BREEDING RESEARCH WITH LONG STAPLE COTTON

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The objective of the long staple cotton breeding program has been to determine the best method of breeding a superior variety, using selection criteria such as high yields, good agronomic traits and superior spinning qualities.

The usual amount of segregating F_2 progenies were grown to provide materials for selection of desirable plants.

Seventeen F_2 progeny rows were grown from which 42 single plant selections were made with respect to high production and suitable length of fibers.

Nine plots, each consisting of four rows 300 feet long, were grown from F_3 progenies selected in the previous year. These F_3 progenies were from various hybrids between four outstanding breeding lines, #3-1, #126-1-28, #126-1-116, and #77-4. The two middle rows of each of the nine plots were harvested for the purpose of mixing the seed in equal amounts to build up a gene pool from which selection will be made in later generations.

The incorporation of okra and super-okra genes into all breeding populations of Pima cotton is proceeding along on schedule as we are developing Pima cotton that will be suitable for high population cotton production systems.