

LOW COST COW/CALF PROGRAM

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Problems Changing

A few have reported reduced conception rates, following a change from winter calving to summer calving. These generally are herds that have been around for a while and selection has been for heavy weaning weights in the fall. Considerable supplemental energy (hay, oilseed meal or grain) was supplied to the cows during late fall and early winter, prior to and during calving - not just in the northern states either. Now all of a sudden, the cows and heifers are expected to perform with whatever they can scavenge from the land only. Furthermore, cows living off the land are going to cycle in body condition—lose condition and then gain it back prior to calving. Cows fed during the winter months tend to maintain condition nearly even. Maintaining BCS requires considerably less dietary energy than does reconditioning (increasing BCS).

The Situation

We have a cow with a high maintenance requirement. She is a heavy milker, resulting in rapid decline in BCS. Increased energy is required to achieve suitable BCS by calving. There is reduced land size because the land that produced the supplemental energy is no longer available. This compounded situation results in longer PPI and reduced conception. While conception rates when rebreeding the cows can be disappointing, pregnancy rates of the heifer calves can blow you away.

Replacement Heifer

In order to achieve acceptable conception rates with the heifer calf, she should be exposed to the bull on her third cycle rather than her second or pubertal cycle. If she is to calve on her second birthday, then she must experience pubertal estrus by 390 days or 13 months of age. Meeting the age requirement just happens. Meeting the weight requirement is a different matter. Her empty body weight (EBW) needs to be 65% of empty mature body weight (EMBW). *EMBW is achieved when body weight gain is comprised of fat only (energy content of gain is >8 kcal/g). It is calculated from frame size and BCS. Live-*

full weight is not a factor. The replacement heifers, in this example, were raised under the same conditions as their moms, e.g., supplemental energy.

Achieving Body Weight

According to researchers at Mississippi State U¹, a heifer being too light to commence timely cycling is a frequent problem throughout the southeastern US. It is a common practice for producers to utilize winter grazing in this region. Two of the most prevalent forages used are ryegrass and fescue. Both are high-quality, cool-season grasses with ryegrass being the better of the two. Even with ryegrass, however, the heifers don't always experience sufficient gain to get to the desired weight. What to do? Feed supplemental grain! In this study, 600 lb crossbred heifers grazed ryegrass pastures for 140 days from December through April. They were divided into three treatment groups. One group just had the pasture. The second group was fed hay three times a week at the rate of 2.5 lb per day. Similarly, the third group was fed corn three times a week at the rate of 2.5 lb daily. The cattle were weighed at 28-day intervals. Average daily gain was calculated for each period and for the 140-day study. Results are shown in the table below.

Accomplishments

Corn feeding blew away an otherwise de-

ADG (lb) of Heifers Grazing Ryegrass			
28 d period	None	Hay	Corn
First	1.43	1.48	1.12
Second	2.73	2.51	2.65
Third	2.29	2.16	1.68
Fourth	3.31	3.55	3.06
Fifth	1.98	2.21	1.30
Total	2.36	2.38	1.96

cent winter on ryegrass. Gain was reduced by 56 lb over the 140 days. One reason for the depressed performance is the starch effect, which is discussed in the School and has been covered in this column before. The other is likely rumen pH with

the 3x weekly feeding. It amounts to 5.8 lb of corn on the days it was fed. For a 600 lb heifer, that is a good bit of grain and certainly would cause a very acidotic condition in the rumen. It is likely that some cellulolytic microorganisms were killed off—not just cellulase inactivation. The result would be reduced ryegrass utilization and consumption.

How 'bout the Hay

The hay supplement did not appear to impact performance. The authors did not say as much but undoubtedly the hay was of much lesser quality than the ryegrass. With ryegrass only, you can imagine the consistency of the stools. The hay would dry the situation up a bit. Many ranchers feed low-quality hay along with lush pasture, for this very reason. It commonly is said that feed is going through them so fast that the cattle don't get anything out of it. Not true! The hay simply fills the rumen and reduces consumption of the good stuff. The similarity, between gain on ryegrass and ryegrass plus hay, probably is due to gut fill with the hay. In conclusion, don't mess with a good thing. Run cattle that fit the land.

Rumors

Calving in May and June makes the cow/calf business so much more enjoyable. Thanks again for all your efforts to enhance the livelihood of cattlemen/women. I consider myself lucky to have been able to attend one of your schools; its impact has been one of those life-changing events. Thank you, Myles McMillan, Quebec.

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¹ Hanson, K.C. and B.J. Rude. 2002. Effect of supplementation on replacement beef heifers grazing ryegrass or fescue. Animal and Dairy Science Research & Publications. Ms State U.