

EVALUATION OF ULTRA NARROW ROW COTTON IN NORTH CAROLINA

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Abstract

Interest in ultra narrow cotton (UNR) has grown over the last year in North Carolina. Studies were conducted to evaluate growth and development of UNR compared to conventional cotton, thrips control, and planting dates. In terms of growth and development, plant mapping data provides insight into the differences between UNR and conventional cotton. UNR cotton set a higher percentage of first position bolls. The percentage of vegetative bolls and number of vegetative branches for UNR was much less than conventional cotton. UNR plant height was less than conventional and the peak bloom occurred earlier than in conventional cotton. Basically UNR compared to conventional cotton seems to be earlier, shorter, more columnar, and set almost all first position bolls. Lint yield was not significantly different between UNR and conventional cotton however UNR cotton was harvested 12 days prior to conventional cotton.

For thrips control, treatments applied were an untreated check, Gaucho seed treatment, Gaucho + Orthene, Orthene as needed, and Temik at 14.5 lb./acre. There were no significant differences between the thrips control treatments with the Temik treatment yielding the highest numerically, and significantly greater than the check. Temik at 14.5 lb./acre is probably not a feasible option in UNR, therefore further evaluations are needed to investigate thrips control effects on earliness and management options in UNR cotton.

Ultra narrow row cotton was planted on May 14, May 29, June 9 and June 17 in Goldsboro and Rocky Mount. There was no difference in lint yield at the two locations for the May 14, May 29 and June 9 planting dates. Lint yields for the June 29 planting date were lower than the other planting dates. This was at least partially due to dry soils and reduced stands for the June 17 planting date. Additional research needs to be conducted to determine optimum planting dates for UNR cotton and to determine if double cropping with small grains is feasible.

After one year of work with UNR cotton we believe that there are certain advantages that can be gained with the system. UNR may be planted later than conventional cotton because there seems to be an earliness advantage to UNR

cotton. The earliness advantage may also allow growers to double crop in some situations with small grain. There also may be more inherent flexibility in farm management options due to lower equipment costs in UNR cotton. There does, however, seem to be problems or disadvantages with UNR cotton. They include, but may not be limited to, weed control, getting a stand, higher seeding rates, desiccating for harvest, and increased mepiquat chloride rates. The above findings are from only one year's experience with UNR. Future research needs to confirm some of these observations, and investigate areas of concern.