

Pima Cotton



Pima cotton is a type of cotton considered to be one of the superior blends of cotton, and it is extremely durable and absorbent. In Yuma County, Pima acreage is much smaller than its other cotton variety counterpart, Upland. Pima acreage averages about 1000 acres in the area, much less than around 15,000 acres of Upland cotton. The value of Pima cotton in the Yuma area was over \$1.5 million in 2007.

The name "Pima" is the generic term generally applied to ELS (Extra Long Staple) cotton. It had previously been called American-Egyptian cotton but was renamed to honor the Pima Indians who were growing the cotton for the USDA (US Department of Agriculture) in Sacaton, Arizona, where the government's ELS breeding program was being conducted.

When woven, Pima cotton has long fibrous threads that means one can have a higher thread count within each piece of fabric made from it. In other words, a piece of Egyptian cotton has a much more extensive weave than other types of cotton.

Since Pima cotton was so desirable, the US decided to try growing a type of it in the Southwest, which is a somewhat similar climate to Egypt. The resultant cotton was a mix of Egyptian and other types of cotton. US Pima cotton is a little shorter than Egyptian cotton but still yields a thread that, when woven, creates a dense soft fabric.

One of the advantages of pima cotton is that the thickness of the cloth it weaves, creates a very durable fabric.

Some of the finest cotton in the world bears the name of the Pima Indians of Arizona. But it is a twentieth-century development rather than an ancient tribal tradition. Early in this century the U.S. Department of Agriculture was developing new varieties of Extra-Long-Staple cotton at its experimental farm at Sacaton, south of Tempe in the Gila River Indian Reservation. Pima Indians cultivated the experimental crops of what was then called American-Egyptian cotton. Wanting a new name, the USDA designated the ELS cotton *Pima* in honor of the Pima workers. The first Pima cotton released by USDA was the "Yuma" variety in 1908.

Pima cotton traces its genetic ancestry to the famed cotton cultivated on the Sea Islands of South Carolina as early as the 1790s. This was interbred with varieties from Egypt to develop the Pima. Improvements in Pima cotton have continued since its introduction. The real breakthrough came in 1951 when a seed was developed and introduced that produced an ELS cotton with superior fiber properties, and silkiness as well as an unusually high yield.

Cotton, belonging to a family that includes hibiscus and okra, produces a natural vegetable fiber used in the manufacture of cloth. Cotton produces a sweet nectar that attracts a variety of destructive insect pests, including the boll weevil, bollworm, armyworm, and the red spider. In addition to insect pests, there is also a very destructive fungus that attacks the root system of the cotton plant.

The cotton gin, invented in 1793 by Eli Whitney, was designed to separate raw cotton fibers from seeds and other foreign materials prior to baling and marketing. The role of the cotton

gin has changed dramatically in the last 50 years to keep up with technological and production changes in the cotton industry. At one time, the gin's only function was to remove cottonseed from the fiber. Today, gins must not only separate the seed from the fiber, they must also dry and clean the fiber and package it into bales before it reaches the textile mill.

A bale of cotton weighs 500 pounds. The fiber from one 500 pound cotton bale can produce 215 pairs of jeans, 250 single bed sheets, 750 shirts, 1,200 t-shirts, 2,100 pairs of boxer shorts, 3,000 nappies, 4,300 pairs of socks or 680,000 cotton balls. Cotton can absorb up to 27 times its own weight in water.

Cotton was originally grown in several different colors including rust, brown and light purple.

Almost all parts of the cotton plant are used in some way, including the cottonseed, lint (raw cotton fiber), stalk and hull (shell). For example, popular uses for cotton fiber include clothing apparel such as denim jeans, socks, towels, t-shirts, bed sheets and underwear, home furnishings and industrial/medical products such as tents, bandages and cotton swabs.

There is more cotton grown globally than any other non-edible crop. Since 1940, world cotton consumption has increased at an average annual growth rate of approximately 2%. Cotton fiber can be woven or knitted into fabrics such as velvet, corduroy, chambray, velour, jersey and flannel.

Linters are the very short fibers that remain on the cottonseed after ginning. Once removed and processed, linters can be used to produce bandages, cotton buds, and x-rays.

Cottonseed oil can be used for cooking or used in a range of industrial products such as soap, margarine, emulsifiers, cosmetics, pharmaceuticals, rubber and plastics.

Cottonseed oil is cholesterol-free, high in poly-unsaturated fats and contains high levels of antioxidants (Vitamin E) that contribute to its long shelf life.

The stalk of the cotton plant is processed for the development of ethanol in petrol or diesel blends and also used as mulch to improve soil organic matter.

Cotton is hypoallergenic since it doesn't irritate sensitive skin or cause allergies. Cotton is one of the easiest fabrics to dye, making it very popular with fashion and home ware designers. Cotton keeps the body cool in summer and warm in winter because it is a good conductor of heat.

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