

2020 SIRE-BREED COMPARISONS FOR EPD TRAITS

The tables below contain comparisons among breeds based on reports by the U. S. Meat Animal Research Center (MARC), Clay Center, Nebraska. **These estimates apply under conditions similar to those at the Center.** Calves at MARC are weaned in the fall so the post-weaning feeding period is over winter. This probably depresses yearling weight of Bos indicus-derivative breeds relative to British and Continental breeds.

The base of comparison is Angus breed average. As an example, compared to breed-average Angus sires, breed-average Charolais are predicted to sire progeny averaging 5.1 lb heavier at birth, 2 lb heavier at weaning, 26 lb lighter at yearling, 0.83 degrees lower in marbling, 0.89 square inch larger ribeye, and 0.20 inch lower in fat cover; Charolais-sired daughters would be predicted to wean calves 6 lb lighter through maternal ability, compared to Angus-sired daughters, as predicted by differences in Milk EPD. For sires where Angus is not involved, the two relevant breed factors are compared. So, relative to breed-average Charolais sires, breed-average Simmental sires would be predicted to sire calves averaging 2.8 lb (5.1-2.3) lighter at birth, the same (2-2) at weaning, 9 lb (26 - 17) heavier at yearling, 0.20 degrees (0.83 - 0.63) higher in marbling, 0.14 square inches (0.89 - 0.75) lower in ribeye area, and 0.03 in. (0.20 - 17) higher in fat thickness; Simmental-sired daughters would be predicted to wean calves 3 lb (6 -3) heavier than Charolais-sired daughters, as predicted by differences in Milk EPD.

NOTE: These are **breed-average** comparisons for **sire effects only**. For total comparisons between purebreds, in order to include both sire and dam effect, the differences shown below should be doubled.

Other EPD values calculated by some breeds (but for which no MARC adjustments are determined) include various combinations (depending on the breed) of calving ease, heifer pregnancy, 30-month pregnancy, gestation length, days to calving, scrotal circumference, yearling hip height, mature weight, dry matter intake, mature cow maintenance, residual ADG (feed efficiency), mature height, docility, stayability (longevity in the herd), carcass weight, USDA Yield Grade or % retail product (percent lean), tenderness, and \$ Value Indexes. For a complete breed genetic evaluation report, contact the particular breed association or their website.

Registry association EPD breed averages can be seen at (<http://beef.tamu.edu>) in the list of publications under “Genetics & Selection”. Look for “2020 Breed Averages for EPD Traits”. Factors to adjust EPDs for comparison of **individuals** of different breeds, also based on U. S. Meat Animal Research Center studies, can be found in another publication on the above website, “2020 Across-Breed EPD Adjustments.”

SIRE BREED COMPARISONS FOR EPD TRAITS

Breed	Birth Weight	Weaning Weight	Yearling Weight	Milk	Marbling	REA	Fat
Angus	base	base	base	base	base	base	base
Beefmaster	+1.82	-8	-57	-11			
Brahman	+9.9	+15	-55	-4			
Brangus	+2.5	-17	-48	-1			
Braunvieh	+3.6	-28	-76	+7	-0.68	+0.95	-0.21
Charolais	+5.1	+2	-26	-6	-0.83	+0.89	-0.20
Chiangus	+3.2	-33	-72	-6	-0.72	+0.30	-0.15
Gelbvieh	+1.8	-1	-20	+3	-0.88	+0.74	-0.14
Hereford	+2.5	-22	-69	-13	-0.86	-0.19	-0.07
Limousin	+2.0	-2	-40	-8	-0.76	+1.01	-0.14
MaineAnjou	+1.5	-42	-102	-14	-1.01	+0.73	-0.21
Red Angus	-0.7	-20	-47	+2	-0.31	-0.12	-0.03
Salers	+0.9	-19	-55	0	-0.99	+0.61	-0.15
Santa Gertrudis	+3.9	-11	-59	-6	-1.06	-0.26	-0.08
Shorthorn	+4.2	-47	-79	-6	-0.75	+0.05	-0.13
Simmental	+2.3	+2	-17	-3	-0.63	+0.75	-0.17
South Devon	+2.9	-29	-77	-4	-0.75	+0.05	-0.13
Tarentaise	+1.5	-15	-84	-13			

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