

## ALPACA



SGS is the test house of preference for alpaca breeders in New Zealand.

Over the last few years the number of breeders and animal in New Zealand has increased significantly, and we now test a regular flow of fleece samples taken from individual animals. These tests are carried out either through our accredited Timaru fleece testing laboratory or by our licensed OFDA2000 operators.

There are many possible test results that can be obtained from fleece testing, but the most commonly-encountered diameter-related measurements are:

- Mean Fibre Diameter (MFD)
- Histogram, which graphically illustrates diameter evenness/variability

- Standard Deviation of Diameter (SD)
- Coefficient of Variation (CVD)
- Comfort factor (CF)
- Diameter-length profile (from OFDA2000) graphically indicates growing history since birth or the last shearing

Of these, from an animal value perspective, MFD followed by CVD are the two most important objective parameters.

A number of Info-bulletins contain information relating to fleece testing. Info-bulletin 5.2 explains some of the more common fleece testing measurements. Other diameter-related bulletins can be found here.

Info-bulletin 3.12 gives some statistical information on alpaca test results in New Zealand as well as a brief explanation of why there is a large variation in the values of coefficient of variation of diameter (CVD) in these samples. The very wide range of both mean fibre diameter (MFD) and CVD results suggests that there is considerable room for improvement of selection and management practices in some sectors of this industry. However, compared with most sheep bred for wool, alpacas have both guard hair and down, and this can be seen quite clearly in some of the diameter distribution data. In these cases

both the MFD and CVD of the midside samples significantly increase.

Alpaca fibre is notably less crimped than wool and the values of fibre curvature tend to cover a smaller range than for wool (see Info-bulletin 5.13. Curvature for NZ wool is discussed in Info-bulletin 5.5). There is nevertheless some evidence of diameter dependency, and it has also been noted that the mean curvature of Suri fibres tends to be less than for Huacaya.

One of the consequences of the differences in mean curvature, is that alpaca has lower resistance to compression and lower bulk than wool of equivalent mean fibre diameter.

An order form for submitting samples for fleece testing can be downloaded here (PDF 38 KB). If you are submitting the samples from overseas, you must also attach a copy of the current MAF Biosecurity permit which should be placed in a transparent envelope on the outside of the package.

### FOR ENQUIRIES

Email us at [NZ.wool@sgs.com](mailto:NZ.wool@sgs.com)

Or contact us at:

48 Kemp Street, Kilbirnie

PO Box 15062

Wellington, New Zealand

Tel: +64.4.387.8565

Fax: +64.4.387.8651

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