



## BeefTalk: Small Cattle Need Muscle

**Sometimes big surprises come in smaller packages.**

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Do you know your cows? Do you have medium-framed, medium-sized cows or smaller-framed, medium-sized cows or smaller-framed, small-sized cows?

The answers to these questions will impact management decisions. The Dickinson Research Extension Center has sorted the main brood cows into two distinct types of cows.

The first set of cows averaged just more than 1,400 pounds at spring turnout on crested wheatgrass. They are part of a study involving cropping rotations and range systems harvested by grazing cow-calf pairs and early weaned calves. The second set of cows averaged 1,060 pounds when turned on crested wheatgrass this spring. The cows are utilized in the center's native range systems. The calves traditionally are weaned in the fall, backgrounded and finished.

The hair pulling arrived when the bull pen was evaluated. The bulls in the pen were designed to breed at least medium-framed, medium-sized cows. In other words, they all looked good for 1,400-pound cows.

The Red Angus bulls had average expected progeny difference (EPD) for birth weight (BW) of 1.9, weaning weight (WW) of 35.8, yearling weight (YW) of 59.8 and .09 for rib eye area (REA). These numbers put the bulls in the upper 50 percent of the breed. The exception was birth weight, where the bulls ranked in the lower 25 percent of the breed.

These are not heifer bulls. They would work well on the larger cows, but not on the smaller-framed, lighter cows. There was too much birth weight and not a really good indicator of the calf's mature size.

If the only bulls utilized in the breeding program produce the medium-framed, medium-sized cows, the ability to maintain a smaller, mature-sized cow is compromised. However, there were some good bulls still available.

The center put together a group of bulls that had an average EPD of minus 3.1 for BW, 24 for WW, 48.7 for YW and 0.22 for REA. These bulls offered reduced birth weight, acceptable growth and very excellent rib eye area.

The point is that normally one would be a bit taken aback on the growth numbers because the bulls rank in the lower end of the Red Angus breed for weaning and yearling growth, but let's repeat the rib eye area EPD of .22. Note that these bulls are in the upper 20 percent of the Red Angus breed. The center does not want to breed smaller cattle that have no muscle.

These bulls should maintain a smaller weight cow and keep or improve rib eye area. The beef business must remain a beef business, not a small-cow business.

Images

Red Angus Bull Pen Stats		
NDSU Dickinson Research Extension Center		
	Big Boys	"Not So" Big Boys
Birth weight	1.9	-3.1
Weaning weight	35.8	24.0
Yearling weight	59.8	48.7
Rib eye area	.09	.22
Maintenance energy	8.2	0

Red Angus Bull Pen Stats

However, sometimes big surprises come in smaller packages. For instance, the Red Angus Association publishes a newer EPD abbreviated as ME, which is an evaluation of the maintenance energy requirements for mature cows. This value predicts the differences in energy requirements among the mature daughters of individual Red Angus bulls.

In the case of these two groups of bulls, those bulls available for the larger cows had an average ME value of 8.2. The average ME value of the bulls selected for mating to the smaller cows was zero.

The lower the ME value, the better. In other words, the bulls selected for the smaller, mature-weight cows actually are not only predicted to sire calves that are lighter weight, the calves also will have more muscle and subsequent daughters will require less dry matter feed.

These are interesting concepts as the center prepares to maintain a herd of cattle that is closer to the 1,000- to 1,200- pound body weight than the 1,400- to 1,600-pound body. It is important to remember that even small cattle need muscle and the ability to put 550 pounds plus of quality beef on the rail.

The numbers do tell the story. We simply need to read the book.

May you find all your ear tags.

Your comments are always welcome at <http://www.BeefTalk.com>.

For more information, contact the NDBCIA Office, 1041 State Ave., Dickinson, ND 58601, or go to <http://www.CHAPS2000.com> on the Internet.

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#### Attachments



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EPS - Red Angus Bull Pen Stats  
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