

**COTTON DEVELOPMENT FOLLOWING
EARLY SQUARE REMOVAL**

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Abstract

A field study was conducted to determine the effects of early square (floral bud) removal on cotton *Gossypium hirsutum* L. development. Square removal was initiated when the first squares were approximately 10 days of age and continued at weekly intervals for each treatment. Squares were manually crushed to cause abscission similar to insect damage response. Treatments were: No squares removed, squares removed for 1 week, squares removed for 2 weeks, squares removed for 3 weeks and squares removed for 4 weeks. Delays in flowering increased as square removal increased. Extended square removal resulted in increased plant height, greater number of nodes per plant and fewer bolls 96 DAP (days after planting). Boll opening was delayed as square removal increased. Significant increases in DAP to 80% open bolls were observed when squares were removed for 2, 3, and 4 weeks. As square removal increased seed cotton production was moved to nodes higher on the plant, to positions further from the mainstem and to vegetative (monopodial) branches. Seed cotton production was higher in the treatment where squares were removed for 3 weeks than the 2 week treatment. No other differences in yield were noted.