



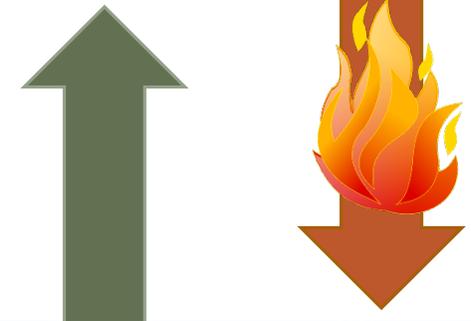
SEED COATING TECHNOLOGIES THAT REDUCE RODENT GRANIVORY DURING RANGLEAND RESEEDING

JUSTIN BLAKE TAYLOR, MATT MADSEN, SAM ST. CLAIR

State Transition



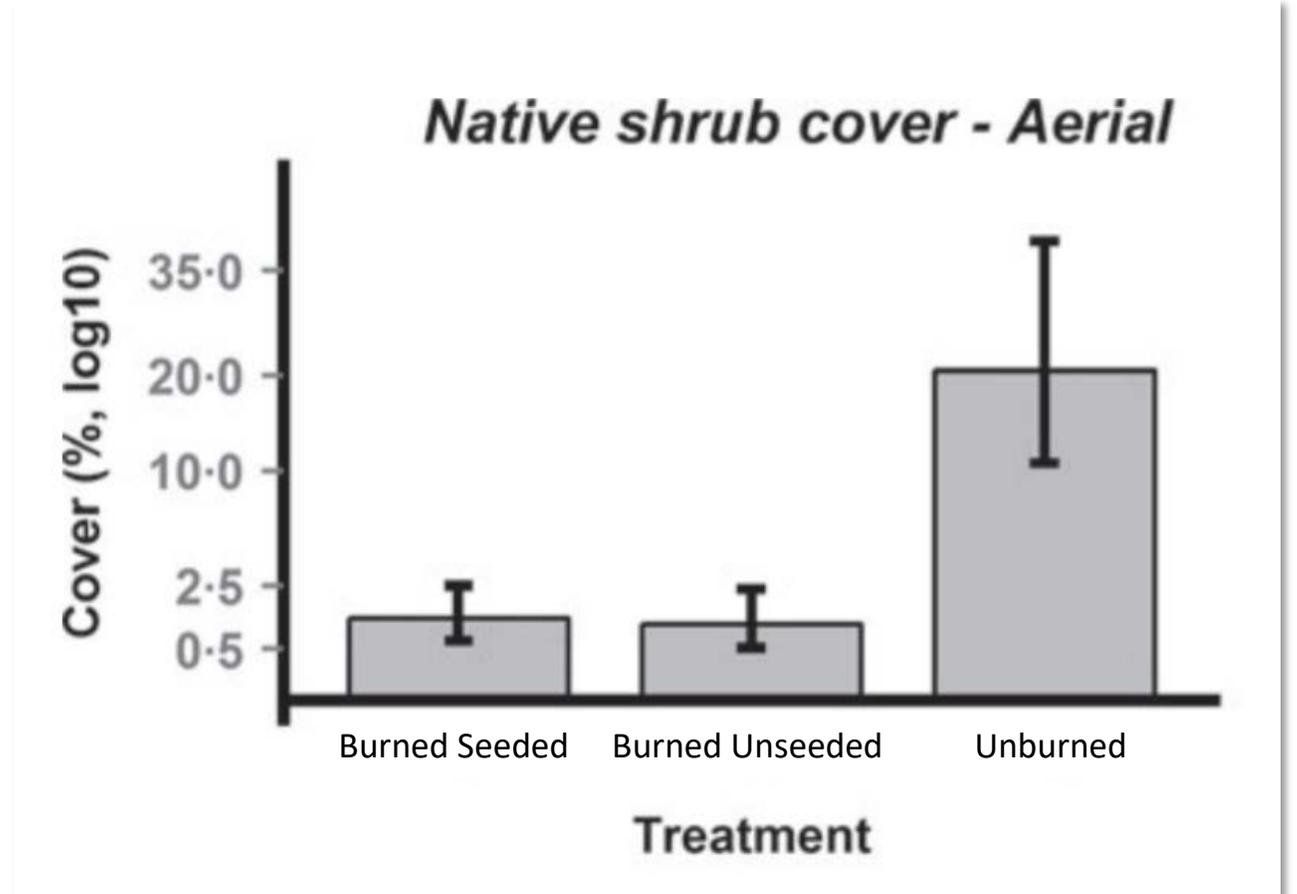
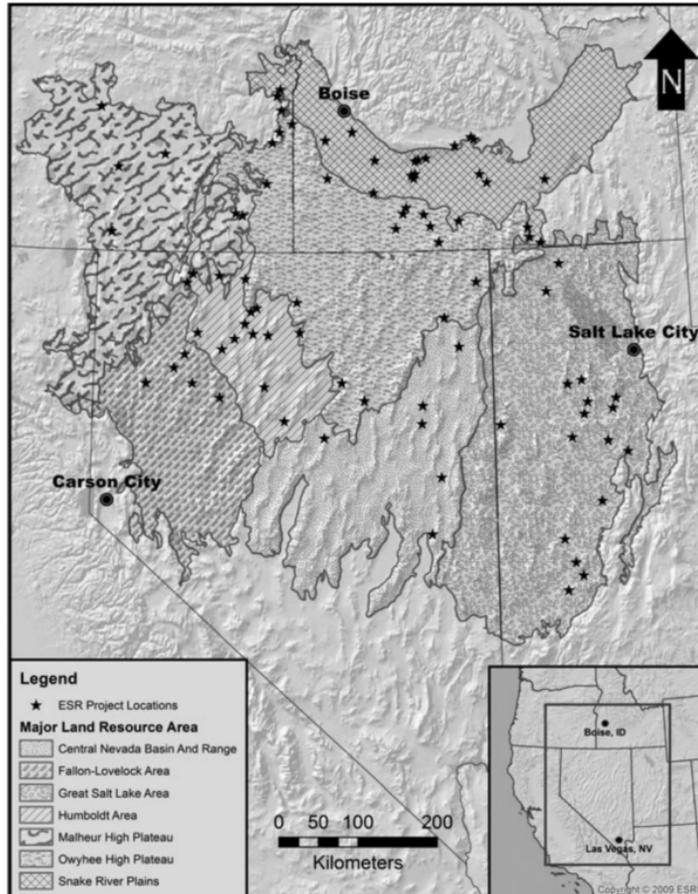
Cheatgrass invasion

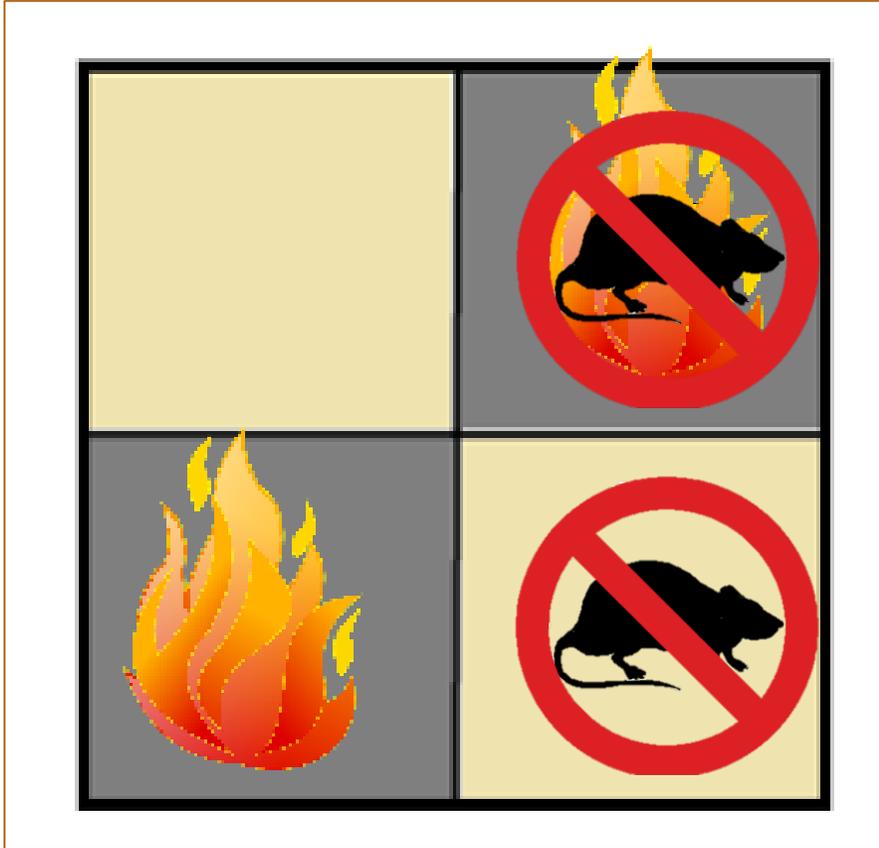


Cheatgrass regeneration

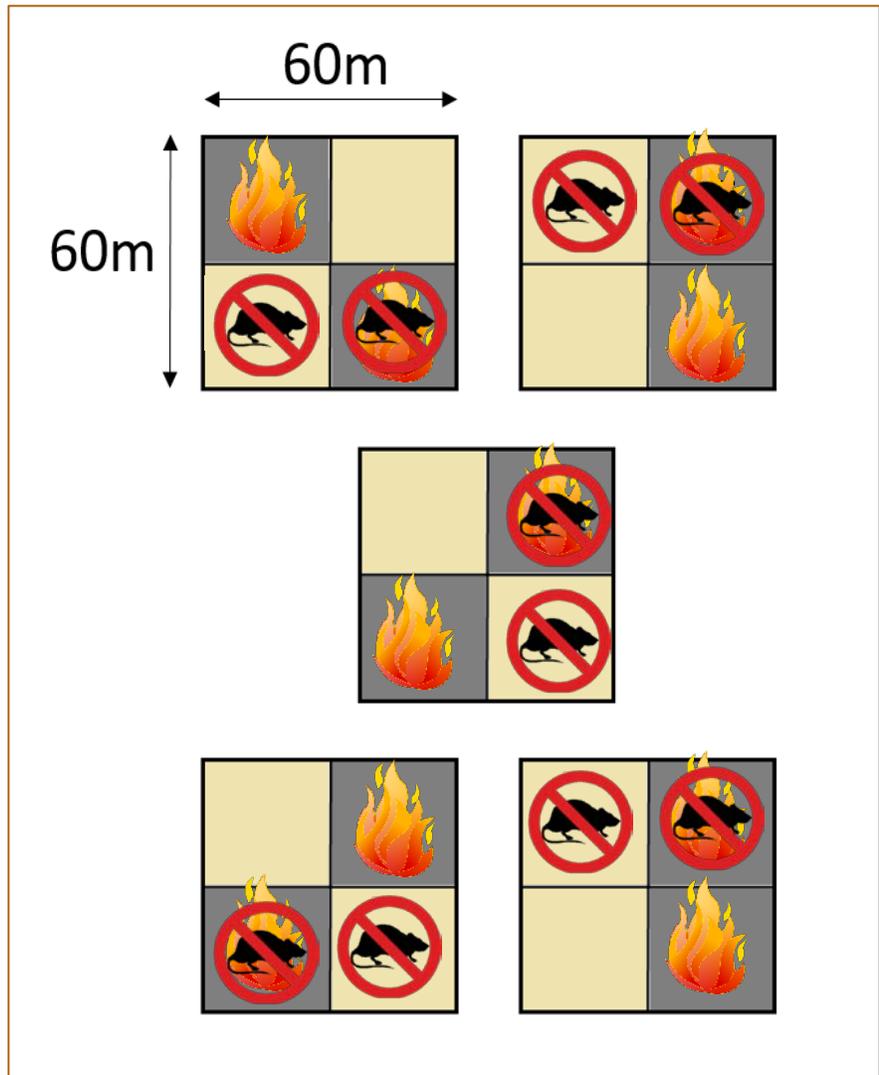


Evaluating Restoration Success





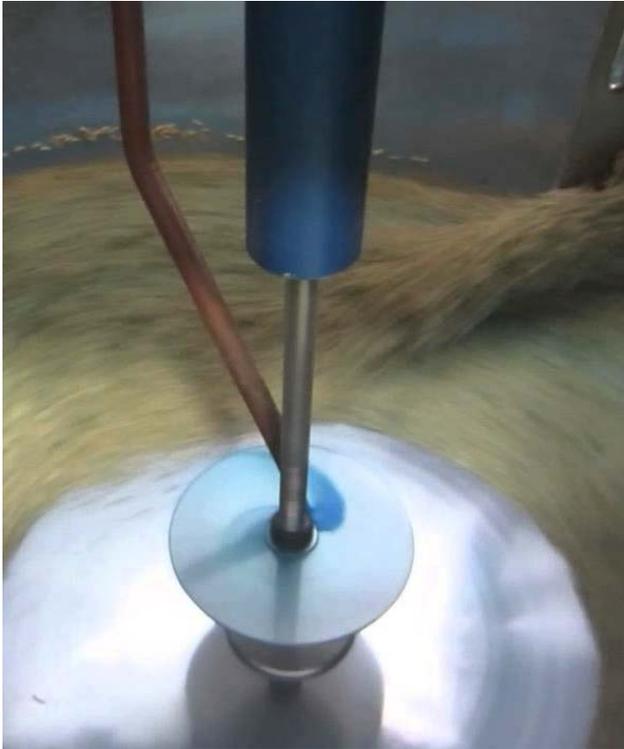
St. Clair et al 2016



St. Clair et al 2016



Different Strategies for Survival



Seed Coating

Hot Peppers / Capsaicin



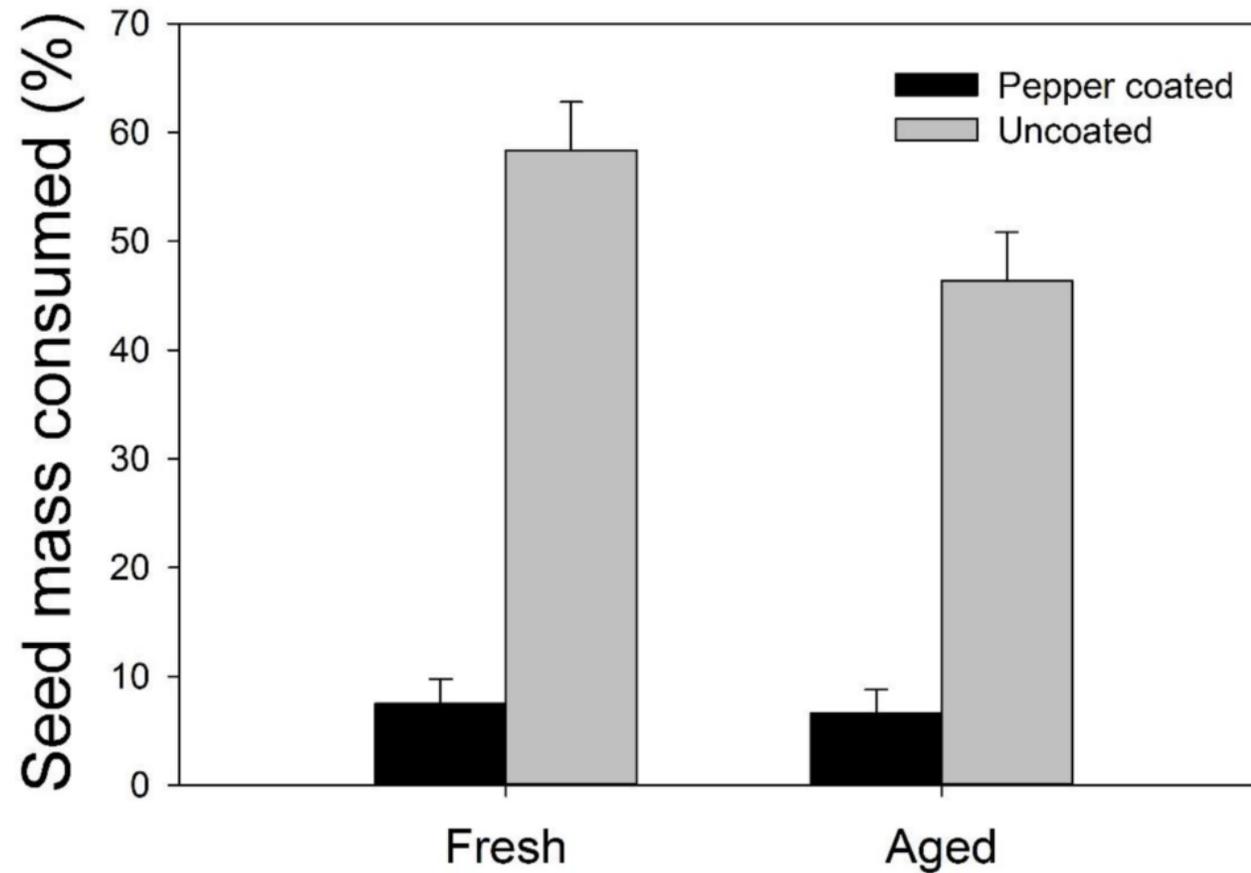
Cayenne
Pepper



Ghost
Pepper



Results with Deer Mice



Pearson et. al 2018

Anthraquinone



Neem Oil



Methyl Nonyl Ketone/ Rue Oil



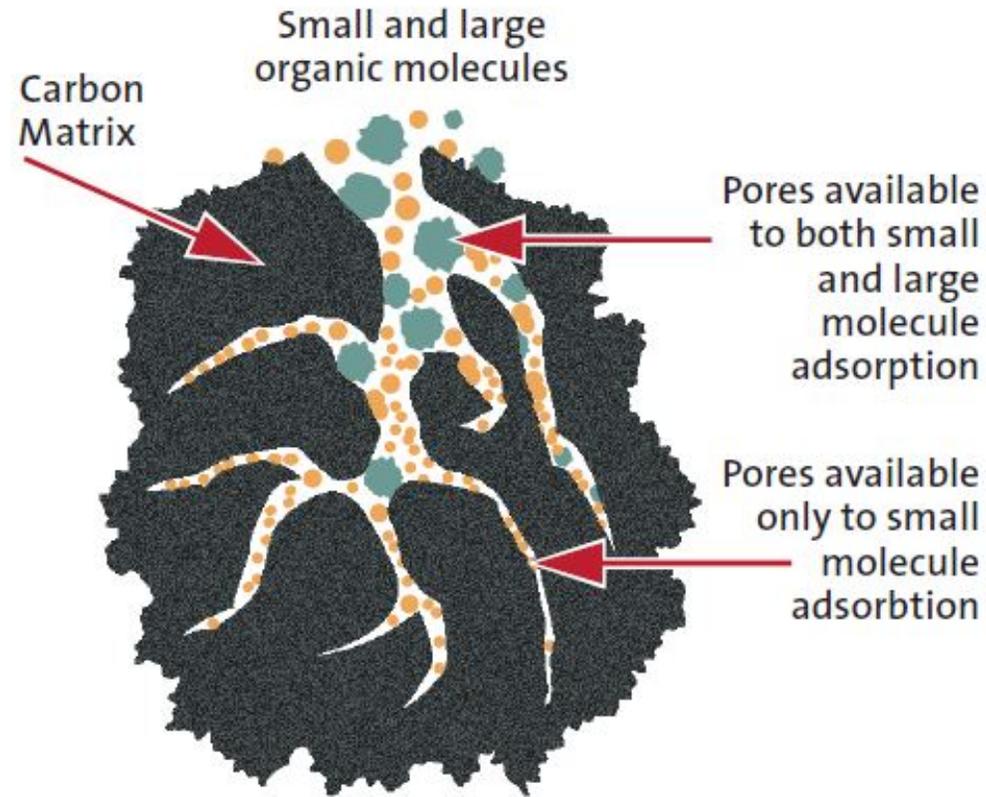
Pine Oil



Bergamot Oil

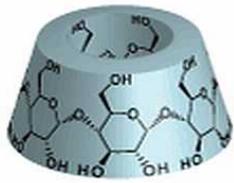


Activated carbon



(Briggs, 2004)

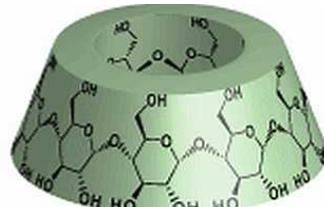
Beta-Cyclodextrin



α -CD



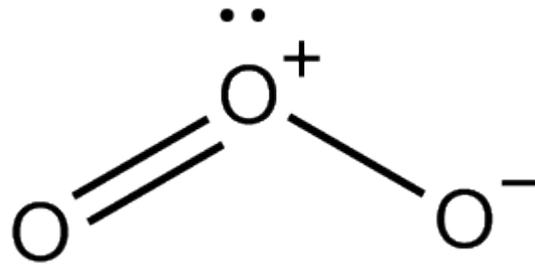
β -CD



γ -CD



Ozone



12 seed Treatments

10 Deterrents

Control



Uncoated seed

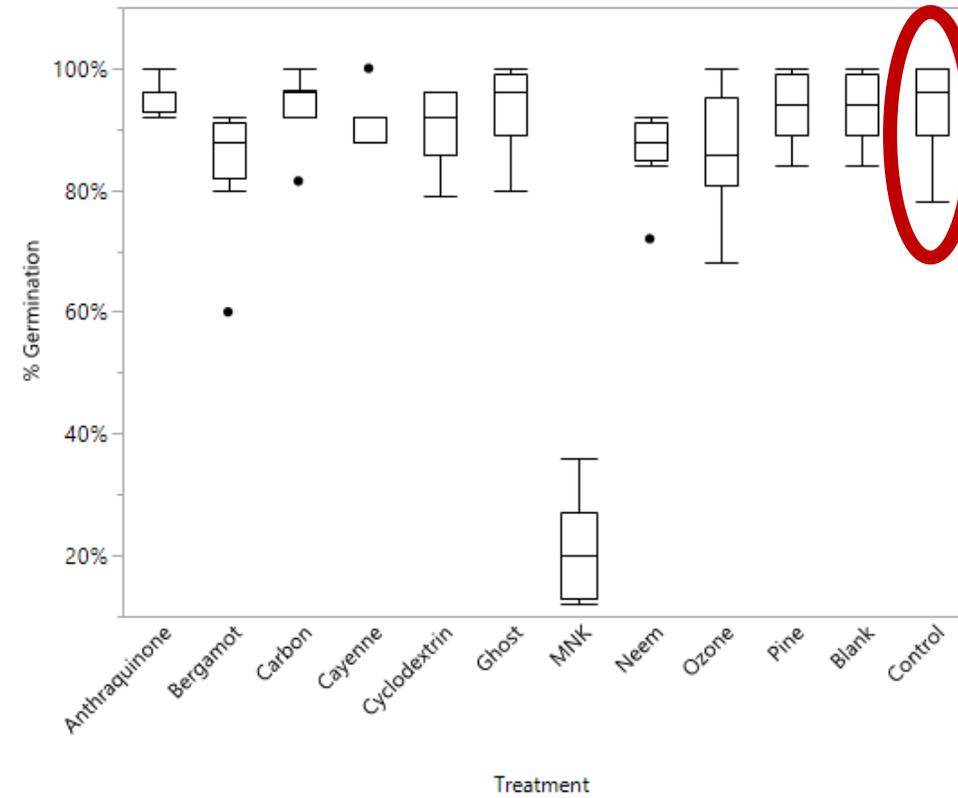


Blank



No Active Ingredient
Clay and Glue

Germination Test





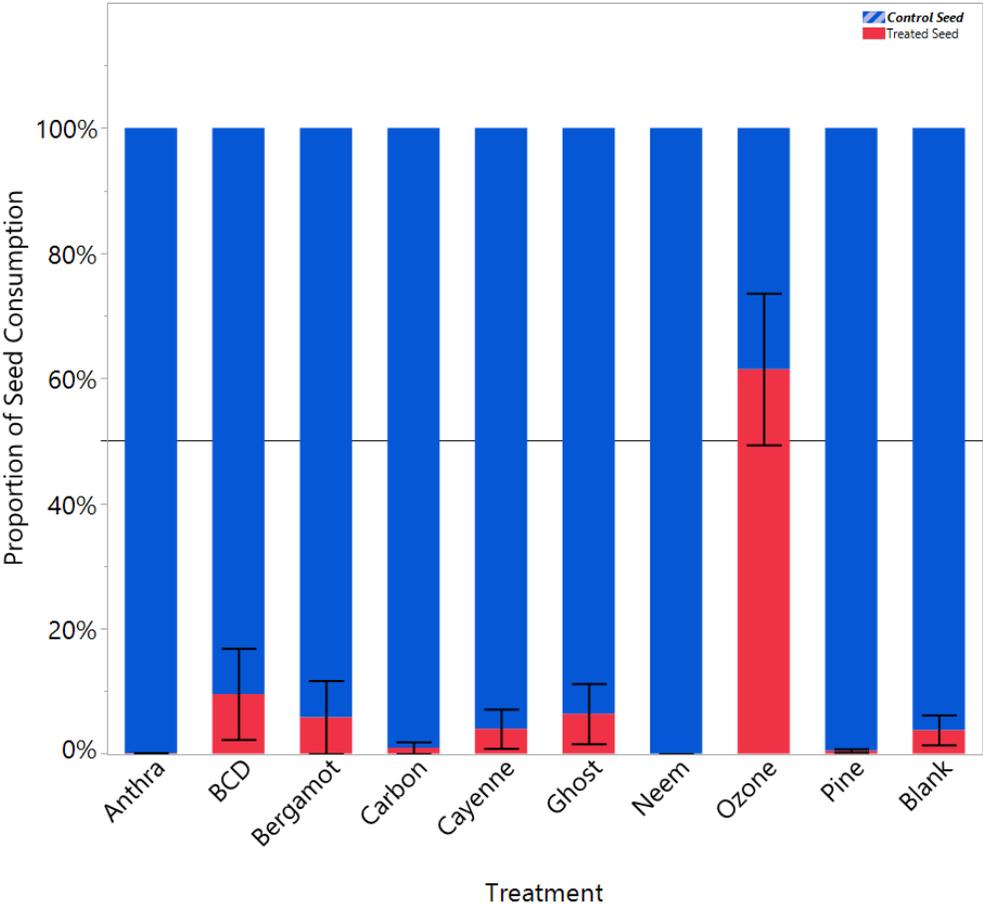


Kangaroo Rat (*Dipodmys* sp.)

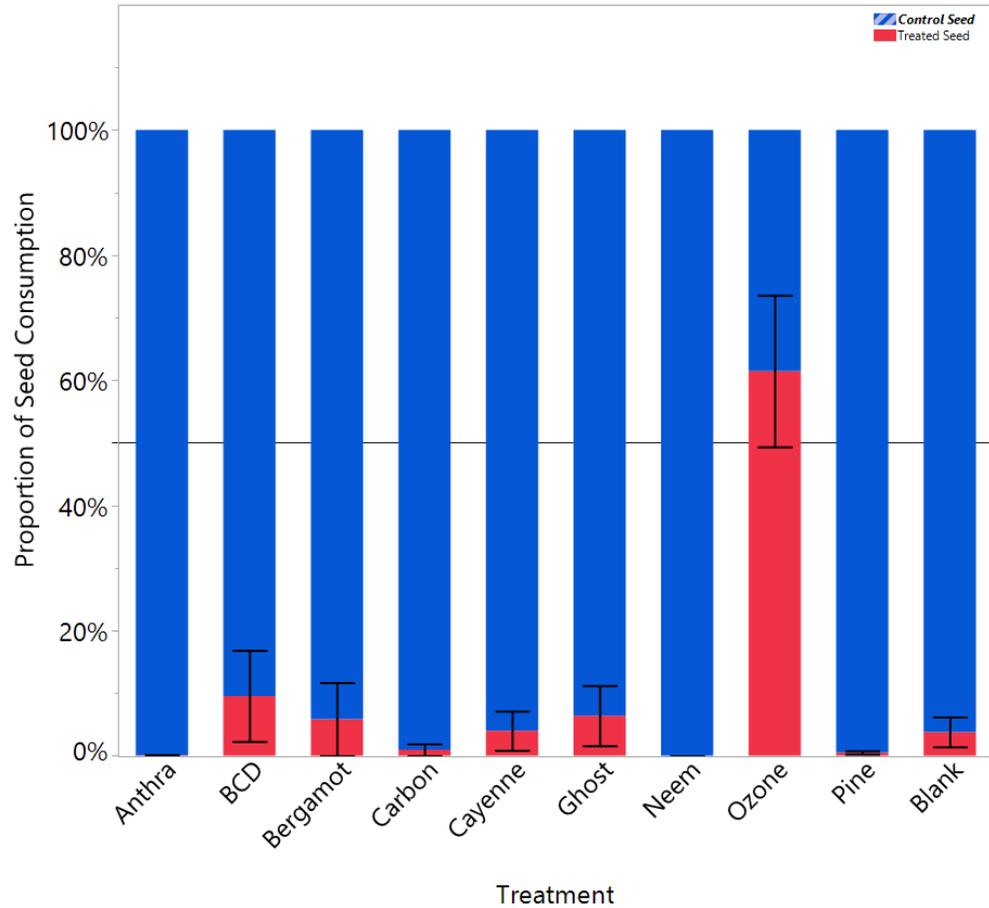




Results



Results



Future Investigation

- Longer Feeding Trials
- Single Choice Feeding Trial
- Arena Style Trials with buried seeds
- In Field Plantings
- Different Seed Species
- Different Rodent Species

Acknowledgements

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