- ∞ Anticoagulants prevent the formation of blood clots and cause smaller capillaries to rupture.
- ∞ Anticoagulants must be taken in multiple doses.
- ∞ Must be applied in bait stations on crop ground so you will not kill non target animals.

Ditrac Ground Squirrel Bait



∞ Licensed in the State of Utah to control the California Ground Squirrel.

∞ Must be placed in secure tamper-resistant bait stations.

Ditrac Ground Squirrel Bait

- ∞ The active ingredient is Diphacinone.
- ∞ This is the same active ingredient found in the Ditrac Tracking Powder used to control rats and mice.
- ∞ I am going to be testing this product again this year.



Rozol Vole Bait



- ∞ Currently working with the company to get the product licensed for Ground Squirrel Control in Utah.
- ∞ Must be placed in tamper resistance bait stations.

- ∞ The active ingredient is Chlorophacinone.
- ∞ I tested this product last summer and found the ground squirrels liked the pellets better than the grain based gopher baits.
- ∞ This bait is available at IFA in Cedar City.



Bait Stations

JT Eaton Bait Station



Wilco Bait Station



Bait Stations

PVC Bait Station



TomCat Bait Station



Using Bait Stations



- ∞ If you are using bait stations you should use one of the pelleted baits.
- ∞ We recommend trying the Rozol Vole Bait or the Ditrac Ground Squirrel bait.

Baiting Squirrels

- ∞ I conducted 3 different trials in 2016.
- ∞ The first trial was conducted before the alfalfa greened up and we compared Ditrac pellets to Rozol Vole pellets.
- ∞ The Rozol showed an 81% reduction and the Ditrac showed a 46% reduction.



Ditrac vs. Rozol Bait Stations



- ☞ We conducted a bait trial in May after the Alfalfa was growing good.
- ☞ We followed label recommendations and put the baits in bait stations.
- ☞ The results of the this trial was very poor.

Zinc Phosphide Concentrate on Cabbage



- ∞ In Oregon and California they have tested applying Zinc Phosphide Concentrate on Cabbage.

Concentrated Zinc Phosphide on Cabbage



- ☞ After the Alfalfa had greened up we tested using Zinc Phosphide on Cabbage.
- ☞ We were able to get a 52% reduction in ground squirrels using the treated cabbage.
- ☞ This is an effective method but requires special safety equipment.

Research Plans for 2017

- ∞ Evaluate the Rozol Vole Bait
- ∞ Evaluate the Ditrac Ground Squirrel Bait
- ∞ Work with the companies who make these products to get them labeled to use on the Townsend Ground Squirrel.

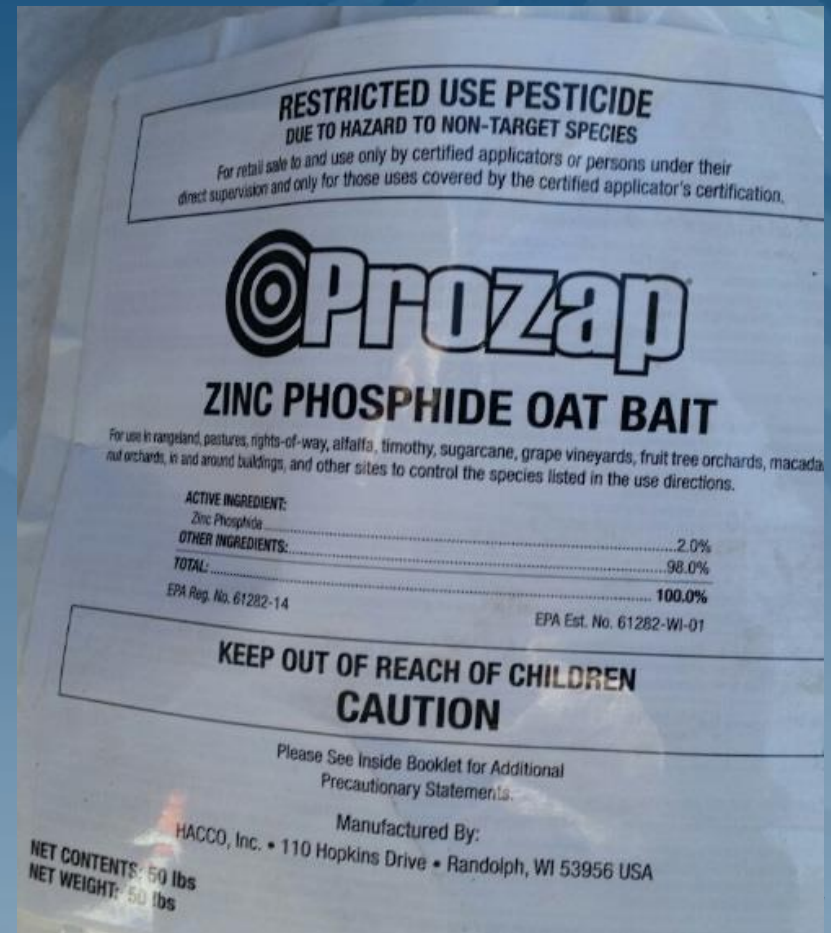


What Producers Should do.

- ∞ Pick several control methods and treat all of your property.
- ∞ Start the control method early. Within 3 weeks of when the Squirrels first come out.
- ∞ If you see a lot of young squirrel in April and May you should apply control methods again.

Follow the Label

- ∞ Do everything it says on the label of whatever Rodenticide Control Product you are using.
- ∞ If you follow the label the company is liable. If you do not follow the label you are liable.



Everyone Needs to Work Together

- ∞ As in many agricultural situations, we have found that if one producer does a good job of treating squirrels and the neighbor does not, then the problem will move from the neighbors' field to the well controlled field.
- ∞ In this project we need to continue to worked to educate all the farmers in the area on the importance of controlling the ground squirrels.

Questions

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