Cashmere quality assessment to meet the requirements of the fibre manufacturing industry.

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1- The situation:

The textile members of the group set the scene by explaining that cashmere producers in Europe have a challenging period ahead. The European cashmere textile industry is currently in depression but those manufacturers able to do so are stockpiling high quality cashmere at prices which have fallen from a peak of around $160 to $68 / kg. White low micron cashmere from China and Mongolia is currently available without the recent problems of contamination with fine wool and other animal fibres, and is in highest demand for applications which are increasingly fashion driven. Coarser coloured cashmere from Iran and Afghanistan is being bought for use in other textile products. Local dehairing and the manufacture of yarn and finished goods in the country of origin particularly in China and Mongolia, has been increasing in quantity and quality and the long term future of supplies of raw fibre together with the location of the major centres for processing are no longer certain.

A large scale cashmere industry in Europe requires reliable supplies of large quantities of guaranteed high quality cashmere. The future may lie in small scale production; in the production of luxury products which are rare and unique, environmentally friendly, incorporate a high fashion element but which have a local story. Success in such a venture would ultimately depend on marketing but its future, like that of large scale cashmere processing in Europe, is likely to depend on the use of high quality cashmere with those traits which are known to bring quality and luxury to the finished product. Buyers for the textile trade still appear to rely heavily on subjective assessment of the raw fibre but the need for objective measurement to translate these requirements for the breeder and grower were re-emphasised.

2-Consequences:

Fibre quality traits, considered at the previous meeting (EFFN Workshop Report No. 2) to merit measurement and inclusion into the network database, were discussed. The most important of these were considered to be colour and diameter followed by length. Changes in the traits or methods of measurement are reported below.

2-1- Colour :

In the first instance the undercoat and the guard hair will be classified as white or coloured. This classification will be made on the animal or the whole harvested fleece since goats may show white or coloured patches. The presence of any coloured guard hair in white undercoat changes its classification to off-white A simple objective method for the measurement of colour in small felted cashmere samples will be examined with help from Dr B. McCarthy (BTTG).

2-2- Length :

Drawn length of cashmere and staple length of both fibres will continue to be measured but it was considered that staple length and information about the ratio of guard hair to undercoat length was likely to be the most useful in determination of cashmere quality overall.

2-3- Lustre :

Surface properties of the fibre affecting lustre were scale pattern and in particular scale depth but lustre was also affected by crimp. The use of an objective measurement currently used in human hair will be examined with the help of Dr K-Ho Phan (DWI). All participants agreed to send samples of fibre representative of their highest and lowest lustre to MLURI for assessment of the range encountered across the group.

2-4- Medullation:

The measurement of medullation in secondary fibre was considered important but was not currently possible for coloured fibres using OFDA. Since most medullated secondary fibres were considered to come within the diameter range 25 - 40 it was decided to use this trait as a selection tool to reduce the medullation in cashmere.

3- Conclusion

The best quality cashmere is considered to be white and fine (low diameter and SD) with a high degree of crimp and low level of lustre and which is easily separated from the coarse outer guard hair in the fleece. Fibre traits, which can be measured to quantify the quality and quantity of cashmere produced by individual goats have been identified (EFFN Workshop Report No 2 and above) and these will enable specific breeding objectives to be met as well as a general improvement in European cashmere production.