

## **MMfS Sheep Genetics Update**

Sheep Genetics (SG) is the national genetic evaluation system for sheep, with LAMBPLAN covering terminal, maternal and dual purpose breeds, and MERINOSELECT covering Merinos. Sheep Genetics information is calculated from an analysis of pedigree and performance information contained in the Sheep Genetics database.

Commercial meat and wool producers can use LAMBPLAN or MERINOSELECT information provided by ram breeders to assist them with the choice of commercial flock sires. Sheep Genetics provides breeders and producers with information on the value of animals' genes in the form of Australian Sheep Breeding Values (ASBVs). You can use the ASBVs to identify the best rams or ewes that meet your breeding objective.

Sheep Genetics ASBVs describe genetic differences in production traits in livestock in simple, practical terms. Sheep Genetics delivers ASBVs for growth traits, fat and muscle depth; wool weight and quality traits; reproduction ability, milk production and internal parasite (worm) resistance. Recently Sheep Genetics has launched new ASBVs to help select for easy care sheep, being Lambing Ease and Early Breech Wrinkle.

### **LAMBING EASE**

Lambing ease has a major impact on the profitability of a flock. Every lamb counts in today's economic climate and lambing ease ASBVs will assist in eliminating lamb birthing difficulties and increasing the output of lamb per hectare. They will also help to reduce ewe losses, a significant long term profit driver of lamb production."

As lambing ease decreases, ewe and lamb mortality increases, which also increases additional labour requirements and veterinary expense. Though many large studies have consistently shown birth weight to be the most important genetic factor influencing lambing ease, there are also other aspects that need to be considered. For example, lamb shape, pelvic area and lambing "will" all play a role in lambing ease.

There is a 33 per cent difference in lambing ease between the best and worst terminal sires used in 2008, highlighting the large amount of genetic variation within the prime lamb industry

### **EARLY BREECH WRINKLE**

The first breech strike breeding value to be released is the Early Breech Wrinkle ASBV (EBWR). Breech wrinkle breeding values have been developed due to the large impact of the trait on breech strike, as well as being cheap and easy to score. Ongoing research will see the release of further breeding values for additional indicators of breech fly strike.

Wrinkle ASBVs have been developed by using breech and body wrinkle score data collected from MERINOSELECT subscriber flocks, Sire Evaluation sites, the Sheep CRC Information Nucleus and the AWI breech strike research flocks. Combining this data has meant that more accurate genetic parameters can be estimated, as well as the impact of non-genetic effects on its expression.

Breech wrinkle ASBVs are expressed as a deviation, with a more negative breeding value indicating less breech wrinkle.

For more information, contact Sheep Genetics at 02 6773 2948, [info@sheepgenetics.org.au](mailto:info@sheepgenetics.org.au) or [www.sheepgenetics.org.au](http://www.sheepgenetics.org.au)