

NEWS RELEASE



SHEEP GENETICS



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Australian sheep breeders: sign up to validate new DNA tools

Australian sheep breeders are invited to participate in a pilot project to introduce new genetic technology in ram selection and breeding.

The 'Expressions of Interest' call comes from the Sheep CRC, Sheep Genetics and MLA, as they build momentum to use DNA data to predict the breeding values of young rams.

Sheep CRC CEO, Prof James Rowe, says that use of DNA-based predictions can reduce generation intervals and assist in the selection of rams for difficult to measure traits.

"It is now time to start working with breeders and validate how DNA technologies can be best used in our Australian sheep and environment by testing young rams in industry breeding programs.

"Geneticists have been working on this powerful DNA-based prediction tool for some years and results from analysis of Sheep CRC Information Nucleus, Sheep Genomics (Falkiner) and Sheep Genetics data shows early promise."

The project will pilot the use of 50k SNP genotyping of selected Australian rams – a process that essentially uses DNA samples from young animals to predict their breeding values and provide an earlier indication of an animal's performance in a range of traits.

Dr Alex Ball, MLA Lamb and Sheepmeat R&D Manager, says the key purpose is to work with breeders to develop the best ways of incorporating the new DNA predictions into existing breeding programs in combination with existing ASBVs.

"Participating breeders will be required to contribute \$100 per ram included in the project, on the basis that all data is shared through the CRC for appropriate analyses.

"The remaining direct costs of \$150 or more in the 50k SNP genotyping analysis, analytical costs and interpretation will be covered by the Sheep CRC, Sheep Genetics and MLA."

There are a number of benefits for breeders participating in the pilot project:

- They will be among the first to have young rams with DNA analysis to estimate breeding values
- Pilot project rams may be considered for inclusion in the next batch of rams for the CRC's Information Nucleus flock 2011 joining
- As DNA-based predictions are updated through the CRC's research there will be regular information enhancement to increase the range of predicted traits and improve their accuracies
- Full support from the CRC and Sheep Genetics will be provided on the best use of the new predictions

The CRC for Sheep Industry Innovation is co-funded under the Commonwealth Government's Cooperative Research Centres Program



Transforming wool, meat and the sheep that produce them

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There will be a maximum of 500 sires selected for the pilot project, comprising 240 Merinos, 160 Terminals and 100 Maternals.

To apply, obtain an Expression of Interest form and fax or post it to Sheep Genetics by March 5, 2010. (Interested breeders do not necessarily need to be Sheep Genetics clients).

To obtain the form or for further information go to <http://www.sheepcrc.org.au/> or <http://www.sheepgenetics.org.au/>

There are a number of conditions that need to be agreed before rams are entered in the project. The selection of rams will be finalised by the end of March, protocols for collecting samples for DNA analysis will then be advised and it is anticipated that predictions of breeding values based on the 50k SNP analysis will be available by June-July, 2010.

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