Percentile Rank Just May Be An Easier Way To Evaluate EPDs

Don't really understand EPDs? Don't completely understand how to use EPDs? If not, you had better learn, and fast. Both scientific studies and cowboy mathematics have proven sound use of EPDs to be a profit making genetic selection tool time and again. Expected Progeny Differences (EPDs) are predictable, reliable and are not going away. In fact, with the current drive by the major breed associations to determine Breed Specific Genetic Differences by utilizing the DNA technology offered through the advent of the "50K Chip" (which allows for DNA coding of over fifty thousand specific pieces of DNA) those pieces of genetic code will be added to the currently collected EPD information to arrive at a "Genomic Enhanced EPD". Do you need to understand all the genetic modeling, high powered computers, statistics and mathematics used to calculate EPDs? About as much as you need to understand how a nuclear power plant works to be able to flip a switch and have light. What you do need to know is how to "flip the switch" or how to use EPDs.

Simply stated, EPDs predict differences we would expect in the offspring between different animals or between any animal and the average of that particular breed. An EPD by itself has no value unless it is compared against another animal or breed average. PERIOD! A simple example would be to compare Bull A with an 80 pound yearling weight (YW) EPD to Bull B with a 20 pound YW EPD; and on average calves from Bull A will weigh 60 pounds more as yearlings than calves from Bull B. If the bulls in this example are yearling Brangus bulls available for sale, you could also find the Spring 2011 Brangus Non-parent Breed average

YW EPD is 42 pounds (see table). Then you also know that Bull A has a YW EPD almost double Brangus breed average and Bull B has a YW EPD less than one half of breed average.

BRANGUS SPRING 2011 NATIONAL CATTLE EVALUATION - SIRE SUMMARY Non-Parent EPD with Associated Percentile Rank

Rank	BW	WW	YW	MK	TM	SC	REA	%IMF	FAT
Top 1%	-3.7	45	77	23	40	1.5	.80	.29	015
Top 5%	-2.1	37	66	19	35	1.3	.65	.20	011
Top 10%	-1.4	34	60	17	32	1.2	.57	.15	009
Top 25%	-0.2	28	51	14	27	1.0	.43	.07	005
Top 50%	0.8	22	42	11	22	0.7	.28	.01	002
Top 75%	1.8	17	33	8	17	0.4	.15	04	.003
Top 95%	3.5	10	20	3	10	0.1	.01	11	.010

The Top 50% is the breed average. The Top 1% means that the individual is better in that specific trait than 99% of all other Non-Parent Brangus animals. Note that the values in this table will change each time the International Brangus Breeders Association completes an updated Sire Summary.

However, even those calculations may be more than you need to be able to select bulls with the EPDs to genetically advance your cow herd in the profit driven direction you desire. Stay with the yearling weight example and assume your greatest need is to improve growth. Even though you sell all calves at weaning, if you really need more growth, you can make greater improvement in weaning weight by selecting for yearling weight than by selecting for weaning weight (that discussion will have to await another time). It is then pretty simple - find a bull supplier that provides EPD Percentile Rank for each EPD and buy the bull or bulls with the highest percentile rank for YW EPD. From the Brangus Sire Summary table, you would like a

bull in the Top 25% of the breed (or greater) or at least 51 pounds YW EPD. Then there are a host of other traits to consider. Would you be happy with a bull in the Top 25% for YW EPD if his BW EPD was only in the Top 75%? Maybe, maybe not, depending on your situation and need for birth weight and calving ease genetics.

Of course everyone would like to buy those bulls that are in the Top 25% for many traits. Few exist and chances are those that do will exceed you bull purchase budget. But, depending on the job description you have for your bull purchase, you may be willing to accept much lower percentile rankings for your secondary traits so that priority can be placed on the YW EPD with the higher Top Percentile Rank. The example would be the same if your need is for a bull with a low BW EPD to be used on heifers, or any of the nine traits currently evaluated in the Brangus Sire Summary - buy the bull with the highest percentile rank you can afford, recognizing what you may have to give in other traits.

Spitzer Ranch has always tried to make things simple. Their Bull Sale Catalogs have for several years provided the percentile rankings, which are shown below each individual EPD. This is a great way to understand where the individual ranks in the breed for that particular EPD. For example, where it shows "10%," this means that particular EPD value is in the highest, or TOP 10%, of all Non-parent bulls in the entire Brangus breed.

The Spitzer Ranch SUMMER 2011 NEWSLETTER has already been mailed to those individuals on their mailing list. However, if you desire a complete performance report on bulls being developed for their sale; including current EPDs, birth and weaning data as well as current rates of gain on the growth and development program, they would be pleased to mail you a copy. Their Newsletters always provide educational tips, inspiration and insights into a wide variety of timely topics of interest to those cattlemen whose goal is increased profitability. Call 864/972-

9140, write SPITZER RANCH, 1511 HWY 59, Fair Play, SC, 29643 or send an email to spitzeranch@mindspring.com. And you're invited to visit them at www.srbulls.com and follow their posts on Facebook. Whether you sell all your calves at weaning or are interested in profit potential beyond your farm gate they can assist you with the right genetics. The 2012 SPITZER RANCH PROFESSIONAL CATTLEMEN'S BRANGUS BULL SALE will be Saturday, February 25, 2012. They hope to see you there!

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