

## **Breedplan - A General Introduction**

### **What is BREEDPLAN?**

BREEDPLAN is a modern genetic evaluation system for beef cattle. It offers the potential to accelerate genetic progress, tighten up breeding operations, improve productivity and increase prices for cattle sold for breeding and slaughter.

BREEDPLAN has been implemented as the national beef recording scheme in Australia, New Zealand, Namibia, Thailand and the Philippines, and its use is also increasing in the United States, Canada, United Kingdom, Hungary, South America and South Africa.

BREEDPLAN uses the world's most advanced genetic evaluation system (based on Best Linear Unbiased Prediction (BLUP) technology) to produce Estimated Breeding Values (EBVs) of recorded cattle for a range of important production traits (eg. weight, carcass, fertility).

### **What is an EBV?**

An animal's breeding value can be defined as its genetic merit for each trait. While it is not possible to determine an animal's true breeding value, it is possible to estimate it. These estimates of an animal's true breeding value are called EBVs (Estimated Breeding Values).

EBVs are expressed as the difference between an individual animal's genetics and the genetic base to which the animal is compared. EBVs are reported in the units in which the measurements are taken (eg. kilograms for the weight EBVs). Thus a value of +12 kg for 400 day weight means the animal is genetically superior by 12 kg at 400 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.

### **What EBVs are available?**

BREEDPLAN produces EBVs for a range of economically important traits. These traits currently include:

<b>Weight</b>	<b>Fertility/Calving</b>	<b>Carcass</b>	<b>Other</b>
Birth Weight	Scrotal Size	Eye Muscle Area	Docility
Milk	Days to Calving	Fat Depth	Net Feed Intake*
200 Day Growth	Gestation Length	Retail Beef Yield	Structural Soundness*
400 Day Weight	Calving Ease	Intramuscular Fat	Flight Time*
600 Day Weight		Carcass Weight	
Mature Cow Weight		Shear Force*	

\* Trial EBV

It should be noted that EBVs will only be available if sufficient data has been recorded for that trait and as such, the full range of EBVs may not be available for each particular Breed Society/Association.