



*The Newsletter for the
BEHAVE Research and
Outreach Program*

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Western SARE Funds Choice Study

Providing animals a choice of foods in feedlot can increase gain and intake, reduce illness, improve efficiency, and decrease costs compared to feeding a total mixed ration. Why? Genetic variation may affect intake and food preferences of livestock. In fact, variations in intake and growth rates of cattle

Goats that Kid Select a Superior Diet

Why do some animals continue to produce offspring even on marginal rangelands? Do pregnant females grazing marginal rangelands select a diet higher in nutrients compared to goats that either never conceived or aborted in the third trimester of pregnancy?

A study was run in Northern Mexico during the dry season (February to May). Diet samples were collected from the mouths of grazing goats (held temporarily with a short light rope tied around their necks). Samples were analyzed for protein, fiber, and minerals. The method for collecting diet samples was creative. I don't know if or how this method affected diet samples but researchers don't have many options since we can no longer use esophageally-fistulated animals.

Pregnant goats selected diets higher in crude protein than open goats or those that aborted. Pregnant goats ate forages lower in fiber and 32% higher in calcium compared non-pregnant goats. Pregnancy did not affect dietary levels of phosphorus, magnesium, sodium, copper, zinc, manganese or iron. Mineral content of the diet was adequate to sustain pregnancy. Pregnant goats did not select forages lower in tannins, alkaloids, saponins or terpenes than non-pregnant goats.

As the demands of pregnancy increased, goats that conceived and carried their kids full-term selected diets higher in nutrients than goats that aborted in the third trimester of pregnancy or failed to conceive during breeding.

Ref: Mellado, M., C.N. Aguilar, J.R. Arevalo, A. Rodriguez, J.E. Garcia and J. Mellado. 2011. Selection for nutrients by pregnant goats on a microphyll desert scrub. *Animal* 5:972-979.

Calm Cattle, Tender Meat by Dawn Otterby

The temperament of cattle may be a good indicator of the quality its carcass, according to a study done by North Dakota State University. Researchers selected 183 cattle from a variety of farms and breeds. They observed the behavior of the cattle as they entered the chute, were in the chute, and left the chute. During the study, the cattle were run through the chute every 28 days and given a score based on their temperament. Handling practices and how animals were scored remained constant. Cattle were on a high-concentrate ration during

are often higher within a breed than between breeds. Choice allows animals to select diets that meet different needs due to genetic variation.

Recently, we received funding from Western SARE to study the benefits of feedlot choice. The study will be conducted at University of Wyoming's SAREC facility in Lingle, WY. The study will test the ability of cattle to select their own diets and how choice impacts cattle performance and finishing costs.

In year 1, we will test University animals. In year 2, we will test cattle from five ranches.

If you'd like to read the proposal, [CLICK HERE](#).

the 188-day study.

Cattle that were more agitated while in the chute during the first weigh period produced tougher steaks compared to cattle that exited the chute at a slower rate. Steak quality was based on instrumental tenderness. Although all cattle calmed down in the chute as the study progressed, researchers found that cattle that left the chute at faster rates at the end of the study had less marbling and less internal fat.



Texas A&M and other universities have completed similar studies with similar results. Feedlot cattle that tend to act in a more excited manner tend to gain weight at slower rates than cattle with calmer disposition. Other costs arise when dealing with high-strung livestock. These costs may include time, labor, and an increase in equipment repair. On the whole handling feedlot cattle in a calmer manner will likely improve their overall value.

Let me know what I can do to improve the newsletter!!

Sincerely,

A handwritten signature in cursive script that reads "Beth Burritt".

Beth Burritt
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Utah State University is an affirmative action/equal opportunity institution



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