Mount 'n Cattle

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Nutritional Needs of Cattle Grazing Summer Grass

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The best time of the year for growing grass in Southeast Wyoming has come and gone. It goes by quick doesn't it? Some of you in cooler parts of the state are likely still growing cool season grasses and I hope you receive the needed precipitation. Rains in the Southeast part seem to be found in some spots, but largely short in many others. Your cattle are likely out grazing somewhere and you are likely busier than you'd like trying to keep up with all the summer activities. With this column I want to challenge you to think about your nutritional program for your cattle during the summer grass season and present to you, or refresh your knowledge on a few topics related to the nutritional requirements of grazing cattle.

I'm probably not going to make any friends in the feed supplement industry by writing this particular column. I think there are many times when supplementing cattle makes sense, but my inclination is to minimize its use. Cattle can be selected and programmed to fit the environment they live in thereby minimizing the amount of harvested feeds and supplement needed. Not all in this article has been researched to the degree necessary to not warrant debate, but many research results have framed the knowledge base.

Protein and Energy:

Protein and energy are the two biggies in terms of nutrients. Green, growing forage will provide adequate supplies of these nutrients as long as cattle have access to ample supplies and are not producing extreme amounts of milk.

Cattle acclimated to a specific environment can select the green, growing grasses and forbs to meet their needs without supplement even when the range looks brown. To better understand this, watch that old mother cow graze. See what plants she is eating and what the consistency of the manure is telling you. By looking at some of these items you can likely avoid providing expensive protein supplement when it is not necessary.

Many have the misconception that, if a little protein is good, more is better. This is not true. Additional protein is wasted once the requirement is met. Research suggests that eliminating excess protein actually requires energy inputs.

Nonetheless, protein can be a very powerful supplement when the nutrient is lacking from the diet. Protein can likely become deficient when grasses dry up and animals are not able to select green, growing material. During research on the McGuire Ranch North of Laramie, researchers collected diet samples and the results suggest that

by early July, the protein content of range grasses may not meet the requirement. However, if summer rains green up the range the grasses will likely contain adequate amounts. Providing supplemental protein when the forage lacks adequate amounts gains a producer a synergistic benefit. First, the protein helps the animal digest forage to a greater extent – getting more nutritional benefit out of the same amount of forage. Second, the protein allows that animal to graze more forage because what she is grazing is being digested faster and more efficiently.

Always make a protein supplement available when grazing winter range with little or no supplemental hay.

The body condition of cattle determines the need for energy supplements. If cattle are too thin, a producer needs to find a way to increase the energy concentration of the diet.

Sounds simple, right? There's more to it, but sometimes we tend to overcomplicate things.

One important consideration is the energy form. Starch supplements (i.e. corn and other grains) should be kept to a minimum when cattle are getting most of their nutrients from forage. Starch can interfere with forage digestion, and the overall energy level can actually decrease. Fibrous hay forms (i.e. beet pulp, high-quality hay) provide good energy supplements when cattle are grazing or being fed.

Vitamins and Minerals

Vitamins and minerals are the source of lots of discussion, money spent, and debate among nutritionists. Nutritionists really don't know a lot of vitamin or mineral certainties. Acute problems can be pointed to when vitamins and minerals are either deficient or toxic in the diet. Sub-clinical reductions in performance result when the cattle are lacking adequate quantities of these nutrients. General guidelines on the requirements of cattle for these nutrients have been developed and are published in the Nutrient Requirement of Beef Cattle (NRC, 1996). What is not known is what **your** cattle require. That's right! Research has shown that cattle from the same breed can have drastically different vitamin and mineral requirements.

How does a reasonable manger make decisions with so many uncertainties? I'm not sure myself. I think by providing a basic, minimal level of supplemental vitamins and minerals and then, more importantly, selecting replacement cattle that perform in your environment, producers will ultimately create a cow herd with requirements that more accurately match what an environment provides.

By providing high levels of expensive supplemental feed, producers are essentially creating a false environment that is not making the best-adapted animals rise to the top. Calcium and phosphorous requirements are better understood and therefore I suggest providing access to these nutrients at the recommended levels.

My hope is producers will more seriously scrutinize feed purchases and evaluate supplemental feeding programs from a business-management perspective. Is every dollar spent in feed paying back more than that dollar invested?

I also hope you ask yourself, "What level of performance can I afford to expect from my cattle?" This question can relate to percent animals bred, percent calves weaned per cow exposed, and weaning weight.

Everything has an optimum. A manager's challenge is finding that optimum among all the other variables and outside forces affecting this exciting business of ranching.