GRI CONCEPTS

THE CUTTING EDGE OF NUTRITION

The Bulletin for Alumni of the Beef Cattle Nutrition School

October 1995

Alums Return

Many of you have repeated the School recently. Unanimous -- **worthwhile**. **Very** worthwhile for me. The student notes have been changed and the School presentation is different. I believe these are improvements and apparently, so do the repeat alums. Beef Cattle Nutrition is a very dynamic subject with new information becoming available almost daily.

The value of a rehash of the subject with the alums is not only the opportunity to present new information. That is one of the reasons for this Bulletin. More importantly, it makes me aware of subjects that were not emphasized sufficiently or were over-emphasized. This gets right to the core reason for alums having difficulty implementing information they gleaned from the School.

Clarification

For those of you for whom a School repeat is not convenient, let's review briefly some of the more salient points from your School. Recall that we first addressed factors that impact conception. They were called TOOLS.

Length of breeding season

A 45-day breeding season increases conception rate when compared with longer periods. The suggestion was to use the bulls only when there is a respectable chance that the females will conceive. Using bulls when the probability of conception is low requires more bulls and/or resting bulls. Supplementing bull diets with an energy source may be necessary. $$$$

Culling open cows after a 45-day exposure to bulls rapidly increases herd fertility. **Cutting out the open cows can be disastrous, however, if length of breeding season is the only criterion.** Recall BCS?

Growth

The ability of the cow to store body fat is essential to high conception rates. Remember the dogie and the lack of new tissue cell formation during the first 13 days of life? The dogie is not in the breeding herd. The heifer and cow are. In order for intramuscular fat cells to develop, the heifer must experience a positive plane of nutrition at about 65 to 70% of mature body weight. Some of you recall that I said this critical period was 13 to 16 months of age. That was specific for the breeds used in the experiment. The 65 to 70% covers all breeds.

Photoperiod

Photoperiod impacts conception in at least three ways:

1. Increased sexual activity at or near the time of the equinoxes.
2. The age of the heifer at pubertal estrus. Conception is 20% higher after three normal cycles.
3. The length of the cows' anestrus period when calving in months of long versus short photoperiods.

Feeding energy postcalving

When the cow is severely emaciated at calving, feeding high energy-containing diets appears to improve conception. For the cow that is in good to excellent condition at calving, additional energy is of no value and may be detrimental.

Body condition

Body condition can override all of the above, with the exception of length of breeding season. In this case, a high BCS is essential for short breeding seasons. Longer breeding seasons are required for heifers and cows that have a low BCS.

The cow's ability to store intramuscular fat is not apparent when scoring body condition. If she lacks this capability, it can be overcome with additional covering fat which is reflected by BCS.

Heifers do not have to be born and cows do not have to calve during months of long photoperiods to achieve high conception rates. Simply put, the same conception rates can be achieved when calving outside of these months by raising BCS.

The key to conception is BCS at the time of calving. Calving in an undesirably low BCS is the result of mismanagement or a natural disaster such as drought. When in trouble, you ***gotta do what you gotta do***. Playing catch up prior to lactation requires much less energy.

What Alums are Doing

For the most part, those who revisited the School have made some changes. They are employing their best and most reliable forage to condition heifers and cows before calving.

Length of lactation is being determined by the cow's BCS and the land's ability to return her to suitable calving condition. The fact that allowing the cow to lose weight and then replenish it in time for calving is biologically expensive has not deterred most of the alums. While biologically expensive, economically it is the most inexpensive.

Not the least, much more attention is directed toward proper supplementation of the forage. No longer is Protein just Protein.

Finally, several of the alums, who applied some of what they learned at the School, indicate they will show a profit even at these low prices. That is very nice to hear. Thank You.

Schools in '95 & '96

Tucson, AZ November 7 - 10, 1995

San Angelo, TX January 8 - 11, 1996

Additional Schools currently are being scheduled. Call for future dates if you would enjoy repeating the School.

Your questions and comments sincerely are appreciated. Please call or write:

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