



## Sheep CRC Wool Industry Case Studies

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# Handle and Next to Skin Comfort Evaluation of Lightweight Knitted Wool Fabric



## INDUSTRY CASE STUDY

# Decatised Fabrics

### Background:

The Sheep CRC in Australia has developed tools to predict next to skin comfort and to quantify the handle attributes of lightweight, knitted, wool fabrics.

The Comfort Meter gives a value that relates to the perception of prickle in next to skin garments.

The Handle Meter gives a value to seven identified attributes of fabric handle as well as a value for overall handle.

### Application:

If I introduce a decatising step into the finishing routine of a single jersey fabric what will be the effect on fabric handle and comfort?

### Material:

Two single jersey fabrics were measured on the Comfort meter and the Handle meter. They were the same fabric finished in two different ways. One was given a standard, steam only finish, while the other fabric was given an added pressure decatising step during finishing.

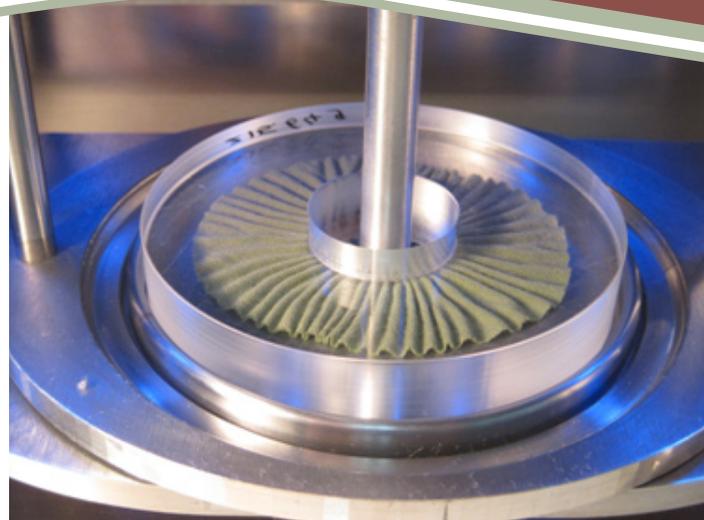


Image showing the pattern of fabric deformation during a Handlemeter test

### Results:

FABRICS	COMFORT METER	SOFTNESS	SMOOTHNESS	WARM FEEL	Hairiness
Decatised	697	5.3	5.9	4.9	4.1
Steam only	874	5.1	4.7	6.0	5.0

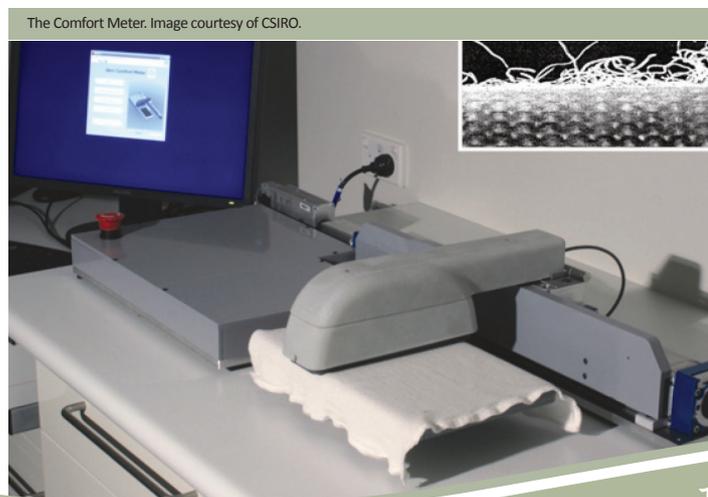
**Comfort Meter value:** The lower the value the better the next to skin comfort.

**Handle Meter value:** The higher the value the greater the sensation.

### Outcome:

In this example the measurement of the comfort and handle showed that there were quantifiable differences in fabric handle and comfort introduced by fabric decatising. The comfort meter value was lower for the decatised fabric showing next to skin comfort should be better. The handle testing showed that the decatised fabrics were smoother, cooler and cleaner in handle than the fabrics given the standard finish. Important aspects of the quality of the product have been measured and can be monitored in future production. Using the Comfort and Handle meters is the only way to objectively evaluate fabric for comfort and handle.

The Sheep CRC for Sheep Industry Innovation is a collaboration established and supported under the Australian Governments Cooperative Research centres Program. It includes Australia's sheep industry bodies AWI and MLA along with Australia's premier research and education institutions.



*Transforming wool, meat and the sheep that produce them*