Week of Feb 6th-10th 2017
POST ROCK EXTENSION ANSWERS
Neil Cates, Post Rock Extension District Agent – Livestock Production
K-State Research and Extension

Open any livestock magazine, agriculture newsletter or search any livestock website and you will find advertisements for bull production sales across the country from now through the spring. We are in bull buying season, when producers replenish their bull batteries in hopes of improving the genetics of their cowherds and achieving high pregnancy rates. Before attending these sales, producers should do their homework in advanced on their future sire choices. Before you crack open the sale catalogs, there are a few resources and skills you should possess.

Make sure you understand the use of expected progeny differences (EPDs) and selection indexes. While EPDs are not the only selection information you should consider, EPDs are the most effective tools available to describe the genetic differences between animals within and across herds. EPDs are much more effective genetic predictors than actual or adjusted performance records. If an EPD is available for a trait, it should be used instead of an animal's own performance record for that trait. The EPD removes age and environmental effects that can bias a decision based on actual records.

Use calving ease (CE) EPDs, rather than birth weight (BW) EPDs, to select bulls that minimize calving difficulty. Calving ease EPD calculations include birth weight data and other sources of information that affect dystocia. Calving ease EPD is a much better tool to manage calving difficulty than either birth weight EPD or an animal's own birth weight record.

Not all EPDs are the same, so make sure you know the appropriate information for the breed of cattle you are purchasing. For a useful reference on EPDs and other genetic topics, see the *Beef Sire Selection Manual* available at *nbcec.org/producers/sire.html*. The manual includes the breed average EPDs and a percentile rank table available from the most current genetic evaluation for breed of interest. These tools will enable you to compare the relative genetic merit of individual animals to other animals in the breed.

Make sure you know what traits you would like to improve in your herd. What breed(s) fit in your mating system? If you are using a crossbreeding system, make sure the breed you selected fits your objectives. Other factors to consider are keeping replacement heifers and endpoints for progeny marketing (weaning, back-grounding or in the beef). Assessment of these factors will help point you to the best breed for your needs and the combinations of traits that best fit your

operation.

Be sure to set a realistic budget for bull purchases. Like most things in life, price is driven by quality. Get to know your seedstock supplier and make sure he/she knows you and your operational goals. Seek out recommendations from your supplier well in advance of the sale. Once you receive the sale catalog, make a short list of bulls that fit your specifications. Arrive at the sale early to inspect the bulls on your short list. Shorten your list of candidates based on conformation and updated data to identify your purchase candidates. Keep the sale order in mind. Stay focused on the bulls you selected earlier. Sticking to your plan will avoid impulse purchases. Having multiple bulls on your list is important because if you are after a particular bull, chances are someone else is too, and only one of you is going home with him.

EPDs represent the genetic component of an animal's phenotype that is expected to be passed on to the next generation. Studies have shown that using EPDs are seven to nine times more effective than selecting based on actual phenotypes. While most producers think of increasing the economic efficiency of their operation by changing management systems (grazing methods, calving dates, etc.) or utilizing different nutritional programs, the importance of correct genetic selection is often overlooked. It is critical to understand how to interpret EPDs and to know breed averages, and be able to use percentile ranks in order to identify potential sires that fit the desired breeding objective. Be sure to do your homework before selecting the next sire for your operation.

Post Rock Extension District of K-State Research and Extension serves Jewell, Lincoln, Osborne, Smith, and Mitchell counties. Neil may be contacted at ncates@ksu.edu or by calling Beloit 738-3597, Lincoln 524-4432, Mankato 378-3174, Osborne 346-2521, Smith Center 282-6823. Visit our website at www.postrock.ksu.edu and follow our blog at: postrockextension.blogspot.com. Also follow us on Facebook at: Post Rock Extension