



BeefTalk 695: What's in the Bull Soup?

SUPPORTING MATERIALS

Herd Benchmarking Has to Start Somewhere

Pick a breed and some traits, then look up the average value for the EPDs.

Example

Breed – Red Angus

Traits – birth weight (BW), weaning weight (WW), yearling weight (YW), marbling (MARB) and rib eye area (REA).

Average Values – BW = (-1.2), WW = 54, YW = 84, MARB = 0.39 and REA = 0.12.

Bull selection only requires that one understands or at least appreciates the EPD values and trends within a breed.

Buying bulls is like making soup. You put in a bit of this and a bit of that and in the end, you have good soup. Likewise, a piece of this and a piece of that and you assemble a good bull. Unlike the soup you make from scratch, the bull already is made, but you have to find him.

Ultimately, the bull will supply half the pieces for your next calf crop. So what are the pieces? Just like soup, every spoonful should be complete and savored. When the spices are added, they literally dissolve into every spoonful. Likewise, when the bull's DNA is added to the herd, the DNA literally dissolves into the calves and all future generations.

With today's technology, those pieces of DNA can be detected and isolated generations later. Even more so than the bull, the herd is this massive pool of genes that produce a working, manageable herd.

So how does one know what genes one has in the herd? There are a few traits such as certain colors or horns that are the result of a single gene and can be detected and screened for fairly easily.

Another example is the many genetic defects in cattle where a single gene has caused a "kink" in the production line so calf deformities are the end result. These single genes can float around and occasionally express themselves.

However, production genes are our main interest today. Production genes are best managed through the utilization of expected progeny differences (EPDs). They are not seen individually and are expressed best if allowed to work as a team. Unlike adding salt or spice to a soup, production genes are more like the meat and potatoes.

Production genes determine how an animal exists, such as fast or slow daily gains, how heavy the calf is at birth, how well the calf grades, how large the rib eye is or even how much milk the cow will produce. The list is long and the traits are numerous.



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These production genes are named by the effect they are expected to have on a particular trait. For the sake of understanding, let's visit five of these traits. The five are birth weight (BW), weaning weight (WW), yearling weight (YW), marbling (MARB) and rib-eye area (REA).

The process is linked to the various breed associations that register cattle and provide EPDs. For discussion purposes, let's use the Red Angus Association's website (<http://redangus.org/>). EPDs are defined by each breed association, but the basic EPDs have the same definition. Each breed also has unique traits identified as important and different selection indexes that breeders have identified as significant for their breed.

There also are two concepts to keep in mind. First of all, purchasing a bull means producers must evaluate their current operation and then producers must select a bull to change or maintain their current operation.

In the broad sense, that may be as simple as accepting a particular breed or breeding system and, in a more detailed sense, maintaining individual cow/sire/calf performance records. Looking up and understanding the average performance of a breed is a broad approach to developing selection benchmarks. Meanwhile, the CHAPS record system that is supported by the North Dakota State University Extension Service is a more focused approach to benchmarking.

The point is that both systems work, and bull selection only requires that one understands or at least appreciates the EPD values and trends within a breed. Once that appreciation is found, then one can set his or her own EPD benchmarks and strive to achieve those individual goals. In terms of commercial production, individual bull EPDs are a tremendous tool to guide the DNA pool within a herd.

Returning to our example, if we open up the Red Angus website (<http://redangus.org/>) and click on the word Genetics and then click on the words EPD Averages, we see a fall 2013 table pop up with average EPD values for older bulls, dams and younger bulls.

With relative ease, we can determine average values for our selected traits in younger bulls. The BW is minus 1.2, WW is 54, YW is 84, MARB is .39 and REA is .12. These are a great benchmark if a producer prefers average Red Angus cattle. With these EPDs, the potential bull buyer has a guide to start the selection process.

However, if one appreciates and desires to maintain the current herd production, why not go back and look up the EPDs on the older bulls that have been purchased and utilized in the herd? Evaluating previously purchased bulls helps a producer understand individual herd expectations compared with the breed average. It's a good place to start.

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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