

# Recognising a small ruminant!

- Remember rule of thumb that tail up = goat, tail down = sheep (good place to start with identification!)
- Recognising meat versus wool versus milk type breed
  - In general a meat breed will appear more muscular, particularly if you look at them from a side view – similar to comparing a dairy cow with muscle score D to a beef cow with muscle score B for example
  - If a milk breed of goat or sheep is lactating often the size of the udder can be a giveaway that they are producing significant milk, although some meat and fibre producing breeds may also have large udders
  - Some small ruminants are haired, rather than having useful fibre – this can help to distinguish a breed for use in fibre industries such as the Merino, Angora or Cashmere

# Breeds

- There are a large range of small ruminant breeds and it is important that you can recognise the major breeds.
- These vary from breeds that produce primarily fibre, meat or milk

# Sheep - Merino

- Significant genetic diversity within the Merino breeds ie. Multiple strains/types within the one breed of sheep due to range of historical breeding
- Suit different environments/management systems



# Ultrafine wool Merino (16.1-17.5 micron)

- Extra-ultrafine is 16.0 micron or less
- Relatively uncommon sheep – finest fibre in the world (competition each year for finest fleece) <https://www.aswga.com/competitions>
- Small framed Merino's, value of fleece means sometimes coated to reduce dust
- Sometimes shedded also to control fleece growth although less common now
- Some bales averaging under 13.5 micron – product blended with silk/cashmere etc for high end garment

# Super Fine Merino (17.6-18.5)



**Figure 5.3 Superfine Merino.**  
Source: Stuart MacPherson



**Figure 5.4 Superfine Merino wool**  
Source: Stuart MacPherson



<https://www.woolwise.com/wp-content/uploads/2017/07/WOOL-422-522-12-T-05.pdf>



# Fine wool Merino (18.6-19.5 microns)

- Generally located in higher rainfall areas similar to superfine
- Fleeces of up to 5kg or more
- Also called Saxon type



**Figure 5.6 Fine Merino.**  
Source: Stuart MacPherson



**Figure 5.7 Fine Merino wool.**  
Source: Stuart MacPherson



# Fine-Medium wool (19.6-20.5 microns)

- Large section of Merino production in this area now, as the national flock has become finer (through genetic selection)
- Challenge is to fine the fleece diameter while maintaining or increasing the fleece weight
- Industry production varies but 5-8kg (greasy) and staple length 85-110mm

# Medium Merino (20.6-22.5 micron)

- Large numbers of these sheep, particularly sheep/wheat zone (see map) and into pastoral areas
- Large frame and relatively plain body (less wrinkled, particular over last 20 years)
- Production still suitable for knitwear
- Staple length 90-115mm
- Also called Peppin type



Figure 5.8 Medium Merino.  
Source: Stuart MacPherson



Figure 5.9 Medium Merino wool.  
Source: Stuart MacPherson





# Strong wool Merino (22.6 micron or greater)

- Located in more pastoral areas – ie hot, dry, semi-arid areas
- Relatively hardy Merinos
- Staple length 100mm
- Wool used in blends for lower priced garments or more hard wearing applications (seats etc)



Figure 5.10 Strong/Extra Strong Merino. wool.

Source: Stuart MacPherson



Figure 5.11 Strong/Extra Strong Merino

Source: Stuart MacPherson



# Poll Merino

- Selection for Poll across range of micron
- Recessive gene in Merino
- Started at Boonoke Stud (Riverina)
- Overall becoming more popular due to EHS and animal welfare



<https://austfood.com.au/merino-studs/poll-boonoke/>



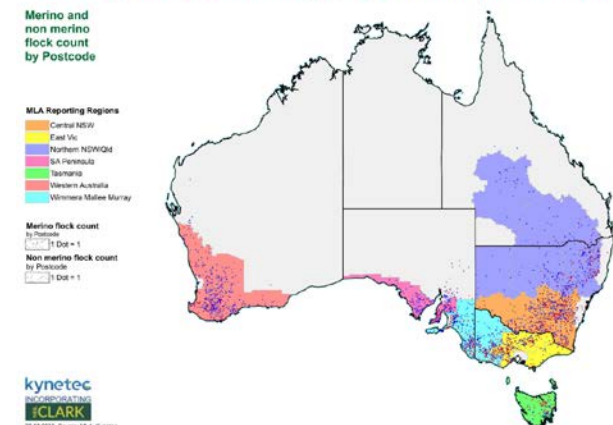
# How can you work out micron of sheep?

- If you are looking at Merinos how could you guestimate their micron?
- Micron = 60-80% of the value buyers place on wool so is a very important measure
- If you had a handy micron measuring device then that is the optimal way, but mostly, you probably don't have one in your pocket (a ruler really wont do the job! A micron = one millionth of a metre)
- It used to be thought that crimp frequency was related to micron but this has been shown to be incorrect  
<https://www.woolwise.com/history/publications/the-wool-press/october-1997/2-crimp-how-important-is-it-in-modern-wool/>
- So really optimal method = effective measurement (unless you have very good eyesight!)

# Percentage of national sheep flock 2020

- MLA producer survey
- 41.2 million breeding ewes
  - 31.5 million Merino ewes (77% of total flock)
  - 9.7 million non-Merino breeding ewes (23%)
- Most producers in 2020 were looking at maintain or expanding their sheep flock

Survey Respondents [2/4]: Total Flock Counts (Merino & Non-Merino)



kynetec  
INCORPORATING  
iCLARK

Total properties: n = 2,570  
Merino: n = 1,982  
All other: n = 990

# Merino

- The Merino is a multipurpose animal, while its primary use has been wool production they can also be selected to be more dual purpose animals with some breeds derived from Merino aiming for that market
- The Merino breed is not static – here is a photo of the Vermont(American) Merino introduced in the early 20<sup>th</sup> century



<https://www.woolwise.com/wp-content/uploads/2017/07/WOOL-422-522-12-T-05.pdf>






## Relative productivity of Merino strains



	<b>Fine: <i>Saxon</i></b>	<b>Medium <i>Peppin and non-Peppin</i></b>	<b>Broad SA <i>strongwool</i></b>
Greasy fleece weight (kg)	3-5	4-6	5-7
Fibre diameter ( $\mu\text{m}$ )	$\leq 20$	21-22	23-26
Mature body weight (kg)	30-50	40-80	50-90

Source: Cottle, D. (2005)

 **High rainfall zone**      **Wheat-sheep zone**      **Pastoral zone**

**Figure 1.5:** Merino strains (Cottle 2005).

<https://www.woolwise.com/wp-content/uploads/2017/07/WOOL-300-300-14-T-01.pdf>