



Result Demonstration/Applied Research Report

2005 HOWARD COUNTY STACKED COTTON VARIETY DEMONSTRATION

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SUMMARY

Six cotton varieties were planted to compare fiber yield and quality characteristic under similar irrigated production conditions. FiberMax 960 B2R and Deltapine 424 BR were the highest yielding varieties in this test. FiberMax 960 B2R had the highest loan value at 57.15 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: D. L. Newton
 County Precinct: 2
 Planting Date: May 19, 2004
 Planting Rate: One seed every 2.5 inches
 Planting Pattern: Every row planted on 40 inch centers
 Previous Crop: Cotton
 Irrigation: Pre-water plus in season applications using Drip Irrigation
 Fertilizer: Applied 300 pounds of 11-34-0 prior to planting. During the growing season he applied 100 pounds of nitrogen and eight ounces of Zinc.
 Herbicide: One quart of Prowl applied prior to planting followed by one pound of Treflan applied at planting. Applied 24 ounces of Roundup during the growing season.
 Insecticide: Applied five pounds of Temik at planting and in July applied insecticide for fleahopper and thrip control.
 Soil Type: Sandy Clay Loam
 Acres of Each Variety Planted: 1.4 acres (16 rows, 286 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 988 pounds per acre to 1715 pounds per acre. FiberMax 960 B2R and Deltapine 424 BR were the highest yielding varieties in this test. FiberMax 960 B2R had the highest loan value at 57.15 cents per pound.

Table 1. Data from D. L. Newton 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	1715	3269	28.3	54.0	312	36	4.2	27.2	82.0	57.15	980.33	163.46	1143.80
Deltapine 424 BR	1328	2656	27.7	55.4	312	35	3.0	26.0	81.0	52.50	697.15	132.79	829.94
Deltapine 449 BR	1240	2412	27.8	54.1	312	36	3.4	27.3	81.5	55.00	682.20	120.59	802.80
Stoneville ST 5242 BR	1190	2347	27.4	54.1	311	35	3.9	26.0	82.1	56.35	670.79	117.36	788.15
Stoneville ST 4575 BR	1212	2344	27.9	54.0	413	34	3.4	25.1	81.5	49.50	599.75	117.21	716.96
Deltapine 444 BR	988	1939	27.9	54.8	413	36	3.0	27.4	81.0	50.70	500.74	96.97	597.70

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