
Stretching Forages

Protein supplementation does not “stretch” forage. There has been quite a few people talking about feeding supplement to “stretch the grass and forage supply.” One of two things is happening. When people say supplement, I assume they mean protein supplement because that is what is normally fed. Either they are not meaning protein supplement, or they are misunderstanding what is happening when they supplement protein.

Rumen capacity and passage rate determine the consumption rate of feed. This is where the ruminant physiology comes in. How much a cow can eat is determined by two factors; how much her rumen can hold, that’s rumen capacity, and how quickly the rumen is emptied so she has room to eat more, this is rumen passage rate. Passage rate is affected by diet quality. Lower quality diets have a slower passage rate. That’s one of the unfortunate things about feeding cows, the more of a feed the cows need to eat to meet her requirements, the less of it she can eat. The reverse side is just as bad, with better feed, the cow needs less, when the rumen says she can eat more. A few years ago a South Dakota Rancher handled his poor forage situation by limiting feeding corn. It worked well he said, but I will never do it again! I just can’t handle the cattle bawling for two weeks when the rumen tells them they are hungry!

Now you’re thinking “*I’m not sure I needed a biology lesson, what’s your point?*” My point is that when you increase diet quality by supplementing, you increase passage rate and thereby increase the amount she can eat. Supplementing low quality forage with protein increases animal performance, but it does not “stretch” the forage. It actually allows them to eat more of it.

Providing adequate protein will increase the amount of low-quality forage a cow can eat. That is good for two reasons. It allows us to use lower quality feeds than we would be able to use otherwise. And in years of cheaper hay, that is probably the most important benefit. But in years when hay is expensive there is one other benefit that comes in to play. Beef cows on low energy diets need vegetable protein from forages, alfalfa, soybean meal and distillers grains. They cannot utilize urea to make their own protein. Protein sources can be fed every other day or every third day, which can help use forage resources efficiently. Pour on supplements will only help as a protein supplement if they actually contain vegetable protein sources.

Limiting feed access can reduce waste. We can often limit-feed, that is to feed a cow slightly less that she would be able to consume and still meet her nutrient requirements.

The benefit of limit feeding is less feeding waste, especially when hay is fed on the ground. The quicker cows clean up the hay, they less they waste. The normal waste when we feed cows all they want is more than we often expect. In a North Dakota State University study, researchers found that feeding hay on the ground wasted about 18%. That was true whether the bales were simply unrolled or fed through a bale processor. That compares to about 5% loss when long hay is fed in a bunk or tapered cone bale ring.

Protein supplement only stretches feed when intake is limited. Protein supplementation increases passage rate, which means that cows can eat more. Not only can they eat more but they definitely will eat more if allowed to eat all they want. Thanks for the assistance of Cherry County Extension Educator Jay Jenkins for background information of this column.

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