



Western SARE

Phil Rasmussen, Coordinator
Utah State University
Agricultural Science Building
Room 305
4865 Old Main Hill
Logan, Utah 84322-4865
phone: (435) 797-2257
fax: (435) 797-3344

Professional Development Program

Brian Tuck
Oregon PDP Co-Coordinator
Oregon State University
Wasco County Extension Office
400 East Scenic Dr., Suite 2,278
The Dalles, OR 97058
(541) 296-5494
Brian.Tuck@oregonstate.edu

Dan McGrath
Oregon PDP Co-Coordinator
Linn County Extension Office
4th & Lyons
Albany, OR 97321
(541) 967-3871
Dan.McGrath@oregonstate.edu

...

Western SARE Grant Categories

- Research & Education
- Professional Development
- Farmer/Rancher
- Professional + Producer
- Graduate Student
- Sustainable Farm Tours

Go to <http://wsare.usu.edu>
Click on: Apply for a Grant

IMPROVING RANGE ANIMAL HEALTH

Situation

Livestock (beef cattle, roping cattle, and horses) forage year round on the open range within the boundaries of the Warm Springs Indian Reservation. Although forage is sporadically abundant on the range, typical of the Great Basin ecosystem, the calf crops from beef cattle have typically been compromised. Nutritional deficiencies were often thought of as the root cause.

In addition, conversations with tribal producers indicated a past history of retained placentas and muscular compromise in livestock.

Federally Recognized Tribal Extension Program Grant

Title: Open Range Mineral Supplementation Study on Cattle at the Warm Springs Indian Reservation

Project Coordinator:

Fara Ann Brummer
Oregon State University/
FRTEP Extension
P.O. Box 430
Warm Springs, OR 97761
(541) 553-3510
Fara.Brummer@oregonstate.edu

Cooperators:

Oregon State University Extension Service
Warm Springs Range and Ag Department
Warm Springs Range and Ag Committee
Oregon State University

Amount Funded: \$3,000



OSU Extension Agent Fara Brummer collects blood samples from cattle.

These issues led to the Oregon State University Extension Program at Warm Springs, in cooperation with the Western Sustainable Agriculture Research and Education program, to examine mineral deficiencies of unsupplemented open-range livestock.

Testing of range horses, conducted in 2006 by USDA APHIS Veterinary Service under an MOU with the Tribes, revealed severe selenium deficiencies. The low levels sent out an alarm bell for further testing and outreach education in this area.

In 2007, under the Western SARE FRTEP grant, the Oregon State University Extension Service collected blood samples from beef cattle breeding cows to compare mineral levels and histories of mineral-supplemented animals with animals not supplemented.

As expected, some mineral levels were low in certain

animals, but selenium was clinically and consistently low in all of the females tested. This information was the basis of the current education efforts by Extension to promote mineral supplementation on the Warm Springs Indian Reservation.

Objectives

1. Assess the forages that range livestock are consuming to provide a foundation for analyzing selenium deficiencies
2. Conduct an educational outreach program with selenium at the forefront.
3. Further increase project participant knowledge, skills and awareness in:
 - ◇ Nutritional needs of livestock
 - ◇ A healthier herd
 - ◇ A better economic return from family herds

...continued on next page



Western SARE, a USDA organization, funds grants for research and education that develop or promote some aspect of agricultural sustainability, which embraces

- *profitable farms and ranches*
- *a healthy environment*
- *strong families and communities.*

The Western Region, one of four SARE regions nationwide, is administered through Utah State University.

Western SARE:
<http://wsare.usu.edu>

National SARE
www.sare.org

IMPROVING RANGE ANIMAL HEALTH



- ◇ An improved sense of ownership and pride in livestock production

Actions

Education outreach efforts are focusing on providing two open-range mineral feeders as part of a demonstration project. Loose salt/mineral supplement are being provided for initial use in these feeders. The feeders can be moved from one site to another, and subsequently utilized as a prescribed grazing tool once livestock are familiar with them. Feeders can be moved with a pickup by hitching a chain around each leg of the attached skid.

Two styles of feeders were built using original plans came from the Louisiana State University Extension Service, which has archived many agricultural engineering plans. The initial feeder built was too large. In addition, its having one enclosed wall appears to pose a problem for range animals that are naturally spooky and claustrophobic. Also, aggressive lead animals may tend to dominate the enclosure.

An amended design is smaller, easier to tow, and has two open sides, allowing access from either side, bet-

ter animal distribution, and less threat to the spooky animal.

Both styles of feeders will be placed on the range in 2009, providing a year-round source of minerals and salt for open range livestock. In addition to their utility for the range livestock, the feeders will be assessed for their ease of mobility in relocation.

The supplemented herds will be monitored for short- and long-term changes in reproduction and herd health. Tribal producers will be engaged to monitor their herds and share results with the Extension office.



A mineral feeder built from Louisiana State University Extension Service Plans.

The impact of the mineral supplement will be monitored for five years – from 2009 through 2013.

Outreach

One workshop has been held on the project and its goals and potential impacts, and another is scheduled for 2010 to share results of the feeders, mineral usage, calf crops, herd health and other impacts.

A brochure will be developed for the local community that will outline the project results and the need for supplementation.

Potential Outcomes

It is hoped that improved supplementation will:

- improve the efficiency of the cattle to produce more calves
- result in calves with heavier weaning weights
- improve fertility rates to make the best use of the resource

"For the price of one calf, we can mineral supplement 20 breeding cows in a year," said project coordinator Fara Brummer. "If those cows increase their calf crop by only 5%, the supplement will pay for itself."