

TITLE:

Dryland Cotton Variety Demonstration

AUTHORS:

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SUMMARY:

Yield and fiber quality comparisons were made among seven varieties on the Donald Vogler farm south of Lamesa. Yields ranged from 780 to 401 lbs/A and averaged 663 lbs/A.

Superior fiber quality and strength can produce additional returns for cotton producers by increasing loan price. There was a 450 point difference compared to the average in this test, which returns an additional \$22.50 per bale at loan prices to the producer. Also, there is a \$202.72 higher gross return per acre between the high and low yields in this trial.

These results indicate that the composite of quality cotton production and pounds of lint returned more to producers in this test. As always, quality and top production should be our goal.

OBJECTIVE:

The objective was to evaluate several cotton varieties in an on-farm demonstration in Dawson County. Entries were evaluated on the basis of lint yield and lint quality factors.

MATERIALS AND METHODS:

Location: Five miles south on Hwy 349 and 3/4 miles east
Soil Type: Amarillo Fine Sandy Loam
Date Planted: May 31, 2002
Row Pattern: 40" 8 X 1
Rainfall: Spring 2.5", May 1.25", July 1", Aug. .5", Oct. 3.5"
Previous Crop: Cotton
Date Harvested: November 22, 2002
Fertilizer: Two Application Foliar (7N-0P-0K-2S-1Fe-3Mg-5Zn)
Herbicide: 1.25 Pts Treflan Broadcast and Banded at Planting
Insecticide: Two Worm Sprayings - Baythroid
Seeding Rate: 11#/A
Plot Design: Randomized complete block with 2 replications
1.57 acres per plot

RESULTS AND DISCUSSION:

Table 1. Results of Dryland Cotton Variety Test at Donald Vogler Farm, 2002 ^{a/} *

VARIETIES	YIELD PER PLANTED ACRE LINT	TURNOUT %		AVG	AVG	AVG	AVG	AVG	AVG	AVG	GROSS RETURNS PER ACRE (\$)	RANK
		LINT	SEED	GR	STPL	MIC	STG	UR	LEAF	AVG LOAN PRICE (\$)		
Fiber Max 958	748	29.99	43.20	41	34	4.9	32.1	80.6	2	52.70	394.19	1
DP 2379	780	22.99	39.70	41	32	4.6	29.4	80.2	2	47.15	367.77	2
PM 2379 RR	692	23.20	38.18	41	32	4.8	31.1	81.8	2	47.75	330.43	3
Phytogen HS 12	666	23.43	38.90	41	33	4.7	30.4	79.9	1	49.25	328.00	4
Fiber Max 5017	692	21.21	38.60	42	32	4.3	26.4	79.5	2	45.65	315.89	5
DP 5415 RR	661	21.79	34.64	41	32	4.7	30.3	79.3	1	47.12	311.66	6
Western 180	401	22.64	36.03	41	32	4.9	30.6	80.8	2	47.75	191.47	7
TEST AVERAGE	663	23.61	38.47	41	32	4.7	30.0	80.3	2	48.20	319.92	

^{a/} - Yields are based on stripper harvested samples of each replication. Loan card used to figure value per acre. All varieties ginned at the Texas A&M University Research and Extension Center, Lubbock, Texas to determine lint quality and instrument classed at International Textile Research Center Texas Tech University, Lubbock, Texas.
Rank is composite rating of average lint yield per acre and gross return per acre.

All varieties were harvested without a stripper field cleaner.

Table 2. Characteristics of Cotton Varieties Grown on Donald Vogler Farm, 2002

Variety	Maturity	Height	Leaf	Seed/lb	Storm resistance	Percent turnout (from seed cotton)	Micronaire	Staple 32nd inches	Strength, g/tex	Fusarium Wilt Tolerance	Verticillium Wilt Tolerance	Bacterial Blight Resistance
FiberMax 958	early (for picker)	med	semi-smooth	4580	fair	37.0	4.4-4.8	34-37	28.0-32.0	moderate	good	resistant or immune
DP 2379	mid-full	med-tall	semi-smooth	4400-4950	very good	29.1	4.5	33.2	28.7	very good	good	moderately susceptible
PM 2379RR	mid-full	med-tall	semi-smooth	4200-5150	very good	30.8	4.5	33.1	28.5	n/a	good	susceptible
Phytogen HS12	mid-full (for picker)	med-tall	smooth	4750-5050	open boll (picker)	37.0	4.7	35.5	30.1	very good	very good	very susceptible
FiberMax 5017	med	med-tall	smooth	4700	good	n/a	3.9-4.5	33.6-34.6	28-31	n/a	n/a	n/a
DP 5415RR	mid-full (for picker)	med-tall	smooth	4950-6250	very good (for picker)	36.2	4.4	35.0	29.0	very good	very good	n/a
Western 180	med	med	n/a	n/a	n/a	n/a	n/a	33	n/a	n/a	n/a	n/a

Summarized from sales literature and other information provided by respective companies to Dr. Randy Boman, Extension Agronomist-Cotton, Texas Cooperative Extension, Lubbock, TX.

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