



Result Demonstration/Applied Research Report

2005 HOWARD COUNTY STACKED COTTON VARIETY DEMONSTRATION

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SUMMARY

Eight cotton varieties were planted to compare fiber yield and quality characteristic under similar irrigated production conditions. FiberMax 800 B2R and FiberMax 960 B2R were the highest yielding varieties in this test. FiberMax 800 B2R had the highest loan value at 58.05 cents per pound. This is only one years result and continued testing is recommended before making a significant switch to a new variety.

PROBLEMS

Several new varieties of cotton become available each year and when combined with the varieties already available makes planting seed selection increasingly difficult. Producers need local data to help in selecting adapted high yielding varieties with desirable fiber quality traits. Higher strength and longer staple are the primary fiber quality characteristics they are looking for.

OBJECTIVE

With improved varieties being introduced each season, testing is a necessary part of any farming operation. This field test was established to compare new and traditional varieties. The main focus will be to find those varieties that provide high lint yield with desirable fiber traits. Since some varieties have a limited success within a narrow range of production conditions, local testing is necessary and justified. This test will allow area producers to determine if new varieties being introduced are more productive than what they currently planting. Also, it will provide area producers with the opportunity to examine the differences in plant development between the old and new varieties.

MATERIALS AND METHODS

Cooperator: Marty Brooks
 County Precinct: 4
 Planting Date: May 19, 2005
 Planting Rate: Four seeds per foot
 Planting Pattern: Solid on 40 inch centers
 Previous Crop: Cotton
 Irrigation: Drip Irrigation
 Fertilizer: 150 pounds of nitrogen and 60 pounds of phosphorus
 Herbicide: One quart of Roundup during the growing season
 Insecticide: Trimax at pinhead square
 Soil Type: Sandy Clay Loam
 Acres of Each Variety Planted: 1.55 acres (16 rows, 1265 feet long)

The test plots were stripper harvested to determine the yield per acre. A two pound sample was taken and ginned at the Texas Agricultural Experiment Station in Lubbock to determine the percent turnout of lint and seed. A sample of the ginned cotton was taken to the International Textile Center in Lubbock to have fiber properties determined using a HVI classing machine.

RESULTS, DISCUSSION AND ECONOMIC ANALYSIS

As seen in Table 1, the yields in this plot ranged from 1912 pounds per acre to 2471 pounds per acre. FiberMax 800 B2R and FiberMax 960 B2R were the highest yielding varieties in this test. FiberMax 800 B2R had the highest loan value at 58.05 cents per pound.

Table 1. Data from Marty Brooks' 2005 Drip Irrigated Cotton Variety Test (Howard County)

Variety	Yield Per Acre				Fiber Quality					CCC Loan Value	Lint Gross Return (\$/acre)	Seed Gross Return (\$/acre)	Total Gross Return (\$/acre)
	In Pounds		% Turnout		Color- Leaf	Fiber Length (staple)	Mic	Strength (gram/tex)	Uniformity				
	Lint	Seed	Lint	Seed									
FiberMax 800 B2R	2471	4024	35.9	58.4	312	37	4.0	30.7	82.5	58.05	1434.29	201.19	1635.48
FiberMax 960 B2R	2490	3998	35.4	56.8	413	36	4.2	29.3	81.2	54.55	1358.42	199.90	1558.32
Phytogen 480 WR	2232	3548	33.1	52.7	412	38	4.3	32.1	80.6	54.90	1225.48	177.40	1402.88
Deltapine 445 BR	2108	3078	36.2	52.8	312	37	3.8	29.6	82.9	57.85	1219.52	153.88	1373.40
Stoneville ST 5599 BR	2109	3317	35.0	55.0	413	35	4.2	30.1	80.1	54.30	1144.98	165.83	1310.81
Deltapine 488 BR	2128	3219	36.8	55.7	412	35	4.4	26.6	80.3	53.90	1147.26	160.95	1308.20
Deltapine 455 BR	1990	3005	36.3	54.9	412	36	4.2	29.7	81.3	54.90	1092.49	150.26	1242.76
Deltapine 555 BR	1912	2831	36.9	54.7	412	36	4.2	28.5	79.2	54.25	1037.38	141.57	1178.95

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Also, we would like to thank the seed companies who donated the cottonseed for this test.

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