

Oregon Agricultural College Extension Service

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COTTON

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Cotton, the most commonly used of all textile fibers, is the lint taken from the cotton seed. The best grades of cotton, usually the Sea Island or Egyptian, are used for the manufacture of fine sewing threads, cotton laces, sheer cotton goods, imitation silks, and silk mixtures. The coarser grades, Upland, Peruvian, etc., are used for making sheeting, calicoes, ginghams, shirtings, percales. A knowledge of the following characteristics of cotton will help the consumer to recognize the good and bad in cotton fabrics.

1. Cotton is a strong and elastic fiber.
2. Cotton is the cheapest of the four fibers, cotton, linen, wool, and silk. It is rarely adulterated with other fibers. It is often "sized" with starch, glue, or china clay, to make it seem firmer and heavier.
3. Cotton launders well. It can be boiled without injury to the fiber. Cotton shrinks, fades and tears rather easily. Care must be exercised when laundering.
4. Cotton takes starch well; therefore, it can always be kept looking new and fresh.
5. Unsized cotton is soft and pliable. Bite it and it feels soft and tender.
6. Cotton fiber has a fuzzy surface and contains a natural oil which catches dirt quickly. Therefore, it soils easily.
7. Cotton gives off lint. This makes it less desirable than linen for dish towels.
8. Cotton is not a good absorbent, until it is partly bleached and the natural wax removed from it.
9. Cotton, closely woven, is a good conductor of heat. We say cotton "feels" cool because it conducts heat away from the body.
10. Cotton loosely woven or knitted is a poor conductor of heat. Cotton blankets, outing flannel, or knitted underwear feel warm, because they do not give off bodily heat quickly.
11. Cotton is not readily affected by alkalis. Any good soap may be used when laundering it. Acids destroy the fibers. Perspiration will injure and weaken cotton cloth.
12. Cotton is not attacked by moths or insects like wool. Mildew will form if cotton is left in a warm moist place. Mildew is similar to mold.

13. Cotton dyes well. Yarn-dyed materials hold their color better than piece-dyed or printed goods.

To Test for the Method of Dyeing. *a.* Ravel out threads. If the thread is all one color, it is yarn dyed. Gingham, madras and chambray, have the same colors and patterns on the right and wrong side of the goods.

b. If the thread is of one color but dyed so white specks are left, it has been "piece" dyed. Examples: Galatea, oil-boiled calico.

c. If the threads are mottled or dyed in spots, the cloth has been printed, or the "resist" or "discharge" methods used, showing that color was applied to the woven cloth as in percale, figured voiles, challies.

When selecting printed goods, notice the distinctness of the pattern. Does it show through on the wrong side? If not, it is not well printed and will fade out more quickly than the well printed cloth.

Tests for Sizing. Rub the cloth vigorously. If sized, a fine dust will be loosened. Hold up to the light and notice the filling or sizing between the threads in the weave. Boil a suspected sample; this will dissolve out the sizing. Dry. Compare with original. Tested sample will be soft and light.

Mercerization. Cotton fibers or yarn are treated chemically with caustics. This process shrinks the fiber and causes it to swell out round and smooth. Mercerized cloth is stronger, heavier, and more silky looking, than the same cloth not mercerized. This high luster is not affected by laundering. Test for mercerization by washing and boiling the sample. Many imitation linens prove to be cotton when their finish has been washed off.

Weaves. The plain or tabby weave is used in making sheeting, percale, chambray. Usually the twill weave is stronger than the plain. This is used in denim, galatea, drilling, cotton serge, twill toweling.

Fancy weaves having long loose threads called "floats" on the wrong side, do not wear well. Cotton damask made with a small pattern wears better than one with large design. Cloth made of different weights of yarn is not as durable as that woven of the same sized yarn. Barred or striped dimities break or tear out between the coarser threads.

Thumb Test for Strength of Weave. Quickly and firmly stretch the cloth lengthwise, then crosswise over the thumbs. Do the threads stretch, pull, or loosen? Will this material pull on the seams when made into a garment? Try breaking a thread; notice the strength. Ravel a thread out; notice whether the fibers are long or short. Thread made of long fibers is best.

Burning test is useful to aid in distinguishing between cotton and linen. Ends of cotton threads will spread out when burning. Linen ends stand erect and close together. Cotton burns readily, leaves fine grey ash, has odor of burning leaves.

Oil test for distinguishing cotton and linen. Drop oil on both materials. (Sizing should be washed out first.) The linen becomes transparent, the cotton opaque.

Ink is quickly absorbed by linen, but stands on the surface of cotton an instant before it is absorbed.

Test for Shrinking. Measure sample. Wash and boil. Dry. Press. Measure and compare with the original size.