



*The Newsletter for
the BEHAVE Research
and Outreach Program*

In This Issue

[The Difference a Side-Dish
Makes](#)

[Meat Quality: The
Difference a Side-Dish
Makes on Meat Quality](#)



Contact:
[Beth Burritt](#)
435-797-3576
[Visit our website](#)

Happy Holidays!



World Of Cow Cartoons
by Stik

Where Cows Are Happy and Food is Healthy!

By Nicholas Kristof

FOOD can be depressing. If it's tasty, it's carcinogenic. If it's cheap, animals were tortured. But this, miraculously, is a happy column about food!

It's about a farmer who names all his 230 milk cows, along with his 200 heifers and calves, and loves them like children.



Let me introduce Bob Bansen, a high school buddy of mine who is a third generation dairyman raising Jersey cows on lovely green pastures here in Oregon beside the Yamhill River.

Bob, 53, a lanky, self-deprecating man with an easy laugh, is an example of a farmer who has figured out how to make a good living running a farm that is efficient but also has soul.

As long as I've known him, Bob has had names for every one of his "girls," as he calls his cows. Walk through the pasture with him, and he'll introduce you to them. "I spend every day with these girls," Bob explained. "I know most of my cows both by the head and by the udder. You learn to recognize them from both directions." "This is Hosta," he began, and then started pointing out the others nearby.

"Jill. Sophia. This is Kimona. Edie would be the spotted one lying there. Pesto is the black one standing up. In front of her is Clare. Next to her is Pasta, who is Pesto's daughter." I asked about Jill, and Bob rattled off her specs. She is now producing about eight gallons a day, with particularly high protein and butterfat content.

Jill's mother was Jolly, a favorite of Bob's. When Jolly grew old and unproductive, he traded her to a small family farm in exchange for a ham so she could live out her retirement with dignity. When I pushed for Bob's secret to tell the cows apart, he explained: "They have family resemblances. They look like their mothers." Oh, that helps.

A 2012 article on [The New York Times website](#).

Photo: [Cooking Up A Story / Foter / CC BY-NC-ND](#)

The Difference a Side-Dish Makes



Meat Quality: The Difference a Side-Dish Makes

When cattle were slaughtered in September, meat quality and consumer acceptance was assessed. All carcasses were lean (4%-6% fat content of the longissimus muscle), but compared with TF/alfalfa, meat from cattle grazing TF/sainfoin had higher marbling scores, quality grades (select versus standard), and back fat thicknesses.

Steaks from cattle finished on sainfoin were redder in color than steaks from cattle finished on alfalfa. Meat samples from sainfoin and alfalfa showed some differences in unsaturated fatty acid profiles and volatiles concentrations, but consumer acceptance of meat grazing either sainfoin or alfalfa did not differ.

Thus, choices between tall fescue and legumes differing in the type of secondary compound (tannins vs. saponins) led to differences in meat quality.

Foods are complementary when the benefit of consuming different foods together exceeds the benefit of consuming the foods alone. Lambs eat more when they are offered foods that contain different secondary compounds.



Lambs that receive intraruminal infusions of tannins increase their preference for endophyte-infected tall fescue (alkaloids). Tannins (sainfoin) and saponins (alfalfa) evidently bind with alkaloids (tall fescue) reducing their adverse effects on forage intake and animal performance.

Graduate student, Brody Maughan, studied plant diversity and if--tall fescue (TF) growing in a mixture with either sainfoin or alfalfa--affects cattle preferences for forages and how readily fall-born calves reach finish body condition on pastures.

During the study, he monitored foraging behavior, pasture utilization, body weights, plasma and meat concentrations of fatty acids, and meat palatability. Pastures were strip-grazed from May through September.

Animals reached finish body weight (average 1028 lbs/animal) regardless of the legume they grazed. However, the efficiency of gain was better on TF/alfalfa than TF/sainfoin pastures. Cattle also learned to mix fescue with legumes as their patterns of plant selection changed over the growing season. Thus, cattle incorporated a lower quality grass (TF) into their diets even when legumes were available ad libitum during the grazing trials.

On average, use of TF/legumes was 30/70, but animals grazing sainfoin tended to spend more time grazing TF than animals grazing alfalfa. Sainfoin was eaten in greater proportion than alfalfa, particularly during the month of July (70% vs. 60%). Cattle may have preferred sainfoin to alfalfa because sainfoin is a non-bloating legume due to its tannin content.

Reference: Maughan, B. F.D. Provenza, R. Tansawat, C. Maughan, S. Martini, R. Ward, A. Clemensen, X. Song, D. Cornforth, and J.J. Villalba. 2014. Importance of grass-legume choices on cattle grazing behavior, performance, and meat characteristics. *J. Anim. Sci.* 92:2309-2324.

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

Sincerely,

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

Beth Burritt
Utah State University - Department of Wildland Resources

Utah State University is an affirmative
action/equal opportunity institution



[Forward email](#)



This email was sent to beth.burritt@usu.edu by beth.burritt@usu.edu |
[Update Profile/Email Address](#) | Rapid removal with [SafeUnsubscribe™](#) | [Privacy Policy](#).



Utah State University - Department of Wildland Resources | 5230 Old Main Hill | Wildland Resources Department |
Utah State University | Logan | UT | 84322