

Expected Progeny Differences (EPDs)

Statistics generated for individual cattle through national genetic evaluations.

EPDs:

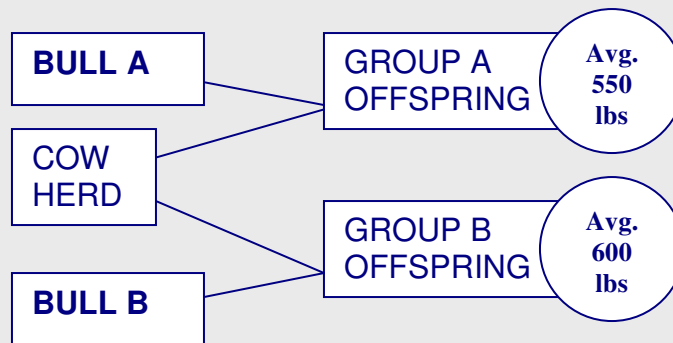
- ~ allow breeders to estimate an animal's value as a parent
- ~ allow a fair comparison of breeding value by removing environmental bias such as climate, feed and special management
- ~ help breeders make informed decisions regarding breeding stock selection by evaluating numerous traits including growth-related traits (BW, WW, YW, Milk), carcass (REA, FAT, %IMF, etc.) and reproductive efficiency (CE, MCE, SC)
- ~ estimate the average calf performance of one parent compared to the average calf performance of another parent, **assuming similar mates**

EPDs are an indication of how an animal's calves will perform on average compared to another animal's calves.

For example, if Bull A (weaning weight EPD of +10) and Bull B (WW of +60) were randomly mated with ten similar cows, we would expect the group average weaning weight of Bull A's offspring to be 50 lbs lighter than that of Bull B's (60-10=50).

Calf	A	B
1	500	400
2	510	450
3	520	500
4	530	550
5	540	600
6	560	600
7	570	650
8	580	700
9	590	750
10	600	800
Avg.	550	600

Note that not all calves from Bull B have a higher weaning weight, but the average is 50 lbs higher.



Accuracy – reflects the reliability of the EPD value. High accuracy values (>.70) mean the EPD value is closer to the true breeding value than an EPD value with a lower accuracy (<.20).

EPD averages for 2009-born Black Angus calves	
BW	+3.0
WW	+40
YW	+71
Milk	+17
TM	+37
CE	+1.0
MCE	+4.0
SC	+0.38
REA	+0.06
FAT	+0.010
MARB	+0.17

Tool for evaluating animals include EPDs, pedigree information, DNA test information, and visual assessment.