

Williamson County Result Demonstration Report



2003 MILAM COUNTY TRANSGENIC COTTON VARIETY DEMONSTRATION

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SUMMARY:

Thirteen Roundup Ready Cotton Varieties were evaluated on the Jay and Wilburn Beckhusen Farm near Buckholts, TX. Yields for individual varieties ranged from 705 to 1045 lbs/acre for Beltwide Cotton Genetics 28R and ST 5599 BG/RR, respectively. The average per acre loan value ranged from \$366.75 to \$560.71, (average \$450.86) for ST 5599BR and 436RR, respectively. The top three varieties are all relatively ne and each were stacked varieties, ST 5599, DP 555, and DP 444. There was some worm pressure in this trail which may have contributed in part to the fact that the two lowest yielding varieties were non-Bt varieties, DP 436RR and BCG 28R with yields of 723 and 705 lbs/ac, respectively. FM 989 RR was the other non-Bt variety in this trial and had a yield of 848 lbs/ac.

OBJECTIVE:

Roundup Ready cotton varieties have been the predominant type of cotton grown in the Central Blacklands for the past few years. Therefore, the objective was to evaluate Roundup Ready cotton varieties for earliness, yield potential and fiber characteristics such as micronaire, fiber length, uniformity and fiber strength, all of which influence the market value of the crop.

MATERIALS & METHODS:

The demonstration was planted on April 3, 2003. The test was comprised of 13 Roundup Ready cotton varieties, some of which were stacked with *Bt* technology. Varieties were planted on the Jay and Wilburn Beckhusen farm located near Buckholts, TX. Each plot was 6 rows wide (30 inches) x

860 feet in length. Fertilizer consisted of 100-0-35 + 20 lbs Sulfur. Treflan @ 1 qt/ac was applied pre-plant incorporated on January 22. Roundup Ultra Max @ 1.5 pt/ac was applied at planting. Temik @ 4lbs/ac was applied in-furrow at-planting.

The plots were treated for early season thrips and fleahoppers as justified and 4 oz of Pix was applied in a single application in early June.

The cotton was treated with Dropp @ 0.1 lb/ac and Def @ 8 oz/ac on August 28 followed by Cyclone Max @ 16 oz/ac on September 5.

The plots were harvested on September 9. During harvest, the entire plot was stripped with a 6-row stripper. The seed cotton was dumped into a weigh buggy before small samples were pulled which were ginned by Delta and Pineland at their ginning facility in Mississippi. Lint turnout from the individual samples and weigh buggy data were used to determine a per acre yield for each variety.

RESULTS AND DISCUSSION:

Yields for individual varieties ranged from 705 to 1045 lbs/acre for Beltwide Cotton Genetics 28R and ST 5599 BG/RR, respectively (Table1). The mean yield for all varieties was 876 lbs/ac. Micronaire averaged 3.8, with a range from 3.4 to 4.4. Staple ranged from 1.00 to 1.11, with a mean of 1.07. Uniformity, and strength averaged 80.7, and 30.6, respectively. Loan value/acre for individual varieties ranged from \$366.75 to \$560.71 with a mean of \$450.86.

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Table 1. Average Yield and Fiber Data and per Acre Loan Value for Milam County Cotton Variety Demonstration, Buckholts, TX 2003

Variety	Lint Yield lbs./Acre	Mic	Staple (in)	Unif.	Strength	Color	Loan Value/Acre
ST 5599 BR	1045	4.2	1.10	81.2	30.4	41-3	\$560.71
DP 555 BR	1026	3.9	1.04	79.5	28.5	21-2	\$519.11
DP 444 BR	1006	3.5	1.06	80.6	29.6	31-3	\$505.20
DP 451 BR	911	3.9	1.05	80.7	29.7	41-3	\$452.80
FM 960 BR	904	3.7	1.07	82.2	32.6	31-2	\$459.01
FM 800 BR	887	3.5	1.14	82.0	33.1	31-1	\$487.52
SG 215 BR	858	3.9	1.00	81.0	29.6	21-4	\$425.38
FM 989 BR	848	3.7	1.02	77.5	26.8	31-1	\$411.46
FM 989 RR	836	3.5	1.08	80.7	33.5	41-3	\$449.96
ST 4892 BR	825	3.8	1.06	80.5	29.7	32-2	\$431.37
DP 449 BR	812	3.4	1.07	80.8	32.8	21-4	\$418.65
DP 436 RR	723	3.9	1.11	81.4	31.6	41-3	\$366.75
BCG 28 RR	705	4.4	1.07	80.7	30.3	31-3	\$373.27
Mean	876	3.8	1.07	80.7	30.6		\$450.86

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