

**DRYLAND PERFORMANCE OF EIGHT COTTON
CULTIVARS GROWN IN NARROW ROWS IN
THE SOUTH TEXAS COASTAL PLAINS**
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Abstract

To evaluate the responses of cotton cultivars to narrow row spacing, we examined eight varieties throughout the growing season in Corpus Christi, Texas. Varieties were planted in a randomized complete block design in 12-inch rows on 38-inch beds. The resulting 26-inch gap between the double-rows allowed us to cultivate and spray without damaging the plants. A seed rate of 130,000 seed per acre was used.

The year 2000 was a drought year for the Corpus Christi area. The soil profile was last filled the previous September, and less than six inches of rain fell during the growing season. Much of the boll-filling stage was dry. The accumulated heat units during the season were near normal. Under these stressful conditions, the varieties showed the following characteristics:

- **Paymaster 1218 BG/RR** exhibited the highest fruiting potential under drought stress. It had the highest fruit retention, good boll weight, acceptable turnout, and therefore, the highest lint yield.
- **Paymaster 2280 BG/RR** also showed good fruiting potential, retention and boll weight, but turnout was low (31.6%).
- **Fibermax 832** exhibited many good characteristics, and even with a much lower boll weight (2.8g) produced a good yield.
- **Fibermax 958** did not do well under drought stress. Lower number of fruiting positions, retention and turnout hurt lint yield.
- **NK 2387c** showed only a modest number of fruiting positions, but good boll weight and excellent turnout led to a higher yield than most.
- **NK 2108ss** showed a larger fruiting potential than 2387c, but had lower turnout. The net result was a mid-range yield.
- **Tamcot Pyramid** exhibited the highest boll weight, good fruiting potential and moderate turnout, which led to a moderate yield.
- **Tamcot MAR-LBK8SPXLBH-2-97** experimental was similar in yield to Pyramid, but with smaller, more numerous bolls and lower turnout.

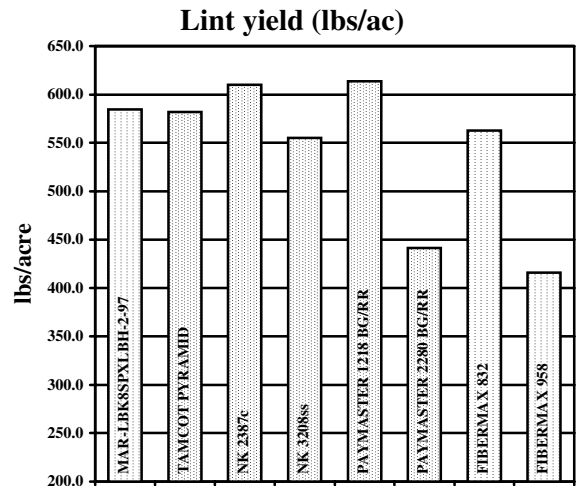


Figure 1. Lint yields of eight cotton varieties grown in narrow rows.