Ridin' Herd

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

Interesting times in the beef industry

Data says that of the last 16 years, 12 of those years recorded a reduction in beef cow inventory. During the last six years there was a steady reduction in beef cow numbers nationally. This reduction in cow inventory means fewer feeder calves. The lower feeder-calf inventory has put pressure on feedlot operators because of the increased competition for the calves that are available and excess bunk space in the feedlots.

Selling pounds

Due to the price slide that exists when pricing feeder calves, heavy calves are priced at a lower price, dollars per pound or dollars per hundredweight (cwt.), compared to lighter-weight calves. In the past, the value of the added gain was usually about 55¢ per pound (lb.). Times have changed.

Looking at the feeder-calf prices in late June and comparing 500-lb. and 600-lb. calves in the Nebraska markets, the value of added weight is more like 84¢ per lb. of added gain.

Even more interesting is that, with the reduction in feeder-calf numbers and beef cow inventory, total beef production has not been compromised. In fact, with fewer calves, total beef production has increased. The dairy industry experienced a similar outcome. With fewer dairy cows, total milk production increased.

Some cow-calf producers may interpret the current market signals as a need to investigate opportunities to increase weaning weight. What management decisions, other than creep-feeding the calves, might cow-calf producers consider? If those decisions are made, what are the possible implications for the cow-calf enterprise?

Implications of increasing weaning weight

There are at least a couple genetic tools that can be used by commercial cow-calf producers to increase weaning weight. The ones that first come to mind are to select sires with high expected progeny differences (EPDs) for weaning weight and yearling weight and/or to select sires that have higher EPDs for milk production. There is ample information from seedstock producers and breed associations that can be used to select for increasing weaning weight. Breed association data would suggest that the trend lines over time indicate there has been an increase in most of the growth traits and milk production.

In addition, in most breeds, the trend line for mature weight has gradually increased over time. In most cow-calf operations, replacement heifers are selected from within the herd and not purchased outside the herd. With this information, one would think that mature weight of the cow herd has increased. This is likely one reason that, although feeder-calf numbers have decreased, total beef production hasn't decreased and has actually increased.

Adding milk production to your cow herd will increase weaning weight. Remember that the EPD for milk production is not actually milk production, but is weaning weight as a result of milk production. It is hard to say whether just increasing weaning weight as a result of milk production in a cow herd has any impact on mature weight or weight at slaughter of the resulting progeny.

The tradeoff

Herein is the crux of the discussion. For the cow-calf producer, it is not only about output (weaning weight), but also input (cow costs). On a fixed feed resource base, as the nutrient needs of the cow herd increase as a result of increased mature weight and/or milk production, the number of cows that can be managed on this resource base decreases. If number of cows doesn't decrease, then outside feed resources need to be incorporated into the feeding program so that reproduction is not compromised. Increased mature weight and milk production increase annual cow costs. The flip side of that is that weaning weight will increase.

We've discussed in this column matching cow size and milk production with the feed resource. Keeping the cows grazing is more economical than carrying harvested feeds to them to meet their nutrient requirements. As mature weight increases and/or milk production increases, the number of cows grazing a fixed pasture resource base needs to decrease. It is more profitable to produce another calf as compared to another couple of pounds of weaning weight per calf.

Optimizing traits like milk production and mature weight for a commercial cow-calf producer are likely more economical than being on the extreme ends for these two traits. If we compare a cow herd averaging 1,200 lb. to a cow herd averaging 1,350 lb. and assume that annually both groups eat about 2.2% of their body weight on a dry-matter basis, then the herd averaging 1,200 lb. will consume 9,636 lb. (dry-matter basis) of feed annually compared to 10,841 lb. (dry-matter basis) for the 1,350-lb. cow herd.

The difference in forage intake on a dry-

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matter basis is 1,205 lb. If this forage is priced at 5¢ per lb. on a dry-matter basis ($90-per-ton hay that is 88% dry matter), the difference in forage cost is $61.62 per cow. If the grazed resource base is fixed and there is enough of this resource to graze 100 head of cows with an average weight of 1,350 lb., this same resource base could handle 112.5 head of cows that average 1,200 lb.

If both groups of cows weaned 50% of their dam's weight and 90% of the cows exposed to the bull weaned a calf, weaning weight for the 1,350-lb. herd is 675 lb. and for the 1,200-lb. herd is 600 pounds. So the 1,350-lb. cow herd would wean 90 calves for the 100 cows exposed and the 1,200-lb. cow herd would wean 101 calves for the 112 cows that were exposed to the bull. If 600-lb. calves are priced at $1.79 per lb. and 675-lb. calves are priced at $1.69 per lb., the herd averaging 1,200 lb. will generate $108,474 (600 lb. × $1.79 per lb. × 101 calves) and the herd averaging 1,350 lb. will generate $102,668 (675 lb. × $1.69 per lb. × 90 calves).

Managing the cow herd so that more cows calve the first 21 days of the calving season will increase weaning weight without doing any selection for additional weaning weight or milk production. There are a number of management strategies that can efficiently add weight to calves after weaning. Consider management strategies postweaning to add weight.

Final thought

The market signals, from a cow-calf perspective, may suggest to select for traits that have a positive impact on increasing slaughter weight of the resulting progeny. The caution is to not only focus on output of the cow-calf enterprise, but also pay close attention to inputs. Continue to focus on breed and breed combinations that fit the feed resources that you have on your operation.

Feed costs are the greatest portion of annual cow costs. As mature weight and/or milk production increase, so will feed costs. Stay the course. Over the years you have likely developed a breed combination with traits like mature weight and milk production that fit your feed resources. If you are still in the business, this is likely profitable for your resources. There are other opportunities to add weight postweaning.

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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.*