Result Demonstration/Applied Research Report

Dryland Cotton Variety Evaluation

David and Malcolm Wilde Farm, 2005
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Summary:

Twelve cotton varieties were compared under similar growing conditions to determine which cotton varieties consistently have higher yields and favorable fiber qualities. Deltapine 488 BR, Stoneville ST 6636 BR, Stoneville ST 5599 BR, topped this test in gross returns of $495.51 per acre, $489.67 per acre and $482.59 per acre, respectively. Producers should keep in mind that these results can change under different field conditions, soil fertility and irrigation practices, so it is suggested that you look at the better cultivars on your farm for several seasons.

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 Wall farming community. The following is a list of materials and methods used in this test.

Planting Date:	June 14, 2005
Seeding Rate:	3.0 seeds/foot, 39,000 seeds/ row acre
Planting Pattern:	2 planted 1 out
Soil Type:	Angelo Clay Loam
Previous Crop:	Cotton
Herbicides:	1 over the top application of Round Up®
Fertilizer:	None
Insecticides:	None
Harvest Date:	November 22, 2005

Results and Discussion:

Table 1 contains the yield and fiber quality information for each of the twelve cotton varieties evaluated in this test. Deltapine 488 BR, Stoneville ST 6636 BR, Stoneville ST 5599 BR, topped this test in gross returns of $495.51 per acre, $489.67 per acre and $482.59 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 Four row cotton stripper. Each cotton variety consisted of 6 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 David and Malcolm Wilde's Dryland Cotton Variety Test (Tom Green County, 2005)

	Yield Per Acre				Fiber Quality								
	In Pounds		% Turnout								Lint	Seed	Total
						Fiber				CCC	Gross	Gross	Gross
					Color-	Length		Strength		Loan	Return	Return	Return
Variety	Lint	Seed	Lint	Seed	Leaf	(staple)	Mic	(gram/tex)	Uniformity	Value	($/acre)	($/acre)	($/acre)
Deltapine 488 BR	775	1174	29.0	44.0	312	35	4.0	28.8	81.3	56.35	436.79	58.72	495.51
Stoneville ST 6636 BR	765	1149	31.8	47.8	313	35	3.9	28.3	82.9	56.50	432.21	57.46	489.67
Stoneville ST 5599 BR	836	1298	30.9	47.9	312	32	4.3	26.9	81.0	49.95	417.67	64.92	482.59
FiberMax 800 B2R	713	1134	26.2	41.8	212	37	4.4	32.3	80.7	58.30	415.56	56.71	472.27
Deltapine 455 BR	742	1137	29.9	45.8	211	34	4.1	30.8	81.9	55.40	411.04	56.86	467.90
FiberMax 960 B2R	709	1154	27.1	44.1	312	36	4.0	30.2	82.2	57.40	406.96	57.71	464.67
Deltapine 445 BR	713	1129	28.1	44.5	312	34	4.1	30.0	82.7	54.80	390.80	56.47	447.27
Stoneville ST 4686 R	684	1073	28.8	45.2	312	35	4.4	30.1	80.8	56.35	385.47	53.67	439.14
Phytogen 470 WR	702	1152	26.3	43.2	413	35	3.6	28.5	82.3	53.80	377.70	57.58	435.27
Phytogen 410 R	665	1112	26.2	43.8	312	35	3.9	30.2	83.5	56.95	378.60	55.61	434.20
Phytogen 310 R	611	984	29.5	47.4	311	36	3.8	32.0	83.1	57.85	353.68	49.18	402.86
Stoneville ST 6848 R	578	972	26.7	44.9	311	36	4.1	32.6	83.7	58.00	335.47	48.58	384.05

Seed income calculated using a price of $100 per ton.

Acknowledgments:

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Stoneville Southwest, Inc. who provided the Stoneville ST 6636 BR, Stoneville ST 5599 BR, Stoneville ST 4686 R, and Stoneville ST 6848 R.

Delta and Pine Land Company who provided Deltapine 488 BR, Deltapine 455 BR, and Deltapine 445 BR.

Bayer CropScience who provided the FiberMax 800 B2R and FiberMax 960 B2R.

Dow Agrosciences who provided Phytogen 370 WR, Phytogen 410 R and Phytogen 310 R.