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WESTERN
SUSTAINABILITY
EXCHANGE

Update – Buzz on the Range Project
Western SARE Producer-Partnership Grant OW22-372
2/13/2023



Western
Sustainable Agriculture
Research and Education

Buzz on the Range Research Objectives



1	Demonstrate feed methods and grazing rotations that are potentially beneficial to pollinators (bees, insects, and birds)
2	Document pollinator populations over time at test locations Bee/insect inventories
3	Classify pollinator data and management based on land type and use type Help identify - what impact do methods have on lowland vs highland terrain?
4	Provide “real world” measurement experience to area producers and ecological and land management professionals.
5	Document the economics of considered practices Inputs of restoring a degraded ungrazed pasture-land. Rancher profit/inputs.

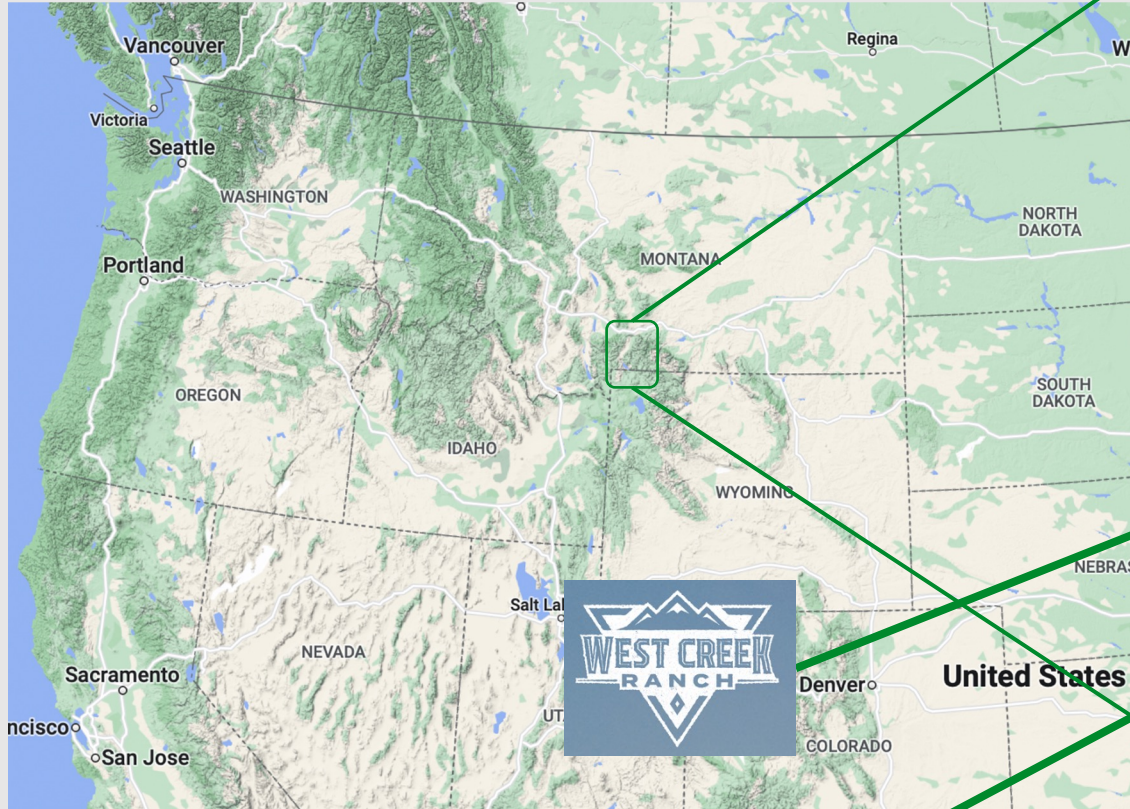
This project will provide directional input on success or failure of bovine introduction of pollinator promoting rangeland grass species.

Asks/Offers – 5 Producers

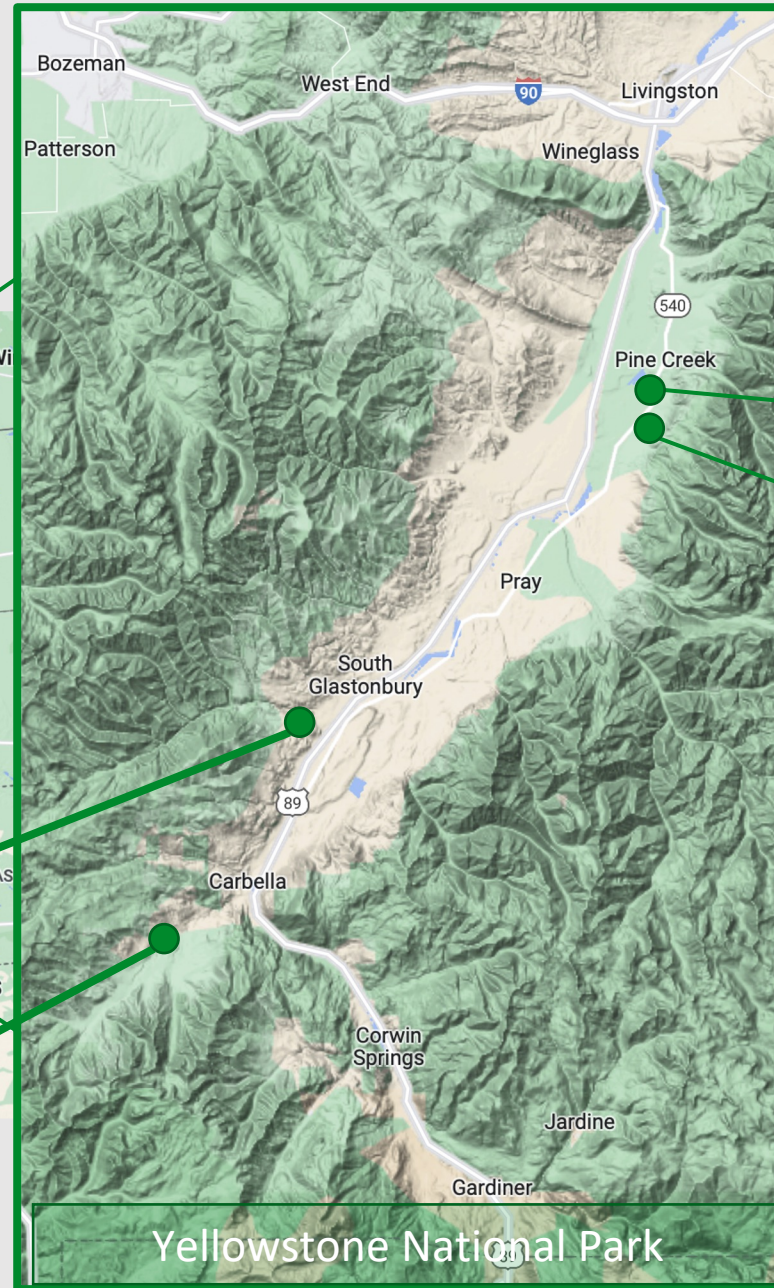


Org	Who	Asks	Offers
Barney Creek	Meagan and Pete Lannan Lara Birkes	<ul style="list-style-type: none"> • Feed a specific grass seed to grazing livestock • Set provided paddock • Allow measurement teams to sample and document progress 	<p>3 years fall/spring/summer tracking:</p> <ul style="list-style-type: none"> • Soil Health Testing • Plant Inventory • Pollinator Inventory <p>No Outlays (i.e. no cost)</p> <p>Potential Benefits:</p> <ul style="list-style-type: none"> • Increased pollinator population • Pollinator friendly grazing plan inputs
Milk Maid Meats	Lily Anderson		
Anderson Ranch	Malou Anderson		
Keeywadin Ranch	Alex Blake		
West Creek Ranch (Mountain Sky Guest Ranch)	Teo Abbruzzese Peter Brown		

Where is This?



Anderson Ranch



To Big Timber



Timeline



Time	Activities
Year 1 (April 2022 - March 2023)	<ul style="list-style-type: none">• Soil your Undies, Research Methods, Material Distribution workshops• Begin Producer partnerships• Research methodology set-up• Begin research measurements
Year 2 (April 2023-March 2024)	<ul style="list-style-type: none">• Continue working with producers• Research with partners
Year 3 (April 2024-March 2025)	<ul style="list-style-type: none">• Continue working with producers• Research with partners• Develop report from research results• Share report out through networks

Many of the Project Team and Producer Partners



From Left to Right:

Meagan Lannan – Project Team and Producer-Partner (Barney Creek)

Lily Anderson – P-P (Milk Maid Meats)

Teo Abbruzzese – P-P (West Creek Ranch)

Alex Blake – P-P (Keeywadin Ranch)

Michal DeChellis – Project Team (Education and Outreach)

Michael DeChellis – Project Team (Principle Investigator and Rangeland Measurement)

Many others listed later...

Rangeland Health Assessments

- Short Term Monitoring from Savory Ecological Outcome Verification™ Methodology (without Soil Carbon Assessment)
- Extensive inventory of Leading Indicators of Soil and Rangeland Health



GROUND COVER



WATER INFILTRATION



BIODIVERSITY

Buzz on the Range

Project Highlights from the 2022 Season

Soil Health Workshop – April 29th, 2022



Producer/Partner Discussion



Marni Thompson (NRCS Soil Health Specialist) gives a visual presentation of soil essentials

Launch of Soil Your Undies Campaign



Our 5 Producers Burying Undies for Soil Health



Burying (Late April to Late May)

Digging Up (Late April to Late May)



Soil Your Undies Campaign – Soil Health Day at WESTERN SUSTAINABILITY EXCHANGE Livingston Farmers Market

July 20, 2022



Soil Your Undies Campaign – Digging Up Undies at Livingston Farmers Market



Pollinator Assessments

Sarah Red-Laird
Bee Expert
Non-Profit Bee Advocate



**Bee Trap for Species Inventory
and Count at Anderson Ranch
Buzz on the Range Pasture**

Aug 8-12, 2022



**Bee Trap for Species
Inventory and Count at
Barney Creek Buzz on the
Range Pasture**

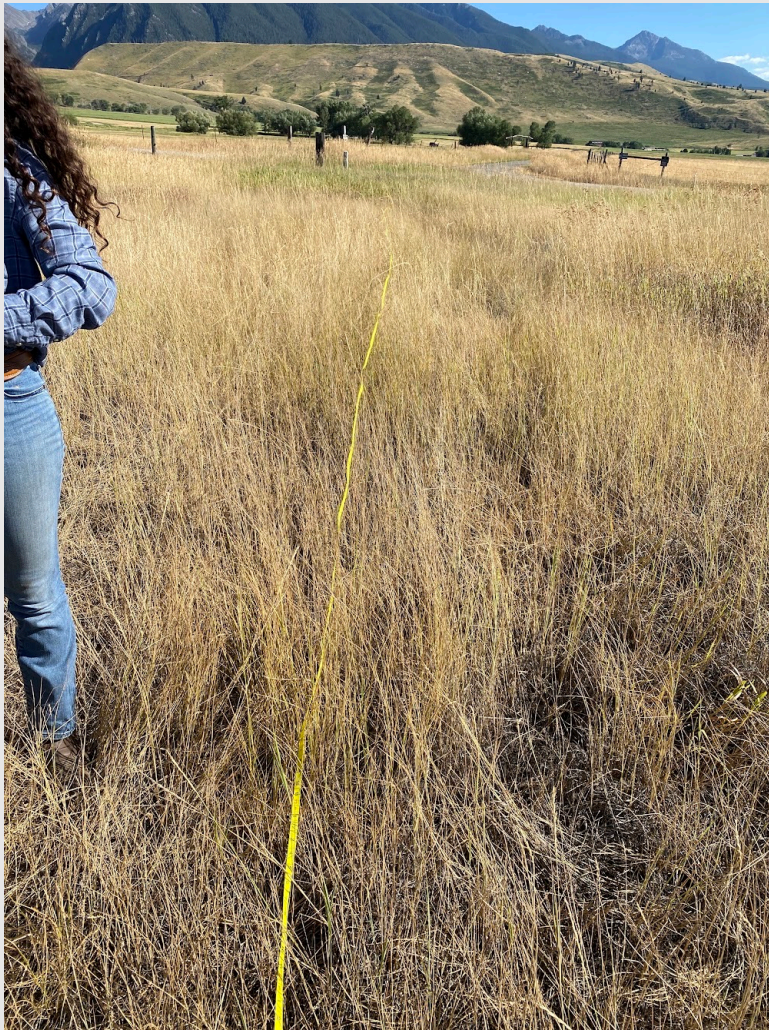
Visit by Western SARE/MSU to Barney Creek Livestock for Project Update



Aug 23, 2022



Rangeland Monitoring and Assessments



EOV FORM 5 : SHORT TERM MONITORING FIELD FORM DATE

LANDBASE MONITOR AVERAGE RAINFALL LAST YEAR RAINFALL

PARAMETER	UNIT	SCORE	DATE
Paddock Name	Name/num	5, 15, 4	
STM Station	Number		
SITE			
STATE			
LAT			
LONG			
VISUAL SQ FOR AD	m ²		
BIOMASS	KG DM/HA		
QUALITY	score 1-9		
USE PATTERN	ggr/yr/ha		
USE INTENSITY	h/ha/m ²		
LIVE CAN	Score		
LIV GRG	Score		
FG 1 LW	Score		
FG 2 CG	Score		
FG 3 F&L	Score		
FG 4 T&S	Score		
CDRARE	Score		
C UND SP	Score		
LITTER	Score		
LIT DEC	Score		
DUNG DEC	Score		
BARE GR	Score		
CAPPING	Score		
WIND EROS	Score		
WAT EROS	Score		
TOTAL	Score		
PAN PHOTO	Check		
45° PHOTO	Check		
COMMENTS			

5/10/2020

Grazing Protocols

- Completed as planned on 3 ranches.



Big Thanks To Our Partners



WESTERN
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EXCHANGE



United States
Department of
Agriculture

Natural Resources Conservation Service

2022 Partner Accomplishments

Activity	Barney Creek	Milk Maid Meats	Anderson Ranch	West Creek Ranch	Keywadin Ranch
Soil Workshop	✓	✓	Unavailable	✓	✓
Soil Your Undies	✓	✓	✓	✓	✓
Ranch Visit, Pasture Siting and Grazing Plan	✓	✓	✓	✓	✓
Comprehensive Pollinator Assessment	✓	Potentially 2023	✓	Potentially 2023	Potentially 2023
Rangeland Health Assessment (Savory EOY Short Term Monitoring)	✓	Cancelled and Planned for 2023	✓	Cancelled and Planned for 2023	✓
Grass Species Baseline	✓	Cancelled and Planned for 2023	✓	Cancelled and Planned for 2023	✓
Seed Distributed	✓	Cancelled and Planned for 2023	✓	Cancelled and Planned for 2023	✓
Grazing Plan Implemented	✓	Cancelled and Planned for 2023	✓	Cancelled and Planned for 2023	✓

Project Upgrade – Pollinator Assessments

- Original pollinator survey was a “weak” part of this project
- HUGE opportunity to significantly upgrade pollinator assessments – Sarah Red-Laird (pollinator expert) added to team
- 2022 had opportunity to provide comprehensive pollinator surveys for 2 producers
- 2023 will have other 3 producers (with field measurement budget reallocated to that, accordingly)
- 2024 will have wrap up surveys for at least 2 producers from 2022 to see changes (with field measurement budget reallocated accordingly)

Project Upgrade – Soil Your Undies Campaign

- Thanks to heavy support and engagement from WSE and NRCS, the Soil Your Undies “Workshop” turned into a full fledged Soil Your Undies “Campaign”
 - Added an entire new workshop at farmers market in Livingston
 - Added serious social media outreach
- The outreach and engagement was so compelling, it really increased the impact of this project on soil health awareness. Our producer partners were able to get their faces/names in front of the public and “show their undies”.
 - This wasn’t budgeted in the project and therefore hasn’t been submitted for reimbursement for 2022.

Project Changes – Producer Protocol and Measurement Changes

- **West Creek Ranch**
 - 2022 Yellowstone flood created serious headache for West Creek with several flooded pastures
 - While the test pasture was NOT flooded, the herd movements were disrupted and they were unable to support the protocol in 2022
- **Milk Maid Meats**
 - Test pasture was flooded and stayed flooded for most of 2022 season
 - Alternative pasture identified for 2023
- **Accompanying baseline measurements were not taken – budget reallocated to pollinator assessments. Protocol will continue in 2023.**

Project Changes – Material Purchases

- Seed was ~50% more expensive than original grant submittal
- Fencing material was provided this year by producers, but must be backfilled with sets for all producers by 2023 protocol season.