Implications of ewe fatness

The high correlation between a ewe's body condition score and her fatness level as a young animal mean some careful thinking is required around genetic selection in this area, Australian geneticist Dr Dan Brown says.

Brown spoke to about 100 sheep breeders at this year's Beef + Lamb New Zealand Genetics sheep breeder forum, held in Napier recently. The annual forum is an opportunity for sheep breeders to interact directly with both B+LNZ Genetics and scientists undertaking work in the genetics space.

Brown is principal scientist at the Animal Genetics and Breeding Unit based in Armidale, Australia. The unit developed and supports the equivalent of this country's SIL sheep genetics service. He has been with the unit for 16 years and is also involved in genetics-related research and development for Australia's red meat sector. He is also a sheep farmer.

He outlined the issues front of mind in the Australian sheep genetics arena – many are similar to those facing NZ. One hot topic is ewe condition score, fatness and mature weight.

"Ewe condition score is highly correlated between different time points within and across years and also highly correlated with young animal fatness. Our ultra-sound scanning on young animals is highly genetically correlated to ewe condition score.

"This has important implications. If we are going to change ewe fatness, we are also going to change the fatness of our slaughter animals and vice versa unless we manage that. We need to do more work thinking about the implications of fatness – to value it through the whole production chain and make sure we are accounting for that properly in our breeding objectives."

Other topics of interest in Australia include a focus on producing more reliable reproduction breeding values.

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"Currently, we just analyse net reproduction rate, which is number of lambs weaned per ewe joined but in fact that is a function of three key traits – fertility, litter size and survival."

This allows breeders the option of recording some information but not necessarily all. It also allows scientists to analyse the data more appropriately.

Brown believes there is also a significant opportunity for improving the quality of data coming into the Australian system.

"I think this is where the biggest opportunity lies for us in the short term in Australia. There is huge variation across our breeds and our data sets for data quality."

He also sees obvious potential in more collaboration between Australia and NZ for a more efficient research and development spend and in large-scale, across-country evaluations that would produce more accurate breeding valuess.

"The current exchange of data could be extended to take a great step forward."

Footnote

B+LNZ Genetics are working on the issue of fatness in lambs and body condition scores in ewes. It is about to release a breeding value for ewe body condition score that will help progress this work.