

## Indexes

When a breeding goal prioritises multiple traits, a selection index is applied to produce a single, combined Estimated Breeding Value (EBV) for the key traits in focus. For goat producers, the available index is Carcase Plus, which measures genetic variation between animals in systems where growth and carcase traits are important.

## Estimated Breeding Values

EBVs allow you to evaluate an animal's genetic potential for a range of traits that directly impact on the profitability of your goat production enterprise. KIDPLAN provides flexibility enabling goat breeders to concentrate on the traits considered important to their breeding objective and the requirements of their clients.

EBVs are available for the following production traits: growth/weight, carcase (fat and eye muscle depth), reproduction and worm egg counts allowing goat producers to maximise profits.

EBVs are calculated from an analysis of pedigree and performance information contained in the KIDPLAN database. EBVs accurately identify the value of an animal's genes by utilising three sources of information:

1. Performance measurements (including performance of all relatives)
2. Knowledge of environmental factors affecting performance
3. Knowledge of how strongly different traits are inherited (heritability)



## Live Weight Traits

- **Birth Weight (kg) BWT:** Estimates the genetic difference between animals in weight at birth.
- **Weaning Weight (kg) WWT:** Estimates the genetic difference between animals in liveweight at 100 days of age.
- **Maternal Weaning Weight (kg) MWWT:** MWWT EBVs are an estimate of the doe's potential for milk production and ability to provide a better maternal environment. They are expressed as kilograms of weight at weaning.
- **Post Weaning Weight (kg) PWT:** Estimates the genetic difference between animals in liveweight at 225 days of age.
- **Yearling Weight (kg) YWT:** Estimates the genetic difference between animals in liveweight at 360 days of age.
- **Hogget Weight (kg) HWT:** Estimates the genetic difference between animals in liveweight at 450 days of age.
- **Adult Weight (kg) AWT:** Estimates the genetic difference between animals in liveweight at 540 days of age.



# KIDPLAN EBV Definitions



## Worm Resistance

### Worm Egg Count WEC

This EBV describes the value of an animal's genes for carrying worm burdens - a combination of being genetically less likely to pick up worms and being able to cope immunologically with the worm burden.

- **Weaning WVEC:** estimates the genetic difference in worm burden at 100 days of age.
- **Post Weaning PWEC:** estimates the genetic difference in worm burden at 225 days of age.
- **Yearling YWEC:** estimates the genetic difference in worm burden at 360 days of age.



## Carcase Traits

### Eye Muscle Depth (mm) EMD

Estimates the genetic difference between animals in EMD at the C site.

- **Post Weaning PEMD:** estimates the genetic difference in EMD at the C site at 45kg liveweight.
- **Yearling YEMD:** estimates the genetic difference in EMD at the C site at 60kg liveweight.
- **Hogget HEMD:** estimates the genetic difference in EMD at the C site at 70kg liveweight.

### Fat Depth (mm) FAT

Estimates the genetic difference between animals in fat depth at the GR site.

- **Post Weaning PFAT:** estimates the genetic difference in GR fat depth at 45kg liveweight.
- **Yearling YFAT:** estimates the genetic difference in GR fat depth at 60kg liveweight.
- **Hogget HFAT:** estimates the genetic difference in GR fat depth at 70kg liveweight.

