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# Oh BEHAVE!

Behavioral Education for  
Human, Animal, Vegetation  
& Ecosystem Management

BEHAVE Outreach Program • 435-797-3576

The Newsletter for the  
BEHAVE Research and  
Outreach Program

## BEHAVE Principle of the Month:

**First impressions matter.** Whether it's introducing ruminants to grain, poor-quality roughages or plants high in toxins, first experiences animals have with foods can have long lasting effects on their intake of those foods. Managers need to make experiences with new foods positive. Supplements and adding familiar flavors are two ways to provide positive experiences. Once ruminants are eating new foods, don't force them to eat large amounts too quickly, their rumens and livers need time to adapt. Lastly, animals can't survive on diets too high in toxins. Providing variety is essential.



## Just a spoonful of nutrients helps the terpenes go down

Grazing sagebrush in the fall should reduce its abundance, and improve biodiversity. What's the best way to get animals to eat sagebrush? Supplement them! Work in pens and small pastures shows that sheep eat more sagebrush despite its high terpene content when they're supplemented with protein and energy.

USU Extension Range Specialist Roger Banner and graduate student Michael Guttery are taking this tool for sagebrush management to a landscape level. This fall, they supplemented 2200 ewes in three locations to browse sagebrush. Sheep heavily browsed about a hundred

acres of sagebrush over a five to six week period. According to Scott Chew, a sheep producer working with the project, his replacement ewes continued to readily use sagebrush even after they were no longer supplemented.

Banner and Guttery plan to track how browsing affects plant diversity, use of the area by sage grouse and reproductive performance of ewes. We'll keep you posted.

For more information, read the annual report: "[Fall grazing with sheep improves biodiversity](#)" and the fact sheet: "[Livestock as a tool for biodiversity in the sagebrush steppe.](#)"

## We'd Eat It! – Forages of the Future



John Wick and Peggy Rathmann spent years trying to get rid of the distaff thistle on their ranch by spraying, pulling and mowing. Since they had made almost no progress in their war on weeds, they decided to try a new approach: "If you can't beat 'em, EAT 'em!"

Rathmann called USU researcher Kathy Voth after seeing an article in the Stockman Grass Farmer about Voth's behavior-based process for turning cows

into weed managers. Together they began the Marin County, California "We'd Eat It!" project. Last grazing season they trained 65 cows to eat distaff and Italian thistle in pasture.

Rathmann is excited about the results. "Distaff could be West Marin's alfalfa!" she declares. Her enthusiasm is based on the nutritional value of the weed, which is as good as alfalfa and better than the dry grass it shares summer pastures with.

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## BEHAVE Outreach Program

### We'd eat it! (continued)...

"I don't think of this as a weed eradication program," says Voth. "We've been trying to eradicate weeds for half a century and we're no closer now than we were in the beginning. Using cows may be an inexpensive way of controlling weeds while increasing forage. We're not going to promote planting weeds, we're just promoting a more sustainable way of dealing with them."

For the 2007 season Voth and Rathmann will be looking exploring how rapidly weed eating spreads from trained cows to their herd mates. They'll also be sharing their experiences with other Marin ranchers' and helping them trained their own cows.

For more about the project visit:  
<http://www.livestockforlandscapes.com/marin.htm>



Peggy Rathmann next to one of her new forages.

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## Applying Behavior: What we know guidelines

For 25 years, the BEHAVE program has conducted basic research on how animals learn and the factors that affect diet and habitat selection. The majority of our work has been conducted in pens or small pastures under controlled conditions. Understanding the principles that govern diet and habitat selection will enable land managers to improve management of their animals and resource but moving research results from pens to rangelands or large pastures can prove difficult. In an effort

to help managers apply behavior on their operations we are creating "What we know guidelines." Each guideline lists information and benefits of a particular practice. The first two guidelines: "[Exposing animals to grain with mom improves intake on of grain at weaning and feedlot performance](#)" and "[Exposing animals to poor-quality foods with mom](#)" can be viewed on our web site [www.behave.net](http://www.behave.net). We plan to create additional guidelines in the future.

### Coming soon:

- Release of the Targeted Grazing Handbook
- Fact sheet - Mineral nutrition: Are ruminants nutritionally wise?
- Forage sequencing: Not only what but when
- Economics video – Benefits of low moisture block on cattle distribution



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