

SUBMISSION

FOR

AUSTRALIAN WOOL SELLING SYSTEMS REVIEW

BY

NEKAN TRADING (PTY) LTD

MANUFACTURERS AND DISTRIBUTORS OF



1. EXECUTIVE SUMMARY

The FibreLux Micron Meter is an easy-to-use and affordable instrument to measure the fibre diameter of fine wool on the farm or in the shearing shed. It allows for the implementation of a Greasy Factor to give the farmer a Clean Wool Measurement. It is calibrated to measure fine wool between 15 and 25µm.

Please be aware that the overall results and tests done were based on the processes, input and experiences as per the South African wool farming community which might differ from those used in the Australian market.

2. FOCUS OF SUBMISSION

As the FibreLux is a Micron Meter with the purpose of measuring the fibre diameter of wool, this submission focuses on Phase 1 (Wool Preparation) of the Raw-Wool Procurement Value-Chain as set out in the Issues Paper and with specific emphasis on Step 2 (Shearing and Wool Preparation)

However, the FibreLux could also be of use to a Wool Agent when a quick measurement is needed to get the Fibre Diameter of a wool sample.

3. PURPOSE OF FIBRELUX DEVELOPMENT

The FibreLux was developed with the purpose of giving wool farmers a tool to measure their wool on the farm for improvement of the flock and also objective, real-time classing of their wool clip.

The FibreLux had to be portable, affordable, robust, accurate and user-friendly.

4. BENEFITS OF FIBRELUX TO WOOL FARMERS

In tests done on a number of wool farms to compare the accuracy of the current manual classing of the wool to readings from the FibreLux meter we have found that fleeces can be put in the incorrect bins between 5% and 30% of the time. We also found that when the Classer is unsure, they will generally err to the conservative side.

What the FibreLux brings to the shearing shed is the ability to have a more uniform classing per bale as errors can largely be eliminated. The farmers then have an option to introduce a few extra lines with more uniform wool classifications.

We also found that as every sample is combed, tender wool is immediately identified.

What we suggest is that when a farmer uses the FibreLux, they mark their bales clearly that all fleeces were classed using the FibreLux. We believe that once the buyers start to see that the wool in these bales are more uniform, the buyers will be prepared to offer a premium to that wool.

CMW, the second largest wool broker in South Africa, started a system a few years ago called EST (for Every Sheep Tested). In this system, every sheep is tested and the bales are marked as such. On the auctions these farmers generally earn a premium on their wool clip.

5. PRACTICAL APPLICATION OF FIBRELUX ON FARMS

For the FibreLux to be practical on the farm and specifically in the shearing shed, the challenge was to be able to prepare a sample, take the measurement and get the result in under a minute. Once the operator is used to preparing samples and taking measurements, the process can be executed in less than 50 seconds. This generally allows the FibreLux to be used in the shearing shed without slowing down the process and interfering in the general flow of operations.

Some farmers prefer to take samples before the shear and in effect then pre-class the wool before the sheep enters the shed. This however can be more labour intensive.

If the FibreLux is used in the shearing shed, a process that works well is as follows:

- The sample is taken as the fleece is spread out on the sorting table.
- The sample can then be taken from the same place (midrib) for every fleece.
- While the fleece is trimmed, etc, the FibreLux operator will then comb the sample, put it in the sample holder and run the measurement.
- By the time the fleece is ready, the measurement is complete and the operator can then confirm the class of the wool.
- In this case one main operator is needed to run the tests, with somebody to act as a backup in cases where the sample was not prepared to the correct density and it needs to be changed. We found that the FibreLux is more sensitive with very fine wool under 15µm and errors in preparation can then happen.
- Another option is to take the sample as the shearer starts with the fleece. However, then it becomes more important to ensure that the correct measurement is matched to the appropriate fleece, but the pressure on the FibreLux operator to get the sample prepared correctly the first time is not as high.
- It is important for one or two people to prepare samples as the density to which the sample is prepared can make a difference to the measurement.

The best practice is for every farmer to develop a routine that fits best into his processes and procedures without slowing down the process and the best is to spend an hour or two at the start of the shear to plan and implement this.

6. COMPARISON WITH OFDA2000 AND LASERSCAN

We have run limited comparative tests between the FibreLux, the OFDA2000 and the Laserscan and our findings were generally as follows:

- For Greasy wool, comparing with the OFDA2000, we found that the FibreLux generally tend to measure higher than the OFDA.

- When we then took the same sample and clean it, and measure again, the FibreLux would be slightly lower than the OFDA.
- When Laserscan tested these same samples, the FibreLux was very close to the Laserscan.
- The difference is that the Greasy Factor as per the FibreLux is higher than per the OFDA. The Greasy Factor with the FibreLux ranged between 1.2 to 2.8 μ m, while the Greasy Factor for the OFDA was between 0.5 and 1.5 μ m
- As the Greasy Factor tends to be very much standard per geographical area, we encourage users of the FibreLux to first determine an average Greasy Factor for their flock and then apply that on the FibreLux before the shearing starts.

Please note that so far, we have only compared the tests with one OFDA2000, but are aware that other institutions have also done some comparisons.

7. CONCLUSION

We believe that there is a place for an instrument such as the FibreLux in the wool value-chain as it gives the wool farmer instant feedback as to the quality of his wool clip and comes in very handy with flock selection. When the buyer is assured of a more uniform quality of wool in a bale, they might be willing to pay a premium for the wool.

Given the affordability and benefits, we therefore believe that the FibreLux should become a stock feature in every shearing shed.