



# BeefTalk: EPD Accuracy – Possible Changing Values

**As we come to look at the progeny of a bull, we want the best estimate of the bull's future performance.**

By Kris Ringwall, Beef Specialist

NDSU Extension Service

We would like to live in an absolute world, so accuracy is very important. We ask questions to affirm our decisions.

How many times have we been asked in a conversation to provide an answer to a question? What will be the price of calves next fall? What will the price of corn be next month? Should I sell cows today or tomorrow? Who will win the presidential election?

The absolute answer to these questions is unknown. We speculate based on predictions of anticipated outcomes, sometimes correctly and other times incorrectly.

We do place some level of confidence in market forecasts and are attentive to statistics that indicate trends. Oftentimes, we miss the notation that indicates what level of error we can expect based on the data evaluated.

The same is true with expected progeny differences (EPD) and selecting bulls based on EPDs. Often, the concept of weight has been discussed and the question asked as to what a bull weighs.

If we weigh a bull, we get an estimate of the bull's weight, which is determined by the process we use. A simple individual weight will vary by time of day and feed, drinking, exercise or even playtime, so we take that estimate of the bull's weight as the best available.

As we come to look at the performance of the progeny of that bull, we want the best estimate of the bull's future performance. In response, the industry developed the process of EPD. This number, the EPD, is utilized for sire selection around the country and world.

For most of us, we really never will understand all the mathematical processes that lead to the numbers we view in sale catalogs, but that does not stop us from asking what bull would work best for our operation and beef performance goals. The answer is to pick the bull with the EPD that fits your needs, but the answer will not be absolute.

So, one should take time to read the EPD possible change table published in breed association sire summaries. Click on the American Angus Association Web site (<http://www.angus.org/>) and find the performance page. Then take a look at the possible change table. The concept is fairly straightforward.

For instance, refer to the "Spring 2008 Pasture to Plate Genetics" publication by ABS Global Inc. ABS is one of several companies that market cattle genetics and lists several breeds.

On page 38, one can glance through the ABS bulls and quickly locate the bull named Objective with a weaning weight EPD of plus 71 and an accuracy rate of .95. The bull named Objective 7125 has a weaning weight EPD of plus 68 and an accuracy of .24.

## Images

The thumbnail shows a table with columns for 'Bull', 'Weaning EPD', 'Accuracy', and 'Year-EPD'. It lists two bulls: 'Objective 7125' and 'Objective 7125'. The table is partially obscured by a blue border.

Differences in High and Low Accuracy Bulls

If you turn to the possible change table for the bull Objective on the American Angus Association Web site, one would say, based on the wording from the Web site, the true progeny value for weaning weight EPD would fall within .6 pound (plus or minus) from the printed value of plus 71 pounds about two-thirds of the time.

For Objective 7125, the true progeny value for weaning weight EPD would fall within 8.8 pounds (plus or minus) from the printed value of plus 68 pounds about two-thirds of the time.

This is not absolute, but the predicted value is a darn good estimate that Objective's true weaning weight EPD is somewhere between plus 70.4 pounds to plus 71.6 pounds. Objective 7125 has a true weaning weight EPD somewhere between plus 59.2 and plus 76.8 pounds.

Well, now you know the answer at least two-thirds of the time. That actually is pretty good and beats the error rate estimating progeny weaning weight using the human eye.

Good luck with your sire selection.

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.

---

NDSU Agriculture Communication

**Source:** Kris Ringwall, (701) 483-2348, ext. 103, [kris.ringwall@ndsu.edu](mailto:kris.ringwall@ndsu.edu)

**Editor:** Rich Mattern, (701) 231-6136, [richard.mattern@ndsu.edu](mailto:richard.mattern@ndsu.edu)

Attachments



PDF - Differences in High and Low Accuracy Bulls  
(bt031308.pdf - 21.24 Kb)



EPS - Differences in High and Low Accuracy Bulls  
(bt031308.eps - 226.66 Kb)