

SHEEP CRC NEWS - SEPTEMBER 2016

From the Homestead

The ramselect.com.au web app continues to be very well used and the number of rams listed, as well as the catalogues available, are running at around a 40% increase compared to 2015. There has also been a very good utilisation of the new features that assist with managing ram teams and keeping track of purchases made at various sales. It is expected that the new flock profiling pilot project will stimulate interest in obtaining genotype data for commercial flocks as a first step to planning new ram purchases (see below for details of the pilot trial).

The Southern Australian Meat Research Council (SAMRC) held a major meeting in Sydney on 15-16 September, with all organisations involved in red meat R&D across southern Australia represented. This was a great opportunity for sharing information about research and extension initiatives underway in various regions of the SAMRC network, as well as having updates from all R&D providers in universities operating in this area. The meeting provided an opportunity to redefine priorities for R&D and to look for ways of achieving closer collaboration across organisations with interests in similar areas. The CRC identified the opportunity of working with the regional SAMRC groups to develop our new apps associated with the wellbeing and productivity data analytical platform.

The CRC is currently finalising the FY16 Annual Report. This will be distributed to Sheep CRC Participants once it has undergone the final review by the CRC Board at their meeting on 28 September. We are also in the process of finalising details for the November Participants Forum and AGM. A reminder that these meetings will be held at the Stamford Plaza Sydney Airport on 16 November.

James Rowe CEO



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The Sheep CRC 2016 Annual Report will be distributed shortly.



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Wellbeing and productivity

The biophysical models that use climate information to predict risks associated with worms, flies and extreme weather events, as well the consequences of climatic information on pasture production and weight change, are now operating on the new data analytical platform.

The next priorities for the Program 1 team are to develop the gateways for data entry into the data analytical system, and the web-based apps for end-users to access and utilise the new information. These apps will assist with on-farm decision making to ensure that sheep are healthy and productive.

The team has identified two target areas for the first apps. The first will focus on risks associated with worms, and will utilise outputs from the worm and feed-base model components, together with information on the susceptibility/resilience of flocks. The second app under consideration is the lamb growth predictor.

Quality-based sheep meat value chains

Planning is underway in the meat science program in preparation for the 'Hot Pot' consumer testing of lamb and yearling products in China. This cooking method has not been used in consumer testing and it is anticipated to be a very interesting new development. The trials are scheduled to get underway in China at the beginning of November 2016.

Further consumer testing of lamb cuts will assess consumers' ability to differentiate grass-fed from grain-fed product. While comparisons of grain and grass finishing systems have been studied in relation to beef quality, this will be a first for lamb.

Faster affordable genetic gain

The full sequence analysis of DNA from selected Information Nucleus and Resource Flock animals is well advanced and the first results of this new source of genomic data will undergo preliminary analysis before the end of the year. It is hoped that the new data will identify markers for genetic faults, as well as new opportunities to increase prediction accuracy from SNP analysis.

The CRC is about to take the next step towards the implementation of commercial flock genomic profiling. Details of a pilot project have been agreed and there will be an opportunity for around 100 commercial producers to learn more about the genetic merit of their flock via genomic testing. The pilot project will be open to Merino producers and will require collaborators to sample 20 animals from the youngest age group for DNA testing. The CRC will cover half the cost of each DNA test with participating producers contributing the other 50%. This means that the cost of obtaining an estimate of the average flock genetic potential for key breeding values for fleece production and body weight will be \$500 for each project participant.

The genetics team has also been working with the New Zealand company, AbacusBio, to analyse a number of case studies for using new genomic technologies in ram breeding programs, and for large-scale vertically integrated production systems. While the use of DNA testing is of clear value in ram breeding businesses, its use in selecting rams for vertically integrated production systems is not as clearly defined at this stage. In the vertically integrated systems the cost of genomic tests, with current accuracies, requires a lengthy period before a clear return on investment is reached. It is anticipated that with increasing accuracy of the tests and lower test costs, the use of DNA testing will become increasingly attractive.



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Australian Government Department of Industry, Innovation and Science

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