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June 14, 2001

NDSU Extension Service

BeefTalk: Sire Power is Important Part of Successful Beef Enterprises

By Kris Ringwall, Extension Beef Specialist,

Most producers understand, or at least appreciate, the importance of the sire within the cow-calf operation. At the very least, cows pastured without a sire never produce calves. Once a sire is placed with the cows, approximately 285 days later, the cow herd numbers expand.

Each calf contains half the genetic makeup of its mother, and half the genetic makeup of the sire. Producers do not buy new cows every year, but rather buy replacement sires, allowing for the input of new, and hopefully better, genetics (or genes) each year. It's difficult to overemphasize the importance of the sire in this process of genetic improvement.

As producers retain those replacement cows, the influence of each new

sire's genetics can have a significant influence. For example, a producer bought cow A and sire B in 1995 and grazed them together that spring. In 1996, calf AB was born with a genetic makeup that was 50 percent from dam A and 50 percent from sire B. Calf AB is kept as a replacement heifer and is bred to sire D.

In the spring of 1998, calf AB (now cow AB) produces calf ABD that is 50 percent of dam AB and 50 percent of sire D. Put another way, calf ABD is really 25 percent of dam A, 25 percent of sire B and 50 percent of sire D.

Follow the genetics for one more generation. Calf ABD is kept as a replacement, and becomes cow ABD and is bred to sire E. In the spring of 2000, cow ABD gives birth to calf ABDE. Again, this calf is 50 percent of cow ABD and 50 percent of sire E. Following the same logic that Mendel did, the source of the genetics of calf ABDE could be traced to 12.5 percent of cow A, 12.5 percent of sire B, 25 percent of sire D and 50 percent of sire E, the most recent sire purchased.

It is easy to see that the impact of sire selection within a cow herd is very dramatic. In the scenario just outlined, a producer who purchased a cow herd and three consecutive sires has a calf crop on the ground that would (on the average) contain only 12.5 percent of the original cow herd. By contrast, 87.5 percent of the calves' genetic makeup would trace to the last three sires purchased. Selection within the cow herd could modify these numbers somewhat, but the power of the sire still overwhelms the genetic flow within producing cow-calf enterprises.

For producers, now is the time to start eyeballing the calves to see if they possess the traits desired by the industry. The genetics of the sire, grandsire and great grandsire should all be stacking up to produce the kind

of cattle that meet the benchmark values for an individual producer and the industry.

The next step will be to evaluate the production traits with the use of a scale and frame chart to cross check and record data for further evaluation of the true value of your calves and breeding program. Fundamentally, appreciating the skill required to build a solid cow herd is paramount to appreciating the need to name and trace every calf born.

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 BT0043.

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The Effect of Three Generations of Purchased Sires Within a Cow Herd

Calf	Cow A	Sire B	Sire D	Sire E
AB	50%	50%		
ABD	25%	25%	50%	
ABDE	12.5%	12.5%	25%	50%

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