

AGRONOMIC COMPARISONS OF NEXT GENERATION ROUNDUP READY® COTTON

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Abstract

In 2001 field studies were conducted in ten locations to evaluate agronomic characteristics of several new Roundup Ready transgenic cotton (*Gossypium hirsutum*) events. Trials were designed for the purpose of comparing homozygous positive plots to the homozygous negative plot from the same transgenic Roundup Ready event. This comparison highlights any possible agronomic differences that may be due to the Roundup Ready transgene. Trials were conducted using a paired split plot design with four replications. There were five new Roundup Ready events in the trial. Data was collected on three of the five events at each location. All studies were conducted using standard weed and insect control practices for each site. All events used in these trials were in a Coker 130 background and data collected included stand counts, final plant map, yield, and complete fiber analysis.

Final plant map data of the new Roundup Ready events indicates that there is no difference in boll size for any of the new events across locations when compared to the negative event. Fiber analysis across locations also shows that there is no difference in length, strength, or micronaire when comparing the negative event to the same event containing the new Roundup Ready transgene. Average lint yield across locations was not different in those plots containing the new Roundup Ready transgene compared to the same event without the transgene.