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WOOL

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Wool is the second most important commercial fiber. The fibers, called staples, vary in length according to the breed of sheep and its care. Fashion affects the demand and supply of wool. Too often partly worn garments are discarded, causing a waste of wool.

1. Wool fiber is covered with fine serrations or scales. Friction or moisture causes these scales to felt, or mat together. This is known as shrinking.

2. Wool is a strong fiber. It feels soft yet wiry, and springy. This is the reason wool clothing holds its shape.

3. Wool is a light weight fiber. Garments made of all wool are very light in comparison to others.

4. Wool generates electricity easily. This causes wool to feel warm.

5. Wool is not a good conductor of heat, therefore retains heat and is a warm fabric.

6. Wool absorbs moisture readily. Woolen undergarments absorb the perspiration readily, making the body feel dry and comfortable. Wool maintains this moisture at a body temperature, thus keeping the body from chilling in a draught or the cold. Woolen underwear requires frequent laundering to keep it sanitary. Wool is hard to launder and is the least cleanly of any of the fibers.

7. Wool will absorb 17 to 25 percent of its own weight of moisture in damp weather.

8. Wool dyes readily and holds the dye. This factor makes wool or worsted the most satisfactory garment for out-of-door use.

MANUFACTURE OF WOOL

1. **Woolens** are made of staples that are carded and spun into wool yarns. These are soft and have loose ends of wool running in every direction. This yarn is used to make soft finished goods such as homespun, melton cloth, wool jersey, velour, Bolivia, and broadcloths. The fabrics have a napped surface. Short firm close naps wear better than long, loose, wavy naps. Napped goods are more easily adulterated with cotton than are the worsteds.

2. **Worsted** yarns are made of long fine staples, that have been carded, combed parallel, and spun with a hard twist. This yarn makes a smooth, hard-surfaced cloth which wears better than woolens. Worsteds

shed dust and dirt easily and do not spot readily. Worsted yarn is more difficult to adulterate than woolen yarn. Typical worsted fabrics are serges, poplin, gabardines, tricotines, challies, covert cloths, and suitings.

ADULTERATIONS OF WOOL

1. Cotton is finished to look and feel like wool. It is substituted for wool in many blankets, flannels, eiderdown, or knitted goods.
2. Cotton and wool are mixed before being spun into yarn.
3. Cotton yarn is "plated," that is, covered with wool, making it look all wool.
4. Several threads of the fabric may be of cotton as found in cheap shepherd's plaid.
5. A temporary "finish" is given to cheap woolens to make them seem of better quality.
6. Reworked wool, called shoddy, regenerated wool, extracts, or remanufactured wool, is added to virgin wool. There is not sufficient virgin or new wool to supply the demands. There is no objection to the use of this reworked wool, if the manufacturers and merchants will tell of its presence, and it should cost less.

TESTS FOR WOOLENS AND WORSTEDS

1. Hold cloth up to the light. Is it closely, firmly woven? If it is sleazy, the cloth will not retain its shape.
2. Ravel out warp and woof threads. Try breaking them. If the warp is very strong and the woof weak, the cloth will not wear well.
3. Break the threads. Wool pulls apart with kinky ends, while cotton breaks.
4. Then ravel and separate a woof thread and a warp thread. Study the fibers. Good wool fibers are at least one inch long. Shoddy is short, rough, and uneven. Cotton shows up.
5. Wool tears with a dull, muffled sound. It has a rough, kinky torn edge. If cotton is present it tears more easily. The ends of wool and cotton threads are unlike.
6. Rub the thumb nail across the cloth. Do the threads pull apart or look drawn? If so, cloth is sleazy.
7. Brush the surface of the napped cloth briskly. Does the nap loosen and drop off? If so, cloth will wear "threadbare" and shabby.
8. Will goods grow "shiny?" Shiny surface is due to the loss of the loose fibers or nap. Worsted goods will wear shiny more quickly than woolen goods, because it has so little nap. Steaming and brushing will remove the shine and raise the nap.
9. **Lye or Caustic Test.** Two tablespoons of fresh household lye to one pint of water. Cover sample in this solution. Wool will become jellylike and then entirely dissolve in 5 to 10 minutes. Cotton is not affected.

Burning Test. Wool burns very slowly and gives off the odor of burning feathers. If cotton is present there may be some flame.

Color Tests.

1. Wash a sample and dry. Did the color bleed?
2. Splash mud on sample and dry it. Clean it off. Has it stained the cloth?
3. "Weather" a sample out of doors for ten days. If the color is not injured it is a "fast" color.
4. Water spotting is due to finish on goods. Most woolen and worsted fabrics should be sponged and shrunk to prevent water spotting.