



Interpreting BREEDPLAN EBVs

You are presented with a detailed set of BREEDPLAN EBVs for a particular animal.

How do you assess whether the EBVs are good or not?? This pamphlet provides a simple set of instructions regarding how to interpret this information.

For the purposes of demonstration, please consider the following set of EBVs for an individual animal.

	Gest. Length (Days)	Birth Weight (kg)	Milk (kg)	200 day Growth (kg)	400 day Growth (kg)	600 Day Growth (kg)	Mature Weight (kg)
EBV	+0.1	+3.4	+3	+17	+33	+41	+48
ACC	59%	65%	58%	73%	72%	72%	63%

1. What does the EBV mean?

EBVs are expressed as the difference between an individual animal's genetics and the genetic base to which the animal is compared. The "genetic base" can roughly be described as the historical genetic level of that particular breed. For most breeds, their genetic base will have been set in the mid 1990's. Importantly, the genetic base for each breed will be different, so only EBVs for animals within a particular analysis can be directly compared.

Therefore, in the above example, a 600-day weight EBV of +41 kg means the animal is 41 kg genetically heavier at 600 days compared with the genetic base of the relevant cattle population. On average, half of this difference will be passed on to the animal's progeny.

2. Compare with the current breed average

As most breeds have experienced significant changes in their genetic merit for most traits since the mid 1990's (i.e. their genetic base), the first step when interpreting an

EBV should be to compare it to the current breed average EBVs for the breed. This will give you an indication of how the animal compares with the current genetic level for the breed for each trait.

A set of breed average EBVs should be enclosed in all BREEDPLAN reports, sale catalogues etc. and will look similar to the table below

Breed average EBVs for 2007 drop calves in the 2009 GROUP BREEDPLAN analysis

Gest Length EBV	Birth Weight EBV	Milk EBV	200 Day Growth EBV	400 Day Growth EBV	600 Day Growth EBV	Mature Weight EBV
0.0	+2.2	+3	+13	+20	+30	+31

If we consider the animal in the above example, comparison of its 600-day weight EBV of +41 with the breed average 600-day weight EBV of +30 indicates that the animal is genetically superior than the current genetic level of the breed for growth to 600 days.

Taking this further, it can be calculated that the animal is actually 11 kg (ie. 41 -30) genetically heavier at 600 days compared with the current genetic level of the breed.