**Queensland Government**

**Department of Agriculture and Fisheries**

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**All in the genes: Investing in better genetics lifts profits**

Buying a better performing ram could earn producers greater annual returns and equate to significant gains in overall enterprise income, according to a sheep and wool adviser.

Geoff Duddy from Sheep Solutions has been a guest presenter at Leading Sheep workshops in south western Queensland this year, advising on management strategies to minimise supplementary feeding, reduce production costs and boost income.

Leading Sheep is a proactive network of the state’s sheep and wool businesses with a goal of equipping progressive producers with knowledge, skills and the latest technology so they can increase their long-term productivity and profitability.

Leading Sheep is funded by Australian Wool Innovation and Department of Agriculture and Fisheries and supported by AgForce.

When it came to profit margins Mr Duddy said genetics, nutrition and management played a critical part in lamb growth and weight gains. It was these elements, he emphasised, that producers needed to focus on as they were readily influenced at a property level.

“Genetics are at the core of any livestock operation and in the case of sheep and wool operations, coupled with nutrition, they are the primary influences of speed of lamb turn off,” he explained.

“While wool cuts and quality are impacted by genetics and management if you want to improve reproduction rates you need to look at genetics, nutrition and management.”

Regardless of the market goal, the experienced adviser, who has more than 25 years in the industry, said producers could generally make money by investing in better genetics.

“Investing in quality genetics, for example buying in better performing rams based on Australian Sheep Breeding Values (ASBV) could easily equate to an extra $10 to $15 per lamb annually,” Mr Duddy said.

“Buying better genetics will always pay irrespective of whether producers feed or sell as stores or are targeting wool production.

“Selecting and buying a ram is among the most important commercial decisions a sheep breeder makes each year and has the potential to impact the genetic make-up and profitability of a sheep flock for decades.”

Mr Duddy said when it came to getting the decision right the first step for producers was to identify their enterprise goals and then select a minimum of two or three ASBVs to focus on when buying rams.

An ASBV is an estimate of the genetic potential a sheep will pass on to its progeny. ASBVs are available for a range of economically important traits, including wool and carcase breeding values for fleece weights and quality (strength, length, micron, CV etc), carcase growth, fat and muscling and worm resistance.

“Selection based on individual ASBVs and/or an Index ‘number’ that combines relevant traits into one simple value can be used to compare individual sheep. But keep in mind it is still important to do a visual examination of rams and select for structural and fleece traits suited to your environment and breeding program. Balancing the two selection methods is the key.”

He said the ASBV data was a powerful indicator of expected genetic outcomes and how sheep will perform in the paddock so it was important producers considered it in the selection process.

“ASBVs are a great tool for producers to help work out which ram has the best genes to pass on to progeny in your enterprise, but as well as selecting for their enterprise goal they also need to keep in mind their environmental conditions so it is a complex decision.”

Mr Duddy said extensive trials throughout the industry had proved the long-term value of selecting breeding stock based on ASBVs. ’Proof of Profit’ evaluations, downloadable from the Sheep Genetics Australia website, from throughout Australia have consistently shown that ASBV’s work in the real world.

“The clear message for producers is to select for ASBVs that will optimise productivity and that suit their own production system and goals,” Mr Duddy said.

“If for example a producer buys a ram with high post weaning weight values, lambs sired by that ram will be heavier at weaning, reach target weights earlier and/or be heavier at marketing, reducing production costs and increasing profit.”

Geoff Duddy, is a private sheep and wool consultant with Sheep Solutions and was a guest speaker at Leading Sheep workshops in south west Queensland.

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