



Result Demonstration/Applied Research Report

2005 HOWARD COUNTY STACKED COTTON VARIETY DEMONSTRATION

Cooperator: Rodney Brooks

Tommy Yeater, CEA-AG, Howard County, Big Spring, Texas
Dr. Billy E. Warrick, Professor and Extension Agonomist

SUMMARY

Eight cotton varieties were planted to compare fiber yield and quality characteristic under similar irrigated production conditions. FiberMax 960 B2R and Deltapine 488 BR were the highest yielding varieties in this test. Both of these varieties had the highest loan value in the test at 54.90 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: Rodney Brooks
 County Precinct: 4
 Planting Date: May 11, 2005
 Planting Rate: Four seeds per foot
 Planting Pattern: Every row planted on 40 inch centers
 Previous Crop: Cotton
 Irrigation: Pre-water plus in season applications using Drip Irrigation
 Fertilizer: 160 pounds of nitrogen and 60 pounds of phosphorus
 Herbicide: One quart of Roundup during the growing season
 Insecticide: None
 Soil Type: Sandy Loam
 Acres of Each Variety Planted: 1.10 acres (8 rows, 1800 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 1149 pounds per acre to 1448 pounds per acre. FiberMax 960 B2R and Deltapine 488 BR were the highest yielding varieties in this test. Both of these varieties had the highest loan value in the test at 54.90 cents per pound.

Table 1. Data from Rodney 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 960 B2R	1448	2381	31.7	52.1	412	37	3.5	30.6	80.3	54.90	795.19	119.07	914.26
Deltapine 488 BR	1387	2444	31.8	56.1	412	36	3.7	29.7	79.5	54.90	761.61	122.21	883.82
FiberMax 989 B2R	1401	2593	30.6	56.7	412	38	3.4	29.2	81.8	52.55	736.07	129.66	865.73
Deltapine 455 BR	1423	2393	32.3	54.3	413	37	3.4	28.8	80	52.40	745.51	119.64	865.15
Phytogen 480 WR	1279	2368	30.1	55.8	413	36	3.8	27.9	81.5	54.55	697.95	118.40	816.35
Deltapine 555 BR	1286	2285	31.1	55.2	412	34	3.6	29.1	79.5	52.60	676.39	114.23	790.62
FiberMax 800 B2R	1214	2255	30.5	56.7	413	38	3.3	30.5	81.8	52.85	641.61	112.73	754.34
Deltapine 445 BR	1102	2040	30.2	55.9	412	36	3.8	27.4	80.4	54.65	602.51	101.98	704.49
SureGrow 215 BG/RR	1207	2197	29.5	53.8	412	34	3.1	26.8	80.4	48.70	587.60	137.29	724.88
Deltapine 458 BG/RR	1149	2284	28.1	55.9	312	36	2.9	27.6	81.0	49.15	564.51	142.77	707.29

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