Co-operative Research Centre for Sheep Industry Innovation

The CRC (Co-operative Research Centre) for Sheep Industry Innovation will run from 2007 to 2014 with the goal of 'transforming wool, meat and the sheep that produce them'. AWTA Ltd is participating in the CRC at a number of levels.

By Angus Ireland

Information Nucleus Flock

Each year 5000 ewes from diverse flocks will produce progeny by 100 Merino and terminal sires chosen from across the industry. AWTA Ltd will measure a wide variety of wool quality characteristics of the Merino progeny, with traits in meat quality, parasite resistance and reproduction measured by other laboratories.

"AWTA Ltd will measure a wide variety of wool quality characteristics of the Merino progeny..."

By determining the genetic make-up of each animal and then linking these traits to genetic markers, it is expected that breeders and commercial producers will be able to achieve more rapid productivity gains as well as improvements in product quality.

Next Generation Wool Quality

This program will target the major hurdles facing the wool industry in developing new markets, namely, next-to-skin comfort and handle, as well as whiteness and photostability. Retailers of lightweight knitted fabrics and organisations wishing to establish product quality standards, currently lack the measurement technology to ensure desirable next-to-skin comfort and handle in their products.

The first contact consumers have with a garment is when they select it from the shop shelf and the sensation they detect through their hands is known as 'handle'. Research has shown that fabric handle has a significant impact on consumer purchase disposition. Key components of fabric handle include softness, coolness to touch, stiffness and dryness/friction. AWTA Ltd's Research Manager Trevor Mahar, leads the 'Handle' project, which seeks to develop a simple and cost-effective system for specifying the key components of handle for next-to-skin knitted fabrics.

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Trevor also leads a project on variation in clean wool photostability. The natural cream colour of wool requires chemical bleaching to achieve satisfactory whiteness, which is both expensive and of temporary benefit as bleached wools are subject to accelerated yellowing when exposed to sunlight. If the degree of photostability variation between sheep is found to be large, photostability could be targeted for genetic improvement and it could potentially be used by wool processors to screen wool lots which are used to produce garments in bright whites and pastel shades. The first stage in this project involves the development, by AWTA Ltd's Research & Development and Product Testing staff, of a test method for photostability of clean, scoured wool.

A PhabrOmeter, an instrument designed to quantify fabric properties such as softness.

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