

# Pure milk epd: fact or fiction?

By Roy Wallace  
Select Sires Inc.

The evaluation of progeny data utilizing the Reduced Animal Model produced the first Angus Sire Summary that could separate the maternal components. These maternal components are *Growth* and *Pure Milk*. There has been much discussion concerning whether the Pure Milk EPD on young sires that do not have daughters in production should be reported.

Many individuals stated that because of the great inaccuracies of the data, it should not be printed since it might influence breeders' decisions as to which bulls to use. The Board of Directors of the American Angus Assn. removed from the 1986 Sire Summary data on bulls that did not have an accuracy value of .50 or higher. The 1987 Angus Sire Summary, however, did include Milk EPD for all sires.

Many breeders ask me, "if a young bull has an accuracy of .20 why should the data be printed?"

After much discussion and thought, I felt we needed to take a look at the projected EPD and see how it compared to the actual EPD, once it became available. This was accomplished by looking at the EPD on all bulls with high accuracy values for Milk and then looking at their Pure Milk EPD projection resulting from data on their sire and their dam. My procedure was as follows:

I requested from the American Angus Assn., Performance Pedigrees on all bulls in the main report with accuracy values of .70 or higher for Pure Milk. The reason for this was that these bulls would have a large number of daughters in production and at .70 accuracy, much of the pedigree value is washed out of the data. I then went through the Performance

Pedigrees and calculated a projected EPD for Pure Milk on all of the bulls. This was accomplished by taking their sire's EPD and their dam's EPD, adding them together and dividing them by two. If the sire or dam did not have an EPD for Pure Milk, I did not include them in the evaluation.

## What do results reveal?

Initial observation revealed there were 257 bulls in the 1987 Sire Summary for which projected EPD could be established and whose actual EPD had accuracy values of .70 or higher for Milk. In analyzing what happened to these bulls from their original projections, I discovered that of the 257 bulls, 82 went up from the original projections and 175 went down from original projections.

The standard error figure for young non-parent bulls with an accuracy of .20 is  $\pm 7$  pounds. One hundred ninety-three bulls fell within 1 *Standard Error* of their projection or within  $\pm 7$  pounds. Fifty bulls fell within 2 *Standard Errors* or  $\pm 14$  pounds of their original projection. Fourteen bulls fell within 3 *Standard Errors* or  $\pm 21$  pounds of their original projection. Looking at the percentage break down of these 257 bulls, 75.2 percent were within 1 *Standard Error*, 19.4 percent were within 2 *Standard Errors* and 5.4 percent were within 3 *Standard Errors*. The average Milk EPD of 257 bulls was + 1.74 pounds and their actual progeny data was - 1.25 pounds. Of these 257 bulls, 117 were sired by minus sires for Milk and 71 bulls had minus dams for Milk.

Breaking down and grouping the bulls into five-pound groups and comparing

their original projections to their proven EPD values, there were 13 bulls with a projected EPD of + 10 pounds or higher. The original projection of these bulls was + 13.3 pounds. They ended up having progeny data of + 11.98 pounds and none of these bulls were below 0 pounds for Pure Milk.

The next group of bulls had projected EPDs of +5 pounds to +9.9 pounds. There were 53 of these bulls and their original projection was +7.06 pounds, and ended up having progeny data of + 6.67 pounds for Milk. Forty-six of these bulls were above 0 pounds and seven were below 0 pounds for Milk. Eighty-seven percent of them were above 0 pounds and 13 percent were below 0 pounds for Milk.

The next group was for 0 to 4.99 pounds. There were 110 bulls in this group. Their original projection was + 2.16 pounds and after they were progeny tested they averaged + .05 pounds. Fifty-two of the bulls were above 0 pounds and 58 of the bulls were below 0 pounds which resulted in 47 percent being plus bulls and 53 percent minus bulls.

The next group went from -4.9 to 0 pounds on projection. There were 50 bulls in this group. Their original projection was - 2.31 pounds for Milk and their progeny data indicated them to be - 8.36 pounds for Milk. Forty-six of these bulls were below 0 pounds and four were above 0 pounds. Ninety-two percent of this group were minus and eight percent were plus for Milk.

The last group were the bulls that projected EPD for Milk of -5 pounds or lower. This group averaged - 7.70 pounds projected and their progeny data was - 14.10 pounds. All of these bulls, or 100 percent, were below 0 pounds for Milk. The following table summarizes the above data.

After spending a number of hours putting together and analyzing this data, an individual soon realizes that the Pure Milk EPD projections for young bulls are very accurate. This reveals to me one important fact when it comes to sire selection: breeders can utilize young sire data with pedigree projections for Milk and do so with a great deal of confidence in the ultimate results.



Group	No. of Bulls	Projected EPD	Actual EPD	% Above 0	% Below 0
+ 10 or higher	13	+ 13.30	+ 11.98	100	0
+5 to +9.9	53	+ 7.06	+ 6.67	87	13
0 to +4.99	110	+ 2.16	+ .05	47	53
-4.9 to 0	50	- 2.31	- 8.36	8	92
-5.0 or lower	27	- 7.70	- 14.10	0	100