



# A BRIEF DESCRIPTION OF **EBVS** & **\$INDEX VALUES**

The following is a brief description of Angus GROUP BREEDPLAN EBVs and Breedobject \$Index Values and Accuracies. For a more detailed explanation of these please refer to the Angus Society of Australia web site (<http://www.angusaustralia.com.au>).

Angus GROUP BREEDPLAN is an advanced genetic evaluation system that provides a genetic description of Angus cattle for a comprehensive range of traits influencing fertility, growth and carcase performance. It provides predictions of the genetic merit of individual animals called Estimated Breeding Values (EBVs). EBVs are based on all available pedigree and performance records provided by breeders in Australia and New Zealand, along with available overseas genetic information.

EBVs are expressed in the units of measurement for each particular trait, and are shown as +ive or -ive differences from the breed base. The average EBV for different traits changes over time as the breed makes genetic progress.

The averages for calves born in 2009 are shown below. These averages provide a useful benchmark for comparisons of EBVs for individual animals.

## JULY 2011 ANGUS GROUP BREEDPLAN AVERAGE EBVS FOR ALL 2009 DROP CALVES

Calving Ease Direct	Calving Ease Dtrs	Gestation Length (days)	Birth Wt (kg)	200-Day Wt (kg)	400-Day Wt (kg)	600-Day Wt (kg)	Mature Cow Wt (kg)	Milk (kg)
+0.0	+0.3	-2.6	+4.6	+37	+69	+89	+81	+12

Scrotal Size (cm)	Days to Calving	Carcase Wt (kg)	EMA (sq cm)	Rib Fat (mm)	Rump Fat (mm)	Retail Beef Yield %	Intra-Muscular Fat %
+1.3	-2.7	+49	+3.0	-0.1	+0.1	+0.2	+0.9

## JULY 2011 AVERAGE BREED \$INDEX VALUES FOR ALL 2009 DROP CALVES

LONG FED/CAAB INDEX (\$)	HEAVY GRASS FED STEER INDEX (\$)	SHORT FED DOMESTIC INDEX (\$)	TERMINAL INDEX (\$)
\$90	\$73	\$65	\$66



**ACCURACY (%)**

Provides an indication of the reliability of an EBV. As more performance information becomes available on an animal (or its progeny, or relatives) then the accuracy of its EBVs for particular traits will increase. See Understanding Accuracies ([http://www.angusaustralia.com.au/BP\\_Understanding\\_Accu.htm](http://www.angusaustralia.com.au/BP_Understanding_Accu.htm)) for a more detailed explanation.

**TRAITS OBSERVED**

Indicates those traits that have been recorded and are contributing to the EBVs calculated for an animal. (These should appear directly below the table displaying the animals EBV's).

**CALVING EASE DIR (%)**

Estimates of the genetic differences between animals in the ability of their calves from 2 year old heifers to be delivered without assistance.

**CALVING EASE DTRS (%)**

Estimates of the genetic differences between animals in the ability of their 2 year old daughters to calve without assistance.

**GESTATION LENGTH (DAYS)**

Estimates of the genetic differences between animals in the number of days from the date of conception to the calf birth date.

**BIRTH WT (KG)**

Estimates of the genetic differences between animals in calf birth weight.

**200-DAY WT (KG)**

Estimates of the genetic differences between animals in liveweight at 200 days of age.

**400-DAY WT (KG)**

Estimates of the genetic differences between animals in liveweight at 400 days of age.

**600-DAY WT (KG)**

Estimates of the genetic differences between animals in liveweight at 600 days of age.

**MATURE COW WEIGHT (KG)**

Estimates of the genetic differences between animals in cow weight at 5 years of age.

**MILK (KG)**

Estimates of the genetic differences between animals in milk production, expressed as variation in 200-day weight of daughter's calves.

**SCROTAL SIZE (CM)**

Estimates of the genetic differences between animals in scrotal circumference at 400 days of age.

**DAYS TO CALVING**

Estimates of the genetic differences in female fertility, expressed as the number of days from the start of the joining period until subsequent calving.

**CARCASE WEIGHT (KG)**

Estimates of the genetic differences between animals in carcase weight, adjusted to 650 days of age.

**EYE MUSCLE AREA (CM<sup>2</sup>)**

Estimates of the genetic differences between animals in eye muscle area at the 12/13th rib site, in a 300kg carcase.

**RIB FAT (MM)**

Estimates of the genetic differences between animals in fat depth at the 12/13th rib site, in a 300 kg carcase.

**RUMP FAT (MM)**

Estimates of the genetic differences between animals in fat depth at the P8 rump site, in a 300kg carcase.

**RETAIL BEEF YIELD % (RBY%)**

Estimates of the genetic differences between animals in percentage retail beef yield, in a 300kg carcase.

**INTRA-MUSCULAR FAT % (IMF%)**

Estimates of the genetic differences between animals in percentage intra-muscular fat (marbling) at the 12/13th rib site, in a 300 kg carcase.

**NET FEED INTAKE TRAIL (KG/DAY)**

Estimates of the genetic differences between animals for feed efficiency.

For a more detailed explanation of Group BREEDPLAN EBV's and Accuracies, please refer to Understanding EBVs ([http://www.angusaustralia.com.au/BP\\_Understanding\\_EBVs.htm](http://www.angusaustralia.com.au/BP_Understanding_EBVs.htm)) and Understanding Accuracies ([http://www.angusaustralia.com.au/BP\\_Understanding\\_Accu.htm](http://www.angusaustralia.com.au/BP_Understanding_Accu.htm)).

**LONG FED / CERTIFIED AUSTRALIAN ANGUS BEEF \$ INDEX**

based on a high fertility self replacing commercial Angus herd where steers are grown out to be long fed for the high quality, high marbled Japanese export market. Selection of animals using this index will increase IMF % of your herd, and emphasis is also placed on 600 day growth.

**SHORT FED DOMESTIC \$ INDEX**

based on a high fertility self replacing Angus herd selling feeder steers and heifers for the short fed domestic feedlot trade. Emphasis is placed on growth to 400 days and high carcase yield while maintaining fertility and marbling.

**HEAVY GRASS FED STEER \$ INDEX**

based on a self replacing herd that sells heavy grass fed steers for markets like the EU and light grass fed Jap Ox. Emphasis is on growth and carcase yield while maintaining fertility and marbling.

**Terminal \$ Index**

for herds where no animals are kept for breeding. For example using Angus bulls over dairy cross cows for vealer production or over tropical cows with steers and heifers grown out for short feeding. Emphasis is on growth and carcase yield with no weighting placed on calving ease, female fertility or milk.

NB. Actual \$Index Values for individual animals are sensitive to the assumptions used in the BREEDOBJECT analysis used to calculate the selection index. Please refer See Understanding \$Index Values ([http://www.angusaustralia.com.au/BP\\_Understanding\\_Index.htm](http://www.angusaustralia.com.au/BP_Understanding_Index.htm)) for a more detailed explanation. NB. EBVs and \$Index Values are calculated using software developed by the Animal Genetics and Breeding Unit (AGBU), a joint institute of NSW Agriculture and The University of New England. Ongoing research and development at AGBU is supported by funding provided by Meat and Livestock Australia.

**FOR MORE INFORMATION PLEASE CONTACT:**

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