

Wool — from farm to fashion

Wool production starts on the farm and finishes as a wide range of valuable products used across the world.

Sheep — wool production starts with the breeding and selection of Merino sheep with fine fleece.

Shearing — shearers remove the fleece from the sheep.

Wool handling — woolhandlers remove any **vegetation** from the fleece and the wool classer grades the fleece according to its quality.

Baling and transport — wool of the same grade is pressed into **bales**. Wool **bales** are loaded onto trucks and taken to the warehouse for sale at auction.

Auction — wool is sold to the highest bidder and sent for processing.

Scouring — fleeces are washed to remove dirt, dust, sweat and wool grease. The wool grease is recovered and from this **lanolin** is extracted. **Lanolin** is used in cosmetics and skin care products.

When the wool comes out of the scour the fibres are tangled. In order to spin the fibres they must be untangled by carding, which opens the tufts (tangled groups of fibres) and blends them into a uniform web.

The carded wool is ready to process through one of two routes: woollen or worsted.

In the woollen process the carded web of fibres is split into many strips which are rubbed into slubbings (delicate **yarn**-like threads) ready for spinning into **yarn**.

The worsted process forms the carded web into a sliver of fibres, which is made into tops (gilling and combing) then drawn down into fine rovings ready for spinning.

Did you know?

- A professional shearer can remove the entire fleece in less than five minutes.



Fast facts

- Merino wool, produced on Australian farms, is processed and made into products that end up in retail stores all around the world.
- There are two main types of wool processing systems — woollen and worsted.
- Most of Australia's high-quality Merino wool is processed through the worsted system and made into high-quality fashion garments.



Shearing



Wool handling



Baling



Wool auction



Scouring



Top-making

From fibre to fashion: Australian Merino wool goes through a number of processes from the farm to the fashion stores.



Spinning: Spinning machines insert twist into the woollen slubbings and worsted rovings to produce a yarn. These yarns can be woven or knitted to produce fabric.

Spinning — spinning inserts twist into the slubbing or roving to create **yarn**. There are three types of **yarn**:

- Woollen **yarns** are hairy and contain more short fibres and tend to be used for jumpers and blankets.
- Worsted **yarns** use longer fibres to produce smoother **yarns** which are used in products like suits.
- Semi-worsted **yarns** are 'half way between' woollen and worsted and are made by worsted processing without the combing stage. These **yarns** can be used in upholstery, socks and knitwear.



Weaving: Weaving is the process of interlacing yarns to form fabric.

Weaving — this is the process of interlacing **yarns** usually at right angles to each other.

Woven fabrics are constructed using a set of warp **yarns**, which run down the length of the fabric and weft **yarns**, which that run along the width of the fabric.

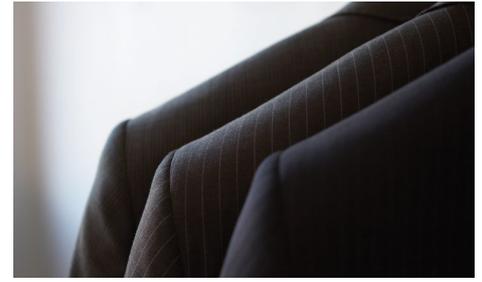
Knitting — this is the process of interlocking **yarns** across the width of the fabric.

Fabric finishing — woven fabrics and knitted fabrics go through many different processes to make them suitable for end use.

Processes carried out depend on the type of fabric and its end use but comprise four key stages: preparation, washing, drying,



Making up: Woven fabrics are cut and sewn to produce garments ready for finishing.



Ready for sale: When garments are ready for sale they are labelled so consumers know how to care for them.

stabilisation. These processes will improve the appearance, handle and performance of the fabrics.

Dyeing — dyeing is the process of colouring the wool. This can be done as loose fibre, **yarn**, fabrics or garments.

Dyes can be natural, such as plant materials, or synthetic. Patterns may also be introduced through printing.

Making up — individual panels of garments are cut from flat fabric and sewn together to form a garment. Knitwear panels can be shaped on the knitting machine, so don't need cutting. These panels are normally 'linked' together instead of traditionally sewn.

Ready for sale — after pressing, the garments are ticketed and labelled so consumers know how to care for their Merino wool garment.

Glossary

Bales — bags of wool that have been pressed and ready for sale.

Lanolin — a greasy substance coating the wool fibres.

Vegetation — small pieces of plants, such as thistles and burrs, which are trapped in the fleece on farm.

Yarn — fibres of wool twisted together to form a rope-like thread.

More information

For more information about wool processing, go to:

- www.learnaboutwool.com
- Beyond the Bale: beyondthebale.wool.com

- www.woolmark.com/knowledge/manufacturing/
- The Woolmark Company YouTube channel: www.youtube.com/WoolmarkOnline
- The posters and the USB that came with the LEARN ABOUT WOOL kit.

