Plant Population Density in Ultra-Narrow Row Cotton. (C03-gwathmey081452-Poster)

Authors:

- C.O.Gwathmey* - *University of Tennessee*
- C.E.Michaud - *University of Tennessee*

Abstract:

Optimum plant population density (PPD) in cotton involves a tradeoff between adequate stands for high yields, and controlling costs associated with seeding rate. The optimum PPD in ultra-narrow rows (UNR: <25 cm) may be higher than in conventional row widths. Field research was conducted at the Milan (TN) Experiment Station from to study effects of PPD on lint yield, quality, and revenues in UNR cotton. Results indicate that yields were relatively stable across a wide range of PPDs in each of the three years, despite two-fold differences in lint yields between years. Only a few fiber quality traits were significantly affected by PPD in this study. Staple length and micronaire were reduced at the highest PPD in 1999, but neither trait fell into the discount range. Leaf discounts increased with PPD in 1998, but were not significantly affected by PPD in 1997 or 1999. Simple estimates of seed cost effects were calculated by subtracting variable seed costs from gross revenues obtained from the sale of lint produced at various PPDs. The highest revenues after seed costs were obtained at PPDs that were lower than those for highest yields, indicating potential for seed cost reduction.

Corresponding Author Information:

Owen Gwathmey
Univ. of Tennessee
605 Airways Blvd.
Jackson, TN 38301

phone: 731-424-1643
fax: 731-425-4760
e-mail: cogwathmey@utk.edu

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