

SGS Wool Testing Services

Info-bulletin

OFDA & Laserscan - the NZ 2000/01 season

Introduction

The IWTO conference in June 99 in Florence voted to drop the mandatory requirement for airflow on Australian wools, opening the way for AWTA to adopt Laserscan as the default in 2000/01. The Christchurch 2000 conference voted to allow mandatory airflow to be dropped for New Zealand merino wools. The NZ national council was left to decide when this decision would be implemented and how. At its subsequent meeting, the national council voted to make Laserscan the mandatory default for merino wools to remain in line with Australia, but the implementation date was dependent on all industry players having the required infrastructure to handle the new data. It was finally decided that full implementation would take effect from 01 Mar 2001.

In the meanwhile, the test houses were requested to start issuing results with the new technologies in the 2000/01 season. As a result of many fine wool growers and users requiring OFDA data, both OFDA and Laserscan were consequently certified on a large number of merino lots.

SGS Wool Testing Services carried out much of the dual testing because the other NZ test house decided to withdraw its accreditation and IWTO licensing for OFDA measurements.

Results

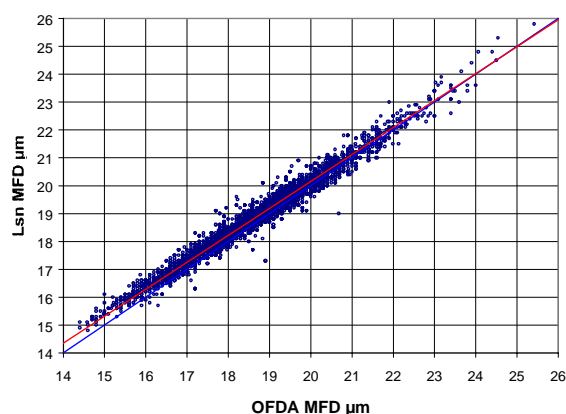
Info-bulletin 3.3 summarised the results of some international round trials with the new technologies undertaken in 1995. These showed reasonable agreement, on average, between OFDA and airflow, and Laserscan and airflow. The agreement between Laserscan and OFDA on mean fibre diameter was generally better than between either of the two and airflow.

Many trials and research papers have been published showing that OFDA and Laserscan agree well on average on mean fibre diameter of processed wool. The trials tended to show slight differences of SD between the two new systems. Initially, however, there was diverging agreement between them on wools of 16 μm and below. These differences were to some extent minimised by a change to the Laserscan calibration introduced in early 1998.

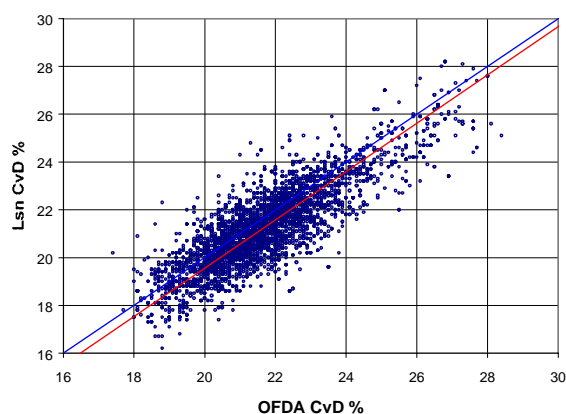
Differences between the two new instruments on raw wool tended to depend on which test house performed the work, (which might have reflected the distribution of wool types being tested). Data obtained by SGS on 600 samples in 98 and 99 showed equivalence on average between mean fibre diameter results from the two systems over the range from 16 to 42 μm .

In the 2000/01 season, over 4000 comparisons were undertaken on merino wools, allowing a more detailed and real-life analysis of performance. The two plots shown are for 4300 comparisons undertaken over the major part of this season.

Laserscan versus OFDA MFD on greasy wool
2000/2001



Laserscan versus OFDA CvD on greasy wool
2000/2001



The plots show good agreement on average between OFDA and Laserscan on both mean fibre diameter and CvD. The OFDA was on average 0.2 μm finer than the Laserscan, and 0.4% higher on CvD.

A new situation

At the Nice 2000 IWTO conference, Australia obtained agreement to change the method of calibrating the Laserscan for measuring greasy wool. The calibration methodology is now consistent with that used by the OFDA since 1994. The effect has not yet been fully evaluated, but preliminary indications are that the Laserscan will now measure approximately 0.2 μm finer than previously, and therefore should come into line with OFDA on mean fibre diameter. This new calibration is understood to have been implemented by all major test houses in January 2001.