



11 June 2018

Update on Fibre Curvature Measurement

Fibre curvature is a measure of the crimp seen in wool fibres. Interest in fibre curvature is generally focussed in the Merino sector where wool is often identified as being either “*traditional*” Superfine wool (highly-crimped staples) or “*bold-crimping*” wool (lower-crimped staples produced by larger and plainer-bodied Merinos). In New Zealand, fibre curvature measurements are provided on Merino sale lots since these measurements are only available from LASERSCAN or OFDA instruments.

Calibration of Fibre Curvature

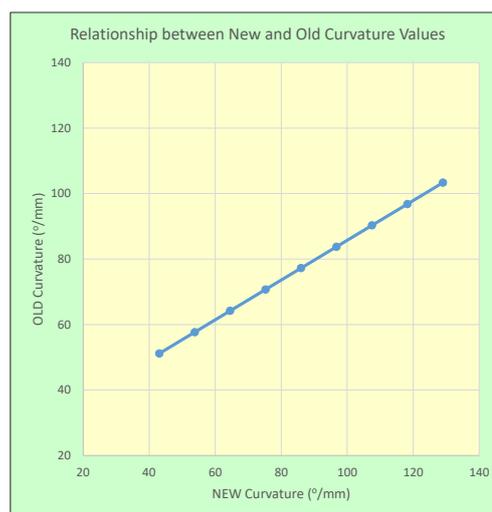
LASERSCAN and OFDA instruments are calibrated for fibre diameter and fibre curvature measurement. This process uses internationally certified wool tops to adjust the instrument measurements back to a standard set of reference values. In this manner, wool testing Laboratories around the world ensure their instrumentation is standardized and measure correctly. At NZWTA, all LASERSCAN and OFDA instruments are calibrated and monitored regularly to ensure they are producing measurements as accurately as possible. While fibre diameter measurements are certified under IWTO Regulations, fibre curvature measurements remain an uncertified parameter and as reported as additional information.

Series 22 Interwoollabs Calibration Tops

The NZWTA laboratory in Napier recently completed calibrations of all LASERSCAN, OFDA and Airflow instruments using the Series 22 calibration tops. This is required by the International Wool Textile Organisation, Interwoollabs and IANZ as part of our ongoing accreditation requirements. While there has been no change in the fibre diameter measurement results for LASERSCAN or OFDA, a significant shift in fibre curvature results has been observed, as summarised below:

- For very low curvature wool (<60°/mm), the new curvature value will typically be around 5°/mm lower than previous seasons;
- For medium curvature wool (70°/mm), the new curvature value will typically be around 10°/mm higher than previous seasons;
- For high curvature wool (>85°/mm), the new curvature value will typically be 15-25°/mm higher than previous seasons.

It is strongly recommended that users of curvature measurements take these changes into consideration when using the test data.



NZWTA is working with Interwoollabs and other international wool testing laboratories to understand the reasons for this shift and resolve this matter. Further details will be provided when they are available.

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