

# WOOL HANDLEMETER FACT SHEET

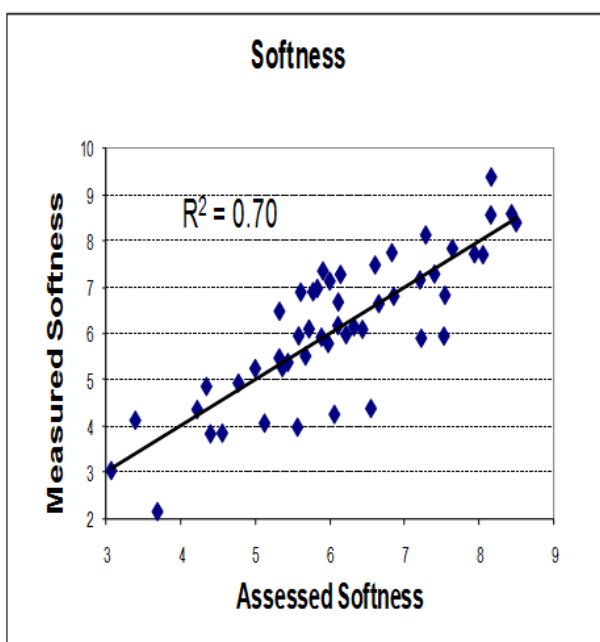
## The Instrument

The 'Wool HandleMeter' is based on a traditional technique used for centuries whereby a woman would assess the quality of a fabric by passing it through her wedding ring – the easier the fabric passed through the softer the fabric would feel. This age old technique separates fabrics based on their extensibility, stiffness, surface roughness and friction.

Researchers used a panel of experienced judges to calibrate the Wool HandleMeter and can now predict the judges ratings for smoothness, softness, warm feel, dry feel, hairiness, tightness and perceived weight based on the test results. The Wool HandleMeter now provides an objective, repeatable value which encapsulates fabric handle for lightweight jersey fabrics.

## The measurement

Information is everything in a supply-chain and the handle of knitwear is critical to the manufacturer for acceptance of their products and to the consumer as a basis for their ultimate purchase decision. The Wool HandleMeter is a destructive test and requires about 0.25m<sup>2</sup> of fabric. The test is performed on circular fabric samples of 100 cm<sup>2</sup> in size. Four (4) fabric samples are cut for each fabric to be tested. For each test a sample is placed centrally on the testing bed. The test occurs automatically when first a weight is lowered onto the fabric sample and then a plunger pushes the sample through a circular nozzle. The Wool HandleMeter values are calculated from the average of the results of all samples tested. The Wool HandleMeter provides a single value in the range of 1 to 10 for each Handle attribute.



This figure to the left shows the level of agreement between the Wool HandleMeter (measured softness) and the expert panel (assessed softness) in judging the "Softness" of a series of 52 lightweight jersey fabrics.

Individual judges do vary slightly in their evaluation of a fabric. The Wool HandleMeter was shown to be as accurate as having two experts assessing the Softness of a fabric.

## **The results**

The results from the Wool HandleMeter are presented as the individual values for each Handle attribute. Also included is a value for Overall fabric handle. This trait is associated with a luxurious handle and the higher the number the more luxurious the handle. Each handle attribute is described using two opposite terms. This provides a clearer definition of the handle term e.g hard (0) - soft (10). The results for all handle attributes are displayed in a form where the higher the value the stronger the perception of the term on the right.

Retailers and manufacturers will soon be able to use a common language to specify fabric handle in their lightweight jersey products; this in turn will generate product consistency based on objective values rather than the existing subjective appraisals.

## **Interpreting results**

Fabric handle requirements will vary for different products and markets so a balance between attributes will be required. To achieve a specific fabric handle might require a low value in some traits and high values in others.

For further information on the Wool HandleMeter go to :

<http://www.sheepcrc.org.au/wool/wool-measurement-pilot-project.php>