

Project Participants

Blue Mt. Ranch– Paulina, Or

Bonnieview Ranch— Post, Or

Hermreck At The Y Ranch– Paulina, Or

Lazy BJ Ranch—Paulina, Or

Sabre Ridge Ranch—Paulina, Or

TNC Juniper Hills Preserve—Post, Or

Tweedt Ranch— Post, Or

Waibel Ranches, LLC—Paulina, Or



Lazy BJ Ranch: Bacteria Only Treated Site #1 November 2016



Lazy BJ Ranch: Monitor Site #1 May 2017



Tweedt Ranch: Bacteria /Herbicide Treated Site #11 November 2016



Tweedt Ranch: Bacteria/Herbicide Monitor Site #11 June 2017

SARE Professional +
Producer Grant Project

Crooked River Weed Management Area
—Principal Investigator

*Restoring Rangeland
Quality with Soil
Health Enhancement*



Hermreck At The Y Ranch: Medusahead rye Invading Rangeland
Bacteria Only Treated Site #3 November 2016



Hermreck At The Y Ranch: Monitor Site #3 May 2017



498 SE Lynn Blvd
Prineville, Oregon 97754

crwma.co.crook.or.us/
E-mail debbie.wood@oregonstate.edu
541-447-9971

"This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2015-38640-23779 through the Western Sustainable Agriculture Research and Education program under subaward number OW16-038. USDA is an equal opportunity employer and service provider."

Western SARE
Project # OW16-038

2016-2018 Grant \$44,450

With our "Restoring Rangeland Quality with Soil Health Enhancement" project we defined a geographic region in which landowners have a common interest in controlling the future spread of medusahead rye and cheatgrass, which continue to invade the entire



Sabre Ridge Ranch: Bacteria only Monitor Site #5 November 2016

project is an integrated ongoing effort in Paulina, Oregon area to address medusahead rye in sage-grouse habitat. The project's goal to restore rangeland health and function for the greater sage-



Sabre Ridge Ranch: Bacteria only Monitor Site #5 June 2017

grouse coincides with restoring mule deer habitat and most importantly, increasing livestock forage production. Dryland forage is essential for the ranching community as cattle use rangeland for grazing most of the year. This collaborative effort will evaluate and demonstrate the effective use of soil enhancing bacterium for inhibiting growth on medusahead rye and cheatgrass. to aid in the development of best management guidelines for producers.

Performance Targets:

Summer 2016 was the beginning steps for our project objectives. There were 16,095 acres of medusahead rye and cheatgrass surveyed between 7 producers and 1 collaborator before aerial spraying occurred in October 2016 with bacteria (MB 906)/ herbicide together and bacteria alone. For the project 2862 net acres was aerial sprayed and 153 net acres were sprayed by landowners behind ATV. The rate of spray for bacteria was 1 gallon per acre and herbicide (Imazapic) was 6 ounces per acre. 1962 net acres was bacteria only and 1053 net acres was both bacteria and herbicide applied. Monitoring photos at 11 sites have been established for yearly surveying.

7 Producers/2 Collaborators 3,015 acres bacteria/ 3 yrs. monitoring



Waibel Ranches: Bacteria/Herbicide Treated Monitor Site #7 November 2016

chemical was \$8.70 and helicopter service was \$23.00 per acre.

Monitoring photos at 11 sites were done again in May/June 2017. Comparison monitoring photos are seen here in the



Waibel Ranches: Bacteria/Herbicide Treated Monitor Site #7 June 2017

Cost analysis for aerial spraying bacteria versus herbicide was; First year, bacteria being \$ 8.40 per acre and helicopter was \$23.00 per acre. If herbicide was added with bacteria,

brochure. Data analysis comparisons will reveal the impact of bacterial treatments on annual grasses and desired species plant growth, the relationship among these data and other variables such as location, soil characteristics, and climate. The request for assistance continues to grow as producers realize the threat on cattle production and wildlife habitat. As the cost of herbicide goes up in price, a real need for alternative, affordable tools to fight annual grasses is critical for sustainable agriculture.



TNC Juniper Hills Preserve: Medusahead rye Bacteria Only Treated November 2016



TNC Juniper Hills Preserve: Medusahead rye Bacteria Only Treated

Partnering For Better Rangeland

*Crooked River Weed Management Area +
The Nature Conservancy Juniper Hills Preserve +
Local Producers*