



# Understanding Birth Weight EBVs

Calving Ease Dir (%)	Calving Ease Dtrs (%)	Gestation Length (days)	Birth Wt. (kg)	200 Day Wt. (kg)	400 Day 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%	+2.1 99%	+28 99%	+55 99%	+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%	+2.2 99%	+40 99%	+74 99%	+4.9 97%	+1.3 98%	+1.2 98%	+0.2 97%	+2.7 97%	+0.03 93%	-0.13 93%	+13 95%	+\$ 127	+\$ 113	+\$ 139	+\$ 119					
+0.7 98%	-2.9 96%	-0.3 99%	+3.1 99%	+29 99%	+63 99%	+6.0 99%	+1.8 99%	+2.8 96%	-5.1 98%	+26 98%	+3.5 98%	+1.3 98%	+2.1 98%	-1.1 98%	+3.6 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%	+9.9 99%	+18 99%	+123 99%	+142 99%	+10 99%	+0.4 98%	+4.0 97%	+0.36 92%	+0.40 92%	+34 99%	+\$ 139	+\$ 120	+\$ 165	+\$ 126	
+5.9 98%	+6.2 93%	-9.9 99%	+3.2 99%	+51 99%	+93 99%	+123 99%	+142 99%	+10 98%	+0.5 98%	+3.2 97%	+0.24 91%	+0.45 91%	-7 99%	+\$ 164	+\$ 132	+\$ 194	+\$ 144					
+3.3 98%	+3.3 98%	-3.3 99%	+4.7 99%	+5 99%	+127 99%	+127 99%	+127 99%	+127 99%	+127 99%	+127 99%	+127 99%	+127 99%	+127 99%	+7 99%	+7 99%	+7 99%	+7 99%					

Birth Weight EBVs are estimates of genetic differences between animals in calf weight at birth.

Lower Birth Weight EBVs indicate the animal is expected to produce progeny with lighter birth weight.

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### Using Birth Weight EBVs to Compare the Genetics of Two Animals

Birth Weight EBVs can be used to estimate the difference in the birth weight of progeny from two animals, with the expected difference equating to half the difference in the Birth Weight EBV of the animals, all other things being equal (e.g. they are joined to the same animal/s).

For example, a bull with a Birth Weight EBV of +2.0 would be expected to produce calves that are on average, 2 kg lighter at birth than a bull with a Birth Weight EBV of +6.0 (i.e. 4 kg difference between the sire's EBVs, then halved as the sire only contributes half the genetics).

### Using Birth Weight EBVs to Benchmark an Animal's Genetics with the Breed

Similarly, Birth Weight EBVs can be used to benchmark an animal's genetics for birth weight relative to other Angus

animals in Australia and New Zealand.

To benchmark an animal's genetics relative to other Angus animals, an animal's Birth Weight EBV can be compared to:

- the breed average EBV
- the percentile table

The current breed average and percentile table for Birth Weight 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 Birth Weight 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 Birth Weight (or true breeding value), and is an indication of the amount of information that has been used in the calculation of the EBV.

Birth Weight 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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