## NORTH DAKOTA STATE UNIVERSITY

SEARCH

NDSU Extension Service ND Agricultural Experiment Station

## BeefTalk: Sheep and Cows: Some Do and Some Do Not

## Sheep and cows are able to coexist.

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**NDSU Extension** 

Driving across the grasslands, one finds oneself asking, "Who eats all this grass?"

Those who live in more urban settings actually ask, "Who cuts the grass?" Well, we have no need to cut grass because sheep and cows graze, coexisting within the same grasslands, along with other grazing-type animals.

Sheep and cows harvest the grass and other plants that provide cover and stability to the soil. Their grazing is very complementary to each other. The forage roots, stimulated by grazing, essentially hold the earth together.

Think about it. Who builds homes in a sand pile? Add plants, and stability arrives. That is a good thing.

So, back to who does cut grass. In pastures, animals cut the grass. The evolution of this unique and precious relationship is the anchor for animal, plant and soil interactions.

Animals eat the grass, stimulating grass plants to spread, wrapping the world in grass and other plants. Animals provide food for humans, who keep the animal population in check.

Is combining sheep and cattle the right option?

Life is good, and even better when a diverse mixture of plants and animals thrives, each adapting to its unique ecosystem and helping sustain the world. With this diversity comes relationships that generally evolve through time. Time notes the pluses and minuses, working through the various scenarios, some that work and some that do not work.

One of those centuries-old relationships is the grazing of various animals on the grasslands, a beneficial relationship because the different types of animals focus their grazing on different aspects of the grasslands. Again, sheep and cows coexist and that is good.

If overpopulation does not happen and an adequate annual harvest keeps the populations in check, the grasslands benefit. The world functions well.

Back to the challenge. Agriculture is a human activity that includes the growing of plants and animals while maintaining agricultural lands. Do not forget: Sheep and cows coexist.

Unfortunately, through time, agriculture has become "mono-cultural." The care of plants and animals is simplified, with one plant or one animal type cared for at a time. Missing from this thought process is the symbiotic relationships that different plants and animals have adapted through time to survive.

1 of 3 8/10/2018, 8:49 AM

Because these relationships are complicated, an ecosystem approach will not find its way into production agriculture quickly. Grasslands, by their very nature, contain numerous plant types that add diversity, which is good.

Range system programs, designed to maintain and enhance plant diversity, work well, although implementation takes some effort. Likewise, a diverse grassland is enhanced by grazing appropriate numbers of different livestock species.

Remember the question, "Why do sheep and cows coexist?" That is why.

We should ask, "Is this real or simply frivolous pondering?" Studies by Mike Humann and Don Kirby at the Dickinson Research Extension Center in 1983 and 1984 evaluated incorporating grazing sheep and cattle together.

They noted, "While cattle are the predominant grazers of range and pasture in the northern Great Plains, sheep offer a significant untapped potential use of this diverse grazing resource. ... Since the mixed-grass prairie provides an abundant variety of classes and species of vegetation, we questioned whether one class of livestock could make efficient use of this varietal abundance."

They found sheep diets complemented the grazing of cattle extremely well.

"The sheep production cycle, breeding, gestation and lactation of ewes compares favorably with the quality of forage selected seasonally by ewes," they wrote. The biological needs of sheep fit very well with cattle.

In 1990, James Nelson and others grazed ewes and cattle at the center, one ewe to every cow.

They noted, "Grazing sheep and cow-calf pairs on native range ... allowed both species to make normal growth without sacrificing either pasture quantity or quality."

Data show the complementary grazing of cattle and sheep is real, but not simple. So why not?

As in any process, the conversion of the grasslands from an unfenced to fenced rangeland introduced more challenges to an already complex system. And truth be told, the management of cows and sheep in a confined space is not simple. But having worked with sheep and cattle, and sheep producers and cattle producers, the task is not impossible.

The challenge quickly reverts to the willingness to commit a limited time resource weighed against the opportunity to see a dollar return. With sheep and cows, some do and some do not work well together.

We hope the some that do work will surface more, allowing production agriculture to take in the built-in efficiencies that Mother Nature already has provided.

May you find all your ear tags.

For more information, contact your local NDSU Extension Service agent (https://www.ag.ndsu.edu/extension/directory) or Ringwall at the Dickinson Research Extension Center, 1041 State Ave., Dickinson, ND 58601; 701-456-1103; or kris.ringwall@ndsu.edu.

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2 of 3 8/10/2018, 8:49 AM

-Attachments

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3 of 3