

**ULTRA-NARROW ROW
AND CONVENTIONALLY SPACED COTTON:
GROWTH AND YIELD COMPARISONS**

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Cotton producers are continually searching for more profitable and less labor-intensive ways of producing a crop. Ultra-narrow row cotton (UNRC) production appears to be an avenue by which this may be accomplished. Although definitions for ultra-narrow row may vary, this production scheme is generally typified by planting in row spacings ranging from 7.5- to 15-inches. Experiments were conducted in 1997 and 1998 in the Brazos Bottoms of Texas to compare the growth and yield of conventionally spaced and UNRC. Cotton was planted in 7.5-, 15-, 30-, and 40-inch row spacings. Plant populations in these spacings were 160-, 74-, 55-, and 40-thousand plants/A, respectively. In both years, canopy closure between the rows occurred much earlier with cotton grown in 7.5- and 15-inch row spacings. However, the plants grown in 7.5-inch row spacings were shorter with less leaf biomass per plant than cotton grown in all other row spacings. In the 7.5-inch row spacings, 85% of the harvestable bolls were on the first position; less than 70% of the harvestable bolls were on the first position in all other row spacings. This same trend was observed for boll distribution by node. The 7.5-inch spacing had 76% of the harvestable bolls on nodes 6 through 10; all other row spacings had less than 60% of the harvestable bolls on these nodes. These data do not indicate that planting in 7.5-inch row spacing cause bolls to be set earlier on lower nodes, but rather that this spacing reduces the number of bolls set later on higher nodes. Percent lint ginout was increased with both the 7.5- and 15-inch row spacings compared to the conventional spacings. In 1997, lint yield was not different between the row spacings. In 1998, increases in lint yield were observed with both the 7.5- and 15-inch row spacings compared to the conventional spacings. Data from this two-year study suggests that UNRC may be a feasible alternative to conventional cotton production.