

TITLE:

Results of the Dryland Regional Cotton Variety Test at AG-CARES, Lamesa, TX 2003.

AUTHORS:

John R. Gannaway, Lyndon Schoenhals, Anna Hall, and Valerie Morgan, Professor, Senior Research Associate, Research Associate, and Technician

MATERIALS AND METHODS:

Test:	Regional Cotton Variety
Planting Date:	May 30
Row Spacing:	40-in.
Planting Pattern:	Solid
Herbicide:	Treflan @ 1.25 pt/A applied pre-plant
Fertilizer:	None
Rainfall:	April - September, 9.9 inches
Insecticide:	None
Harvest Aids:	Gramoxone Max @ 6 oz/A on October 16 Gramoxone Max @ 16 oz/A on October 28
Harvest Date:	November 5
Freeze Date:	November 23

RESULTS AND DISCUSSION:

Yield ranged from 528 lbs/A down to 185 lbs./A. This was more than twice what yields were in 2002. Fiber quality was acceptable in most cases. However, 11 of the entries exhibited micronaire values of 5.0 or greater.

Table 1. Results of the dryland cotton variety test at AG-CARES, Lamesa, TX 2003.

Designation	Yield	Agronomic Properties								% Open	
		% Turnout		% Lint		Boll	Seed	Lint	Seed Per	Boll	Storm
	Lint	Seed	Picked	Pulled	Size	Index	Index	Boll	Oct. 20	Resistance	
Stoneville 5303 R	528	30.3	46.3	38.8	29.3	5.1	9.8	6.4	30.4	83	2.7
AFD 2485	501	29.3	41.6	40.2	30.1	4.9	10.5	7.4	26.9	49	3.0
FiberMax 819 RR	499	26.4	41.9	38.6	28.2	3.6	9.1	6.2	22.3	80	2.7
Deltapine 458 B/RR	498	29.9	46.3	39.4	29.7	3.7	8.0	5.4	27.2	76	2.8
Deltapine 468 BG2/RR	490	29.0	42.2	36.0	27.7	4.1	8.6	5.0	29.6	62	3.0
FiberMax 800 BR	478	26.7	38.9	38.9	29.1	5.7	10.7	7.1	30.9	23	2.9
Beltwide Cotton Genetics 28R	475	27.8	41.4	39.7	30.4	4.0	7.9	5.6	28.1	83	2.7
Deltapine 494 RR	474	29.8	41.4	41.6	31.6	4.2	8.3	6.2	28.2	64	2.6
Stoneville 474	453	28.2	41.6	38.7	28.7	4.5	10.3	7.0	24.7	73	2.6
Beltwide Cotton Genetics 24R	453	29.9	44.2	40.3	30.5	3.5	7.8	5.6	25.3	80	2.8
Deltapine 488 BG/RR	452	29.2	40.7	39.6	29.6	4.4	8.5	6.0	29.1	72	2.5
FiberMax 800 RR	447	27.1	40.9	38.6	29.4	5.1	10.8	7.1	27.7	53	2.5
Deltapine 5415 RR	440	27.4	43.0	38.5	29.3	4.3	8.3	5.3	31.1	66	2.7
Stoneville 4793 R	435	27.4	39.4	40.4	30.9	4.3	9.9	7.0	24.8	60	2.7
FiberMax 832	430	25.7	40.4	37.7	28.0	5.4	10.8	6.8	30.0	40	2.7
Paymaster 2167 RR	428	29.2	41.1	39.5	29.9	4.2	8.7	6.3	26.1	82	2.6
Stoneville 4892 BR	425	29.4	40.4	40.3	30.0	4.1	9.9	7.3	22.5	77	2.8
Paymaster 2266 RR	416	26.3	42.6	36.5	26.7	4.1	10.0	6.2	24.4	81	3.1
Hazera Seed HA 14	402	22.6	43.4	31.2	21.9	3.4	11.7	5.7	18.1	56	1.9
Stoneville 2448R	396	29.6	43.4	37.1	28.2	4.5	9.9	6.2	26.8	91	2.9
FiberMax 989	386	25.7	42.3	37.4	26.8	4.8	9.3	5.8	30.7	13	2.9
FiberMax 958	377	22.3	40.7	40.3	29.8	4.5	10.1	7.1	25.1	62	2.9
Tamcot Luxor	370	27.5	39.5	37.8	27.1	4.9	10.6	7.1	26.1	74	2.5
NM 970123	370	27.3	38.7	38.9	27.9	4.7	11.3	7.8	23.3	60	2.9
Acala w1218	363	27.4	41.2	37.6	29.2	4.9	10.0	6.6	27.9	56	2.8

Table 1 Cont.. Results of the dryland cotton variety test at AG-CARES, Lamesa, TX 2003.

Designation	Yield	Agronomic Properties								% Open	
		% Turnout		% Lint		Boll	Seed	Lint	Seed Per	Boll	Storm
		Lint	Seed	Picked	Pulled	Size	Index	Index	Boll	Oct. 20	Resistance
Syngenta NX 2108ss	353	27.4	41.0	40.5	30.0	4.1	9.2	6.6	25.0	88	2.8
All-Tex Atlas	312	26.5	40.9	35.8	25.7	4.3	10.3	6.2	24.7	77	2.8
AFD 2070	309	28.8	40.0	38.5	28.9	5.0	10.4	6.8	28.4	78	2.9
AFD 2074	306	27.4	43.6	38.9	29.5	4.3	9.3	6.3	26.8	77	2.9
FiberMax 5013	304	28.4	42.6	38.7	27.6	3.7	8.9	6.1	23.3	90	2.7
Hazera Seed HA 195	298	21.2	39.3	32.9	23.1	3.4	11.2	6.1	18.6	39	2.0
Paymaster 2326 RR	292	29.0	43.8	39.3	27.9	3.3	8.5	5.8	22.1	82	3.1
Stoneville 2454 R	286	28.0	36.6	39.9	29.4	3.8	9.4	6.6	23.1	73	2.8
Acala 1517-99	279	26.5	42.5	35.5	24.2	4.6	10.8	6.5	24.9	57	2.2
Hazera Seed HA 175	272	19.7	40.1	31.6	23.7	3.0	11.0	5.7	16.5	75	1.9
FiberMax 5024 BXN	264	26.1	39.5	38.4	26.9	3.5	9.1	6.0	22.2	85	3.2
PhytoGen 72 Acala	261	21.9	37.8	39.2	28.7	4.3	9.6	6.5	26.0	76	2.6
Acala 1517-95	253	23.4	39.9	35.9	26.5	4.9	11.5	7.0	25.0	58	2.4
All-Tex Atlas RR	250	27.9	39.0	38.4	28.5	3.9	9.7	6.4	23.2	86	3.2
NM 970513	185	21.3	37.0	35.0	24.8	4.0	10.8	6.1	22.8	76	2.4
Mean	380	26.9	41.2	38.0	28.1	4.2	9.7	6.4	25.5	68	2.7
C.V.%	19.0	3.0	3.4	3.4	3.6	6.8	4.8	3.0	6.1	26.3	9.5
LSD 0.05	85	1.4	2.4	2.2	1.8	0.5	0.8	0.3	2.6	21	0.3

Table 1A. Results of the dryland cotton variety test at AG-CARES, Lamesa, TX 2003.

Designation	Micro- naire	Length	Uni- formity	Strength	Elon- gation	Leaf Index	Rd	+b	Color Grade <sup>1/</sup>	Loan Value/lb.	Loan Value/A
Stoneville 5303 R	5.2	1.05	83.1	29.9	5.9	1	76.9	8.3	31-1,31-2	0.4818	254.39
AFD 2485	5.0	1.13	82.7	30.7	4.5	1	76.9	7.5	31-2,41-1	0.5330	267.03
FiberMax 819 RR	4.5	1.15	84.0	30.5	6.0	2	77.7	7.2	31-2,41-1	0.5540	276.45
Deltapine 458 B/RR	4.8	1.07	81.1	29.5	6.6	1	79.8	8.4	21-1,21-2	0.5285	263.19
Deltapine 468 BG2/RR	4.6	1.10	82.2	28.9	6.9	2	75.2	8.1	31-2,41-2	0.5448	266.95
FiberMax 800 BR	4.4	1.16	82.0	30.5	6.0	1	79.1	8.0	21-2,31-1	0.5653	270.21
Beltwide Cotton Genetics 28R	4.5	1.11	81.0	27.8	6.2	1	76.7	8.0	21-2,41-1	0.5485	260.54
Deltapine 494 RR	4.8	1.11	82.1	29.4	6.5	1	76.5	8.4	31-1,31-2	0.5548	262.98
Stoneville 474	4.9	1.07	82.2	27.3	7.2	1	77.7	9.0	21-3,31-3	0.5175	234.43
Beltwide Cotton Genetics 24R	5.0	1.03	81.1	28.1	7.4	1	78.4	7.7	21-2,41-1	0.4933	223.46
Deltapine 488 BG/RR	4.7	1.11	81.7	29.2	6.3	1	77.2	8.4	31-1,31-2	0.5525	249.73
FiberMax 800 RR	4.6	1.10	83.6	31.8	5.2	1	78.1	8.6	21-2,31-1	0.5643	252.24
Deltapine 5415 RR	4.3	1.10	82.1	27.7	7.3	1	79.5	8.2	21-1,31-1	0.5280	232.32
Stoneville 4793 R	5.1	1.03	81.9	27.4	7.1	1	76.1	9.4	21-4,31-4	0.4915	213.80
FiberMax 832	4.2	1.15	82.1	30.7	5.3	1	79.0	8.3	21-2,31-1	0.5628	242.00
Paymaster 2167 RR	5.3	0.96	79.4	27.6	7.2	1	74.3	7.7	31-2,41-2	0.4450	190.46
Stoneville 4892 BR	5.6	1.03	82.1	27.0	7.2	1	74.9	8.4	31-2,41-3	0.4628	196.69
Paymaster 2266 RR	4.9	1.05	82.0	29.1	7.4	2	76.2	8.3	31-2	0.5210	216.74
Hazera Seed HA 14	3.9	1.33	82.7	34.4	7.1	1	72.4	10.3	32-1,32-2	0.5410	217.48
Stoneville 2448R	5.0	1.05	82.4	29.8	6.5	1	75.7	8.5	31-1,41-3	0.4993	197.72
FiberMax 989	3.5	1.16	81.9	31.1	5.5	1	79.9	8.0	21-2	0.5578	215.31
FiberMax 958	5.1	1.13	81.5	30.5	4.1	1	78.8	7.7	21-2,31-2	0.5225	196.98
Tamcot Luxor	4.6	1.04	82.9	28.3	6.9	1	76.0	8.4	31-3,41-1	0.5023	185.85
NM 970123	4.7	1.12	82.2	31.1	5.9	1	78.1	7.9	31-1,31-2	0.5500	203.50
Acala w1218	4.9	1.10	82.1	30.6	6.3	2	75.4	8.0	31-1,41-2	0.5285	191.85

Table 1A Cont. Results of the dryland cotton variety test at AG-CARES, Lamesa, TX 2003.

Designation	Micro- naire	Length	Uni- formity	Strength	Elon- gation	Leaf Index	Rd	+b	Color Grade <sup>1/</sup>	Loan Value/lb.	Loan Value/A
Syngenta NX 2108ss	4.9	1.01	81.9	27.9	6.8	2	78.0	8.2	21-2,31-2	0.4808	169.72
All-Tex Atlas	4.9	0.98	81.1	28.9	7.6	1	75.8	7.4	41-1	0.4778	149.07
AFD 2070	4.9	1.01	80.5	27.6	6.3	1	75.0	8.0	41-1	0.4893	151.19
AFD 2074	4.7	1.07	81.8	28.5	6.8	1	76.7	8.0	31-2	0.5265	161.11
FiberMax 5013	5.0	1.00	81.8	29.7	6.9	1	75.8	7.9	31-2,41-1	0.4555	138.47
Hazera Seed HA 195	3.6	1.30	82.2	34.7	6.4	2	70.9	10.4	33-1,42-1	0.4873	145.22
Paymaster 2326 RR	5.0	1.02	81.4	29.5	7.1	2	75.4	8.4	31-2,41-3	0.4785	139.72
Stoneville 2454 R	5.1	0.99	80.4	27.4	7.3	1	77.3	8.5	31-2,31-3	0.4733	135.36
Acala 1517-99	4.4	1.15	82.1	33.3	5.6	2	74.9	8.2	31-2,41-1	0.5538	154.51
Hazera Seed HA 175	3.9	1.26	82.3	35.1	6.7	1	71.8	9.9	32-2,42-1	0.5283	143.70
FiberMax 5024 BXN	4.7	1.01	80.2	28.4	7.1	1	79.3	8.4	21-1,31-1	0.4960	130.94
PhytoGen 72 Acala	4.2	1.12	81.5	28.9	7.5	1	78.9	8.4	21-2,31-1	0.5590	145.90
Acala 1517-95	4.5	1.14	83.1	33.8	5.1	2	73.6	7.7	41-1,41-2	0.5463	138.21
All-Tex Atlas RR	4.8	0.92	79.7	27.6	7.4	1	76.9	8.8	31-1,31-3	0.4730	118.25
NM 970513	4.2	1.12	83.1	34.8	4.8	2	75.2	8.0	31-2,41-1	0.5545	102.58
Mean	4.7	1.09	81.9	29.8	6.4	1	76.5	8.3		0.5180	
C.V.%	6.4	2.7	1.1	5.0	5.3	34.2	1.8	4.4		4.9	
LSD 0.05	0.5	0.05	1.6	2.5	0.6	1	2.4	0.6		0.0400	

<sup>1/</sup> Fiber quality determinations were made on samples from two reps. If the color grade from these two samples were identical, only one color grade is reported. If they were different, both are reported.