

BeefTalk: Do Not Be Afraid to Moderate Cow Size, But Select Good Bulls

Producers need to use the management and genetics that fit their operation and adapt accordingly.

By Kris Ringwall, Beef Specialist

NDSU Extension Specialist

"How does a beef producer get a handle on cow size?" is an often-asked question I get during bull-buying workshops.

The question is complex because the foundation of the "cow size" issue rests with the development and implementation of cattle breeding systems.

Bulls produce at least two types of calves: one type for terminal production and one type destined to be replacements within the breeding herd. The proper utilization of a breeding system has the potential to maximize the use and benefits of both types of calves.

The beef industry has gotten along selecting good growth and efficient bulls, and keeping females from those bulls as replacements. I guess that works, but the question remains, "How does a beef producer get a handle on cow size without effective breeding systems?"

Here's a story regarding cattle at the Dickinson Research Extension Center. From 2008 to 2011, we established two cow herds to develop a set of smaller cows to use on range research projects. The smaller cattle averaged 38 to 40 inches (frame score 2.6) at the hip at fall weaning, and the larger cattle averaged 43 to 44 inches (frame score 4.9).

The smaller-framed cows were designated as "range" and the moderately framed cows were designated as "beef." Interestingly, the average mature (6 to 8 years of age) weight was 1,295 pounds for the "range" cows and 1,522 pounds for the "beef" cows. Throughout the lifetime of these cows, more than once a raised eyebrow was evident, even from me.

In the back of my mind were two nagging question: "Where does this weight come from?" and "How do cows that averaged a frame score 2.6 as calves at weaning mature out at 1,295 pounds?"

I had no question about the cows that averaged a frame score 4.9 as calves at weaning and weighed 1,522 pounds as mature cows. So how does one explain the performance of these smaller cows and their subsequent calves to an industry very focused on growth and efficiency?

That focus defines a strong tie between increasing growth and efficiency within the beef business, keeping in mind that growth and efficiency definitions do vary. Regardless, the "range" cattle surprised me.

Unfortunately, the center sold the "range" and "beef" herds due to drought, but have a chair as I review the last set of carcass data from these two herds.

We know the beef producer has the option to place more than 1,000 pounds of carcass beef on the rail. Then comes the question, "How much cow mass does the commercial cattle producer need to meet pounds of carcass on the rail?"

Back to the story. Interestingly, the center's "beef" herd could put an average 1,000-pound carcass on the rail. What about the "range" cows? How much beef can the "range" cows put on the rail? The question begs an answer.

The most recent carcass data from the center's "range" and "beef" cow herds were eye-opening. The steers from the "range" herd (no exemptions) had the following average production: final live weight, 1,456 pounds; hot carcass weight, 872 pounds; dressing percent, 59.9; quality grade, average choice; 12th-rib fat depth, .43 inch; rib-eye area, 13.74 square inches; rib-eye area per 100 pounds of body weight, .96 square inch; U.S. Department of Agriculture (USDA) yield grade, 2.9; and percent choice, 94.

The "no exemptions" means no steers were held back and sold as calves.

The steers from the "beef" herd (no exemptions) had the following average production: final live weight, 1,751 pounds; hot carcass weight, 1,050 pounds; dressing percent, 60; quality grade, low choice; 12th-rib fat depth, .36 inch; rib-eye area, 15.67 square inches; rib-eye area per 100 pounds of body weight, .90 square inch; USDA yield grade, 2.8; and percent choice, 94.

All living steers from the two herds were sent to the feed yard and harvested. The herds produced what was expected.

We know today's beef producer can place more than 1,000 pounds of beef carcass on the rail. The steers from the "beef" herd did just that, averaging 1,050 pounds on the rail. But the steers from the "range" herd also met exceptional industry specifications, producing 872 pounds on the rail.

Steers from the "beef" herd had heavier carcass weights, larger rib eyes, less 12th-rib fat and lower marbling scores. Steers from the "range" herd had higher marbling scores and larger rib-eye area per 100 pounds of body weight.

Yes, this is a story of real data. The bottom line: Producers need to use the management and genetics that fit their operation and adapt accordingly.

When selecting bulls, producers may select bulls that moderate replacement female size. Likewise, selection for terminal bulls that put large carcasses on the rail is good. Remember, terminal means no female replacements kept. The bottom line: Do not be afraid to lower cow size, but select good bulls.

May you find all your ear tags.

For more information, contact your local NDSU Extension Service agent (<https://www.ag.ndsu.edu/extension/directory>) or Ringwall at the Dickinson Research Extension Center, 1041 State Ave., Dickinson, ND 58601; 701-456-1103; or kris.ringwall@ndsu.edu.

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Source: Kris Ringwall, 701-456-1103, kris.ringwall@ndsu.edu

Editor: Ellen Crawford, 701-231-5391, ellen.crawford@ndsu.edu

Attachments



PDF - NDSU Dickinson Research Extension Center 2017 Carcass Data (NDSU_Extension_Service_BeefTalk_022218.pdf - 20.82 Kb)



EPS - NDSU Dickinson Research Extension Center 2017 Carcass Data (NDSU_Extension_Service_BeefTalk_022218.eps - 224.85 Kb)

Images

2017 Carcass Data	
Item	Value
Final Live Weight	1,456
Hot Carcass Weight	872
Dressing Percent	59.9
Quality Grade	Average Choice
12th-Rib Fat Depth	.43
Rib-Eye Area	13.74
Rib-Eye Area per 100 lbs	.96
USDA Yield Grade	2.9
Percent Choice	94

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