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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

Announcing the Next:

## BEHAVE Conference

October 28-30  
Park City, Utah

## Behavior-Based Management

### Sessions:

1. Embracing Change
2. Primary Roles for Secondary Metabolites
3. The Home Field Advantage
4. The Ax, the Cow and the Plough

Watch for forms coming your way via email. If you don't receive forms by July 31, contact Rae Ann Hart (435)797-2556 or [raeann.hart@usu.edu](mailto:raeann.hart@usu.edu)



## NACTA: If We Create It, They Will Come

In early June, I presented a poster at the NACTA (North American Colleges and Teachers of Agriculture) Meetings in Logan, UT. My hope was to raise awareness and interest in teaching animal science and range students about the principles of diet and habitat selection.

Kathy Voth and I created a CD that will help teachers easily add a few lectures about behavior to existing curriculum. The CD includes: 1) five PowerPoint slide shows with notes and references, 2) videos of managers talking about and



animals demonstrating behavior principles, 3) the online course: Eat at Joe's, 4) behavior jeopardy, 5) Fred's book: Foraging Challenges, 6) behavior facts, 7) instructions for laboratory demonstrations, 8) 26 fact sheets, and 9) free online and phone support.

I handed out about 40 CDs and flyers and talked with many college teachers about why behavioral research data was important and useful information for their students to learn. Now for the hard part, getting them to use the materials.



## Maternal Diets are Forever

Obviously, maternal diets are crucial to the birth of healthy offspring. But did you know that the diet of the dam might have life-long health and reproductive impacts on her offspring? Cattle and sheep often forage on poor-quality dormant rangeland in fall and winter causing them to lose large amounts of weight from early to mid-pregnancy. Even if these animals are supplemented near the end of pregnancy, damage to the health and growth of their calves and lambs may have already happened.

In a study conducted at the University of Wyoming, ewes fed a restricted diet (50% of requirement) from day 28 to 78 of pregnancy had lambs with enlarged hearts, decreased kidney function and less muscle mass compared to lambs born to ewes fed a normal diet during pregnancy.

The study has human implications as well. Lambs born with decreased muscle mass were less able to process glucose leading to problems with diabetes and obesity later in life.

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**Your Source  
for All Things  
BEHAVE**

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**We're on the Web!**

See us at:

[www.behave.net](http://www.behave.net)

## Maternal diets continued ...

Proper diet at the end of pregnancy has long-term implications for replacement heifers as well. In another study conducted at the University of Nebraska, cows in their third trimester of pregnancy grazed dormant upland range in the Sandhills. Cows were either not supplemented (NS) or fed a pound of a protein supplement per head three times per week (PS).

Heifers from PS cows were heavier at weaning, prebreeding, pregnancy diagnosis and before their second breeding season compared with heifers from NS cows. Also, heifers from PS cows had higher pregnancy rates (93% vs. 80%) and more of them calved during first 21 days of their first calving season (77% vs. 49%) compared with heifers from NS dams.

## NRCS Short Course: Plant-Herbivore Interactions



We recently concluded teaching our Plant-Herbivore Interactions Short Course at USU. The course is funded through the Natural Resources Conservation Service (NRCS). From June 17-26, twenty-eight enthusiastic NRCS employees, a couple of USU students and five attendees from Australia participated in this year's course.

The course focuses on how plants cope with grazing as well as principles of diet and habitat selection of animals with a bit of philosophy on science and systems. It also includes a morning lab where participants interact with our sheep to demonstrate behavior principles such as food neophobia, learning from feedback and diet mixing.

The course is taught most years during June depending on NRCS funding. It is primarily for NRCS employees but we try to include other folks from various backgrounds to add to class discussion. If you're interested please contact us.

### Course Participants Collecting Data



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extension**

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