

Often when producers talk about their cow herds they discuss their calf crop, and the dams of those calves, attributing much of the calf's success or failure to the dam. But what about the calf's sire? How much credit is he given when measuring the calf's level of performance? This week we will discuss the genetic and financial impact that a bull has in a cattle operation, and why great care should be taken when deciding upon a herd sire.

First, it is important to evaluate the production goals of your cattle operation, whether it is terminal, or maternal. In a terminal operation all calves are marketed and replacements are added from outside the herd. Maternal operations are more geared towards producing females that the producer will use as replacements. Once you identify which category your operation best fits, you can better plan for the type of sire that you need for your cattle. It is also very helpful to identify the strengths and weaknesses of your current herd as a whole. Are high birth weights a problem in your operation? Are calves lighter than you prefer at weaning? The type of sire used can greatly impact these, and many other aspects of a cattle operation.

After you establish your operational goal and have a good idea of the major weaknesses of your operation you can begin thinking about the type of genetics you would like to introduce to your herd. One of the most popular tools producers have access to in order to evaluate genetics of a sire is his EPDs. The Expected Progeny Difference of an animal is used to predict the genetic quality of his or her future offspring. Depending on the goal of your operation, you can use the EPDs to select a sire that will help you meet your goals. For example, if you have been experiencing lots of calving issues due to large calf size you may want to use a bull that has a low birth weight EPD. Similarly, selecting for high weaning weight and yearling weight EPDs may be wise in a terminal operation. However, please note that selecting for only one EPD may cause undesirable results. It is important to take into account all of the bull's EPDs, rather than select for just one. Please refer to our June 28, 2013 article for more information on this topic.

The bull's pedigree is also a beneficial aspect to look into. How did his sire, dam, and siblings perform? Using the pedigree, a producer is better able to predict the type of offspring that the bull will produce. Finally, it is best if the bull is known to be free from any genetic defects or breed specific diseases. Often, a blood sample can be taken and within one week the producer can know if the bull is a carrier of the defect.

As Dr. John Evans stated, "Sire selection has a greater impact on the genetic improvement of a herd than most producers realize. Because the sire is more likely to produce a higher number of calves in his lifetime compared to a cow, a sire has the potential to contribute a larger portion of the genes to the herd." Develop goals for your operation, identify the strengths and weaknesses of your operation, and find a bull that will help improve the genetics of your operation so that those goals can be achieved. Next week we will continue this discussion on bull selection and review phenotypic traits to look for when choosing a bull for your herd.

For access to the referenced articles mentioned, please refer to the links below:

Dr. John Evans- <http://beefmagazine.com/genetics/0305-bull-selection-101>

June 28, 2013- <http://hcvethospital.com/sites/site->

[4669/documents/Choosing%20Cattle%20Based%20on%20EPDs%2006.28.13.pdf](http://hcvethospital.com/sites/site-4669/documents/Choosing%20Cattle%20Based%20on%20EPDs%2006.28.13.pdf)