



Result Demonstration/Applied Research Report

2006 HOWARD COUNTY STACKED COTTON VARIETY TEST

Cooperators: Rob Haney

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SUMMARY

Six cotton varieties were planted to compare fiber yield and quality characteristic under similar dryland production conditions. Phytogen 370 WR, FiberMax 800 B2R and FiberMax 960 B2R were the highest yielding varieties in this test. Beltwide 4630 B2RF had the highest loan value at \$0.597 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: 2
 Planting Date: May 10, 2006 Planting Rate: 8.5 pounds per acre
 Planting Pattern: 2-in-1-out Row Width: 32 inches
 Previous Crop: Cotton
 Irrigation: None
 Fertilizer: 100 pounds of 28-0-0-5 per acre was applied prior to planting
 Herbicide: 1 pint of Treflan preplant incorporated followed by a broadcast application of Roundup during the growing season.
 Insecticide: None
 Soil Type: Sandy Loam
 Acres of Each Variety Planted: 0.65 acre (8 rows 1320 feet long)

The test plots were stripper harvested to determine the yield per acre. A two pound sample was taken and ginned at the Monsanto facility east of 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 644 pounds per acre to 357 pounds per acre. PhytoGen 370 WR, FiberMax 800 B2R and FiberMax 960 B2R were the highest yielding varieties in this test. Beltwide 4630 B2RF had the highest loan value at \$.597 cents per pound.

Table 1. Data from Rob Haney's 2006 Stacked 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			Uniformity				
	Lint	Seed	Lint	Seed		Length (staple)	Mic	Strength (gram/tex)					
PhytoGen 370 WR	644	966	35.0	52.5	112	36	4.1	29.7	84.9	59.40	382.51	70.03	452.54
FiberMax 800 B2R	635	953	33.8	50.7	112	35	4.1	30.1	83.8	58.05	368.85	69.10	437.95
FiberMax 960 B2R	616	924	32.1	48.1	112	37	4.7	26.0	85.1	59.10	364.22	67.02	431.24
PhytoGen 470 WR	546	819	33.3	50.0	112	37	4.4	28.3	85.0	59.10	322.74	59.39	382.12
Deltapine 444 BR	543	814	37.7	56.6	212	38	4.7	27.8	80.8	58.65	318.38	59.03	377.41
Deltapine 455 BR	507	760	35.2	52.8	112	37	4.7	27.7	81.3	58.65	297.27	55.12	352.39
Deltapine 117 B2RF	503	754	38.1	57.2	112	37	4.3	28.4	84.2	59.00	296.70	54.69	351.39
Beltwide 4630 B2RF	497	746	32.7	49.1	112	37	4.3	33.5	85.6	59.70	296.71	54.05	350.76
Beltwide 2038 B2RF	498	746	31.9	47.9	112	37	4.0	26.7	83.4	59.10	294.09	54.12	348.20
Deltapine 445 BR	357	535	34.3	51.5	212	34	4.7	22.8	81.1	53.20	189.76	38.79	228.55

Seed income calculated using a price of \$145 per ton.

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Delta and Pine Land Company who provided Deltapine 164 B2F, Deltapine 147 RF and Deltapine 143 B2RF

BayerCropScience who provided the FiberMax 9058 RF, FiberMax 9060 RF, AFD 3070 RF and AFD 3074 RF

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