

STAPLE LENGTH AND STRENGTH



AgriTest Staple Breaker



Subsampling Staple Table

New Zealand produces a relatively small quantity (approximately 7% of the clip) of high quality combing wools. Increasingly these are certified for length and strength in accordance with IWTO-30. [Info-bulletin 1.1](#) gives some general information about Staple Length and Strength measurements, whilst [Info-bulletin 1.4](#) gives more details on typical results and interpretive issues.

Wool soundness or strength has become much more important over the last few years. With over 80% of Australian fleece wools now tested for staple length and strength, fine wool processors are demanding this information on topmaking lots. [Info-bulletin 1.6](#) discusses the economic benefits of both the testing of sale lots and the selection of animals for staple strength.

Samples for staple length and strength certification must be obtained from grab samples in the broker's store. Normally they are taken at the same time as the display sample. 60 tufts of staples are selected from each grab sample by SGS staff, and these are individually packed and sent to the central laboratory where each of 4 trained and monitored technicians prepare 15 staples each in order to have 60 staples available for measurement.

After conditioning overnight in special staple trays, the staples are measured for length using a Staple Length Machine, and strength and position of break using a Staple Breaker Model 2. Generally at least 58 staples are measured for both length and strength. The certified result comprises the mean of the staple lengths, the coefficient of variation of staple length, the mean staple strength, and the position of break in terms of the percentage of staples which broke in the tip, middle and base. Results certified in this manner are used to estimate the theoretical hauteur, CVH and romaine by using the TEAM 3 formulae.

FOR ENQUIRIES

Email us at NZ.wool@sgs.com

Or contact us at:

48 Kemp Street, Kilbirnie

PO Box 15062

Wellington, New Zealand

Tel: +64.4.3878565

Fax: +64.4.3878651

© 2011 SGS. All rights reserved. The information contained herein is provided "as is" and SGS does not warrant that it will be error-free or will meet any particular criteria of performance or quality. Do not quote or refer any information herein without SGS' prior written consent. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.