



Books, Book Reviews, Extracts

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Author:	Sheep CRC, David Tester
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Sheep CRC Update seminars held in eight locations across Australia between February and May 2010 provided a valuable summary of progress achieved by the Sheep CRC and our Participants in our first three years of operation. The Sheep CRC publication '2010 Sheep Focus' captures key messages and results presented in the seminars in a form that provides an easy reference document. It should be cited as:

Sheep CRC/David Tester – *2010 Sheep Focus – Wool she wants to wear*

WOOL SHE WANTS TO WEAR

Next-to-skin comfort, handle & whiteness



Photo: Sheep CRC

David Tester, Program Leader, Wool

The Sheep CRC's Wool program aims to increase the demand for Australian wool by providing measurement tools and specifications that will underpin the use of wool in the growing trans-seasonal lightweight knitwear market sector. This will extend Merino wool's use beyond traditional winter apparel, though there are a few challenges to overcome.

The trans-seasonal lightweight knitwear market is dominated by cotton and synthetics as wool is perceived as being unsuitable for next-to-skin apparel by many consumers. An AWI survey* across 22,000 consumers found that wool was highly associated with being warm, itchy or prickly and expensive, and least associated with being comfortable, in casual styles or for all seasons. The Sheep CRC is developing solutions to these issues.

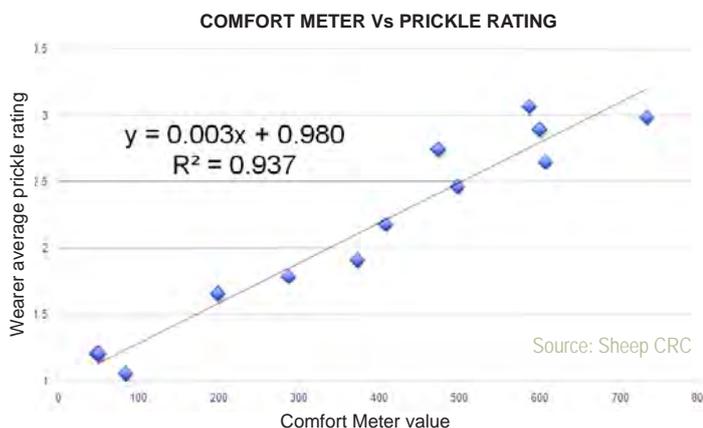
A next-to-skin Comfort Meter prototype has been created that can accurately detect differences in comfort; the results are comparable to much more expensive wearer trials where garments are assessed by consumers.

The Comfort Meter can potentially allow a retailer to set specifications for next-to-skin comfort in the finished garment. Requirements and specifications for all steps of the supply chain can then be established—from greasy wool through topmaking, spinning and knitting to garment construction.

The measurement of garment comfort will ensure the product is fit for purpose, reducing the amount of product returns and increasing the number of return customers, so increasing demand for wool knitwear.

While the Comfort Meter has confirmed that finer wools will generally produce a more comfortable fabric, it has also found that knit structures can play an important role.

The Sheep CRC is also using another machine, the PhabrO-meter,



ABOVE: Comfort Meter results were strongly correlated with results from the Wearer trials



Photo: Jemala Colours

ABOVE: Wool often has luxurious handle

* The Milward Brown Survey, 2007, commissioned by Australian Wool Innovation

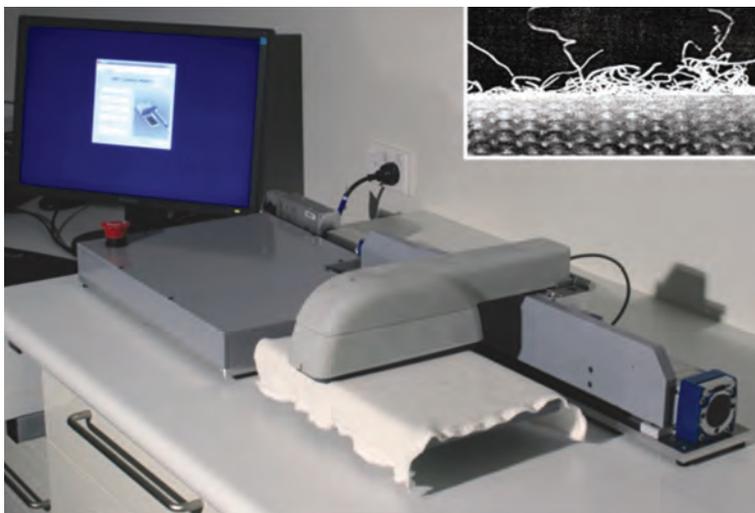


Photo: Sheep CRC

ABOVE: The next-to-skin Comfort Meter detects differences in comfort in wool fabrics



Photo: Sheep CRC

ABOVE: Wearer trials where woollen garments are assessed for next-to-skin comfort

to objectively assess fabric handle—the tactile sensation when a consumer holds and squeezes a garment. These are sensations of softness, smoothness, stretchiness, thickness and warmth. Wool often performs well in terms of luxurious handle, making objective measures important for marketing. The Sheep CRC is using the PhabrO-meter measures to engineer desired fabric handle in pilot trials with processors.

Wool is essentially a cream coloured fibre, not the pristine white needed for dyers to achieve light, bright, pastel colour shades that are popular in spring and summer. Wool's propensity to go yellower with more exposure to sunlight can also be a consumer perception issue.

Typical bleaching technology takes away much of wool's creaminess, but makes it even more prone to yellowing in sunlight. The Sheep CRC has confirmed that genetics has a strong role to play in colour and it appears that trace metals in the soil (iron, manganese, zinc and copper) may also affect wool colour. Work is ongoing to determine how wool whiteness can be positively influenced through breeding, nutrition and processing.

To ensure commercial relevance, the outcomes of the projects are being developed and trialled with a number of Australian and overseas supply chain companies.



Photo: Australian Wool Innovation

ABOVE: Next-to-skin comfort of wool garments can be affected not only by the greasy wool, but also during later-stage processing and knitting

More information
David Tester
Sheep CRC
02 6040 0544
david.testers@sheepcrc.org.au
www.sheepcrc.org.au