



# Understanding MERINOSELECT ASBVs

- Australian Sheep Breeding Values (ASBVs) allow you to compare the genetic differences between rams.
- Rams contribute half of a lamb's genetics. Rams have the largest impact on genetic progress, as they have more progeny throughout their lifetime.
- ASBVs are based around 0. It is important to compare ASBVs against current industry percentiles, which can be found on the Sheep Genetics website.
- ASBVs are reported with an accuracy figure. The higher the accuracy, the more information there is contributing to the ASBV, and the closer it is to the true breeding value of the animal.
- ASBVs are reported with an age stage, shown as a letter at the beginning of a trait e.g. weaning weight is WWT.
- Indexes combine traits into a single ranking value to describe an animal's suitability for a given production system.

## How to interpret ASBVs

A selection index is an important tool to drive genetic improvement when there are a range of traits of economic or functional importance. Rams with higher indexes will produce lambs that are more suited to a particular production system.

Rams with a more positive ASBV for weight (WT) will produce lambs that grow faster and therefore reach target weights in a shorter period of time.

Rams with a positive ASBV for fat (FAT) will produce lambs that are fatter, at the same weight. This ram will produce lambs that are on average 0.5mm fatter at the GR site when compared with an ASBV of 0mm.

Rams with lower fibre diameter (FD) ASBVs will produce progeny that have finer wool. A ram that has an ASBV of  $-2.0\mu\text{m}$  will produce progeny that are 0.5 microns finer than a ram with an ASBV of  $-1.0\mu\text{m}$ .

Rams with a higher weaning rate (WR) will produce daughters who wean more lambs per ewe joined. A ram with a WR of 0.2 will produce daughters who wean 0.05 more lambs per ewe joined than a ram with an ASBV of 0.1.

INDEX	WT (kg)	EMD (mm)	FAT (mm)	CFW (%)	FD ( $\mu\text{m}$ )	WR	EBWR	WEC (%)
199.46	9.5	1	1	24	-2.0	0.2	-1.0	-40
ACC. 56	ACC. 70	ACC. 65	ACC. 63	ACC. 69	ACC. 70	ACC. 55	ACC. 70	ACC. 60

Rams with a more positive ASBV for eye muscle depth (EMD) produce lambs that have more muscle. A ram with an ASBV of 1mm will breed lambs with 0.5mm more eye muscle than a ram with an ASBV of 0mm.

Rams with a more negative ASBV for early breech wrinkle (EBWR) will produce lambs that have a plainer breech, therefore a lower ASBV tends to be more desirable. A ram with an EBWR of  $-1$  will produce lambs that are 0.5 score plainer than a ram with an ASBV of 0.

Rams with a higher clean fleece weight (CFW) will produce progeny that cut more wool. A ram with an ASBV of 24% will produce progeny that cut 4% more wool than the progeny of a ram with an ASBV of 16%.

Rams with a more negative worm egg count (WEC) ASBV will produce progeny that are more resistant to worm burdens. A ram with a WEC ASBV of  $-40\%$  will produce progeny that have 10% less worms compared to a ram with an ASBV of  $-20\%$ .

More information

02 8055 1818

info@sheepgenetics.org.au

sheepgenetics.org.au