



Ridin' Herd

► by **Rick Rasby**, beef specialist, University of Nebraska

Interesting times in the beef industry: Part II

Mother Nature seems to have a stranglehold on many areas of the United States where beef cows reside. Little to no precipitation in areas that grow corn and soybeans has resulted in record-high prices in both of those commodities. As the price of corn goes up, the price of other feedstuffs we feed our cattle goes up as well.

A different environment

Forage prices are crazy high again this year, much like last year when there was a severe drought in the South and Southwest. This year began with all indications the industry was poised to rebuild the cow herd, but weather and prices of feedstuffs have resulted in indecision and likely no expansion. \$2.50-per-bushel (bu.) corn seems to be so long ago.

The \$2.50 corn of the past helped get around some poor management strategies and breeding decisions that allowed many to push the envelope to increase output. With cheap corn it was easy to get cows back into condition and not jeopardize reproductive performance. High calf prices can result in questionable management decisions.

Developing breed combinations for the cow herd that fit the environment in which they are asked to produce with minimal supplementation is a strategy that has a high likelihood of being profitable. The volatile environment that we are operating in currently sends the message that ruminants must get back to the roots of what they were made to do and at which they excel.

Nutritional implications of increasing milk

Adding milk production to your cow herd will increase weaning weight. Remember, the expected progeny difference (EPD) for milk production is an indication of milk production, but it is an estimate of weaning weight as a result of milk production. It is hard to say whether just increasing weaning weight as a result of milk production has any effect on mature weight of the cow herd or weight of the progeny at slaughter.

It is understood that there is a nutritional cost to milk production. Females with greater milk production have increased energy and protein needs compared to females with lower milk potential. This increase in nutritional needs of females with high milk potential occurs during the nonlactating

period, as well as during lactation. Cows with high milk potential have a greater percentage of their body weight as heart, liver, lungs and spleen compared to females with lower milk potential. These are very active organs and have greater maintenance needs during the dry period, as well as when supporting lactation.

The 2000 *Nutrient Requirements of Beef Cattle* published by the National Research Council (NRC) gives guidelines as to the nutrient requirements of beef cows of the same weight and different levels of milk. For a 1,200-pound (lb.) beef cow, the NRC indicates a daily difference of 2.4 lb. of total digestible nutrients (TDN, energy) between a cow of average milk compared to a cow of above-average milk.

If an average-milk female is compared to a superior-milk female and both cows weigh 1,200 lb., the difference in pounds of TDN needed daily is 4.9 lb.

The difference in TDN needs of a 1,200-lb. cow with above-average milk and a 1,200-lb. cow with superior milk production is 2.5 lb. of TDN daily. These differences in daily TDN requirements are presented on a dry-matter basis.

Comparing the difference in TDN needed for an average-milk 1,200-lb. cow and an above-average-milk 1,200-lb. cow, the difference in TDN needed daily is 2.4 lb. This calculates to 876 lb. of TDN per year. If TDN is valued at 9¢ per lb. on a dry-matter basis (56% TDN, \$90-per-ton hay at 90% dry matter), that calculates to a \$78.84 difference in the cost for energy between the average-milk cow and above-average-milk cow.

The above-average-milk cow will produce a heavier calf at weaning. In the past, the value of the added gain was between 50¢ and 55¢ per lb. Today the value of the added gain in calves is closer to 80¢-85¢ per lb. If the value of the added gain is priced at 85¢ per lb., the above-average-milk female would need to wean a calf that is about 93 lb. heavier (\$78.84 divided by 85¢ per lb. value of the

added gain) than the average-milk female to cover the increase in energy needs. If the value of TDN in the above example is too high and is closer to 5.5¢ per lb. of TDN on a dry-matter basis, the above-average-milk cow will need to wean a calf that is 57 lb. heavier than the average-milk female.

It's hard to tell, but it may be safe to say that the days of cheap feeds are a thing of the past. Today, even baled crop residues are expensive. More so today than in years past, cows are going to be asked to be productive by foraging year-round on vegetative forages, dormant stockpile forages, and residues that are available for grazing. It will be harder and a challenge economically to feed our way out of mistakes because cows don't fit the feed resources and are not in adequate body condition to be productive.

Final thought

Stay the course in developing breed and breed combinations that keep ruminants doing what they are suppose to be doing. Don't focus just on output, but the balance of output and input that is responsible for that output. For the cow-calf enterprise, stay focused on the following:

- Avoid extremes in milk production and cow size (mature weight), although this philosophy in genetic selection will result in less growth and weaning weight.
- Cull infertile cows. This will mean culling open cows — no excuses. The cow will generate revenue for the cow-calf enterprise each year via either a calf or her cull value.
- Use maintenance EPDs as part of your bull selection criteria. Source seedstock producers who have developed selection indexes that include a feed efficiency component.
- Include stayability as part of your bull selection process. Stayability in a commercial cow-calf enterprise is highly related to profit potential.

The challenge has always been to find the cattle that best fit your environment. Cheap corn allowed us to be a little sloppy at times in the past. There are great opportunities in this industry. It's just a matter of having discipline and commitment to get through some tough times.

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Editor's Note: "Ridin' Herd" is a monthly column written by Rick Rasby, professor of animal science at the University of Nebraska. The column focuses on beef nutrition and its effects on performance and profitability.