



A BRIEF DESCRIPTION OF EBVS AND \$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 2006 are shown below. These averages provide a useful benchmark for comparisons of EBVs for individual animals.



January 2008 ANGUS GROUP BREEDPLAN AVERAGE EBVs FOR ALL 2006 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	+0.1	-2.1	+4.3	+33	+62	+79	+74	+11
Days to Calving	Scrotal Size (cm)	Carcase Wt (kg)	EMA (sq cm)	Rib Fat (mm)	Rump Fat (mm)	Retail Beef Yield%	Intra-Muscular Fat %	Trail NFI-P (kg/day)
-1.6	+1.1	+42	+2.0	+0.1	-0.1	+0.3	+0.7	-0.01

January 2008 AVERAGE BREEDOBJECT \$INDEX VALUES FOR ALL 2006 BORN CALVES

Jap B3 Index (\$)	CAAB Index (\$)	Supermarket Index (\$)	Northern Terminal Index (\$)
\$68	\$53	\$48	\$47

ACCURACY (%) ~ Provides an indication of the reliability of an EBV. As more performance information becomes available on an animal (or it's progeny, or relatives) then the accuracy of it's EBVs for particular traits will increase. See Understanding Accuracies (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 EBV's 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 (CM²) ~ 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) and Understanding Accuracies (http://www.angusaustralia.com.au/BP_Understanding_Accu.htm).

JAPAN B3 INDEX (\$) ~ Estimates of the genetic differences between animals in net profitability per cow joined for an example commercial herd targeting the production of steers for the Japanese B3 market.

CAAB INDEX (\$) ~ Estimates of the genetic differences between animals in net profitability per cow joined for an example commercial herd targeting Certified Australian Angus Beef production.

SUPERMARKET INDEX (\$) ~ Estimates of the genetic differences between animals in net profitability per cow joined for an example commercial herd targeting the production of steers and heifers for the domestic supermarket trade.

NORTHERN TERMINAL INDEX (\$) ~ Estimates of the genetic differences between animals in net profitability per cow joined for an example commercial crossbred herd in northern Australia using Angus bulls over tropical adapted cows to produce terminal progeny to be grain fed for the Japanese B2 market.

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) 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:

The Angus Society of Australia Locked Bag 11, ARMIDALE NSW 2350

Phone: (02) 6772 3011 Fax: (02) 6772 3095

Email: office@angusaustralia.com.au Home Page: <http://www.angusaustralia.com.au>