



Result Demonstration/Applied Research Report

2005 HOWARD COUNTY ROUNDUP READY COTTON VARIETY TEST

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SUMMARY

Ten cotton varieties were planted to compare fiber yield and quality characteristic under similar irrigated production conditions. Deltapine 494 R and FiberMax 800 R and Beltwide Cotton Genetics 24RR were the highest yielding varieties in this test. FiberMax 800 R had the highest loan value at 57.55 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: Rob Haney
County Precinct: 4
Planting Date: May 18, 2005
Planting Rate: One plant every 5 inches
Row Width: 32 inches
Previous Crop: Cotton
Irrigation: None
Fertilizer: None
Herbicide: 1 pint of Treflan preplant incorporated followed by 1 pound of Treflan at planting and then applied one quart of Roundup during the growing season.
Insecticide: Sprayed once for worms and aphids
Soil Type: Clay Loam
Acres of Each Variety Planted: 5acres

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 757 pounds per acre to 1208 pounds per acre. Deltapine 494 R and FiberMax 800 R and Beltwide Cotton Genetics 24RR were the highest yielding varieties in this test. FiberMax 800 R had the highest loan value at 57.55 cents per pound.

Table 1. Data from Rob Haney's 2005 Roundup Ready 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		Strength (gram/tex)	Uniformity					
	Lint	Seed	Lint	Seed		Length (staple)	Mic							
Deltapine 494 R	1208	1849	28.9	44.2	211	35	3.9	29.4	80.1	56.95	688.02	92.45	780.47	
FiberMax 800 R	1160	1754	28.2	42.6	211	35	4.2	29.6	84.4	57.55	667.47	87.72	755.18	
Deltapine 432 R	1169	2039	26.4	46.1	312	34	4.0	26.4	82.5	54.55	637.47	101.94	739.41	
FiberMax 960 R	1131	1871	27.2	45.1	211	34	3.8	28.9	80.7	54.95	621.54	93.57	715.11	
Phytogen 310 R	1182	1801	28.2	43.0	311	33	4.2	25.8	79.7	52.05	615.46	90.05	705.51	
Deltapine 434 R	1142	1693	28.9	42.9	414	34	3.6	26.0	79.1	51.30	585.67	84.67	670.35	
FiberMax 989 R	1025	1567	27.9	42.6	211	35	3.7	30.0	82.0	57.20	586.45	78.33	664.78	
Phytogen 410 R	1048	1818	25.0	43.4	312	34	4.3	27.6	82.5	54.30	568.87	90.88	659.75	
AFD 3602 R	865	1607	25.2	46.8	211	35	4.1	28.0	81.8	56.95	492.73	80.37	573.10	
Stoneville ST 4686 R	896	1339	25.8	38.6	312	34	4.2	26.9	80.3	54.30	486.34	66.93	553.27	
Stoneville NG 3969 R	859	1555	22.9	41.5	211	35	3.3	27.7	81.6	54.80	470.53	77.75	548.28	
Stoneville ST 6848 R	795	1487	21.2	39.7	311	36	4.1	30.5	82.3	57.60	458.14	74.36	532.50	
BCG 24 R	814	1419	23.0	40.1	211	34	3.5	27.5	81.3	54.70	445.42	70.96	516.38	
AFD 3511 R	757	1635	20.8	44.9	311	33	3.7	29.1	80.7	52.05	393.80	81.76	475.56	

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