

Understanding Calving Ease Direct EBVs

Calving Ease Dir (%)	Calving Ease Dtrs (%)	Gestation Length (days)	Birth Weight (kg)	Days to Calving (days)	Carcass Wt. (kg)	Eye Muscle Area (sq. cm)	Rib Fat (mm)	Rump Fat (mm)	Retail Beef Yield (%)	IMF (%)	NFI-P (kg/day)	NFI-F (kg/day)	Docility	Angus Breeding Index	Domestic Index	Heavy Grain Index	Heavy Grass Index
+4.6 99%	+6.1 97%	-5.2 99%	+4.0 99%	-3.1 98%	+42 98%	+4.1 98%	+1.7 98%	+2.0 98%	-0.7 98%	+1.3 98%	+0.35 96%	+1.05 96%	+25 90%	+\$ 77	+\$ 88	+\$ 65	+\$ 83
+3.2 98%	+2.0 96%	-9.8 99%	+1.7 98%	-6.7 96%	+21 98%	+4.9 98%	+1.3 98%	+1.2 98%	+0.2 98%	+2.7 98%	+0.03 93%	-0.13 93%	+13 95%	+\$ 127	+\$ 113	+\$ 139	+\$ 119
+0.7 98%	-2.9 96%	-0.3 99%	+2.8 99%	-5.1 97%	+0.8 98%	+4.1 98%	+1.7 98%	+2.0 98%	-0.7 98%	+1.3 98%	+0.81 95%	+1.36 95%	+6 96%	+\$ 105	+\$ 96	+\$ 120	+\$ 97
+1.0 98%	+1.3 94%	-5.0 99%	+3.6 99%	+39 99%	+79 99%	+104 99%	+76 99%	+30 99%	+3.4 98%	-5.4 98%	+0.36 92%	+0.40 92%	+34 99%	+\$ 139	+\$ 120	+\$ 165	+\$ 126
+5.9 98%	+6.2 93%	-5.2 99%	+4.7 99%	+5.1 99%	+127 99%	+127 99%	+127 99%	+127 99%	+127 99%	+127 99%	+0.24 91%	+0.45 91%	-7 99%	+\$ 164	+\$ 132	+\$ 194	+\$ 144
+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%	+3.3 98%

Calving Ease Direct EBVs are estimates of genetic differences in the ability of a sire's calves to be born unassisted from 2 year old heifers.

Higher Calving Ease Direct EBVs indicate the animal is expected to produce fewer calving difficulties in 2 year old heifers.

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Calving Ease Direct EBVs are calculated from calving difficulty scores, birth weights and gestation length information, and/ or genomic information where available. They are expressed as differences in the percentage of calves that will be born unassisted.

Higher Calving Ease Direct EBVs indicate an animal is expected to produce fewer calving difficulties in 2 year old heifers (i.e. greater calving ease).

Using Calving Ease Direct EBVs to Compare the Genetics of Two Animals

Calving Ease Direct EBVs can be used to estimate the difference in the percentage of calves that will be born unassisted when two sires are joined to 2 year old heifers, with the expected difference equating to half the difference in the Calving Ease Direct EBVs of the sires, all other things being equal (e.g. they are joined to the same animal/s).

For example, a bull with a Calving Ease Direct EBV of +5.0 would be expected to produce on average, 3% fewer calving difficulties from 2 year old heifers than a bull with a Calving Ease Direct EBV of -1.0 (i.e. 6% difference between sires, then halved as the sire only contributes half the genetics).

Using Calving Ease Direct EBVs to Benchmark an Animal's Genetics with the Breed

Similarly, Calving Ease Direct EBVs can be used to benchmark an animal's genetics for calving ease relative to other Angus animals in Australia and New Zealand.

To benchmark an animal's genetics relative to other Angus animals, an animal's Calving Ease Direct EBV can be compared to:

- the breed average EBV
- the percentile table

The current breed average and percentile table for Calving Ease Direct can be found on the Angus Australia website, or they are normally listed in most BREEDPLAN reports, sale and semen catalogues.

Considering Accuracy

An accuracy value is published in association with each Calving Ease Direct EBV, which is usually displayed as a percentage value immediately below the EBV.

The accuracy value provides an indication of the reliability of the EBV in estimating the animal's genetics for calving ease (or true breeding value), and is an indication of the amount of information that has been used in the calculation of the EBV.

Calving Ease Direct EBVs with accuracy values below 50% should be considered as preliminary or of low accuracy, 50-74% as of medium accuracy, 75-90% of medium to high accuracy, and 90% or greater as high accuracy.

For further information, please contact staff at:

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