



Finding value in wool through classing and selection

The growth and innovation in **wool classing techniques and technology** is helping to improve **productivity** and drive improved **business outcomes**.

From **visual assessment of traits** to **data**, there are a lot of tools available to help producers get the most out of their flock. This resource seeks to provide producers with an **overview** of how these tools can be utilised to **increase profitability**.

WOOL CLASSING DEVELOPMENT

Traditionally, wool was classed based on the numerical count system, a grading system built around the fineness of the yarn or count. But with the introduction of objective measurement which assesses improvement overtime, it was realised that a fine crimp does not necessarily mean a fine micron, and a broad crimp does not necessarily mean a high micron either.

Since then, on-farm wool classing has moved towards more **measurement of the handle of the wool**.

By visually assessing sheep, producers can ensure that animals selected not only meet business needs but will continue to be productive and profitable in their environment.

Producers are increasingly placing more emphasis on selecting for specific traits, based on their individual breeding objectives.

VISUALLY ASSESSING TRAITS IN MERINOS

For Merino producers, the high-value wool features are what makes it stand out. There is a long list of characteristics for producers to look for, and assess their individual economic importance.

The emphasis on traits and what is selected for and against will vary between flocks. When assessing traits, it's important that producers keep in mind their breeding objectives, their environment, and any local factors that may influence their individual decision-making.

Australian Wool Innovation (AWI) has developed an extensive table that outlines the various classing traits, detailing the preferred characteristics and the economic importance of each. Examples of those that apply to wool specifically include:

TRAIT	PREFERRED CHARACTERISTIC	ECONOMIC IMPORTANCE
Fibre Diameter	Fibre diameter can be visually selected through crimp frequency and handle. Softness and higher crimp frequency is associated with lower fibre diameter. Visually selecting for fibre diameter can be unreliable.	Fibre diameter should be selected in balance with other traits, particularly fleece weight.
Wool Density	Fibre density in the fleece should be high, but also be in balance with good staple length and free growing wools. Sufficient density reduces wool faults and contamination, and aids yield.	Sheep with a dense fleece will cut more wool than sheep with a thin or open fleece. Dense fleeces are better at keeping out dust and reducing staple weathering. Beware of sheep that have very dense, short, tight wool. These sheep are often the first to suffer in poor seasons.



FROM THE PADDOCK: BRETT SMITH, ELDERS

Brett Smith, District Wool Manager, provides marketing and advisory services based in Tamworth and covers Northern New South Wales and southern Queensland, handling the best part of 5,000 bales a year for about 40 clients. He works with producers on their farms and during shearing to ensure the clip is best represented for sale. The sale is done by auction through Elders, primarily in Sydney.



Brett said there are a number of traits to consider when selecting for your flock, ranging from micron to reproduction rates, primarily through using genetic selection, to ultimately improve productivity.

"Fleece weight is the major influence on profitability, but there is clearly a premium for finer micron wools and for producers it's trying to find the balance which suits their operation best," he said.

"Fleece weight is predominantly 60% to 70% of the fleece value for an individual sheep, then it's the overlying micron.

"The premium a producer is now receiving if their wool is finer also cannot be ignored.

"With the premium for micron opening up, we've been seeing a bigger gap between each micron. Having a lower micron is definitely paying for itself at the moment, but from a wool point of view, fleece weights are probably the biggest variation, and then the micron.

"We still get paid by the kilogram, but micron is the biggest determinant of price. It's about trying to find the right balance.

"We've all got to improve productivity and I think just with the value of wool and sheep, it's a pretty good investment. You don't have to make big investments and you can start quite small.

"For those producers keen to embrace the technology there are a number of sources of information and expertise, including the Leading Sheep and AWI websites.

"There are also a lot of consultants working in this field, and the companies producing the equipment are probably getting a lot better at understanding how to apply this in sheep, so touching base with some of the representatives is a good start."

TRAIT	PREFERRED CHARACTERISTIC	ECONOMIC IMPORTANCE
Handle	Softness of wool (handle) is a preferred attribute for a range of wool style and quality issues. Handle refers to the feel of the wool. It has two components – 'smoothness' and 'compression'. Different wool end uses have different handle requirements.	Harsh handling wools should be avoided as they tend to indicate broad fibre diameter for the crimp frequency. Handle is associated with fibre diameter, crimp or fibre curvature, and the scale structure of the fibres.

This guide, entitled '**Visual classing Merino sheep**' can be found on the AWI site [here](#).

BUILDING VALUE THROUGH WOOL TECH

The latest in wool technology allows producers to access data which helps improve the traits in their flock and increase profitability.

The use of **Electronic Identification Tags (EIDs)** has opened the door to that information.

Producers can use EIDs to individually attribute data to livestock, such as fleece weight and micron at shearing time to identify animals producing the most valuable fleeces.

Combined with micron testing, producers can use this data to either lower their average micron or reduce the range within the flock.

By combining that data collected with visual classing; further gains can be achieved.

Gathering lifetime data around reproduction and seeing which maiden ewes are raising lambs in their first year for example, can be particularly helpful in selection to drive improved business outcomes.

