

Mill Acceptance Of Arizona Cotton

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Much Improved With the New Arizona 44 Variety Now Used

During the past few months a number of people from Arizona have visited cotton mills in Virginia and the Carolinas to obtain as much information as possible regarding the performance of our cotton in these mills, and the willingness on the part of mill operators to use it. A relatively large number of growers, in addition to several research workers, took part in these investigations.

Arizona 44 is very favorably received in a great many mills in the East. While satisfaction is not complete in all cases, it is much more nearly so than it was before the new variety came into general use.

The complaint is still heard, though much less frequently, that there are more neps in irrigated than in rain-grown cotton. Regardless of the nep content, irrigated cotton is now being used in many mills to blend with rain-grown cotton in amounts varying from 25 to 50 percent. The very fact that such blends are being used is proof that our cotton has something that the rain-grown does not have.

Fiber Strength O. K.

Another common objection to Arizona cotton in the past was the weak yarns produced. This objection is no longer heard. Insofar as strength of fiber and yarns produced is concerned, all buyers interviewed seemed to be perfectly satisfied with the results obtained from 44. It is our opinion that the extra strong yarns produced from all irrigated varieties now being grown is the reason for their use in the blends previously mentioned. There appears to be no

objection on the part of the buyers to still stronger fiber although they do not think it necessary.

There was no mention made of "fly" or excessive numbers of short fibers in our present cotton, and no complaint of high percentage of waste. No doubt improved ginning has helped greatly in this regard.

Several buyers mentioned country damage, or damage from bales remaining too long in the gin yard. With more adequate storage facilities, which are now available, this complaint can be easily eliminated.

All buyers interviewed were very positive in stating that they do not want overmachined or overheated cotton. This complaint was not leveled directly at irrigated cotton, but at cotton produced all the way across the belt. There seems to be a difference of opinion regarding the amount of damage that can be done in this manner, but as long as the mill buyers feel as they do now, we should be very careful.

There seems to be some evidence that the fiber of Arizona 44 is slightly finer than is desirable for certain purposes. Breeders seed furnished to the Seed Distributors each year for increase has in the past been made up of equal parts of selfed seed of twelve families. There is some difference in the fineness of these families. The six finest ones were discarded in 1953, and the six coarsest retained for future increase. It is doubtful that this will coarsen the fiber sufficiently, so plants will again be selected in 1954 as equipment is now available for testing fineness.

The different growing conditions throughout the state cause consider-



Cover Picture — Using the Microneaire to test individual plant selections for fineness of fiber. This instrument is used extensively by spinners in making up their blends.

able variation not only in fineness but in length and strength as well. Even in the same area, variations will occur due to differences in fertility, available water, and other factors. The only thing that can be done is to select for fiber qualities which will, on the average, fall as nearly in line as possible with those found to be most desirable.

At various times in the past, mill buyers have been questioned regarding the qualities they desired. Replies were usually vague and not easily understood by the breeder. During the last ten years numerous instruments have been developed for measuring length, strength, and fineness of cotton fibers. Still others are being developed to study elasticity. Extensive use of these instruments by breeders and spinners alike has led to a much better understanding of the problems involved, and of the qualities in a cotton which make it desirable for spinning. It is now possible to determine fairly accurately the fiber characteristics most desirable.

Many Mills Do Own Testing

Many mills are now operating their own laboratories in which samples of all bales bought may be tested. Tests for fineness are very thorough, while those for strength are adequate. By means of these laboratory tests, blends can be made up which will produce yarns of the desired specifications. This is one place where the extra strength of irrigated cottons has been found very useful.

Each buyer interviewed expressed the fervent hope that he would never see another bale of P18-C.