



Result Demonstration/Applied Research Report

2006 HOWARD COUNTY ROUNDUP READY COTTON VARIETY TEST

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SUMMARY

Fifteen cotton varieties were planted to compare fiber yield and quality characteristic under similar dryland production conditions. Phytogen 425 RF and Phytogen 485 WRF were the highest yielding varieties in this test. Phytogen 485 WRF had the highest loan value at \$0.591 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: Steve and Stan Blagrave
 County Precinct: 1
 Planting Date: May 12, 2006
 Row Width: 40 inches
 Planting Pattern: 2-in-1-out
 Previous Crop: Cotton
 Irrigation: None
 Fertilizer: 100 pounds of 28-10-5 applied during the growing season
 Herbicide: Applied 1.5 pints of Treflan prior to planting. Applied 1.5 pints of Treflan in a 14 inch band at planting. June 1 and July 1 made a broadcast application of Roundup at 1.5 pints per acre. August 1 used a hooded sprayer to apply 1.5 pints of Roundup per acre.
 Insecticide: None
 Soil Type: Sandy Loam
 Acres of Each Variety Planted: 2.4 acres (12 rows, 2640 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 497 pounds per acre to 315 pounds per acre. PhytoGen 425 RF and PhytoGen 485 WRF were the highest yielding varieties in this test. PhytoGen 485 WRF had the highest loan value at \$0.591 cents per pound.

Table 1. Data from Steve and Stan Blagrave's 2006 Dryland 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										
PhytoGen 485 WRF	488	732	34.8	52.2	112	36	4.5	30.0	83.9	59.10	288.29	53.05	341.33	
PhytoGen 425 RF	497	745	33.4	50.1	112	35	4.9	29.7	83.1	57.75	286.85	54.02	340.87	
Deltapine 164 B2RF	433	650	30.0	45.0	212	36	4.1	28.3	81.3	58.70	254.37	47.12	301.49	
Deltapine 147 RF	421	632	36.5	54.8	212	35	4.8	27.7	84.2	57.60	242.58	45.80	288.39	
Deltapine 143 B2RF	422	634	33.4	50.1	212	34	4.8	28.2	82.7	55.15	233.01	45.95	278.95	
FiberMax 9058 RF	405	608	32.7	49.1	212	36	4.8	24.1	83.7	57.50	233.02	44.07	277.09	
FiberMax 9060 RF	372	558	33.0	49.5	112	36	4.7	27.1	82.4	58.50	217.80	40.49	258.29	
AFD 3070 RF	346	519	30.2	45.3	212	33	4.4	29.6	83.9	52.65	182.11	37.61	219.72	
AFD 3074 RF	315	472	29.7	44.6	112	32	4.9	27.8	81.9	50.45	158.80	34.23	193.03	

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

ACKNOWLEDGMENTS

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Dow Agrosciences who provided Phytogen 485 WRF and Phytogen 425 F

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

Bayer CropScience who provided the FiberMax9058 RF, FiberMax 9060 RF, AFD 3070 RF and AFD 3074 RF

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