

USING IPM TECHNIQUES TO MITIGATE DAMAGE CAUSED BY TOWNSEND'S GROUND SQUIRREL IN IRRIGATED CROP GROUND

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Research funded by WESTERN SARE



Townsend Ground Squirrel



- ∞ Is a small gray squirrel found in Nevada and Western Utah.
- ∞ It eats grasses and loves alfalfa and other agronomic crops.
- ∞ They breed in March and have litters of 8-10 babies in April.

∞ Hundreds of acres of alfalfa ground in western Beaver County are currently infested.

∞ The problem has gotten much worse the last two years.





The squirrels are costing farmers over \$100,000 each year.

They started out just infesting the fence lines but now are covering the whole fields.

Current control programs are not taking care of the problem.





- ∞ Once the alfalfa greens up it is hard to get the squirrels to eat the bait.
- ∞ Shooting is fun but very time consuming.
- ∞ Flooding and fumigating are effective but very time consuming

I applied for and received an Integrated Pest Management grant for \$1200 to conduct a study on the best way to control ground squirrels on the Milford Flat.





We held a public meeting in January to educate land owners on the best way to control the squirrels.

Dr. Terry Mesmer, USU Extension Wildlife Specialist, came and explained a new baiting program where we could get better control by applying a pre-bait and then a bait before the alfalfa greens up.

∞ To determine the effectiveness of the prebaiting program we set up a trial where we compared the effects of no baiting, baiting, and prebaiting.





∞ We selected 12 plots, 3 each in 4 different farmers fields. Each plot was 50 X 50 m and at least 400 meters from each other.



Each treatment consisted of a plot that was prebaited and then baited with zinc phosphide,

1 plot baited with zinc phosphide with out prebaiting

1 control plot that received no treatment.

Squirrel Observations

- ∞ Each plot was observed for 10 minutes each day for 3 days before any baiting took place
- ∞ The plots were observed for another 3 days after the treatments were applied.



Results of the ground squirrel control trial - 2009

	Before baiting	After Baiting	% Change
Control	5.4 squirrels	3.6 squirrels	33%
Bait Only	8.3 squirrels	3.4 squirrels	59%
Prebait and Bait	10.7 squirrels	2.7 squirrels	75%

Farmers were able to use 4 wheelers to spread the bait quickly and effectively



Follow up survey of farmers on the Milford Flat

- ∞ The 29 farmers who returned surveys estimated that they spent over \$17,000 this year controlling squirrels.
- ∞ Farmers spent over 2200 hours trying to control the squirrels in 2009
- ∞ 52% of the farmers tried the pre-baiting, baiting program.
- ∞ The majority of the farmers feel like this new baiting program really lowered the number of squirrels this past year.



Questions

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