

**EFFECTS OF PLANTING DATES ON
FRUIT DISTRIBUTION AND YIELD**
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Abstract

Research data have demonstrated that the optimum planting window for cotton in the Lower Coastal Bend Region of Texas is approximately March 10 to March 20. Planting too early results in poor stand establishment, often leading to replanting. Planting too late considerably reduces the yield potential because the boll filling period coincides with the onset of water stress and boll weevil population build-up. Unfavorable weather conditions during the spring often delay planting until late April. This experiment was conducted to obtain information on the potential yield losses resulting from delayed planting. The information will be useful to farm managers to determine the risk and benefit attributable to planting too early or too late. Three planting dates were used in the study: March 1, March 24 and April 11. Results were evaluated by monitoring vegetative and reproductive development during the growing season. Lint yield and quality was measured at the end of the season. Plant population was reduced to 8 plants per meter in planting date one, compared to 12-14 plants per meter in planting dates two and three. Planting date one and two displayed shorter internode length than planting date three. This was attributed to cold temperatures in March which delayed the initiation of mainstem nodes. Plant height at crop maturity (7/22) was not statistically significant across planting date treatments. Lack of rainfall after 6/15 stressed all planting dates, inducing early cutout. Water stress caused a 21% and 33% reduction in boll number in planting date two and three, respectively. Total number of bolls set in positions one and two decreased as planting date was delayed. Delayed planting time also reduced the number of bolls set on reproductive branches 6 and above (top crop). Planting date treatments did not affect the number of bolls set on reproductive branches 1-5. Lint yield decreased progressively from 653 lbs. of lint per acre in planting date March 1 to 555 and 494 lbs. per acre as planting was delayed to March 24 and April 11. While the reduction of lint yield was statistically significant, no differences in fiber quality parameters were observed. It was concluded that early planting results in crops with high yield potential in spite of stand losses due to cool, wet conditions prevalent in early March.