



Beef Talk

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With cow size, one can't forget production potential

The Dickinson Research Extension Center recently established two sets of cattle based on body weight. Since the year was dry, the cow size question came up quickly.

What size cow is right? How does one measure inputs vs. production?

These two herds (groups) of cattle were weighed in the late fall or early winter. The difference in weight was 355 pounds (lb.).

The first herd of 52 cows averaged 1,216 lb. (ranging from 856 lb. to 1,395 lb.). The second herd of 50 cows averaged 1,571 lb. (ranging from 1,350 lb. to 1,935 lb.).

Earlier discussion detailed the difference in dry-matter (DM) intake for these two groups of cows. Projections were shown if the groups were placed in confinement June 1, when the calves were approximately 3 months old, and fed during the summer until the end of September.

The 1,216-lb. group of cattle, with milk production estimated at a 20-lb. peak, would have an average daily need of just less than 28 lb. of dry matter of

a ration that was 60% total digestible nutrients (TDN) and 9.8% crude protein (CP). The 1,571-lb. group of cattle, with milk production estimated at a 20-lb. peak, would have an average daily need of just less than 34.5 lb. daily dry matter of the same ration.

By placing the two groups of cows on pasture, with normal forage production in southwestern North Dakota, the land mass required for a group of 50 cows weighing 1,216 lb. would be 529 acres. A group of 50 cows weighing 1,571 lb. would require 642 acres.

The heavier cows would require approximately 23 more tons of feed in a drylot for 4.5 months. On pasture, the heavier cows would need approximately 113 more acres.

Output side of equation

Does the output of the larger cows justify the extra nutrition? That is not an easy question, because cow age and other factors need to be considered when calf production is estimated.

However, some idea of potential production from these two groups of

cows can be estimated. For instance, since cows tend to reach peak calf production around 5 years of age, the actual previous calf production of the cows in each group could be utilized to estimate this year's production.

Performance records of body weight at weaning of cows aged 5 to 9 years and their respective calf weaning weights were pulled and evaluated.

The older cows in the first group (current winter weight 1,216 lb.) averaged 1,272 lb. in the fall and weaned 602-lb. calves, or 47% of their body weight. The heavier group of cows (current winter weight 1,571 lb.) averaged 1,463 lb. in the fall and weaned 603-lb. calves, or 42% of their body weight.

This data trend was further examined by finding the percentage of cow weight weaned in all mature cows in the center's herd data system. The data evaluated actual weaning weight of calves and mature cows with calves of both genders.

All the cow records were allotted to 100-lb. increments, and weaning

percentages were calculated. The 12-weight or lighter cows weaned 50% of their fall weight (1,242 lb.) with 617-pound calves.

Thirteen-weight cows weaned 45% of their fall weight (1,357 lb.) with 611-lb. calves. Fourteen-weight cows weaned 41% of their fall weight (1,456 lb.) with 589-lb. calves.

Fifteen-weight cows weaned 39% of their fall weight (1,549 lb.) with 598-lb. calves. Those sixteen-weight and above cows weaned 34% of their fall weight (1,698 lb.) with 572-lb. calves.

More food for thought!



Editor's Note: Addressing the past, present and future state of the beef cattle business, "Beef Talk" is a weekly column distributed by the North Dakota State University (NDSU) Agricultural Communication office. Ringwall is executive secretary of the NDBCIA, director of the Dickinson Research Extension Center and an NDSU Extension beef specialist. An archive of columns can be found at www.BeefTalk.com, and your comments are always welcome.