

Cotton S-t-r-e-t-c-h- Products



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Several years ago, it became evident that cotton was losing ground in total consumption of textile fibers to meet specific use requirements. One such use requirement was in stretch fabrics which had gained

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widespread acceptance from the consumers. To fight these losses in cotton usage, the U. S. Department of Agriculture's Southern Regional Research Laboratories developed stretch cottons made by a slack mercerization process.

What is Slack Mercerization?

The oldest, simplest, and least expensive chemical treatment for producing stretchable woven fabrics is by slack mercerization. This is the shrinkage of cotton textiles without

tension in a mercerizing caustic solution. The amount of shrinkage, and consequently the additional stretch, is influenced by the concentration and temperature of the caustic solution and the density and weave of the fabric.

EXAMINING THE NEW stretch cotton, ← at left, are Home Economics sophomore student Catherine Dunlap, at left, and Dr. Pauline Hall, right.

At least eight companies are now producing slack mercerized cottons and many others are investigating the possibilities of such products. One newer development includes slack mercerized cotton molded for bras.

Uses of Stretch Fabrics

All-cotton stretch fabrics have many potential uses in the household and apparel markets. One of the earlier products was cotton conforming bandages which had considerable stretch but poor recovery. This was followed by one-way stretch diapers. More recent emphasis is in a great variety of woven fabrics.

An all-cotton stretch woven fabric is being used for men's and boys' wear. This no-iron cloth is said to have full recovery after about 10 percent stretch and is styled in a line of prints and plains for pajamas and shorts. Other uses now include twills for work clothing, combed poplins, gabardines and denims for sportswear, a homespun type fabric, and several sheetings. America's first warp-stretch corduroy, called Vertiflex, was developed recently by a firm which previously introduced Flexicord, a filling-stretch corduroy. In addition, all-cotton stretch socks are now available on the market.

Advantages of Stretch Products

The advantages of all-cotton stretch products include pleasing texture, comfort, improved fit and appearance, and improved performance in various uses. Cotton stretch has additional desirable characteristics of coolness, launderability, absorbency, and freedom from clamminess.

Studies have shown that stresses required to stretch the slack mercerized fabrics were very low, and the growth after stretching was also low. The growth produced by stretching the fabrics was removed by home laundering and tumble drying.

These slack-mercerized stretch fabrics have better flex-abrasion resist-
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Our Mystery Picture Cites Age-Old Trail

Arizona is dotted with historical markers and sites — in fact the shadow of recent history always is looking over the traveler's shoulder. If you observe these markers, and if you read about the richly interesting history of this land, your trips will be more rewarding.

The marker which constitutes our "Mystery Picture" in this issue is at a roadside rest stop along Highway 70, between Safford and Duncan. The wording is too obscured for the camera's eye to read clearly, but it says: "In 1846 General Kearney's Army of the West, guided by Kit Carson, followed the Gila River from New Mexico to the occupation of California in the Mexican War, thus opening the southern snow free route to the Pacific Coast."

The Gila River route was used as an Apache trail long before the white man came along to disturb that valiant and warlike civilization. The Mormon wagon trains of immigrants followed this same trail, as a paved highway does today.

Despite General Kearney and Kit

Carson, the route was contested for half a century after their exploratory trip. Not far from the plaque quoted here is one in memory of Horatio Harris Merrill and his daughter, Eliza who, the plaque reads, "While traveling by team and wagon from Pima, Arizona, to Clifton, Arizona, were ambushed and killed by Indians with rifles, December 3, 1895."

Upland Acreage Same, Long Staple Down in '64

Arizona growers will plant about the same amount of upland cotton in 1964 as in 1963, but the planting of extra long staple will fall off by about 15,000 acres.

Dr. Howard E. Ray, extension cotton specialist with the University of Arizona, pointed out that the 1964 Arizona upland cotton allotment, including the state's share of the national reserve, is 331,756 acres.

This is an increase of only 18 acres over the 1963 allotment and compares with 1961 and 1962 allotments of slightly more than 370,000 acres.

Extra long staple (American-Egyptian) cotton allotments increased

tailored with an easy fit to look like similar garments of non-stretch fabrics. These include shirts for men and boys and blouses for women and girls. The stretch of these garments is primarily intended to provide comfort to the wearer engaged in some arm movements where crosswise strain is imposed across the shoulders or backs of the individuals. The filling-wise stretch fabrics may also be used effectively in shorts or pants where only a normal amount of strain is imposed while sitting, or in moderate bending.

The two-way stretch cotton fabric would be most useful in clothing which might receive strain in a number of directions. Fitted sheets are an example, as well as some sportswear, work clothing and children's clothing.

The emphasis of cotton stretch fabrics is on comfort and improved fit and appearance. However, it must be remembered that tight-fitting garments should be avoided. Easy-fitting garments will prevent straining the fabric beyond the point at which the fabric will recover its original shape. Under normal strain, laundering and tumble-drying will help to recover the original shape of these garments.

Here's How to Remove Old Wax From Floors

Removing old wax from hard surface floor coverings, such as inlaid linoleum, vinyl or asphalt, can be a vexing problem.

"Wax builds up. When the floor becomes cloudy and polishing doesn't improve it, the old coats should be removed," says Miss Corinne Stinson, home management specialist with the University of Arizona.

You can remove the wax with a diluted solution of heavy-duty laundry detergent and household ammonia (half a cup of detergent and a half a cup of ammonia in one gallon of warm water). This mixture and a stiff brush normally will do the job, but do not use this on wood floors.

She adds that extra heavy build-ups, as around baseboards, may require use of steel wool. Be sure to dip the steel wool in the cleaning solution before using it.

from 26,831 acres in 1961 to a high of 63,739 acres in 1963. But this year, the allotment for this type of cotton has been cut back to 48,342 acres.

In the wake of a somewhat disappointing 1963 season, Arizona cotton producers will be taking long, hard looks for ways in which to increase yields and cut costs during the coming season, said Dr. Ray.

Varieties of cotton which producers choose to grow are not expected to change drastically. In the lower elevations, southeastern varieties — predominately Deltapine Smooth Leaf — will again be planted on most of the acreage. In the higher elevations of southeastern Arizona, Acala 1517 will continue to be the most popular type. Pima S-2 will be the favorite long staple variety in all cotton-growing areas of the state.

Dr. Ray foresees a growing interest in the use of chemicals to control weeds as a result of new herbicides and the serious grass problems of 1963.

The most extensively used herbicides will continue to be monuron and diuron, applied at layby. Trifluralin will be used for pre-plant application on several thousand acres. Also, a number of producers will use combinations of trifluralin applied pre-plant followed by one of the urea herbicides at layby.

Herbicides probably will be used on more than 100,000 acres of Arizona cotton during the year.

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ance (resist bending and shearing) and higher crease recovery angles (less wrinkling) than similar fabrics not treated by slack mercerization. After 20 home launderings and tumble dryings the stress-strain properties of slack mercerized fabrics were not materially affected, but there were losses in tearing strength and flex-abrasion resistance.

Consumer Aspects

The consumer should realize that the advantages of all-cotton stretch fabrics are best realized by considering the uses of the product. One important consideration is proper selection for warp, filling, or two-way stretch fabrics in garments. The warp or lengthwise stretch would not be too appropriate in cottons. This type of stretch is found most frequently in the stretch pants for active sportswear, in which the wearer does a great amount of bending and stooping. Probably the elastomers or thermoplastic synthetic fibers would be more suitable for the extreme type of strain usually experienced with this type of garment.

Cotton filling stretch fabric is available and suitably used in garments