



Angus Stakes

► by *Shauna Rose Hermel*, editor

A look at birth weight using AB-EPDs

Curiosity got the best of me. I just had to do this comparison.

A means of comparison

Larry Cundiff and Dale Van Vleck of the Roman L. Hruska U.S. Meat Animal Research Center (MARC), Clay Center, Neb., presented the latest adjustment factors for calculating across-breed expected progeny differences (AB-EPDs) at the Beef Improvement Federation (BIF) annual meeting in Lexington, Ky., this past summer (see Table 1).

In the report Cundiff and Van Vleck point out, "Animals of different breeds can be compared on the same EPD scale after adding the appropriate adjustment factor to expected progeny differences (EPDs) produced in the most recent genetic evaluations for each of the 17 breeds." As part of their report, they also provided the 2001 nonparent average EPDs of the 17 breeds.

In Table 1, I have applied the AB-EPD adjustment factors for birth weight (BW) to the 2001 nonparent average EPDs to arrive at an AB-BW EPD breed average, which should be comparable. In other words, an Angus bull with a breed average AB-BW EPD of 2.6 would be expected to sire calves 4.1 pounds (lb.) lighter at birth, on average, than a Gelbvieh bull with a breed average AB-BW

EPD of 6.7 (6.7-2.6=4.1).

It can be difficult to get commercial cattlemen to look at Angus bulls with above-average BW EPDs for their growth potential, yet they'll accept heavier comparable BW EPDs from other breeds to get growth. Table 2 shows the within-breed BW EPDs that would be equivalent to three example Angus BW EPDs — the Angus 2001 nonparent breed average (yellow column), an Angus 4.0 (blue) and an Angus 6.0 (green). So, if you were looking at the Hereford sire summary, a 0.7 BW EPD would equate to an Angus 4.0 BW EPD, according to the research.

Using the American-International Charolais Association's online sire search, I found only 12 bulls with BW EPDs below -6.5 (equivalent to Angus 4.0) with greater than .50 accuracy. In the Simmental database, a -2.4 BW EPD would fall in the top 1% of the nonparent bulls in the breed.

The AB-EPD adjustments for other growth traits are downloadable from the newsroom at www.bifconference.com.

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Table 1: Comparing breed average BW EPDs using the AB-EPD adjustment values

Breed	Within-breed BW EPD avg.*	Adjustment for AB-EPD*	Breed avg. adjusted to AB-BW EPD
Angus	2.6	0.0	2.6
Hereford	3.8	3.3	7.1
Red Angus	0.5	3.6	4.1
Shorthorn	1.8	7.8	9.6
S. Devon	0.0	6.7	6.7
Brahman	1.9	13.0	14.9
Limousin	1.3	5.8	7.1
Simmental	3.1	6.4	9.5
Charolais	1.5	10.5	12.0
Gelbvieh	1.4	5.3	6.7
Maine Anjou	3.2	6.6	9.8
Salers	1.3	5.1	6.4
Pinzgauer	-0.1	7.7	7.6
Tarentaise	2.2	3.6	5.8
Braunvieh	1.1	6.6	7.7
Brangus	2.0	5.7	7.7
Beefmaster	0.5	9.9	10.4

*AB-EPD adjustment values and 2001 average nonparent EPDs for 17 breeds, as presented by Larry Cundiff at the 2003 BIF meeting.

Table 2: Within-breed EPD equivalents to Angus EPDs of 2.6, 4.0 and 6.0*

Breed	Angus 2.6	Angus 4.0	Angus 6.0
Hereford	-0.7	0.7	2.7
Red Angus	-1.0	0.4	2.4
Shorthorn	-5.2	-3.8	-1.8
S. Devon	-4.1	-2.7	-0.7
Brahman	-10.4	-9.0	-7.0
Limousin	-3.2	-1.8	0.2
Simmental	-3.8	-2.4	-0.4
Charolais	-7.9	-6.5	-4.5
Gelbvieh	-2.7	-1.3	0.7
Maine Anjou	-4.0	-2.6	-0.6
Salers	-2.5	-1.1	0.9
Pinzgauer	-5.1	-3.7	-1.7
Tarentaise	-1.0	0.4	2.4
Braunvieh	-4.0	-2.6	-0.6
Brangus	-3.1	-1.7	0.3
Beefmaster	-7.3	-5.9	-3.9

* Adding the AB-EPD adjustment (center column, Table 1) to the within-breed values in this table would put them on an equivalent basis with the Angus value. All figures within a column equate to the same AB-BW EPD.

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