

# 2003 Shelby County Roundup Ready Cotton Variety Trial

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One of the most critical decisions a cotton producer makes each year is which variety to plant. Many factors, such as yield potential and lint quality, are heavily influenced by seed selection. Area cotton producers often ask for more site-specific information on the unique soils and situations on their farms. On-farm field trials are important to verify University research and to show how different varieties perform under typical management practices in producers' fields.

## **Procedures**

A field was selected on the Phillip Barber farm near Harpersville in Shelby County. Fertilization, weed and insect control was maintained at optimum levels, per ACES recommendations. No significant worm damage was noted. The same production practices were carried out across all varieties, regardless of technology or genetically engineered traits.

Twelve cotton varieties, all containing the Roundup Ready<sup>R</sup> gene were planted on April 21, 2003, with three replications of each variety in a complete block design. Each plot was four field-length rows of a single variety.

The center two rows of each plot were harvested on October 3 with a spindle picker and a weighing boll buggy was used to weigh each plot. One pound grab samples were cleaned and ginned on a mini-gin, and analyzed with HVI equipment at the USDA-AMS Birmingham Classing Office.

## Results

### Shelby County RR Cotton On-farm Variety Trial, 2003.

<b>Variety</b>	<b>Lint yld. lbs/acre</b>	<b>Mic</b>	<b>Length</b>	<b>Strength</b>
DP 444 BG/RR	1181	3.7	1.12	28.5
ST 5599 BR	1179	4.2	1.10	29.7
ST 4892 BR	1171	4.3	1.11	29.6
ST 4793 R	1159	4.3	1.08	28.5
DP 449 BG/RR	1137	4.1	1.08	29.7
FM 989 RR	1135	3.6	1.11	31.8
FM 991 RR	1121	3.9	1.13	31.8
DP 555 BG/RR	1102	4.4	1.08	27.4
ST 5303 R	1088	4.2	1.08	30.4
SG 215 BG/RR	1070	4.4	1.07	27.4
DP 436 RR	1025	4.3	1.12	27.7
DP 655 B/RR	977	4.1	1.11	31.9
LSD (0.05)	95	0.3	0.04	1.5

Results showed that there was a difference of 204 lb/A of lint between the highest and lowest yielding cultivars. There were also several significant differences in quality measurements between varieties.

Area cotton producers can use these results to compare the performance of these varieties, with the potential for significantly higher returns from their crop. Producers should not rely on any single source, however, to guide their choices, but should also use other information such as the multi-year data from the AAES Official Variety Trials, and other public and private sources.