

**ADAPTATION OF SELECTED COTTON STRAINS  
TO A NARROW ROW ENVIRONMENT**

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**Abstract**

The practice of growing cotton in narrow rows (30") instead of conventional 38" inch rows has steadily increased since the introduction of suitable harvest equipment. Because corn is also commonly grown in 30" row spacings, narrow row cotton can lower equipment costs for farmers who grow both corn and cotton. This has been an important factor as corn acreage has been on the increase in the midsouth.

It has previously been suggested that there is a need for cultivars adapted to a narrow row environment. Row spacing tests have produced inconsistent yields when comparing different genotypes. The introduction of a cotton cultivar specifically adapted to narrow row practices would be useful in maximizing yields. In this study, six experimental strains that were developed and selected in a narrow row setting were evaluated along with two commercial cultivars in both 30" and 38" row spacings. Plant mapping, fiber quality, and yield data were collected from tests at the Mississippi Agricultural and Forestry Experiment Stations (MAFES) in 1994 and 1995.

Preliminary results indicated significant differences among genotypes for final mapping, yield, and fiber characteristics. Differences due to row spacing were observed for lint yield. Significant genotype x spacing interactions were observed for yield, average number of vegetative branches, nodes to first sympodial branch, and boll position in the final mapping. Analysis of the data indicated that: (1) response to selection for adaptation to narrow rows was observed, (2) further selection under a narrow row environment should continue.