

Manufacturing Of

COTTON

And

LINEN fibre

1. Cultivation – 180
2. Gathering of cotton pods
3. Ginning
4. Baling

Process of Making Cotton Fabric

- Cotton is picked up from the fields. The seeds are separated by combing. This process is known as ginning.



- Ginned cotton is compressed to form bales. These bales are sent to the spinning mills.



- The cotton bales are loosened and cleaned. This process is known as carding.



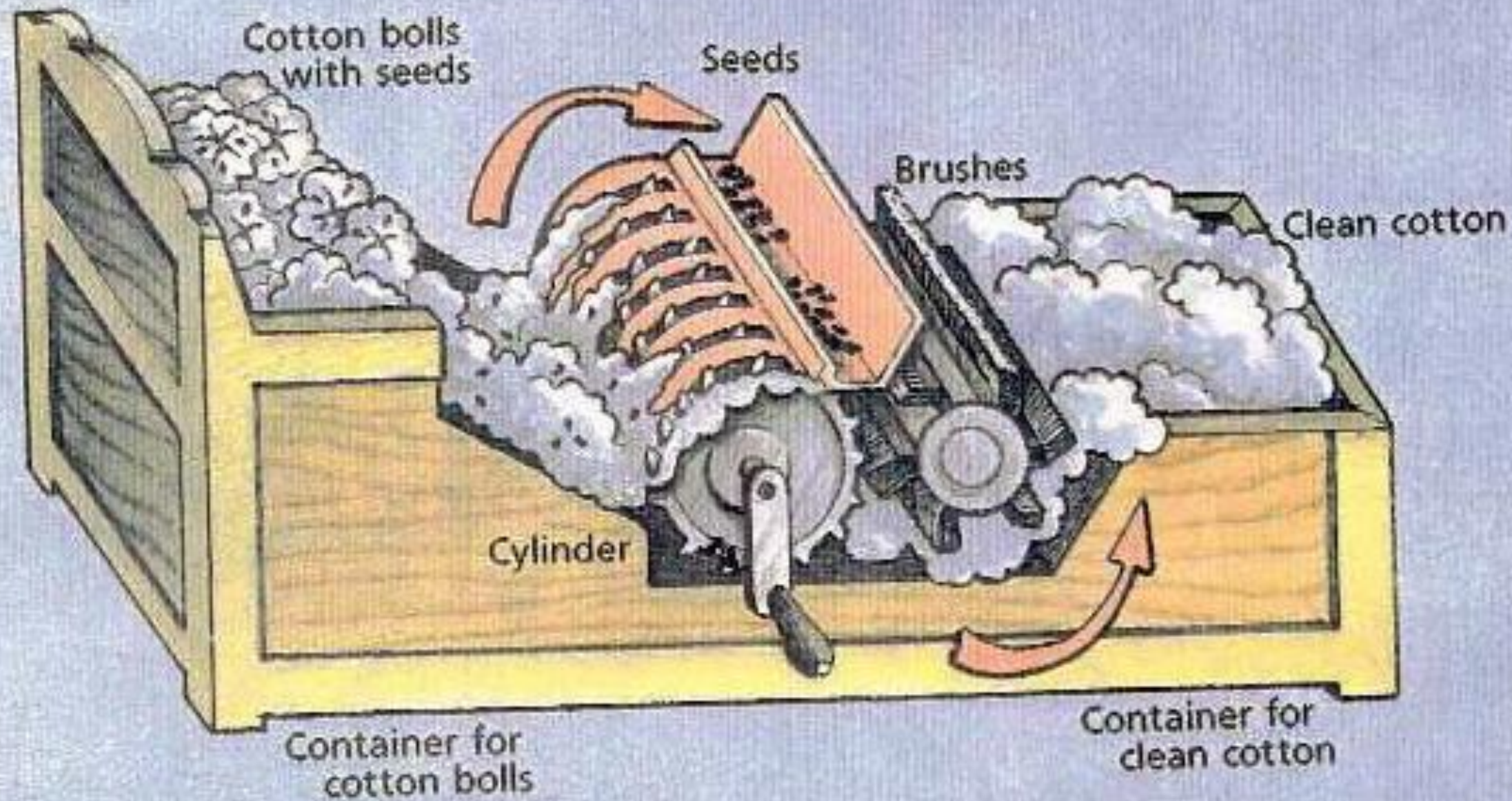
- The cotton fibres are then converted into rope-like loose strands. The strands/ slivers are twisted to make yarns. This process is known as the [spinning of cotton yarns](#).



- The yarns are then used to make fabrics by weaving and knitting.



THE COTTON GIN



BAILING



CARDING



COMBING





(a)



(b)



(c)

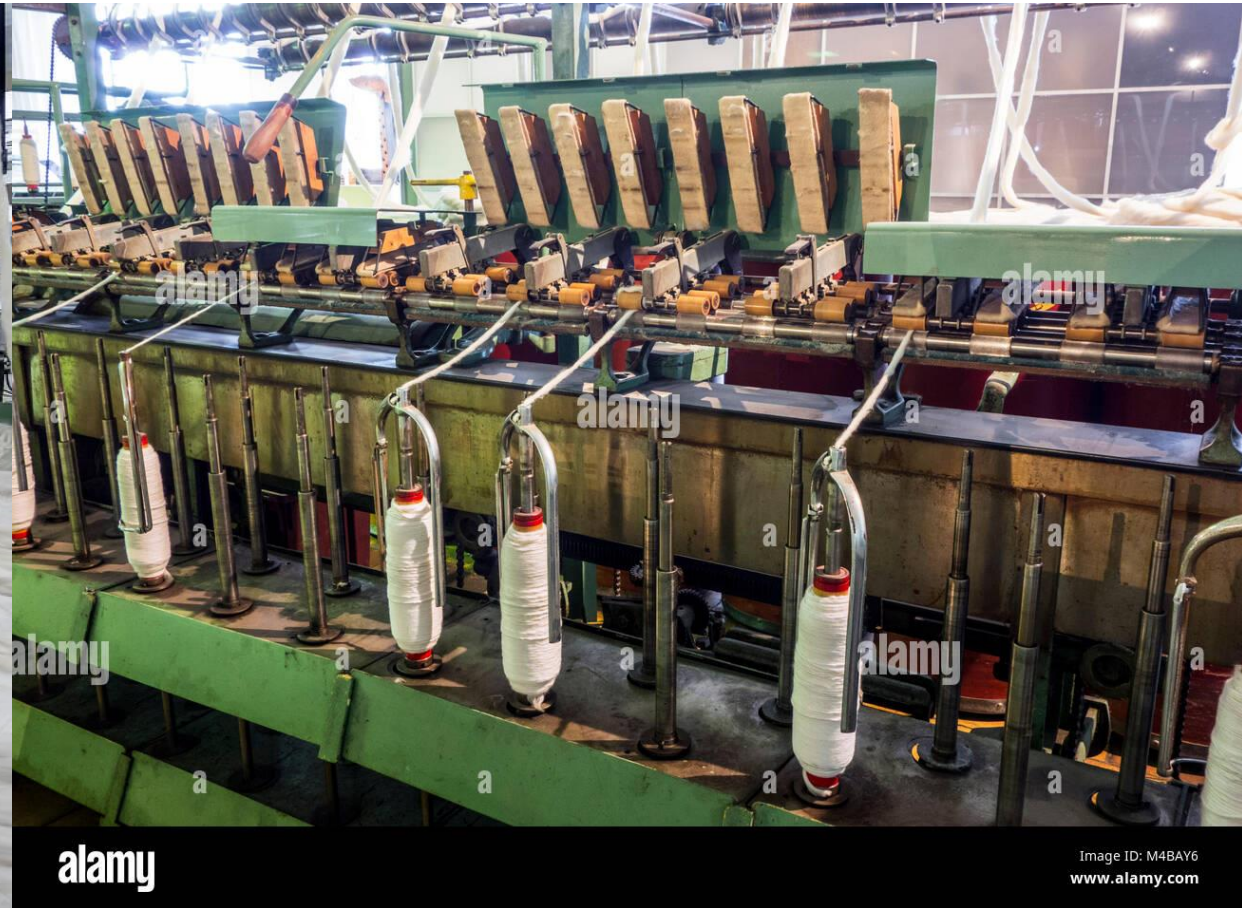


(d)

DRAWING AND SLIVERING



ROVING (Twist)



alamy

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SPINNING



MANUFACTURING OF LINEN FIBRE

- Cultivation
- Pulling
- Drying and Rippling
- Retting
- Breaking and scotching
- Hackling and combing
- Spinning



Water Retting



Dew Retting



Wooden Vat Retting



Pool retting



Breaking and Scutching



Hackling and Combing



Hackling of Flax



Linen Fibres



WOOL FIBRE

Flow Chart of Wool Processing





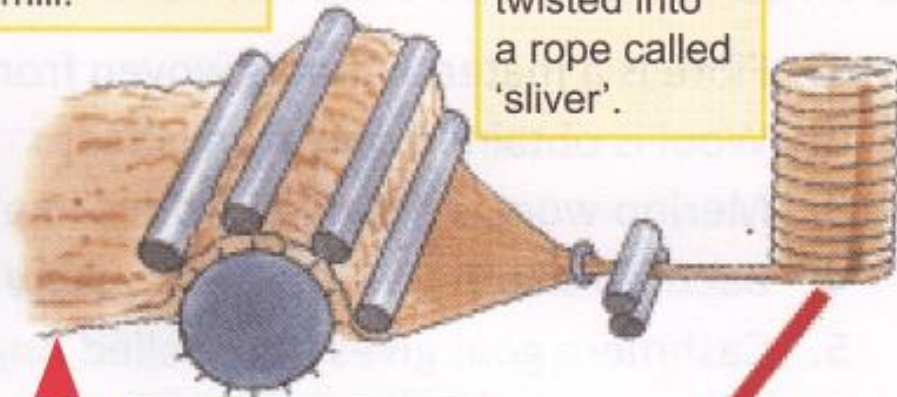
The sheep are sheared to remove the fleece.



Fleece is baled for transport to the mill.



Fleece is washed to remove dirt.



Carding machine combs the loose wool fibres into a sheet.

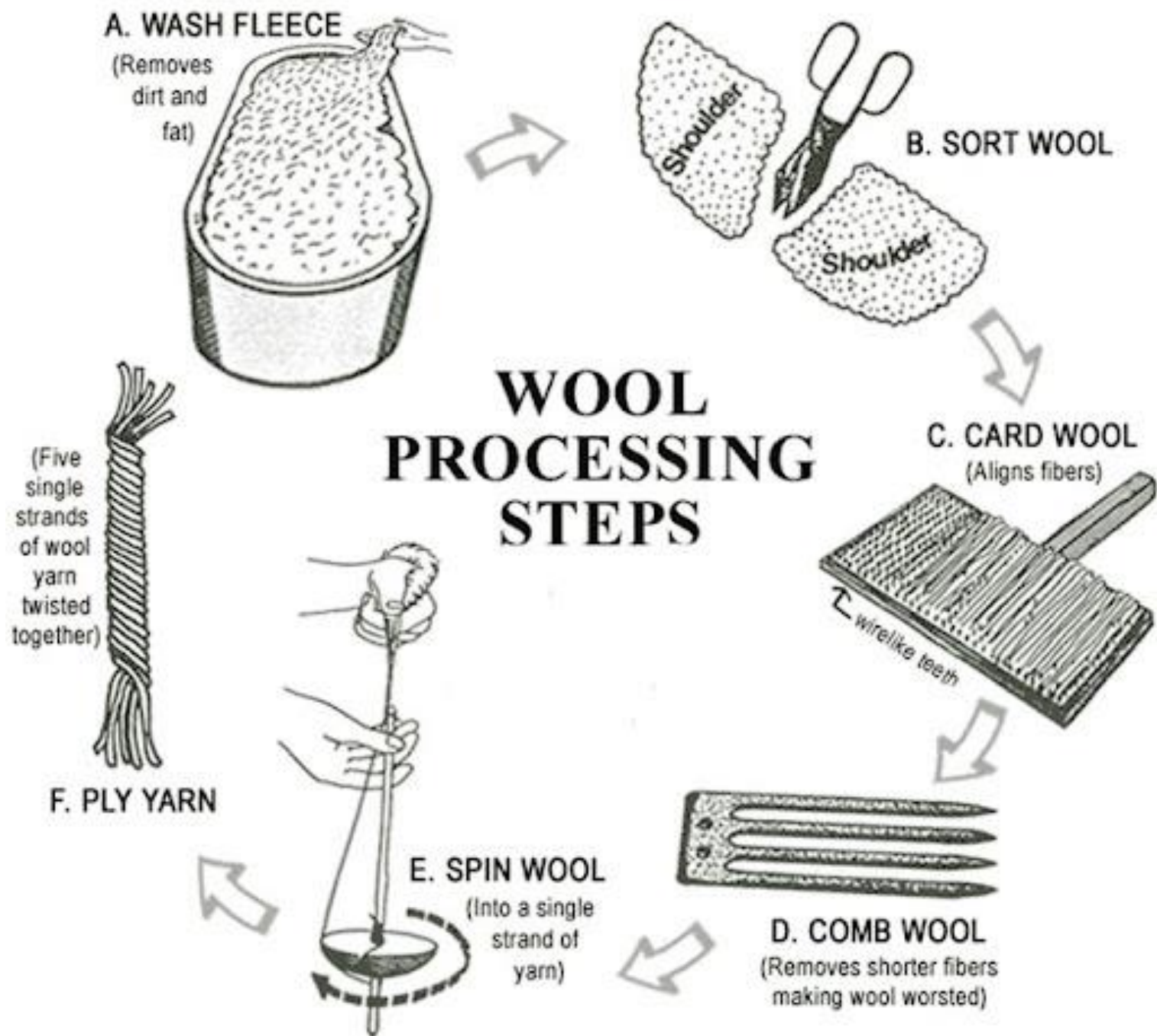
The sheet is twisted into a rope called 'sliver'.

The sliver is stretched and twisted into a thin yarn.

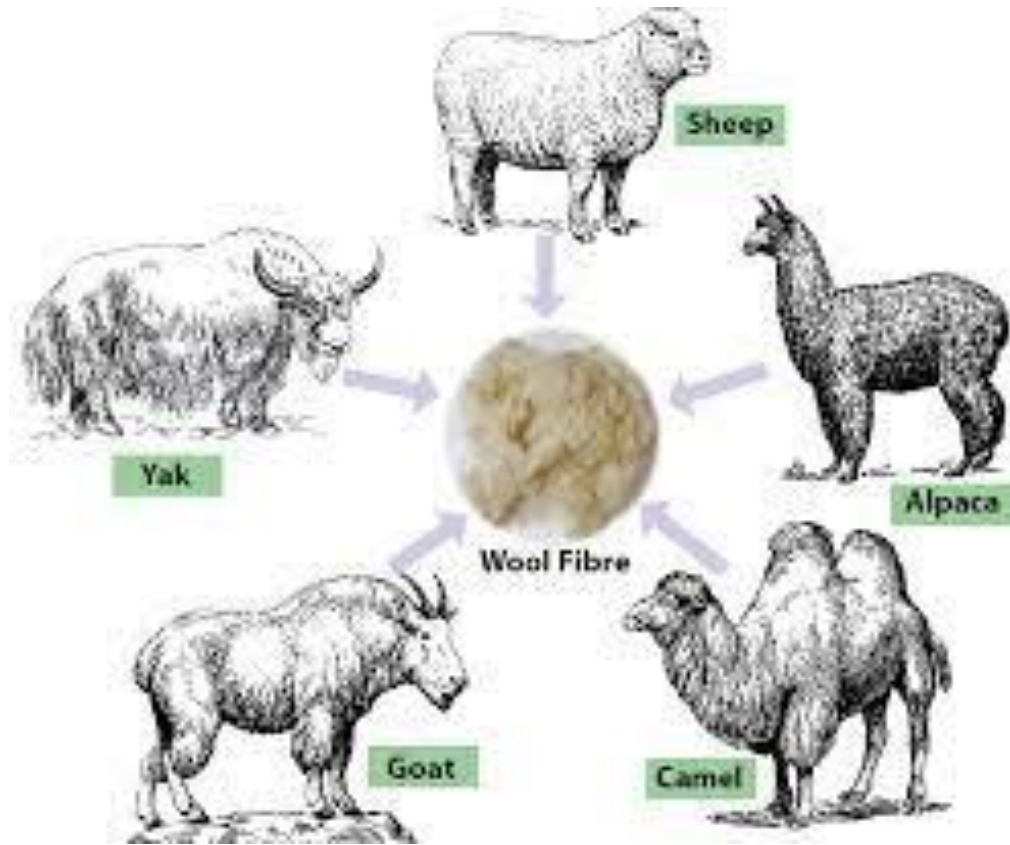


The yarn is wound to form balls of wool.

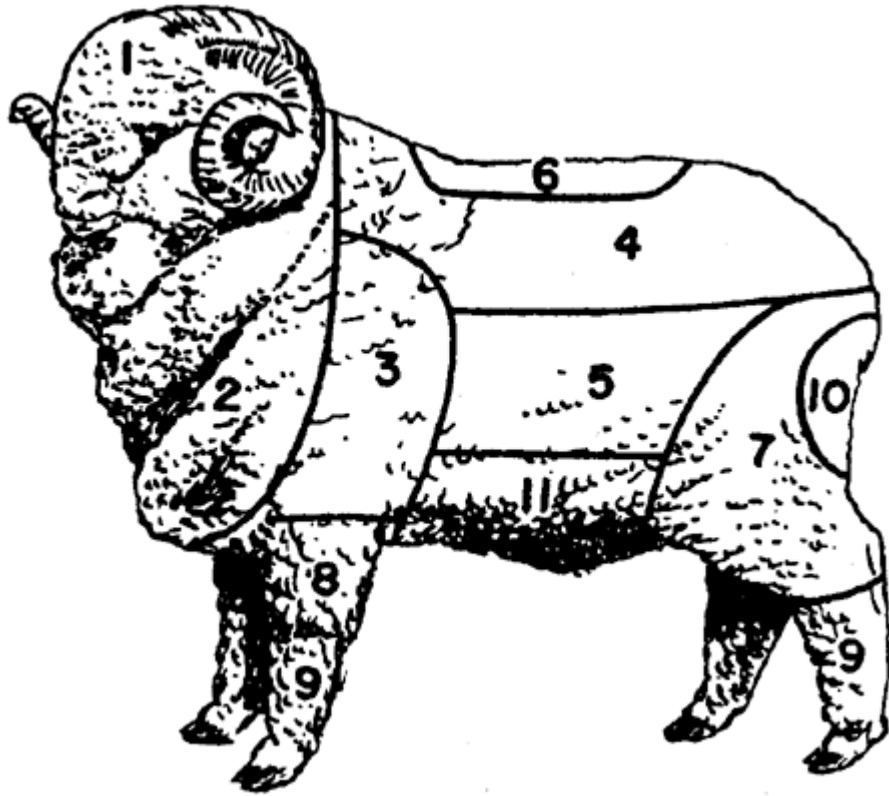





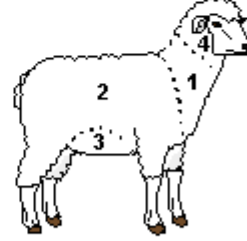


WOOL FIBRE



Sorting and Grading



FINENESS	DENSITY
 <p data-bbox="1235 551 1778 604">Three groups of fineness, with rankings from finest to coarsest:</p> <ol data-bbox="1235 636 1717 746" style="list-style-type: none"> 1. The <u>head</u> wool, 2. The <u>dominant</u> or <u>bulk</u> wool over the body, and 3. The <u>rump</u> and <u>breech</u> wool. 	 <p data-bbox="1796 558 2364 611">Three groups of fiber density with rankings from most dense to least dense:</p> <ol data-bbox="1796 644 2201 753" style="list-style-type: none"> 1. The <u>head</u> wool, 2. The <u>neck</u> and <u>shoulder</u> wool, 3. The <u>dominant</u> wool, and 4. The <u>belly</u> wool.
LENGTH	CLEANWOOL YIELD
 <p data-bbox="1235 1110 1778 1163">Three groups of fiber length with rankings from longest to shortest:</p> <ol data-bbox="1235 1196 1589 1278" style="list-style-type: none"> 1. The <u>lower breech</u> wool, 2. The <u>dominant</u> wool, and 3. The <u>head</u> wool. 	 <p data-bbox="1796 1110 2364 1163">Four groups of yield, with rankings from highest percent yield to lowest percent yield:</p> <ol data-bbox="1796 1196 2099 1306" style="list-style-type: none"> 1. The <u>neck</u> wool, 2. The <u>dominant</u> wool, 3. The <u>belly</u> wool, and 4. The <u>head</u> wool.



CARDING





Woollen yarn



Worsted yarn



**Woollen
Singles**

**Worsted
2 ply**

Harris tweed
threads

Hand spun
jacob

Lochcarron tartan
threads

Hand spun
jacob

What's the difference between Woolen and Worsted?

Woolen and worsted are two different classifications of wool fabrics and yarn. The table below list some of their characteristics:

Woolens	Worsted
Spun from short wool fibers (1-3 inches long)	Spun from long wool fibers (more than 3")
Spun from medium or coarse diameter wool fibers	Spun from fine diameter wool fibers
Fibers are washed, scoured and carded	Fibers are washed, scoured, carded, combed and drawn
lower tensile strength than worsteds	higher tensile strength than woolens
low to medium twist	tighter twist
Bulky, uneven yarn	Fine, smooth yarn
Soft, fuzzy appearance	crisp, smooth appearance
heavier weight	lighter weight
not as durable as worsteds	More durable than woolens
does not hold crease well	holds crease well

COMBING





Manufacturing Of Wool

Process

- Washing of sheep
- Cleaning- Scouring and Carbonising
- Drying and Oiling
- Dyeing and Blending
- Carding for woolen and worsteds
- Combing for worsteds
- Gilling
- Drawing, Roving and Spinning

Manufacturing Of Wool

