

Ross Mosteller

District Extension Agent
Livestock & Natural Resources

Selection Indexes, Production Data or EPD's??

Although I really don't like the usual weather at this time of year, it is still one of my favorite "seasons" - Bull Sale Season! Catalogs, sale flyers, emails, video links, etc.. to all types of bull sales arrive and for cattle nerds like me, this is like a second Christmas opening each one. Every operation uses different formats and varying information is provided, so deciphering what is in front of you can be a challenge at times. If you recall in a past article, EPDs were discussed and I promised to dive into Selection Indexes, today's that day as we think about bull buying.

Twenty plus years ago at BIF in Omaha, I was intrigued by the discussion of an index that would blend particular traits and EPDs into a number, based on weighting, that would avoid single trait selection. Open sale catalogs, sire summaries or breed registry databases and indexes are now a standard offering in nearly every major, recognized beef breed. The Dairy industry has used indexes for years as well. In general, these will highlight production areas like calving ease, growth, carcass, fertility and maternal traits. Using tandem selection of multiple, weighted, traits simultaneously; is designed for ease of use by seedstock and commercial producers alike.

Each index is designed for a particular purpose and is often geared towards the breed that developed it. Much like EPDs, you need to have a basic understanding of what goes into the number and then what the number translates to. For example, the index I personally give attention is Shorthorn \$BMI or British Maternal Index. This is the expected average performance of progeny of Shorthorn bulls when mated to a British cow base. It has a balance of growth and carcass traits, with a strong maternal component. Hereford also has a \$BMI or Baldy Maternal Index, which is the expected average performance of progeny of Hereford bulls used in rotational crossbreeding programs on Angus-based cows and heifers, with the progeny marketed on a Certified Hereford Beef LLC pricing grid. All that to say \$BMI isn't the same everywhere!

The other piece of data often seen at bull sales is actual production measures like weights, ultrasound data, ratios, etc... How and where does this come into play? There are folks who will look only at actual birth or weaning weight, not paying any attention to EPDs or complementary Indexes. The flip is true as well. Each producer has their own philosophy and emphasis on what is important, but utilizing all available data should be considered to make the most informed decision. Actual performance data goes into the generation of EPDs and in turn Indexes, so the general comment is to emphasize those values over actual data, as they tend to be a better predictor of future performance. Dam production ratios are an important factor to consider.

I'm a data guy (*just ask my family about the hundreds of spreadsheets I study at night*) and I'd never suggest that data not be used, but nothing can replace a visual appraisal of phenotype. Too often really good confirmation animals, who can create a positive change in biological type, are overlooked due to lower numbers. The flip side is true as well. Bulls who wouldn't yield a premium on visual appraisal as steers, are kept and selected as sires. It is all about balance in evaluation and knowing what your operational needs are.

If you don't know or understand these index values (or any of the data), ASK! Extension agents can be a good resource. The breeders who are offering seedstock have an understanding and are willing to help you navigate decisions. Many even offer "quick picks", star ratings or other streamlined selection tools. The Iowa Beef Center has a detailed fact sheet that helps to explain the various breed selection indexes called [Breed Association \\$Value Indexes Fact Sheet](#), check it out for more information. Good luck selecting your next herd sire, he contributes half the genetic contribution to your herd. This is an important decision that deserves some thought and consideration, using all the tools available to you.