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Nutrient Restriction
By Gene Schmitz, MU Extension Livestock Specialist

The digital world provides many opportunities to access information. One daily electronic newsletter that I receive recently had an article highlighting how nutrient restriction can impact beef cow reproductive performance and ranch finances. The article was written by Dr. Les Anderson, Extension Beef Specialist at the University of Kentucky and appeared in the September 11, 2013 edition of the Drovers CattleNetwork newsletter.

As Dr. Anderson explained, this real-world situation occurred in Kentucky in a herd of 100 fall calving cows. Fall pasture was limited and hay quality was poor, averaging 82% of the energy required for lactating beef cows. Due to tight finances, only hay was fed to the cows. No additional supplements were fed.

Cows began calving in September adequate body condition, condition score 5, but due to the poor quality hay, lost about one body condition score in two months. Cows were synchronized and time-bred using artificial insemination (AI) in November. Clean-up bulls ran with the herd for an additional 60 days after the timed AI. Body condition score at AI was 4. The cows continued to lose body condition throughout the breeding season.

Pregnancy exams were done 40 days after the timed AI date. Pregnancy examination revealed 29 cows conceived to AI, 31 cows conceived to natural service by the clean-up bulls, and 40 cows were open. Pregnancy examination occurred before the end of the breeding season, but it is highly unlikely that a large number of the open cows would have bred during the last 20 days of the breeding season, after having failed three times to become pregnant.

Dr. Anderson continued by considering only the 40 open cows. He assumed under normal circumstances, seven cows would have been open anyway, based on a 93% conception rate for the herd. That means 33 calves were lost due to nutritional mismanagement. Assuming average weaning weights and current market prices for steer and heifer calves, this producer lost $26,200 in gross income on the 33 calves that were not conceived. Based on supplement cost and feeding rate necessary to maintain body condition score of the lactating cows, supplemental feed costs were calculated to be $11,070 for 123 days of feeding.

This producer lost over $15,000 due to the management mistake of not properly supplementing his cow herd. The producer also spent $4,000 on the timed AI program carried out under circumstances with very little chance of success. Timed AI does not work very effectively when cows are losing weight and is a poor decision in a nutritionally mismanaged situation. Poor decisions about feeding and breeding programs cost this producer nearly $20,000 in lost revenue and ill-advised expense.

How does this relate to our current situation? Pastures are getting short and the prospects of fall re-growth are getting slimmer by the day. Hay quality is relatively poor this year, based on the hay analysis I've seen to date. In fact, the average hay quality is very close to the quality of hay fed on this Kentucky farm. The good news is that supplemental energy and protein sources are lower cost than last year. Should you be supplementing your fall calving cows? Should you be weaning spring-born calves and saving body condition on late-lactation cows to reduce supplemental feed needs later this fall and winter? Considering your winter feeding programs, can you afford to be penny wise, by not feeding adequate diets, and pound foolish, by reducing reproductive performance?

If you'd like more information on winter feeding programs, or a link to the above article, please contact me at the Extension Center in Warsaw at (660) 438-5012 or by e-mail at schmitze@missouri.edu. University of Missouri Extension is an equal opportunity / ADA institution.