North Dakota State University -- **NDSU Agriculture Communication**
7 Morrill Hall, Fargo ND, 58105-5655, Tel: 701-231-7881, Fax: 701-231-7044
agcomm@ndsuext.nodak.edu

November 15, 2001

BeefTalk: Do You Know the Variation in Your Herd Performance?

By Kris Ringwall, Extension Beef Specialist,
NDSU Extension Service

The hand is quicker than the eye, and, in the beef business, numbers are more reliable than the eyeball. So, please hand over the envelope with the performance records on the calves.

I just returned from a meeting on integrated resource management in Omaha. About 40 years ago, beef cattle performance evaluation began. Information from the meeting indicates that today the accounting of individual calf performance, i.e., the variation that exists, still remains a number unknown to many producers.

As the calves come off pasture, there are big calves, medium calves and small calves. There are big, big calves, medium big calves and small big

calves. There are big medium calves, big small calves and even small small calves.

Of course, we all talk about the big, big, big calf, seeking sire and dam information or which creep feed ration was fed. As years go by, one question begs an answer: "Was the big, big, big calf this year as big as the big, big, big calf last year?" Were the big, big calves in the 1970s as big as the big, big calves today?

It sounds silly and confusing and, without numbers, it is. Cattle producers will never know the answer to what is big or medium or small without performance statistics on each calf. There seems to be reluctance to place economic value with individual calf data. Let me walk you through an example.

In 2000, the Dickinson Research Extension Center used five new sires for the calves born this spring, so weaning time this fall was our first opportunity to evaluate the sires' performance. Space precludes comparing all of the sires, but allow me to focus on sire 211 and sire 205.

Sire 211 produced 22 calves and sire 205 produced 28 calves. To compare the bulls accurately, the weaning weight was corrected for age and calf sex and we got an answer for the big calf. Sire 211 produced a big, big, big calf weighing 786 pounds. Sire 205 produced a big, big calf weighing 704 pounds – an 82 pound difference. Sire 211's lightest calf weighed 507 pounds; sire 205's lightest calf was 484 pounds, a 23 pound difference.

Most producers could eyeball the big, big, big calf and the lightest calf in the pen but how about variation? This is where it gets interesting.

The average weight of sire 211's 22 calves was 589 pounds. The average weight of sire 205's 28 calves was 592 pounds, a difference of only 3 pounds in favor of sire 205. A random eyeball evaluation would not pick out the 3 pounds.

Further statistical analysis shows sire 211 had one calf over 700 pounds, seven calves from 600 to 699 lbs. and 14 weighing 500 to 599 lbs. Sire 205 sired one calf over 700 lbs., 13 weighing 600 to 699 lbs., 13 weighing 500 to 599 lbs. and one weighing less than 500 lbs. Comparing the two sires, 36 percent of sire 211's calves fit in the 600 to 800 lb. category, versus 50 percent of sire 205's. If I wanted to load semi trailers at 49,000 pounds, I would need to load 83 calves from either sire.

Uniformity is a buzzword in feedlot management, so most feedlots (and producers involved in retained ownership) want to keep the spread in weights on semi load trailers to less than 100 pounds. So, the question arises, how many calves will each sire have to produce to fill a semi load with six-weight calves?

This is where variation in calves really shows. For sire 211, 31.8 percent of his calves were in the 600 to 699 lb. category and they averaged 637 pounds. For sire 205, 46.4 percent of his calves were in the 600 to 699 lb. category and they averaged 630 pounds. To fill a semi load (49,000 pounds), the Center needs to produce 248 calves from sire 211 of which only 77 calves would qualify for the load. On the contrary, for sire 205, the Center only needs to produce 165 calves to fill the same semi load with 77 calves.

The uniformity of weight of sire 205's calves is why this industry needs to take individual calf weights and get on with individual identification. It is

basic beef cattle economics.

May you find all your ear tags.

Your comments are always welcome at www.BeefTalk.com. For more information, contact the North Dakota Beef Cattle Improvement Association, 1133 State Avenue, Dickinson, ND 58601 or go to www.CHAPS2000.COM on the Internet. In correspondence about this column, refer to BT0065.

###

Source: Kris Ringwall, (701) 483-2427, kringwal@ndsuext.nodak.edu
Editor: Tom Jirik, (701) 231-9629, tjirik@ndsuext.nodak.edu

Variation of Calf Weight Between Bulls

Sire ID	211	205
Average calf weight	589	592
Largest calf	786	704
Smallest calf	507	484
Percent of calves 600-699 lbs.	31.8	46.4
Average weight of calves 600-699 lbs.	637	630
Calves required to fill a semi load (49,000 pounds)	77	77
Number of calves required to select from to fill load with calves 600-699 lbs.	248	165

NDSU Dickinson Research Extension Center

Click here for a printable PDF version of this graphic. (5KB b&w graph)

Click here for a printable EPS version of this graphic. (76KB b&w graph)

Click here for a EPS file of the BeefTalk logo suitable for printing.
(100KB b&w logo)