



Runnels County Dryland Cotton Variety Evaluation

Paul Minzenmayer Farm, 2006

Rick Minzenmayer, Extension Agent-IPM,

Marty Gibbs, County Extension Agent Agriculture and

Dr. Billy Warrick, Extension Agronomist

Summary:

Twelve cotton varieties were compared under similar growing conditions to determine which cotton varieties consistently have higher yields and favorable fiber qualities. PhytoGen 470 WR, FiberMax 9060 F and Deltapine 143 B2F topped this test with gross returns of \$357.10 per acre, \$350.63 per acre and \$333.22 per acre, respectively. Producers should keep in mind that these results can change under different field conditions, soil fertility and irrigation practices. It is suggested that you look at the better cultivars on your farm to determine if they are compatible with your management style.

Objective:

Commercial cotton varieties require testing each year for determinations of consistency of yield and fiber quality. Through the use of a field test, a comparison is made of new varieties of cotton with varieties that have proven to be successful, long term yielders. Testing of said varieties within a geographic area of production is important to provide local producers with the latest information on old and new varieties.

Materials and Methods:

Twelve cotton varieties were planted using an eight row John Deere Maxi-Merge planter in a strip test fashion using 12 planted row plots in the Hatchel farming community. The following is a list of materials and methods used in this test.

Planting Date: May 15, 2006
Seeding Rate: 27,000 seeds per acre
Planting Pattern: 2 planted 1 out on 40 inch rows
Soil Type: Acuff Loam with a pH of 8.2
Previous Crop: Wheat
Herbicides: 1 quart of Roundup® applied prior to planting and then 1 quart of Roundup® applied at the fifth true leaf stage
Fertilizer: 234 pounds of 20-10-0 plus 5 pounds of sulphur applied at planting
Insecticides: None
Harvest Date: October 4, 2006

Variety	Plant Stand Avg. # per foot 5 th True Leaf Stage	Plant Stand Avg. # per foot Pinhead Square Stage
Deltapine 488 BR	2.3	1.9
FiberMax 9063 B2F	2.0	1.7
Phytogen 425 F	2.4	2.6
Stoneville 4357 B2RF	1.7	2.0
Deltapine 445 BR	1.7	1.4
Stoneville 5007 B2RF	2.0	2.2
FiberMax 9060 F	2.1	2.3
Phytogen 470 WR	2.4	2.3
Deltapine 143 B2F	1.6	1.7
FiberMax 960 B2R	1.8	1.6
Phytogen 370 WR	1.8	2.1
Stoneville 4700 B2RF	1.8	1.9

Average populations were determined from three different plant stand counts with each variety at each listed growth stage.

Results and Discussion:

Table 1 contains the yield and fiber quality information for each of the twelve cotton varieties evaluated in this test. Phytogen 470 WR, FiberMax 9060 F and Deltapine 143 B2F topped this test with gross returns of \$357.10 per acre, \$350.63 per acre and \$333.22 per acre, respectively.

All cotton varieties were planted in a two planted one out row pattern across the field and stripper-harvested using a John Deere eight row cotton stripper. Each cotton variety consisted of 12 planted rows. Weights were determined using a boll buggy. Fiber quality analysis was determined by the Texas Tech Textile Center in Lubbock.

Table 1. Agronomic Data from Paul Minzenmayer's Dryland Cotton Variety Test (Runnels County, 2006)

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						
Phytogen 470 WR	598	838	34.1	47.8	412	32	4.0	26.6	82.9	49.55	296.34	60.76	357.10
FiberMax 9060 F	559	895	31.7	50.7	212	33	3.7	24.8	80.5	51.10	285.76	64.87	350.63
Deltapine 143 B2F	567	801	33.9	47.9	312	33	4.0	20.1	78.3	48.50	275.13	58.09	333.22
FiberMax 960 B2R	443	756	29.0	49.4	312	34	3.9	24.4	80.7	53.10	235.33	54.82	290.15
Phytogen 370 WR	482	630	36.1	47.2	312	31	3.8	23.1	79.9	50.50	243.43	45.65	289.08
Stoneville 5007 B2RF	429	784	27.3	49.9	412	33	4.6	21.4	81.2	47.65	204.66	56.83	261.49
Deltapine 445 BR	439	534	37.4	45.5	212	32	4.3	23.8	80.3	49.10	215.50	38.75	254.25
Stoneville 4700 B2RF	380	693	29.3	53.4	212	33	3.5	23.1	80.2	52.55	199.71	50.27	249.98
Phytogen 425 F	418	512	37.0	45.3	412	31	4.9	23.4	79.9	47.45	198.17	37.10	235.27
Deltapine 488 BR	366	492	35.4	47.6	212	32	4.6	22.5	78.7	48.25	176.82	35.67	212.50
Stoneville 4357 B2RF	354	557	31.9	50.2	312	32	4.1	19.7	79.6	47.40	167.70	40.36	208.07
FiberMax 9063 B2R	327	562	28.8	49.4	312	32	4.2	24.0	80.8	48.90	160.03	40.73	200.76

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

Acknowledgments:

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Dow Agrosciences who provided Phytogen 470 WR, Phytogen 370 WR and Phytogen 425 F

Bayer CropScience who provided the FiberMax 9060 F, FiberMax 960 B2R and FiberMax 9063 B2F

Delta and Pine Land Company who provided Deltapine 143 B2F, Deltapine 445 BR, and Deltapine 488 BR

Stoneville Pedigreed Seed owned by Monsanto who provided Stoneville ST 5007 B2RF, Stoneville ST 4700 B2RF and Stoneville ST 4357 B2RF

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