



BeefTalk 703: Understanding EPD Percentile Tables is Important

SUPPORTING MATERIALS

Making Sense of the Numbers
NDSU Dickinson Research Extension Center

Simmental	Birth Weight (EPD lbs)	Weaning Weight (EPD lbs)	Yearling Weight (EPD lbs)	Marbling Score	Rib Eye Area (EPD sq in)
2014 national breed average*	2.2	64.2	93.2	0.13	0.76
2013 DREC breeding bulls	1.5	59.6	80.1	0.15	0.88
2014 DREC breeding bulls	2.2	78.0	109.9	0.07	0.99

* 2014 Purebred Simmental 50th Percentile (<http://simmental.org/tables>)

A simple way to deal with the table is to decide on what level of performance one wants to shop for.

The discussion of how to utilize breed association expected progeny differences (EPDs) by setting individual goals requires that producers understand how bulls are positioned within the breed association's data set.

For example, if a producer is looking at a Simmental bull, then go to the American Simmental Association's website at <http://simmental.org/site/> and click on the "Industrial Science/Tech Advancement" tab. From there, hover on the "Genetic Prediction (EPD)" box and scroll down to the "% Tables/Breed Avg." tab. Click on the box and select the desired cattle type.

The Dickinson Research Extension Center is using purebred Simmentals, so we would click on "Purebred Simmentals" to see the 2014 purebred Simmental percentile table, then print the table. The table for other breeds will be about the same but may have different labeling on their respective websites and tables.

Step two is to get a colored highlighter pen and prepare to decide what level of performance one wants to select when buying a bull. For example, one can decide to ask to see the EPD value rankings for a particular trait much like one would ask to see the miles per gallon rankings for a specific car model to compare with other models.

A simple way to deal with the table is to decide on what level of performance one wants to shop for. For example, the center desires that the Simmental bulls simply rank in the upper 50 percent of the breed for the desired traits. Therefore, locate 50 percent on the left-hand side of the percentile table and read across the table to determine the EPD value for each trait printed in the sire summary that would rank a bull at the 50th percentile within the breed. It sounds complicated but it really isn't.

Now take the colored highlighter pen and draw a line across the table at the 50 percent line. Now you have highlighted the EPD value needed to rank a bull at the desired 50th percentile within the breed. By looking at the numbers above the line, one knows the EPD values of the bulls ranked within the upper 50th percentile. So the performance of the bulls is unveiled, which is what we are searching for. As the center buys bulls, in this case Simmental bulls, the center uses the same process.

The center focuses on five traits within the Simmental breed - birth weight, weaning weight, yearling weight, marbling



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score and rib-eye area - and sets a goal that the average value for herd sire EPDs should meet or exceed average EPD values.

Using the process described above, the purebred Simmental breed average (50th percentile) birth weight is 2.2 pounds, weaning weight is 64.2 pounds, yearling weight is 93.2 pounds, marbling score is 0.13 and rib-eye area is 0.76 square inch.

The center's registered herd bulls that were born in 2011 and 2012 and utilized during the 2013 breeding season did not meet all of the goals for individual traits. The center's sire averages were birth weight 1.5 pounds (goal met), weaning weight 59.6 pounds (goal not met), yearling weight 80.1 pounds (goal not met), marbling score 0.15 (goal met) and rib-eye area 0.88 square inch (goal met).

As the 2014 breeding season approaches, the center has retained one of the 2012 bulls and replaced the rest of the bulls with four bulls that were born in 2013. Current herd bull averages for birth weight are 2.2 pounds (goal met), weaning weight 78 pounds (goal met), yearling weight 109.9 pounds (goal met), marbling score 0.07 (goal not met) and rib-eye area 0.99 square inch (goal met).

These current sires are reflective of a desire to meet the center's goals but also the reality of buying bulls. A review of the EPD values reveals that the center has increased birth weight slightly while increasing weaning and yearling weight significantly.

Unfortunately, along with the increased growth in the current sires, marbling decreased but rib-eye area increased. Three traits moved in the right direction but one did not. Birth weight changed but, arguably, not in the right direction (it went up). However, it remained at the breed average and is acceptable.

Marbling will need to be improved in the future. The current Simmental bull pen should provide the genetics to fit the cows that are in the center's traditional medium- to large-framed cow herd.

The center expects cows to fend for themselves at calving, so there is the desire for low birth weight. They also are expected to bring home growth-orientated calves that fit industry expectations in the fall, so, therefore, the desire for increased growth EPDs and good carcass merit.

Mission almost accomplished.

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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