

COTTON PERFORMANCE TESTS

In the Texas High Plains

◆ 2014 ◆

The Texas A&M AgriLife Research and Extension Center at Lubbock/Halfway/Pecos - 2015



◆ Technical Report ◆
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Cotton Performance Tests in the Texas High Plains 2014^{1/}

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TABLE OF CONTENTS

Introduction	3
Acknowledgments	3
Glossary of Table Headings.....	4
 Table	
1 Production Information.....	7
 UNIFORM COTTON VARIETY TESTS - IRRIGATED	
2 - 2A Lubbock	
Performance Data	8
3 - 3A Halfway	
Performance Data	10
4-4A Lamesa	
Performance Data	12
 UNIFORM COTTON VARIETY TESTS - DRYLAND	
5-5A Lubbock	
Performance Data	14
6-6A Lamesa	
Performance Data	16
 UNIFORM COTTON VARIETY TEST SUMMARIES	
7 Summary over all Locations	18
8 Greenhouse Salt Tolerance Analysis	19
9 Yield Summary over 5 years.....	20
 LATE-PLANTED COTTON VARIETY TEST - IRRIGATED	
10-10A Lubbock	
Performance Data	22
 NEW VARIETIES AND STRAINS TEST - IRRIGATED	
11-11A Lubbock	
Performance Data	24
 VERTICILLIUM WILT VARIETY TEST - IRRIGATED	
12-12A Halfway	
Performance Data	26
 NEMATODE VARIETY TEST - IRRIGATED	
13-13A Lamesa (AG-CARES)	
Performance Data	28
 BACTERIAL BLIGHT SCREEN	
14 Lubbock	
Rating.....	30
 VARIETY INDEX	
15 Index	31

INTRODUCTION

Cotton performance trials were conducted during 2014 at the Texas A&M Agricultural Research and Extension Center at Lubbock, Texas A&M Research Station at Halfway, and the AG-CARES research farm at Lamesa. National standards and Western regional standards for the National Cotton Variety Testing Program were also evaluated at the Texas A&M AgriLife Research Station at Pecos. Results from Pecos trials will be available from the National Cotton Variety Testing Program, <https://catalog.data.gov/dataset/national-cotton-variety-test#>. Trials were also conducted in the presence of Verticillium wilt at Halfway, root-knot nematode at Lamesa, and bacterial blight in Lubbock. Response to bacterial blight infection is reported for the bacterial blight trial. The Uniform Variety Trial includes the same entries at 5 locations. The entries are mostly commercially or soon to be commercially available varieties. New varieties and strains, including potential new commercial varieties or breeding lines, are tested at an irrigated location in Lubbock. A late-planted trial was also conducted in Lubbock, but yield results were not presented in 2014 because early-season cool temperatures adversely and differentially affected late planted trial entries. Soil types, planting dates, harvest dates, irrigation, and cultural practices for each trial can be found in Table 1. All trials were planted in a randomized complete block design with four replications, in 2-row, 30-40 ft long plots on 40 in wide centers.

Cotton planted early in May, where irrigation supplied germination moisture, was exposed to cool temperatures causing chilling injury in some areas. Beneficial rains in late May and early June allowed for establishment of dryland trials, but also contributed to some seedling disease issues and moderate thrips injury. Welcome rainfall events were accompanied by high winds and damaging hail, though no variety trials reported here needed replanting. An early outbreak of fall armyworm had the potential to affect some conventional varieties; data are not reported on conventional varieties because of suspected glyphosate injury. Throughout the early weeks of summer, some estimates put the overall cotton crop two weeks behind normal. As the season progressed, beneficial rains assisted irrigation; and hot, dry weather in August caused some plant stress, but also helped the cotton crop maturity to progress. September rains and temporary cool temperatures resulted in some fields, mostly dryland or late planted irrigated fields, to mimic conditions of premature leaf senescence syndrome. Warmer and more favorable conditions in the late fall helped the crop to recover except in severe cases, including the late planted cotton variety trial, and ultimately yields were average and fiber quality was good.

ACKNOWLEDGMENTS

Fiber properties were measured at the Fiber and Biopolymer Research Institute, Texas Tech University. Response to germination in saline conditions was estimated for entries in the Uniform Variety Trials by experiments conducted at Texas A&M AgriLife Research in Lubbock with financial support from the Ogallala Aquifer Program. Plains Cotton Improvement Program and CSREES Hatch project 09297TX contributed additional financial support to the variety testing effort. The Plains Cotton Improvement Committee is important to the independent variety testing service and to the variety testing strategy of the Texas A&M AgriLife Research breeding program in Lubbock as the High Plains continues to be relied upon as a consistent supplier of high quality cotton. Planting, seed and field preparation, plot maintenance, harvest, sample ginning, and data collection were performed by: Gates Anderson, Troy Arce, Mark Arnold, David Brockman, Chris Coulombe, Sinclair Dobelbower, Jacob Duncan, Sheldon Franks, Johnny Fuentes, Ryan Gregory, Morgan Hector, Ashland Law, Jimmy Mabry, Hunter Parrott, Bradley Selby, Monica Sheehan, Raymond Tillis, Jeff Wallace, Dylan Wann, Leslie Wells, and Zane Wyatt. Bacterial blight, Verticillium wilt, and root-knot nematode ratings were performed Dr. Terry Wheeler. The assistance of all of these people is gratefully acknowledged and appreciated.

GLOSSARY OF TABLE HEADINGS

Yield and Turnout

Yield - Pounds of lint harvested per acre.

Gin Turnout

Lint - Percentage of lint of the stripper-harvested cotton.

Seed - Percentage of seed of the stripper-harvested cotton.

Agronomic Properties - Determined from hand-snapped samples.

Percent Lint

Picked - Lint fraction of seed cotton.

Pulled - Lint fraction of burr cotton.

Boll Size - Weight, in grams, of seed cotton per boll.

Seed Index - Weight, in grams, of 100 fuzzy seed.

Lint Index - Weight, in grams, of lint from 100 seed (calculated).

Seed Per Boll - Average number of seed per boll (calculated).

Visual Properties

Maturity - Visual assessment of relative open bolls on a given date.

Storm Resistance - Visual rating from 1 (very loose boll type, considerable seed cotton loss) to 9 (very tight boll type, no seed cotton loss).

Height – Measured average plant height, in inches.

Statistical Analysis

Mean - The average value for the trait being observed.

c.v.,% - Coefficient of variation. A relative measure of variation within a test, defined as the sample standard deviation expressed as a percentage of the sample mean.

LSD - Least significant difference. If the difference between two means exceeds this value, the two means are significantly different at the 0.05 probability level.

Fiber Properties - Measured by High Volume Instrument (HVI)

Micronaire - A relative measure of fiber linear density (mass per unit length) determined by air permeability.

Length - An instrument measurement of fiber length, expressed in hundredths of an inch, approximates the classer's staple length.

Uniformity - A measure of the uniformity of fiber length in a sample, measured as the ratio of mean length to upper half mean length, expressed as a percentage.

Strength - The force required to rupture (or break) a fiber sample, expressed in grams per tex.

Elongation - The amount that a fiber sample will stretch prior to breakage. This is a measure of the deformation of fiber at rupture expressed as percent change in length based on the original fiber length.

Leaf Index- The visual estimate of the amount of cotton plant leaf material that remains in the lint after the ginning process, ranging from 1(low) to 7(high).

Rd - Degree of reflectance. This measures how light or dark the fiber sample is, expressed as a percentage. Lower Rd values indicate a grayer sample.

+b - Yellowness. This measures the degree of color pigmentation. Higher +b values indicate yellower samples.

Color Grade - A function of the Rd and +b of the fiber sample. The color grade indicates the quadrant of the Nickerson-Hunter cotton colorimeter diagram in which Rd and +b values intersect.^{1/}

Salt Tolerance- Greenhouse screening

Salt Index- Calculated by $(\text{Germination}\% \times .5) + (\text{Root Length}\% \times .5)$, a measure of possible salt tolerance.

Germination %- Variety germinated in a salt solution, reported as the percent of control (same variety in RO water).

Root Length %- Variety germinated in a salt solution and the root length measured, reported as the percent of control (same variety in RO water).

^{1/}Fiber quality determinations are made on samples from two reps. If the color grade from these two samples are identical, only one color grade is reported.

Notes

Table 1. Locations, soil types, planting dates, harvest dates, and production information for the cotton variety tests in the Texas High Plains, 2014.

Soil Type	Date Planted	Date Harvested	Production Information
Lubbock Uniform Irrigated and New Varieties and Strains			fertilizer 200-20-0 lbs/A 2 herbicide applications 4 irrigations 8.63 acre inches
Acuff Loam	May 16	December 17	
Lubbock Late Planted Irrigated			
	June 13	December 17	
Lubbock Uniform Dryland			fertilizer 80-20-0 lbs/A 2 herbicide applications 1 pre-irrigation 5.07 acre inches 1 defoliant application 16.3 inches rainfall in season
Olton Clay Loam	May 19	November 20	
Halfway Verticillium Wilt Irrigated Variety Test			fertilizer 95-0-0 lbs/A 4 herbicide applications 8.45 acre inches in season (pivot)Vert. 6.95 acre inches in season (pivot)
Pullman Clay Loam	May 6	November 22	
Halfway Uniform Irrigated Variety Test			1 defoliant + boll opener + surfactant 1 defoliant + crop oil
	May 20	November 22	
Lamesa AG-CARES Uniform Dryland			fertilizer 10-34-0 lbs/A 32-0-0 lbs/A fertigation 3 herbicide applications 3.3 acre inches in season (pivot) 1 boll opener + crop oil 2 defoliant + crop oil 13.6 inches rainfall in season
Amarillo Fine Sandy Loam	May 15	November 20	
Lamesa AG-CARES Nematode Irrigated			fertilizer 10-34-0 lbs/A 32-0-0 fertigation 4 herbicide applications 8.6 acre inches in season (pivot)rkn 9.1 acre inches in season (pivot)
Amarillo Fine Sandy Loam	May20	November 19	
Lamesa AG-CARES Uniform Irrigated			1 defoliant + boll opener + crop oil 2 defoliant + crop oil
	May 22	November 21	

Table 2. Yield and agronomic property results from the irrigated regional cotton variety performance test at Texas A&M AgriLife Research in Lubbock, 2014.

Designation	Yield	Agronomic Properties								% Open		
		% Turnout		% Lint		Boll	Seed	Lint	Seed per	Bolls	Storm	Height
		Lint	Seed	Picked	Pulled	Size	Index	Index	Boll	17-Oct	Resistance	
PhytoGen PHY 333 WRF	678	29.1	41.9	42.7	33.8	5.6	8.5	6.8	35.1	84	3	25
Deltapine DP 0912 B2RF	652	32.2	47.2	39.5	33.3	4.5	8.8	6.8	26.2	84	4	25
PhytoGen PHY 339 WRF	615	30.8	43.5	41.0	33.6	4.5	8.3	6.4	28.9	85	4	29
FiberMax FM 2484B2F	577	30.9	43.4	41.7	34.4	5.2	8.9	6.8	31.8	83	4	24
NexGen NG 4111 RF	568	25.7	38.6	39.9	32.8	5.4	9.4	6.6	32.2	89	4	26
Deltapine DP 1321 B2RF	556	27.8	38.2	41.2	33.1	4.6	8.4	6.5	29.2	84	4	26
Deltapine DP 1044 B2RF	554	28.4	42.1	40.6	33.7	4.4	8.3	6.2	28.8	74	4	23
PhytoGen PHY 367 WRF	547	29.4	44.2	38.1	29.9	4.6	8.1	5.6	31.3	86	3	25
FiberMax FM 2011GT	546	28.1	40.9	41.2	33.6	6.6	10.5	7.9	34.6	84	6	23
Stoneville ST 4946GLB2	531	25.4	37.3	41.1	34.4	6.6	10.3	7.6	35.6	83	5	25
PhytoGen PHY 222 WRF	527	26.8	40.3	39.5	31.4	5.5	9.4	6.7	32.3	86	4	23
PhytoGen PHY 499 WRF	526	30.2	43.5	43.7	35.3	5.1	8.5	7.0	32.0	79	4	25
FiberMax FM 1944GLB2	509	27.4	42.3	38.8	31.4	5.4	9.3	6.4	32.4	74	5	25
NexGen NG 1511 B2RF	499	27.3	37.6	42.8	34.6	5.1	8.6	7.0	31.5	81	4	26
Stoneville ST 4747GLB2	499	30.4	43.3	40.8	33.1	5.0	8.7	6.5	31.4	89	5	21
All-Tex CT 14515 B2RF	480	27.6	38.8	40.5	33.6	5.9	9.2	6.8	35.1	73	6	25
FiberMax FM 9250GL	477	28.6	44.6	40.0	32.8	6.3	10.2	7.3	34.4	89	5	24
NexGen NG 3306 B2RF	459	26.8	40.8	39.0	32.2	4.7	8.5	6.0	30.9	86	4	24
Deltapine DP 1219 B2RF	456	28.6	39.1	40.8	32.9	4.5	7.6	5.9	31.0	80	4	25
All-Tex CT 13442 B2RF	448	27.1	38.6	39.6	32.4	5.0	8.9	6.5	30.7	91	4	24
FiberMax FM 2322GL	443	27.2	39.1	44.8	35.8	5.1	8.3	7.7	29.3	83	4	28
All-Tex Nitro-44B2RF	435	27.0	43.4	40.2	33.3	3.8	9.7	6.8	22.8	88	5	24
FiberMax FM 2334GLT	410	27.8	41.3	43.5	34.8	4.4	7.4	6.6	29.0	90	5	23
PhytoGen PHY 725 RF	379	26.0	42.4	36.8	29.5	4.3	9.4	5.9	26.7	84	4	24
FiberMax FM 1320GL	368	27.8	41.2	40.4	32.6	5.6	8.6	6.4	35.4	85	6	22
FiberMax FM 1830GLT	358	27.0	41.1	44.1	35.1	5.3	8.1	7.1	32.9	86	3	22
Mean	504	28.1	41.3	40.8	33.2	5.1	8.8	6.7	31.2	84	4	24
c.v.%	20.2	4.0	4.3	2.9	3.5	10.5	5.0	5.0	9.7	12.1	15.5	11.6
LSD 0.05	120	1.3	2.1	2.0	2.0	0.9	0.8	0.6	5.2	12	1	3

Table 2A. Fiber quality results from the irrigated regional cotton variety performance test at Texas A&M AgriLife Research in Lubbock, 2014.

Designation	Micronaire	Length	Uniformity	Strength	Elongation	Leaf	Rd	+b	Color Grade
PhytoGen PHY 333 WRF	4.9	1.01	79.8	26.8	9.0	5	69.4	7.5	51-1,51-4
Deltapine DP 0912 B2RF	4.6	1.06	81.2	29.6	8.8	5	72.6	7.2	41-2,51-1
PhytoGen PHY 339 WRF	4.4	1.09	80.8	29.6	7.1	3	74.2	6.7	41-2,51-1
FiberMax FM 2484B2F	4.9	1.04	80.6	30.6	8.7	1	74.6	7.0	41-1,41-2
NexGen NG 4111 RF	4.4	1.03	79.8	25.3	7.1	4	72.6	7.7	41-1,51-1
Deltapine DP 1321 B2RF	4.8	1.05	81.8	30.9	8.8	2	71.7	7.5	41-2,51-1
Deltapine DP 1044 B2RF	4.7	1.09	81.0	28.6	6.4	3	72.7	7.4	41-1,51-1
PhytoGen PHY 367 WRF	4.6	1.06	81.5	30.4	9.3	3	71.4	7.2	41-2,51-3
FiberMax FM 2011GT	4.6	1.07	80.8	30.0	7.1	4	72.5	6.4	51-1
Stoneville ST 4946GLB2	4.8	1.07	80.8	28.2	7.5	3	71.7	7.1	41-2,51-1
PhytoGen PHY 222 WRF	3.9	1.05	79.9	25.7	6.7	3	72.6	8.1	31-2,51-3
PhytoGen PHY 499 WRF	4.8	1.02	79.5	29.9	8.0	2	74.7	6.8	41-2,51-1
FiberMax FM 1944GLB2	4.4	1.07	82.0	30.3	8.8	3	74.5	6.4	41-2,51-1
NexGen NG 1511B2RF	4.7	1.06	80.3	30.5	6.2	3	71.3	7.2	51-1
Stoneville ST 4747GLB2	3.9	1.10	81.7	30.0	9.4	3	72.9	8.7	41-1,42-1
All-Tex CT 14515 B2RF	4.1	1.06	79.4	27.7	6.4	4	70.8	6.7	51-1
FiberMax FM 9250GL	4.5	1.08	80.5	29.4	7.8	5	73.8	7.6	41-1,51-1
NexGen NG 3306 B2RF	3.8	1.16	82.0	36.2	6.2	4	71.9	7.3	51-1
Deltapine DP 1219 B2RF	4.8	1.10	82.1	31.0	8.6	3	74.4	7.2	41-2
All-Tex CT 13442 B2RF	4.7	1.04	79.8	25.2	6.0	4	69.6	6.4	51-1,51-2
FiberMax FM 2322GL	4.3	1.06	80.8	28.6	8.5	2	69.7	6.8	51-1,51-2
All-Tex Nitro-44B2RF	4.3	1.02	79.5	29.1	9.1	4	71.1	7.5	41-2,51-3
FiberMax FM 2334GLT	4.3	1.03	80.0	29.3	8.6	2	75.2	7.6	41-1,41-2
PhytoGen PHY 725 RF	4.8	1.05	81.4	30.2	9.5	5	73.1	6.8	41-2,51-1
FiberMax FM 1320GL	4.7	1.07	82.2	28.4	10.1	4	70.8	7.4	51-1
FiberMax FM 1830GT	4.5	1.07	81.6	28.9	8.4	3	71.3	7.6	41-2,51-1
Mean	4.5	1.06	80.8	29.2	8.0	3	72.3	7.2	
c.v. %	4.9	1.9	1.0	4.6	5.3	34.9	2.7	6.5	
LSD 0.05	0.4	0.03	1.4	2.3	0.7	2	3.3	0.8	

Table 3. Yield and agronomic property results from the irrigated cotton variety performance test at Texas A&M AgriLife Research in Halfway, 2014.

Designation	Yield	Agronomic Properties								% Open		
		% Turnout		% Lint		Boll	Seed	Lint	Seed per	Bolls	Storm	Height
		Lint	Seed	Picked	Pulled	Size	Index	Index	Boll	20-Oct	Resistance	
FiberMax FM 2484B2F	912	30.5	45.1	42.5	33.3	5.9	10.1	7.7	32.7	53	5	28
Deltapine DP 1219 B2RF	863	26.2	42.5	39.5	31.6	5.4	9.0	6.2	34.5	44	6	33
FiberMax FM 9250GL	854	29.1	44.8	38.1	29.5	6.8	11.4	7.5	34.2	61	6	26
NexGen NG 1511 B2RF	850	28.8	41.1	41.7	34.3	6.2	9.5	7.1	36.0	64	6	31
PhytoGen PHY 499 WRF	836	27.5	41.5	40.4	31.3	5.7	9.6	6.9	33.6	59	6	29
FiberMax FM 2011GT	834	29.1	44.2	40.0	31.5	7.1	11.2	8.0	35.4	54	7	25
Stoneville ST 4747GLB2	830	27.9	45.2	40.2	31.8	6.6	10.0	7.1	37.2	59	6	28
Deltapine DP 0912 B2RF	815	29.8	45.0	38.7	30.3	6.2	9.7	6.5	36.3	51	5	28
All-Tex Nitro-44B2RF	803	28.1	44.6	39.0	30.8	6.3	11.3	7.6	32.4	49	6	28
NexGen NG 4111 RF	785	29.6	45.2	41.3	33.4	6.1	10.3	7.4	34.3	54	6	30
PhytoGen PHY 333 WRF	777	27.8	41.6	37.0	26.8	5.8	9.6	6.2	34.7	69	5	28
All-Tex CT 13442 B2RF	765	26.5	41.0	41.5	32.9	5.8	10.0	7.6	31.7	54	5	27
FiberMax FM 1830GLT	764	29.4	44.0	40.5	31.4	6.9	9.1	6.6	41.8	43	5	29
Deltapine DP 1044 B2RF	763	27.1	45.8	36.5	28.8	5.7	9.8	6.0	34.4	36	7	27
Deltapine DP 1321 B2RF	756	27.7	41.8	40.4	31.7	5.8	10.1	7.2	32.6	53	6	30
PhytoGen PHY 725 RF	749	26.3	44.3	37.5	29.5	6.3	11.0	6.9	34.1	53	5	31
FiberMax FM 1944GLB2	747	27.0	44.0	38.4	30.7	6.6	10.8	7.2	34.9	59	6	26
All-Tex CT 14515 B2RF	741	24.3	40.6	39.5	30.7	6.8	10.6	7.2	36.9	30	6	33
NexGen NG 3306 B2RF	703	27.4	45.0	38.0	29.9	5.5	9.9	6.5	32.0	61	6	28
PhytoGen PHY 339 WRF	683	27.8	43.9	42.3	34.0	6.0	10.0	7.4	34.4	56	6	30
PhytoGen PHY 222 WRF	677	27.7	44.1	40.0	30.5	5.9	10.8	7.5	31.5	71	6	26
Stoneville ST 4946GLB2	660	28.9	43.7	38.2	29.5	6.4	10.8	7.2	34.3	49	7	28
PhytoGen PHY 367 WRF	635	23.9	41.3	39.6	30.5	5.5	9.6	6.5	33.4	58	5	28
FiberMax FM 2334GLT	550	29.0	42.5	42.8	33.6	5.8	9.3	7.3	34.2	48	5	30
FiberMax FM 2322GL	549	30.1	42.1	44.9	34.8	6.2	9.8	8.5	32.9	43	6	32
FiberMax FM 1320GL	528	28.3	43.2	40.5	31.7	7.0	9.8	7.1	39.9	56	7	28
Mean	747	27.9	43.4	39.9	31.3	6.1	10.1	7.1	34.6	53	6	29
c.v. %	15.8	3.9	2.1	2.8	3.7	5.2	3.5	4.1	5.7	19.6	21.1	9.3
LSD 0.05	140	1.3	1.1	1.9	2.0	0.6	0.6	0.5	2.8	12	1	3

Table 3A. Fiber quality results from the irrigated cotton variety performance test at Texas A&M AgriLife Research in Halfway, 2014.

Designation	Micronaire	Length	Uniformity	Strength	Elongation	Leaf	Rd	+b	Color Grade
FiberMax FM 2484B2F	3.5	1.14	81.4	31.1	7.3	1	78.7	8.2	31-1
Deltapine DP 1219 B2RF	2.8	1.11	80.2	30.2	8.0	2	78.2	9.4	21-3,21-4
FiberMax FM 9250GL	3.4	1.07	80.7	29.1	7.4	2	78.1	7.9	31-1
NexGen NG 1511B2RF	3.2	1.07	81.0	30.3	7.0	2	76.3	8.9	31-1
PhytoGen PHY 499 WRF	3.3	1.07	80.9	29.9	9.7	2	75.8	9.2	31-3,32-1
FiberMax FM 2011GT	3.0	1.08	81.0	29.9	7.9	2	79.0	8.7	21-2
Stoneville ST 4747GLB2	3.1	1.09	79.6	26.8	6.5	2	76.3	7.9	31-1,41-1
Deltapine DP 0912 B2RF	3.2	1.06	81.6	29.3	9.0	3	75.5	9.0	31-4
All-Tex Nitro-44B2RF	3.1	1.13	81.2	31.9	9.9	3	76.1	8.4	31-2
NexGen NG 4111 RF	3.6	1.06	81.4	30.2	9.3	1	76.8	9.3	21-4,31-3
PhytoGen PHY 333 WRF	2.6	1.10	79.8	29.4	8.1	3	73.8	9.1	31-4
All-Tex CT 13442 B2RF	3.5	1.11	82.5	31.4	8.7	2	76.5	8.9	31-3
FiberMax FM 1830GT	2.8	1.19	81.8	29.0	6.8	1	79.6	8.4	21-2
Deltapine DP 1044 B2RF	3.1	1.11	81.6	29.9	10.3	2	76.8	9.2	31-3
Deltapine DP 1321 B2RF	3.4	1.07	81.4	29.6	10.6	1	78.3	9.2	21-1,21-3
PhytoGen PHY 725 RF	3.5	1.16	82.9	36.9	9.9	1	76.4	8.6	31-2
FiberMax FM 1944GLB2	3.3	1.11	80.3	28.6	7.4	1	78.6	8.8	21-2
All-Tex CT 14515 B2RF	2.2	1.11	81.2	28.7	7.6	1	77.0	10.5	22-1
NexGen NG 3306 B2RF	3.3	1.13	81.3	31.4	9.6	3	76.9	8.8	31-1,31-3
PhytoGen PHY 339 WRF	2.8	1.08	80.9	30.0	9.7	2	78.2	8.7	21-2,31-1
PhytoGen PHY 222 WRF	3.6	1.09	81.7	31.1	10.8	2	76.2	8.7	31-2,31-3
Stoneville ST 4946GLB2	3.1	1.08	81.5	31.0	8.8	2	77.0	9.3	21-4,31-3
PhytoGen PHY 367 WRF	2.7	1.08	80.5	29.6	9.7	2	76.2	9.7	22-1,31-3
FiberMax FM 2334GLT	3.0	1.15	82.3	30.9	7.7	2	78.0	9.0	31-3
FiberMax FM 2322GL	3.0	1.11	82.2	30.6	6.8	3	77.1	8.6	21-1,31-1
FiberMax FM 1320GL	4.2	1.07	81.0	29.9	8.5	1	77.0	8.5	31-1
Mean	3.2	1.10	81.2	30.3	8.6	2	77.1	8.9	
c.v. %	17.8	1.2	0.7	3.3	6.0	36.9	1.1	3.6	
LSD 0.05	1.0	0.02	1.0	1.8	0.9	1	1.6	0.6	

Table 4. Yield and agronomic property results from the irrigated cotton variety performance test at the AG-CARES research farm in Lamesa, 2014.

Designation	Yield	Agronomic Properties								% Open		
		% Turnout		% Lint		Boll	Seed	Lint	Seed per	Bolls	Storm	Height
		Lint	Seed	Picked	Pulled	Size	Index	Index	Boll	10-Oct	Resistance	
Deltapine DP 1219 B2RF	1029	32.5	43.9	39.5	32.6	5.0	8.3	5.9	33.5	74	4	26
Stoneville ST 4946GLB2	982	32.4	44.5	39.4	32.8	6.8	10.5	7.4	36.0	71	5	23
PhytoGen PHY 333 WRF	982	31.1	42.1	40.7	32.7	5.7	9.2	6.8	33.6	69	3	25
Deltapine DP 0912 B2RF	958	32.1	42.9	39.5	32.0	5.4	8.7	6.2	34.5	81	4	26
NexGen NG 3306 B2RF	946	32.4	45.3	40.1	33.2	5.6	9.2	6.6	34.3	79	5	27
FiberMax FM 2011GT	943	32.9	43.7	41.5	33.7	6.2	9.9	7.5	34.4	84	6	25
Stoneville ST 4747GLB2	943	30.8	44.1	38.9	31.5	5.5	10.0	6.8	31.4	69	5	25
Deltapine DP 1321 B2RF	920	31.5	42.7	41.1	33.3	5.3	9.2	6.9	31.3	74	4	25
PhytoGen PHY 367 WRF	920	30.8	42.6	40.1	32.2	5.2	8.8	6.3	32.9	70	4	25
Deltapine DP 1044 B2RF	891	31.4	44.1	38.0	30.3	4.8	8.8	5.9	30.7	74	4	25
PhytoGen PHY 499 WRF	873	32.1	43.2	40.4	32.9	5.3	9.1	6.6	32.1	73	4	26
FiberMax FM 9250GL	868	30.8	45.7	38.2	30.7	5.8	10.1	6.6	33.3	83	6	25
NexGen NG 1511 B2RF	866	32.4	42.0	42.6	34.4	5.2	8.8	7.1	31.3	80	4	25
All-Tex CT 14515 B2RF	835	31.9	44.8	39.1	31.7	5.8	10.2	7.0	32.5	70	5	26
FiberMax FM 2484B2F	824	31.4	44.1	39.8	32.2	5.1	9.7	6.8	29.4	83	5	23
PhytoGen PHY 339 WRF	821	31.8	44.0	41.0	33.6	4.9	8.2	6.2	32.3	73	5	27
NexGen NG 4111 RF	790	31.6	45.0	41.7	33.7	5.6	9.6	7.1	32.6	75	5	26
All-Tex CT 13442 B2RF	789	32.4	43.6	39.3	32.0	5.7	9.4	6.7	33.8	74	4	25
PhytoGen PHY 222 WRF	786	31.6	43.4	40.3	32.1	5.0	9.1	6.8	30.2	76	4	23
FiberMax FM 1320GL	780	31.2	44.5	39.7	32.3	5.7	9.2	6.6	34.4	80	7	23
FiberMax FM 1944GLB2	741	29.5	44.1	38.6	31.1	5.7	9.6	6.5	33.6	76	6	24
All-Tex Nitro-44B2RF	696	30.4	45.8	39.1	31.7	5.7	9.9	6.8	32.6	70	5	23
PhytoGen PHY 725 RF	664	28.4	44.1	37.7	29.9	5.3	9.8	6.3	31.2	56	3	26
FiberMax FM 1830GLT	654	33.5	42.9	39.7	33.3	5.8	8.5	6.3	36.6	71	5	21
FiberMax FM 2322GL	651	32.6	41.2	43.4	34.0	5.5	9.2	7.8	30.5	63	4	26
FiberMax FM 2334GLT	612	32.4	41.9	43.0	34.6	5.0	8.1	6.8	31.7	75	5	22
Mean	837	31.6	43.7	40.1	32.5	5.5	9.3	6.7	32.7	74	5	25
c.v. %	15.8	3.0	2.3	1.6	1.8	5.1	3.1	3.0	5.1	6.9	15.6	8.6
LSD 0.05	156	1.1	1.2	1.1	1.0	0.5	0.5	0.3	2.9	6	1	2

Table 4A. Fiber quality results from the irrigated cotton variety performance test at the AG-CARES farm in Lamesa, 2014.

Designation	Mironaire	Length	Uniformity	Strength	Elongation	Leaf	Rd	+b	Color Grade
Deltapine DP 1219 B2RF	4.8	1.07	80.9	30.9	8.2	2	75.3	8.2	41-1
Stoneville ST 4946GLB2	5.1	1.03	81.1	30.1	8.8	2	74.4	8.3	41-1
PhytoGen PHY 333 WRF	4.8	1.07	81.8	28.5	7.7	2	72.7	8.4	41-3
Deltapine DP 0912 B2RF	5.4	0.98	79.9	27.1	9.4	1	73.7	8.3	41-1
NexGen NG 3306 B2RF	5.1	1.10	81.2	30.7	9.3	2	71.1	8.5	41-1,52-1
FiberMax FM 2011GT	4.4	1.05	80.7	28.7	7.1	3	72.8	8.0	41-1,51-1
Stoneville ST 4747GLB2	5.0	1.05	79.0	24.1	6.3	2	73.2	7.5	41-2
Deltapine DP 1321 B2RF	5.1	1.03	81.7	29.9	10.3	1	73.6	8.5	41-1,41-3
PhytoGen PHY 367 WRF	4.5	1.03	80.3	28.6	8.5	3	72.1	8.4	41-3,41-4
Deltapine DP 1044 B2RF	5.0	1.04	81.3	29.3	9.6	1	74.7	8.2	41-1
PhytoGen PHY 499 WRF	4.8	1.04	81.4	31.3	10.1	2	74.0	8.1	41-1,41-4
FiberMax FM 9250GL	4.5	1.02	78.6	26.2	6.1	3	71.8	8.1	41-2,41-4
NexGen NG 1511B2RF	5.1	1.02	79.8	29.1	9.9	3	70.8	8.7	41-3,42-2
All-Tex CT 14515 B2RF	5.0	1.06	81.5	30.5	9.5	2	75.8	8.2	31-2,41-1
FiberMax FM 2484B2F	4.6	1.05	80.4	29.2	7.2	2	77.6	7.6	31-1,41-1
PhytoGen PHY 339 WRF	4.3	1.03	79.7	28.9	8.6	2	73.6	7.8	41-1,41-2
NexGen NG 4111 RF	4.6	1.05	81.2	30.1	8.0	2	71.8	8.9	41-3,42-1
All-Tex CT 13442 B2RF	4.8	1.03	80.1	29.1	9.1	2	74.4	8.4	41-1,41-3
PhytoGen PHY 222 WRF	4.8	1.01	80.4	27.9	8.7	3	69.5	8.6	41-4,52-1
FiberMax FM 1320GL	4.8	1.05	81.0	29.6	8.2	3	71.5	8.6	41-3,41-4
FiberMax FM 1944GLB2	4.9	1.06	80.2	29.0	6.7	2	73.8	7.3	41-2,51-1
All-Tex Nitro-44B2RF	4.3	1.10	81.1	31.3	8.5	3	72.8	7.6	41-2
PhytoGen PHY 725 RF	4.5	1.10	81.9	33.3	8.5	2	72.7	8.7	41-3,42-1
FiberMax FM 1830GT	4.7	1.10	80.7	29.0	6.6	2	73.3	7.3	41-2,51-1
FiberMax FM 2322GL	4.9	1.04	79.3	28.6	6.6	3	73.8	8.4	41-1,41-3
FiberMax FM 2334GLT	4.9	1.07	80.5	28.2	7.0	1	72.9	7.5	41-2,51-1
Mean	4.8	1.05	80.6	29.2	8.2	2	73.2	8.1	
c.v. %	3.2	1.5	1.1	3.3	7.1	29.8	2.7	2.9	
LSD 0.05	0.3	0.03	0.5	1.6	1.0	1	3.3	0.4	

Table 5. Yield and agronomic property results from the dryland cotton variety performance test at Texas A&M AgriLife Research in Lubbock, 2014.

Designation	Yield	Agronomic Properties								% Open		
		% Turnout		% Lint		Boll	Seed	Lint	Seed per	Bolls	Storm	Height
		Lint	Seed	Picked	Pulled	Size	Index	Index	Boll	15-Oct	Resistance	
PhytoGen PHY 339 WRF	649	29.6	43.3	40.6	28.4	4.2	7.8	5.6	30.7	78	5	34
FiberMax FM 9250GL	614	27.6	41.0	39.8	29.4	5.4	9.2	6.4	33.7	79	5	34
PhytoGen PHY 333 WRF	515	28.7	39.5	42.6	32.6	4.8	7.8	6.0	34.3	80	4	34
Stoneville ST 4946GLB2	499	28.9	39.0	42.0	34.4	5.8	9.0	6.8	36.1	74	5	32
FiberMax FM 2484B2F	498	29.1	40.2	42.6	31.9	4.1	8.5	6.8	25.8	90	5	30
Stoneville ST 4747GLB2	486	27.7	39.7	40.8	30.7	4.7	8.6	6.4	29.8	79	5	32
PhytoGen PHY 222 WRF	480	28.9	41.1	40.6	30.4	4.1	9.0	6.5	25.8	83	5	32
FiberMax FM 1830GLT	452	29.4	39.6	43.5	34.2	4.7	7.3	6.1	33.1	75	5	29
FiberMax FM 1944GLB2	439	28.3	41.9	41.0	31.6	4.8	8.5	6.3	31.0	81	5	32
Deltapine DP 1044 B2RF	436	28.3	42.5	40.5	31.4	3.9	7.3	5.4	29.2	80	4	31
All-Tex CT 14515 B2RF	434	29.4	40.8	42.8	33.3	5.2	8.5	6.8	33.1	75	5	33
NexGen NG 3306 B2RF	426	28.8	43.1	41.8	32.1	4.5	7.9	5.8	32.7	85	5	32
FiberMax FM 2322GL	418	29.0	36.4	44.4	34.4	6.1	8.0	7.0	38.8	60	5	35
All-Tex Nitro-44B2RF	404	27.1	39.4	39.7	28.5	4.4	8.7	6.1	28.7	78	4	29
Deltapine DP 1321 B2RF	404	30.2	43.2	40.7	32.5	4.5	8.0	5.8	31.0	83	5	32
Deltapine DP 0912 B2RF	399	28.5	41.5	39.1	30.2	4.5	8.4	5.9	29.7	90	4	31
FiberMax FM 2011GT	395	29.8	41.3	43.1	30.6	6.1	9.6	7.8	33.7	86	5	28
NexGen NG 4111 RF	392	27.1	40.1	41.4	29.9	4.4	8.4	6.2	29.8	79	5	33
Deltapine DP 1219 B2RF	385	27.5	39.9	41.4	30.6	4.0	7.2	5.5	30.0	83	4	34
PhytoGen PHY 367 WRF	369	27.1	41.2	40.3	33.6	4.7	7.7	5.5	34.6	79	4	30
PhytoGen PHY 499 WRF	362	29.0	40.7	41.2	30.4	4.3	7.9	6.0	29.1	80	5	32
FiberMax FM 2334GLT	356	29.5	39.0	42.3	32.4	4.1	6.5	5.4	32.1	73	5	32
FiberMax FM 1320GL	345	28.5	40.1	43.2	32.0	4.9	8.3	6.7	31.5	84	6	29
All-Tex CT 13442 B2RF	344	27.9	40.1	42.4	29.8	4.4	8.7	6.8	27.5	81	4	30
NexGen NG 1511 B2RF	304	28.7	40.5	42.1	29.1	4.2	7.1	5.5	33.4	81	4	32
PhytoGen PHY 725 RF	300	26.6	42.9	39.9	28.5	4.5	9.0	6.3	28.2	68	4	31
Mean	427	28.5	40.7	41.5	31.2	4.6	8.2	6.2	31.3	79	5	32
c.v.%	25.3	2.9	4.2	2.7	5.1	12.3	4.2	6.0	13.8	5.2	18.9	9.1
LSD 0.05	128	1.0	2.0	1.9	2.7	1.0	0.6	0.6	7.4	5	1	3

Table 5A. Fiber quality results from the dryland cotton variety performance test at Texas A&M AgriLife Research in Lubbock, 2014.

Designation	Micronaire	Length	Uniformity	Strength	Elongation	Leaf	Rd	+b	Color Grade
PhytoGen PHY 339 WRF	4.1	1.03	79.0	28.4	8.9	3	72.1	8.1	41-2,41-4
FiberMax FM 9250GL	4.2	1.02	79.4	26.6	6.5	3	72.0	8.1	41-2,41-4
PhytoGen PHY 333 WRF	4.4	1.05	79.8	26.9	7.4	5	69.7	8.3	41-4,52-1
Stoneville ST 4946GLB2	5.0	1.02	81.0	29.6	9.0	2	72.6	8.2	41-3,51-3
FiberMax FM 2484B2F	4.4	1.02	80.5	29.7	8.4	2	72.8	7.5	41-1,51-1
Stoneville ST 4747GLB2	4.7	0.99	78.2	23.6	6.2	3	70.2	8.3	41-4,51-3
PhytoGen PHY 222 WRF	4.4	1.03	80.4	27.0	8.5	4	70.1	8.5	42-2,51-3
FiberMax FM 1830GT	4.2	1.04	79.3	27.4	6.9	3	71.0	8.0	41-4,51-3
FiberMax FM 1944GLB2	4.7	1.01	79.6	27.7	7.1	2	75.5	7.6	41-1
Deltapine DP 1044 B2RF	4.3	0.98	78.7	27.0	9.8	3	70.6	7.5	51-1
All-Tex CT 14515 B2RF	4.6	1.02	79.4	29.1	9.1	2	72.1	8.3	41-3,41-4
NexGen NG 3306 B2RF	4.3	1.05	79.9	30.1	9.0	3	71.3	8.4	41-4
FiberMax FM 2322GL	4.7	1.04	80.4	29.4	7.2	4	71.5	8.2	41-2,42-2
All-Tex Nitro-44B2RF	4.2	1.05	80.2	28.5	9.2	5	66.8	7.8	51-3,51-4
Deltapine DP 1321 B2RF	4.2	1.01	80.3	27.7	9.0	4	72.1	7.9	41-2,41-4
Deltapine DP 0912 B2RF	4.3	1.01	79.9	28.5	8.4	3	72.0	7.6	41-2
FiberMax FM 2011GT	4.5	1.01	79.4	28.5	7.9	3	71.1	7.7	41-1,51-1
NexGen NG 4111 RF	4.3	1.00	80.3	27.6	8.8	3	69.4	8.7	42-2,52-1
Deltapine DP 1219 B2RF	4.4	1.02	80.3	28.9	8.1	3	72.2	7.7	41-2,51-3
PhytoGen PHY 367 WRF	4.4	1.02	80.5	27.7	8.9	2	73.2	8.5	31-2,51-3
PhytoGen PHY 499 WRF	4.6	0.98	80.0	28.4	10.5	3	72.9	8.0	41-1,41-2
FiberMax FM 2334GLT	4.5	1.06	80.8	28.4	7.0	2	73.5	7.8	41-1,51-1
FiberMax FM 1320GL	4.4	0.98	78.9	27.5	8.5	2	71.7	8.2	41-1,51-3
All-Tex CT 13442 B2RF	4.3	1.00	80.7	28.2	8.9	4	70.2	8.0	51-3
NexGen NG 1511B2RF	4.2	0.98	79.0	26.9	9.1	2	72.2	8.2	41-4
PhytoGen PHY 725 RF	4.2	1.04	80.4	30.7	8.4	3	71.4	8.5	41-4
Mean	4.4	1.02	79.8	28.1	8.3	3	71.5	8.0	
c.v. %	3.6	1.9	1.0	3.5	4.8	33.5	2.6	3.3	
LSD 0.05	0.3	0.03	1.3	1.7	0.7	2	3.2	0.5	

Table 6. Yield and agronomic property results from the dryland regional cotton variety performance test at the AG-CARES farm in Lamesa, 2014.

Designation	Yield	Agronomic Properties								% Open		
		% Turnout		% Lint		Boll	Seed	Lint	Seed per	Bolls	Storm	Height
		Lint	Seed	Picked	Pulled	Size	Index	Index	Boll	7-Oct	Resistance	
PhytoGen PHY 333 WRF	549	31.8	44.6	43.5	35.4	5.3	8.1	6.4	36.4	69	4	29
FiberMax FM 2011GT	493	31.3	43.2	40.9	32.7	5.5	9.2	7.1	31.8	60	5	28
Stoneville ST 4747GLB2	492	29.1	42.5	36.8	29.7	5.3	8.7	5.5	35.1	71	5	29
PhytoGen PHY 339 WRF	483	32.6	45.9	37.8	31.2	4.6	7.9	5.2	33.1	76	5	29
Deltapine DP 1219 B2RF	470	29.6	41.9	41.2	33.1	4.5	7.4	5.4	34.8	78	4	29
Deltapine DP 1321 B2RF	470	31.8	44.4	40.7	33.2	4.8	8.2	5.9	33.4	69	5	30
Stoneville ST 4946GLB2	468	29.4	43.6	40.3	33.7	6.2	9.8	7	35.9	76	5	28
Deltapine DP 1044 B2RF	457	29.4	43.3	38.9	31.3	4.4	7.6	5.4	31.3	83	4	27
NexGen NG 4111 RF	456	30.5	45	39.8	31.9	5	8.4	5.8	33.9	63	5	29
All-Tex CT 14515 B2RF	455	32.6	45.1	41.5	34.3	5.4	9	6.6	34.3	73	5	28
PhytoGen PHY 499 WRF	442	29.6	41.2	41.4	34	4.7	7.6	5.8	33.2	84	5	28
Deltapine DP 0912 B2RF	440	28.7	42.8	40.2	33.4	4.9	8.3	5.9	33.2	71	4	29
NexGen NG 3306 B2RF	427	29.8	44.5	40.3	34.1	4.8	8.4	5.9	32.9	76	5	30
FiberMax FM 2484B2F	426	30.3	44.1	42.4	34.7	4.5	8.4	6.3	30.2	75	5	27
PhytoGen PHY 367 WRF	417	29.3	43.5	40.8	33.9	4.5	8.1	7	27.5	69	4	28
FiberMax FM 2334GLT	413	32.9	41.8	45	36.2	4.6	7.3	6.4	32.5	85	5	27
FiberMax FM 1320GL	405	31.7	46.9	38.2	30.7	5.3	8.9	5.8	34.7	68	6	28
PhytoGen PHY 222 WRF	402	29.8	42.3	41.3	32.1	4.2	8.2	5.9	29.5	71	5	27
FiberMax FM 1944GLB2	396	27.8	42.7	40	32.2	5.2	9.1	6.2	33.5	80	5	26
FiberMax FM 9250GL	394	28.3	45.8	38.5	31.2	5.8	9.6	6.2	35.9	64	5	27
All-Tex CT 13442 B2RF	387	28.4	42.4	40.2	34	5.1	8.7	6.2	33	69	4	26
FiberMax FM 1830GLT	378	31.7	41.9	42.5	34.6	4.8	7.5	6	34.6	78	5	27
FiberMax FM 2322GL	378	32.6	40.3	43.2	34.6	5.1	8.6	7	31.4	58	5	29
NexGen NG 1511 B2RF	359	26.7	42.4	41.1	34.1	4.8	8.6	6.5	30.3	74	4	28
All-Tex Nitro-44B2RF	354	26.5	43	37.6	31	4.8	9	5.8	31.3	66	4	26
PhytoGen PHY 725 RF	325	27.7	44	37.2	30	4.5	8.9	5.7	29.6	65	4	28
Mean	428	30.0	43.4	40.4	32.9	4.9	8.4	6.1	32.8	72	5	28
c.v.%	14.4	3.4	3.5	2.7	3.2	4.7	3.3	0.5	6.7	11.0	18.9	5.9
LSD 0.05	73	1.2	1.8	1.9	1.8	0.4	0.5	0.7	3.8	9	1	2

Table 6A. Fiber quality results from the dryland regional cotton variety performance test at the AG-CARES farm in Lamesa, 2014.

Designation	Micronaire	Length	Uniformity	Strength	Elongation	Leaf	Rd	+b	Color Grade
PhytoGen PHY 333 WRF	4.5	1.04	79.8	27.2	6.8	4	69.2	8.2	42-2,51-2
FiberMax FM 2011GT	4.3	1.03	79.5	27.3	6.9	3	71.3	8.6	41-3,41-4
Stoneville ST 4747GLB2	4.6	1.02	78.4	24.0	5.4	3	70.8	8.0	41-4,51-1
PhytoGen PHY 339 WRF	4.4	1.04	80.4	28.1	8.3	2	69.8	8.3	51-3,52-1
Deltapine DP 1219 B2RF	4.6	1.01	77.7	27.5	7.2	2	73.4	8.0	41-2,41-3
Deltapine DP 1321 B2RF	4.9	0.99	79.8	27.1	9.1	3	69.4	9.1	42-1,52-1
Stoneville ST 4946GLB2	4.9	1.00	80.4	28.0	9.2	2	69.4	8.9	42-2,52-1
Deltapine DP 1044 B2RF	4.9	1.01	80.1	27.1	9.5	3	71.3	8.3	41-1,52-1
NexGen NG 4111 RF	4.8	0.98	80.0	28.3	8.6	1	70.1	9.1	42-1,42-2
All-Tex CT 14515 B2RF	5.1	1.00	79.9	27.9	9.1	1	74.2	8.2	41-1
PhytoGen PHY 499 WRF	4.8	1.00	80.1	27.9	9.9	3	70.8	8.6	41-4,42-2
Deltapine DP 0912 B2RF	5.0	0.96	78.9	25.1	7.6	3	69.7	8.7	42-2,52-1
NexGen NG 3306 B2RF	4.9	1.07	82.1	30.6	8.6	2	71.7	8.3	41-4
FiberMax FM 2484B2F	4.2	1.03	79.1	26.1	6.7	2	71.0	7.9	41-2,51-3
PhytoGen PHY 367 WRF	4.6	0.98	78.6	25.3	8.3	4	68.3	8.7	41-4,52-1
FiberMax FM 2334GLT	4.8	1.05	79.9	27.1	6.6	1	71.2	8.0	41-2,41-4
FiberMax FM 1320GL	4.5	0.98	78.5	26.8	7.5	2	69.0	8.8	41-4,52-1
PhytoGen PHY 222 WRF	4.9	0.99	79.7	26.1	8.9	2	70.3	9.1	42-1,42-2
FiberMax FM 1944GLB2	4.7	1.04	79.3	25.9	6.0	2	72.1	7.5	41-4,51-1
FiberMax FM 9250GL	4.2	1.04	79.0	25.1	6.2	3	68.7	9.1	41-4,52-1
All-Tex CT 13442 B2RF	4.4	1.02	80.2	27.6	8.6	2	73.0	8.5	41-1,42-1
FiberMax FM 1830GT	4.6	1.04	80.0	26.6	5.8	2	71.7	7.9	41-4,51-1
FiberMax FM 2322GL	4.5	1.02	79.7	27.6	6.4	2	71.7	8.6	41-3,41-4
NexGen NG 1511B2RF	4.7	1.02	79.4	26.3	8.8	3	69.2	8.8	42-2,52-1
All-Tex Nitro-44B2RF	3.9	1.04	79.3	27.7	7.8	4	69.3	8.5	41-4,52-1
PhytoGen PHY 725 RF	4.2	1.06	80.2	30.9	8.4	2	69.0	9.0	42-2,52-1
Mean	4.6	1.02	79.6	27.1	7.8	2	70.6	8.5	
c.v. %	2.5	2.5	1.0	5.4	5.3	45.2	2.8	5.6	
LSD 0.05	0.2	0.04	1.4	2.5	0.7	2	3.4	0.8	

Table 7. Yield summary over five locations of the uniform cotton variety performance tests conducted by Texas A&M AgriLife Research at Lubbock 2014.

Designation	Overall Yield	Lubbock Irr Rank	Lubbock Dry Rank	Halfway Rank	Lamesa Irr Rank	Lamesa dry Rank
PhytoGen PHY 333 WRF	700	1	3	11	3	1
Deltapine DP 1219 B2RF	644	19	14	2	1	5
Stoneville ST 4747GLB2	643	15	8	7	7	3
PhytoGen PHY 339 WRF	643	3	2	20	16	4
FiberMax FM 2011GT	637	9	20	6	6	2
PhytoGen PHY 367 WRF	634	8	1	23	9	15
Deltapine DP 0912 B2RF	633	2	26	8	4	12
Deltapine DP 1321 B2RF	621	6	15	15	8	6
NexGen NG 4111 RF	619	5	5	10	17	9
FiberMax FM 9250GL	615	17	7	3	12	20
FiberMax FM 2484B2F	609	4	25	1	15	14
Stoneville ST 4946GLB2	607	10	18	22	2	7
Deltapine DP 1044 B2RF	605	7	21	14	10	8
PhytoGen PHY 499 WRF	604	12	24	5	11	11
NexGen NG 3306 B2RF	604	18	6	19	5	13
NexGen NG 1511 B2RF	592	14	19	4	13	24
All-Tex CT 14515 B2RF	582	16	16	18	14	10
PhytoGen PHY 222 WRF	578	11	4	21	19	18
FiberMax FM 1944GLB2	565	13	11	17	21	19
All-Tex CT 13442 B2RF	557	20	17	12	18	21
All-Tex Nitro-44B2RF	529	22	22	9	22	25
FiberMax FM 1830GLT	516	26	12	13	24	22
FiberMax FM 1320GL	500	25	13	26	20	17
PhytoGen PHY 725 RF	492	24	23	16	23	26
FiberMax FM 2322GL	491	21	10	25	25	23
FiberMax FM 2334GLT	485	23	9	24	26	16

Table 8. Results of the cotton variety germplasm salinity tolerance screening conducted at Texas A&M AgriLife Research in the Lubbock greenhouse, 2014.

Designation	Salt Index ^{1/}		Germination % ^{2/}		Root Length % ^{2/}	
Deltapine DP 1219 B2RF	80	a ^{3/}	98.4	a ^{3/}	60	a ^{3/}
Jacco	72	ab	97.2	a	45.7	b
PhytoGen PHY 499 WRF	70	ab	98.7	a	41	bcde
Seed Source Genetics SSG HQ 210 CT	69	abc	94.5	ab	41.9	bcd
Deltapine DP 0912 B2RF	67	abc	94.7	ab	39.7	bcde
PhytoGen PHY 725 RF	66	abc	93.6	ab	39.2	bcdef
All-Tex Nitro-44B2RF	65	abc	88.9	ab	41.7	bcd
Deltapine DP 1321 B2RF	65	bc	82.9	abc	46.3	b
PhytoGen PHY 367 WRF	63	bc	91.7	ab	34.5	bcdefg
PhytoGen PHY 222 WRF	62	bcd	88.7	ab	34.2	bcdefgh
NexGen NG 1511 B2RF	61	bcde	83.3	abc	38.9	bcdef
NexGen NG 4111 RF	55	cdef	78.6	abcd	30.5	cdefghi
Seed Source Genetics SSG UA222	54	cdef	73.5	bcde	34.6	bcdefg
PhytoGen PHY 339 WRF	48	defg	59.5	defgh	35.4	bcdefg
All-Tex CT 13442 B2RF	47	defg	51.4	fghi	42.8	bc
PhytoGen PHY 333 WRF	47	efg	54.5	efgh	38.1	bcdef
Acala Glandless	47	defg	63.3	cdefg	31.2	cdefghi
STV Glandless	45	fg	65.3	cdef	24.6	ghijkl
Deltapine DP 1044 B2RF	39	gh	38.2	hijk	38.8	bcdef
All-Tex CT 14515 B2RF	38	gh	41.9	ghijk	33.8	bcdefgh
Stoneville ST 4946GLB2	35	ghi	44.9	fghij	24.8	ghijk
FiberMax FM 1944GLB2	29	hi	30	ijkl	28.5	efghijk
NexGen NG 3306 B2RF	27	hij	30	ijkl	24.7	ghijkl
FiberMax FM 2011GT	26	hij	20.8	klmn	29.7	defghij
FiberMax FM 1830GLT	26	hij	29.6	ijkl	21.7	hijkl
FiberMax FM 1320GL	24	hij	27	jklm	20.5	ijkl
FiberMax FM 2334GLT	21	ijk	14.9	lmn	26.7	fghijk
FiberMax FM 2484B2F	14	jk	6.4	mn	21.5	hijkl
Stoneville ST 4747GLB2	13	jk	8.8	lmn	17.2	jkl
FiberMax FM 9250GL	13	jk	8.8	lmn	16.5	kl
FiberMax FM 2322GL	9	k	4.9	n	11.9	l
Mean	45		56.9		32.8	
c.v.%	28.0		32.6		33.2	
LSD 0.05	15		21.8		12.8	

^{1/}Salt Index is calculated by (ger%*.5)+(root%*.5)

^{2/}Germination and Root Length are both reported as percentages of the control (same variety germinated in RO water)

^{3/}Means followed by the same letter are not significantly different p>.05

Table 9. Yield summaries of the irrigated and dryland cotton variety performance tests at Texas A&M AgriLife Research Lubbock 2009-2014.

Lubbock Irrigated							
Designation	2010	2011	2012	2013	2014	Average	Comp. Average ^{1/}
	<u>Five Year Average</u>						
PhytoGen PHY 367 WRF	1789	873	1019	887	547	1023	
Deltapine DP 0912 B2RF	1820	821	728	751	652	954	
Deltapine DP 1044 B2RF	1815	917	596	647	554	906	
PhytoGen PHY 499 WRF	1720	860	757	565	526	886	
	<u>Four Year Average</u>						
FiberMax FM 2011GT	1009	717	802	546	769	938	
NexGen NG 4111 RF	854	722	818	568	741	910	
Deltapine DP 1219 B2RF	949	725	750	456	720	889	
All-Tex Nitro 44 B2RF	877	888	592	435	698	867	
FiberMax FM 2484B2F	624	875	714	577	698	867	
Seed Source Genetics SSG HQ 210 CT	1826	823	535	590	944	867	
FiberMax FM 9250GL	654	830	714	477	669	838	
PhytoGen PHY 725 RF	579	771	281	379	503	672	
	<u>Three Year Average</u>						
FiberMax FM 1944GLB2		925	701	509	712	866	
Stoneville ST 4946GLB2		810	607	531	649	803	
NexGen NG 1511 B2RF		821	621	499	647	801	

Halfway Irrigated							
Designation	2010	2011	2012	2013	2014	Average	Comp. Average ^{1/}
	<u>Five Year Average</u>						
Deltapine DP 0912 B2RF	1881	1226	1103	1631	815	1331	
PhytoGen PHY 367 WRF	1850	1035	1183	1599	635	1260	
PhytoGen PHY 499 WRF	1945	978	1233	1629	836	1324	
Deltapine DP 1044 B2RF	1814	1258	1100	1280	763	1243	
	<u>Four Year Average</u>						
All-Tex Nitro 44 B2RF	1366	1297	1533	803	1250	1367	
FiberMax FM 2484B2F	1080	1363	1652	912	1252	1369	
FiberMax FM 2011GT	1118	1268	1702	834	1231	1348	
NexGen NG 4111 RF	1336	1048	1550	785	1180	1297	
FiberMax FM 9250GL	1190	1227	1367	854	1160	1277	
Deltapine DP 1219 B2RF	1075	1167	1308	863	1103	1220	
PhytoGen PHY 725 RF	1030	1084	1425	749	1072	1189	
Seed Source Genetics SSG HQ 210 CT	1791	1086	752	1337	1242	1136	
	<u>Three Year Average</u>						
FiberMax FM 1944GLB2		1238	1771	747	1252	1335	
Stoneville ST 4946GLB2		1367	1543	660	1190	1273	
NexGen NG 1511 B2RF		1079	1628	850	1186	1269	

20

Lamesa Irrigated							
Designation	2009	2010	2012	2013	2014	Average	Comp. Average ^{1/}
	<u>Five Year Average</u>						
PhytoGen PHY 367 WRF	1948	1334	987	505	920	1139	
Deltapine DP 0912 B2RF	1562	1052	948	980	958	1100	
	<u>Four Year Average</u>						
Deltapine DP 1044 B2RF		1285	1036	1163	891	1094	1221
PhytoGen PHY 499WRF		1108	1071	882	873	984	1116
Seed Source Genetics SSG HQ 210 CT	1288	860	692	477		829	793
	<u>Three Year Average</u>						
Stoneville ST 4946GLB2			1115	1127	982	1075	1267
Deltapine DP 1219 B2RF			931	1262	1029	1074	1266
FiberMax FM 2011GT			910	1040	943	964	1106
FiberMax FM 9250GL			1012	973	868	951	1093
NexGen NG 4111 RF			993	1036	790	940	1082
NexGen NG 1511 B2RF			1027	867	866	920	1062
FiberMax FM 2484B2RF			955	917	824	899	1041
All-Tex Nitro 44 B2RF			866	833	696	798	940
FiberMax FM 1944GLB2			937	677	741	785	927
PhytoGen PHY 725 RF			458	601	664	574	716

^{1/}Patterson, R.E. 1950. A method of adjustment for calculating comparable yields in variety tests.

Table 9. Yield summaries of the irrigated and dryland cotton variety performance tests at Texas A&M AgriLife Research Lubbock 2009-2014.

Lamesa Dryland							
Designation	2010	2011	2012	2013	2014	Average	Comp. Average ^{1/}
	Five Year Average						
PhytoGen PHY 499 WRF	934	345	412	315	442	490	
Deltapine DP 1044 B2RF	845	306	306	378	457	458	
PhytoGen PHY 367 WRF	791	333	299	233	417	415	
Deltapine DP 0912 B2RF	636	306	328	257	440	393	
	Four Year Average						
Deltapine DP 1219 B2RF	333	373	313	470	372	446	
FiberMax FM 2011GT	363	337	276	493	367	441	
NexGen NG 4111RF	306	276	315	456	338	411	
FiberMax FM 9250GL	311	317	313	394	334	407	
FiberMax FM 2484B2F	248	347	294	426	329	402	
All-Tex Nitro 44 B2RF	316	305	285	354	315	388	
PhytoGen PHY 725 RF	186	189	221	325	230	303	
	Three Year Average						
Seed Source Genetics SSG HQ 210 CT	704	403		291	466	445	
Stoneville ST 4946GLB2			342	376	468	395	444
FiberMax FM 1944GLB2			316	221	396	311	298
NexGen NG 1511 B2RF			271	292	359	307	294

Lubbock Dryland							
Designation	2010	2011	2012	2013	2014	Average	Comp. Average ^{1/}
	Five Year Average						
Deltapine DP 0912 B2RF	1335	306	499	359	399	580	
PhytoGen 367 WRF	1398	333	452	329	369	576	
PhytoGen PHY 499 WRF	1396	345	488	268	362	572	
Deltapine DP 1044 B2RF	1560	306	593	367	436	652	
	Four Year Average						
FiberMax FM 2011GT	572	363	445	395	444	618	
Deltapine DP 1219 B2RF	522	333	399	385	410	584	
FiberMax FM 9250GL	402	311	295	614	405	579	
NexGen NG 4111RF	412	306	459	392	392	566	
All-Tex Nitro 44 B2RF	397	316	362	404	370	544	
FiberMax FM 2484B2F	384	248	245	498	344	518	
Seed Source Genetics SSG HQ 210 CT	1126	403	400	227	539	498	
PhytoGen PHY 725 RF	515	186	190	300	298	472	
	Three Year Average						
FiberMax FM 1944GLB2		629	269	439	446	566	
Stoneville ST 4969GLB2		395	365	499	420	540	
NexGen NG 1511 B2RF		481	269	304	351	471	

^{1/}Patterson, R.E. 1950. A method of adjustment for calculating comparable yields in variety tests.

Table 10. Agronomic property results from the irrigated late planted cotton variety test at Texas A&M AgriLife Research in Lubbock, 2014.^{1/}

Designation	Agronomic Properties								% Open		
	% Turnout		% Lint		Boll	Seed	Lint	Seed per	Bolls	Storm	Height
	Lint	Seed	Picked	Pulled	Size	Index	Index	Boll	20-Oct	Resistance	
Deltapine DP 104 B2RF	24.2	37.5	39.5	29.2	4.1	8.8	6.1	26.4	88	7	17
Deltapine DP 1212 B2RF	24.3	36.1	40.5	31.1	4.9	10.1	7.4	27.0	75	3	20
Deltapine DP 1410 B2RF	22.2	33.8	39.2	31.5	4.8	8.9	6.4	29.4	86	7	19
FiberMax FM 1320GL	27.1	38.5	42.0	30.6	4.6	8.7	6.9	28.1	86	7	19
FiberMax FM 1830GLT	25.8	35.7	44.8	34.1	4.4	8.3	7.2	27.0	75	4	19
FiberMax FM 2322GL	25.5	31.2	45.6	34.3	4.2	8.9	8.0	24.1	69	5	21
FiberMax FM 2484B2F	24.5	36.0	39.8	32.1	4.6	10.0	7.0	26.4	88	6	19
Stoneville ST 4747GLB2	20.6	31.1	39.7	29.1	4.4	9.3	6.7	25.7	64	4	18
Monsanto 13R310B2R2	24.5	31.7	44.6	35.8	4.3	8.1	7.3	25.9	79	5	19
NexGen NG 1511 B2RF	24.3	31.1	41.9	29.3	3.9	9.4	7.2	22.8	73	4	20
NexGen NG 3306 B2RF	22.7	36.1	39.0	31.2	4.2	9.2	6.3	26.3	76	5	19
NexGen NG 4111 RF	22.0	32.0	41.1	32.0	4.9	9.9	7.3	27.6	64	5	21
PhytoGen PHY 222 WRF	24.1	32.7	42.0	32.0	4.2	8.9	7.6	23.1	83	4	20
PhytoGen PHY 333 WRF	25.6	33.8	44.1	33.8	4.4	8.6	7.4	26.3	76	3	17
PhytoGen PHY 339 WRF	25.5	36.3	42.5	31.2	3.5	8.1	6.7	22.4	73	4	20
PhytoGen PHY 367 WRF	23.0	34.3	41.1	31.8	4.1	8.6	6.7	25.1	69	4	19
Mean	24.2	32.2	41.7	31.8	4.3	9.0	7.0	25.8	76	5	19
c.v.%	5.1	6.8	0.9	4.1	7.5	4.0	5.0	9.0	7.7	14.4	8.8
LSD 0.05	1.5	2.8	1.4	2.3	0.6	0.6	0.6	4.1	7	1	2

^{1/}Yield data was not reported due to effects of late season rain and cool temperatures.

Table 10A. Fiber quality results from the irrigated late planted cotton variety performance test at Texas A&M AgriLife Research in Lubbock, 2014.

Designation	Micronaire	Length	Uniformity	Strength	Elongation	Leaf	Rd	+b	Color Grade
Deltapine DP 104 B2RF	4.1	1.07	81.2	30.4	10.7	1	72.0	11.0	33-1
Deltapine DP 1212 B2RF	4.4	1.10	82.4	31.5	10.1	1	68.3	10.8	42-1,43-3
Deltapine DP 1410 B2RF	4.3	1.10	80.4	30.2	8.2	4	71.7	8.7	41-3,42-2
FiberMax FM 1320GL	5.3	0.97	78.8	29.7	10.9	1	73.8	8.0	41-1
FiberMax FM 1830GLT	4.8	1.11	81.6	30.4	8.1	2	75.0	8.0	41-1
FiberMax FM 2322GL	4.3	1.08	80.1	30.4	7.6	3	70.1	9.1	41-2,43-1
FiberMax FM 2484B2F	4.5	1.13	82.0	30.9	7.3	2	73.4	9.7	32-2
Stoneville ST 4747GLB2	5.2	1.06	81.0	27.8	7.4	4	71.4	7.6	41-2,51-1
Monsanto 13R310B2R2	4.6	1.01	79.6	28.5	12.9	2	73.5	8.9	31-4,42-1
NexGen NG 1511 B2RF	4.9	1.03	78.5	28.8	10.7	2	69.1	10.1	42-2,43-1
NexGen NG 3306 B2RF	4.6	1.10	81.9	30.8	9.3	2	72.1	8.9	41-1,42-1
NexGen NG 4111 RF	5.1	1.02	78.8	29.4	10.0	2	71.9	9.2	41-3,42-1
PhytoGen PHY 222 WRF	5.3	1.03	80.9	28.8	10.7	1	73.9	9.1	41-3,42-1
PhytoGen PHY 333 WRF	5.0	1.03	80.7	28.1	9.3	2	71.4	8.6	41-4,42-1
PhytoGen PHY 339 WRF	4.6	1.08	81.0	29.7	9.4	2	74.9	8.3	41-1,41-3
PhytoGen PHY 367 WRF	4.5	1.05	79.9	28.6	9.8	2	71.1	9.6	42-1
Mean	4.7	1.06	80.5	29.6	9.5	2	72.7	9.1	
c.v.%	7.8	3.8	1.5	3.1	6.4	42.2	1.6	6.8	
LSD 0.05	0.6	0.07	2.1	1.6	1.1	1	2.0	1.1	

Table 11. Yield and agronomic properties from the irrigated new cotton variety and strains performance test at Texas A&M AgriLife Research in Lubbock, 2014.

Designation	Yield	Agronomic Properties								% Open		
		% Turnout		% Lint		Boll	Seed	Lint	Seed per	Bolls	Storm	Height
		Lint	Seed	Picked	Pulled	Size	Index	Index	Boll	17-Oct	Resistance	
All-Tex 12WSTF794 RF	651	31.0	40.3	42.6	33.6	4.6	7.6	6.3	31.2	84	6	23
PhytoGen PX 3003-04 WRF	610	28.3	42.6	40.4	32.7	5.0	8.8	6.5	31.5	74	4	25
NexGen NG 4111 RF	600	27.3	39.4	40.2	31.9	5.3	9.0	6.7	31.6	86	4	28
PhytoGen PX 2034-03 WRF	547	26.9	39.6	38.8	28.1	5.1	10.2	7.0	28.1	74	4	25
FiberMax FM 2007GLT	534	29.1	40.1	40.8	32.1	4.5	8.3	6.3	29.0	85	5	24
NexGen NG 1511 B2RF	506	28.4	36.1	47.6	37.1	4.8	8.6	8.0	28.4	85	5	28
PhytoGen PX 4444-13 WRF	502	29.4	36.5	45.2	35.9	4.7	8.8	8.0	26.3	83	4	23
All-Tex 12WSTR563 B2RF	499	28.8	39.3	42.8	33.2	4.8	8.1	6.8	30.4	81	5	25
All-Tex 12WSTR755 B2RF	492	29.2	40.9	41.7	32.5	5.6	10.3	7.8	29.6	83	4	24
PhytoGen PX 2033-03 WRF	481	23.8	39.3	37.5	26.4	3.6	8.5	5.9	22.9	93	4	29
All-Tex 12WSTR761-2 B2RF	462	28.1	36.7	41.8	32.1	4.9	8.3	6.3	32.4	86	6	25
PhytoGen PX 2042-02 WRF	459	23.4	39.6	37.3	27.4	5.5	10.7	6.9	29.7	90	4	27
NexGen NG 3306 B2RF	374	28.1	41.1	40.6	31.5	4.9	9.0	6.6	30.2	83	4	25
All-Tex 12WSTR1551 B2RF	365	26.9	38.0	39.7	28.6	4.8	10.2	7.3	25.8	85	4	25
FiberMax FM 1900GLT	345	29.7	39.4	41.9	32.8	5.5	9.4	7.6	30.3	88	5	24
Stoneville ST 5288B2F	343	28.1	39.7	41.0	32.8	4.8	8.1	6.4	30.8	92	3	27
Mean	485	27.9	39.3	41.2	31.8	4.9	9.0	6.9	29.2	84	4	25
c.v.%	19.7	4.7	4.3	2.7	4.2	8.4	4.1	5.7	5.2	10.8	21.6	7.3
LSD 0.05	114	1.6	2.0	2.0	2.3	0.7	0.6	0.7	2.7	11	1	2

Table 11A. Fiber quality results from the irrigated new variety and strains cotton performance test at Texas A&M AgriLife Research in Lubbock, 2014.

Designation	Micronaire	Length	Uniformity	Strength	Elongation	Leaf	Rd	+b	Color Grade
All-Tex 12WSTF794 RF	4.5	1.03	80.1	26.4	8.6	2	73.0	7.6	41-1,51-3
PhytoGen PX 3003-04 WRF	4.7	1.04	81.2	29.3	7.6	3	75.9	6.9	41-1,41-2
NexGen NG 4111 RF	4.5	1.03	80.0	29.2	8.7	2	70.1	8.4	41-2,52-1
PhytoGen PX 2034-03 WRF	4.2	1.12	82.0	33.2	8.6	4	72.2	7.6	41-2,51-1
FiberMax FM 2007GLT	4.6	1.07	80.4	29.1	8.7	2	77.2	6.3	41-1
NexGen NG 1511 B2RF	4.9	1.01	79.8	28.9	9.9	3	73.6	7.1	41-2
PhytoGen PX 4444-13 WRF	4.4	1.08	81.2	29.8	7.6	2	75.5	7.2	41-1,41-2
All-Tex 12WSTR563 B2RF	4.5	1.06	80.7	27.7	8.7	2	76.3	7.4	31-1,41-2
All-Tex 12WSTR755 B2RF	4.6	1.07	82.3	31.1	9.1	3	74.9	7.7	31-2,41-2
PhytoGen PX 2033-03 WRF	4.2	1.03	79.7	29.0	9.8	4	72.2	7.0	41-2,51-1
All-Tex 12WSTR761-2 B2RF	4.5	1.11	80.5	31.9	9.4	2	75.6	6.9	41-1,41-2
PhytoGen PX 2042-02 WRF	3.9	1.14	80.8	32.4	6.8	4	69.5	7.2	51-1
NexGen NG 3306 B2RF	4.8	1.09	82.0	31.3	9.1	2	72.4	8.0	41-3,51-3
All-Tex 12WSTR1551 B2RF	4.6	1.10	82.1	32.0	9.4	4	71.3	6.9	51-1
FiberMax FM 1900GLT	4.9	1.06	80.0	27.7	6.1	2	70.6	7.1	51-1
Stonveille ST 5288B2F	4.8	1.05	79.8	27.9	8.0	3	73.7	8.2	32-1,51-1
Mean	4.5	1.07	80.8	29.8	8.6	2	73.3	7.7	
c.v.%	5.3	2.5	1.1	2.6	3.5	31.2	3.2	8.6	
LSD 0.05	0.4	0.05	1.6	1.4	0.4	2	2.4	1.0	

Table 12. Yield and agronomic property results from the irrigated Verticillium wilt cotton variety performance test at Texas A&M AgriLife Research in Halfway, 2014.

Designation	Yield	Agronomic Properties								% Open		Storm Resistance	Height	Verticillium wilt	
		% Turnout		% Lint		Boll Size	Seed Index	Lint Index	Seed per Boll	Bolls 20-Oct	%wilt 14-Aug			%wilt 27-Aug	
		Lint	Seed	Picked	Pulled										
PhytoGen PHY 222 WRF	1152	28.6	43.6	42.3	32.3	5.6	10.3	7.9	29.9	65	6	28	9.9	18.9	
FiberMax FM 2322GL	1089	32.7	40.6	45.4	35.6	5.9	10.1	9.1	29.8	35	6	34	7.0	12.6	
FiberMax FM 2011GT	1050	30.3	42.7	41.5	33.2	6.8	11.0	8.4	33.5	46	7	31	13.3	21.0	
Monsanto 13R310 B2R2	986	30.9	44.9	39.9	29.7	6.0	11.4	7.9	30.2	59	6	29	9.2	16.4	
Stoneville ST 4747GLB2	986	28.0	43.6	41.1	31.6	6.3	10.5	7.8	33.2	50	6	31	7.9	12.9	
NexGen NG 4111 RF	955	31.1	44.6	41.8	32.0	5.7	10.2	7.7	31.0	63	6	32	15.2	23.2	
Deltapine DP 1410 B2RF	942	29.9	43.9	41.2	32.5	5.5	9.5	7.1	31.7	56	6	30	7.3	10.3	
FiberMax FM 1900GLT	938	29.9	42.5	41.7	32.1	6.2	10.7	8.2	31.7	49	6	29	9.7	17.0	
PhytoGen PHY 339 WRF	927	27.4	44.3	42.3	32.2	5.3	9.7	7.4	30.2	49	5	34	7.0	13.1	
PhytoGen PHY 367 WRF	927	28.6	43.1	40.5	30.9	5.2	9.3	6.7	31.4	59	5	30	7.6	14.4	
Deltapine DP 0912 B2F	914	27.6	43.7	40.7	32.8	6.1	10.7	7.7	32.3	45	5	32	8.9	16.4	
All-Tex 12WSTR755 B2RF	881	28.1	42.2	40.1	31.3	6.1	11.9	8.5	28.8	48	6	31	9.7	14.8	
PhytoGen PHY 417 WRF	877	27.7	42.4	42.4	33.7	5.1	8.3	6.4	34.0	44	7	33	5.5	12.0	
NexGen NG 3306 B2RF	874	29.1	44.5	41.7	33.8	5.2	9.7	7.3	29.8	36	6	31	16.4	23.3	
FiberMax FM 2334GLT	852	28.8	42.5	43.6	32.0	5.1	9.3	7.5	29.6	41	5	32	4.5	7.2	
Stoneville ST 5289GLT	846	26.5	43.3	39.7	32.2	5.5	9.7	6.9	31.7	48	5	32	18.6	27.8	
FiberMax FM 9180B2F	829	29.2	44.9	40.4	30.1	6.0	11.0	7.8	30.8	63	6	26	10.8	17.8	
FiberMax FM 2484B2F	815	26.1	42.3	39.7	32.5	6.2	11.0	7.8	31.7	39	6	30	3.4	6.4	
PhytoGen PHY 427 WRF	806	27.9	44.3	40.0	29.4	4.9	8.7	6.2	31.6	41	6	32	10.4	18.3	
FiberMax FM 2007GLT	799	27.7	43.8	39.9	31.5	5.0	9.7	6.8	28.9	44	6	30	12.9	23.2	
All-Tex 12WSTF794 RF	790	26.6	42.3	42.7	31.8	5.4	9.0	7.0	33.3	53	6	33	11.3	20.9	
FiberMax FM 1830GLT	747	28.4	41.4	43.3	32.2	5.6	9.5	7.7	31.2	39	5	28	14.5	21.7	
PhytoGen PHY 333 WRF	720	27.9	40.5	41.5	30.9	5.7	10.0	7.4	31.6	51	6	31	13.6	20.6	
PhytoGen PHY 499 WRF	715	24.2	39.3	40.3	30.1	5.0	10.1	7.3	27.8	39	7	32	19.1	27.3	
Stoneville ST 5032GLT	688	27.4	43.2	38.5	30.8	5.8	10.3	6.8	32.3	32	7	30	9.9	16.5	
All-Tex 12WSTR1551 B2RF	683	27.1	42.8	39.2	29.7	6.2	12.2	8.5	28.4	31	6	32	10.8	23.6	
NexGen NG 1511 B2RF	675	27.0	41.1	42.1	31.5	5.0	9.5	7.3	29.0	30	6	35	11.9	29.5	
All-Tex 12WSTR563 B2RF	670	26.9	43.7	39.1	29.6	5.2	9.4	6.4	32.1	31	6	33	11.0	19.9	
Mean	862	28.3	42.9	41.2	31.7	5.6	10.1	7.5	31.0	46	6	31	10.6	18.1	
c.v.%	23.7	4.8	2.5	2.6	4.4	6.0	4.8	3.9	4.4	33.0	13.4	7.1	59.5	62.9	
LSD 0.05	240	1.6	1.2	1.8	2.4	0.6	0.8	0.5	2.3	18	1	3	7.4	13.4	

Table 12A. Fiber quality results from the Verticillium wilt cotton variety performance test at Texas A&M AgriLife Research in Halfway, 2014.

Designation	Micronaire	Length	Uniformity	Strength	Elongation	Leaf	Rd	+b	Color Grade
PhytoGen PHY 222 WRF	4.0	1.10	82.3	30.1	10.3	2	77.7	8.7	31-1
FiberMax FM 2322GL	3.0	1.10	81.6	30.9	7.5	2	75.5	8.8	31-2,31-3
FiberMax 2011GT	3.3	1.09	81.2	30.4	8.5	3	77.3	8.1	31-2
Monsanto 13R310 B2R2	3.8	1.12	82.0	31.1	9.4	2	78.8	8.2	31-1
Stoneville ST 4747GIB2	3.2	1.11	80.6	28.2	7.0	3	76.5	8.2	31-1,41-1
NexGen NG 4111 RF	3.5	1.09	82.2	31.5	9.3	1	76.3	9.4	21-3,32-1
Deltapine DP 1410 B2RF	3.7	1.10	80.8	29.9	9.6	2	77.1	8.6	21-2,31-2
FiberMax FM 1900GLT	3.0	1.12	80.6	30.4	6.7	4	77.4	8.6	21-2,31-2
PhytoGen PHY 339 WRF	3.1	1.10	81.3	30.5	9.4	2	77.5	8.6	31-1
PhytoGen PHY 367 WRF	3.1	1.10	81.0	30.3	9.6	3	75.2	9.0	31-3
Deltapine DP 0912 B2F	3.5	1.04	80.1	28.6	9.3	2	75.5	9.3	31-3,21-1
All-Tex 12WSTR755 B2RF	2.8	1.11	81.1	30.6	9.6	3	74.9	9.2	31-3,31-4
PhytoGen PHY 417 WRF	2.8	1.05	80.2	29.1	10.2	2	76.2	9.8	22-1,31-3
NexGen NG 3306 B2RF	3.5	1.09	82.8	29.4	11.0	1	77.6	9.4	21-3,21-4
FiberMax FM 2334GLT	3.0	1.17	82.9	30.8	7.8	1	77.6	8.9	21-2,31-1
Stoneville ST 5289GLT	2.7	1.05	79.0	28.1	8.6	5	75.2	8.3	31-4,41-1
FiberMax FM 9180B2F	3.7	1.08	80.6	31.7	8.8	2	79.5	8.2	21-2,31-1
FiberMax FM 2484B2F	2.6	1.11	81.3	29.3	8.4	2	76.6	9.2	31-3
PhytoGen PHY 427 WRF	2.8	1.08	80.1	29.5	9.3	2	76.8	8.7	31-1,31-2
FiberMax FM 2007GLT	3.5	1.12	81.4	29.7	9.0	3	76.7	8.6	31-2,31-3
All-Tex 12WSTF794 RF	2.8	1.09	81.0	29.3	9.4	3	77.7	8.8	21-2,31-3
FiberMax FM 1830GLT	3.1	1.16	82.1	32.2	8.0	2	77.5	8.5	31-1,31-2
PhytoGen PHY 333 WRF	3.2	1.09	81.0	29.8	8.1	2	75.8	9.5	31-3,32-1
PhytoGen PHY 499 WRF	2.6	1.08	80.3	29.3	9.6	2	75.2	9.6	22-2,32-1
Stoneville ST 5032GLT	3.2	1.11	81.6	30.7	9.5	2	76.3	8.8	21-2,31-4
All-Tex 12WSTR1551 B2RF	2.8	1.14	81.5	29.6	7.8	3	77.1	8.7	31-1
NexGen NG 1511 B2RF	2.9	1.07	80.8	30.3	10.0	4	75.1	9.0	31-4
All-Tex 12WSTR563 B2RF	2.5	1.11	79.9	28.5	9.2	1	79.8	8.8	21-1
Mean	3.1	1.10	81.1	30.0	8.9	2	76.8	8.8	
c.v. %	11.3	2.1	1.2	3.9	7.3	43.3	1.3	4.4	
LSD 0.05	0.6	0.04	1.6	2.0	1.1	2	1.7	0.7	

Table 13. Yield and agronomic property results from the irrigated root-knot nematode variety performance test at the AG-CARES farm in Lamesa, 2014.

Designation	Yield	Agronomic Properties								% Open		Storm Resistance	Height	Root-knot /500 cc soil	Log 10 (mean sep. P=0.05)
		% Turnout		% Lint		Boll Size	Seed Index	Lint Index	Seed per Boll	Bolls 7-Oct					
		Lint	Seed	Picked	Pulled										
Deltapine DP 1558NR B2RF	1414	33.5	43.3	40.6	32.7	7.0	9.4	6.8	41.8	54	5	29	390	def	
Deltapine DP 1454NR B2RF	1246	33.0	44.1	39.4	31.5	5.7	9.7	6.8	33.0	69	5	33	30	f	
Monsanto 14R1455 B2R2	1232	34.8	42.8	42.1	33.6	6.6	9.9	7.6	36.7	59	5	31	450	def	
Stoneville ST 4946GLB2	1222	32.7	45.6	37.9	31.4	6.8	11.0	7.1	36.3	65	6	28	3060	abc	
FiberMax FM 2484B2F	1171	32.3	46.2	39.9	30.2	5.6	9.8	6.8	33.0	75	6	30	5820	ab	
FiberMax FM 2011GT	1108	32.6	44.2	38.2	31.0	7.0	10.9	7.3	36.7	71	6	29	3780	abcd	
PhytoGen PHY 427 WRF	1086	33.3	46.7	37.8	31.1	5.4	9.2	5.9	34.4	75	5	30	360	cde	
PhytoGen PHY 499 WRF	1070	31.9	43.4	37.2	30.3	5.4	9.3	6.1	32.6	78	4	28	3540	abc	
PhytoGen PHY 417 WRF	1064	33.3	45.0	40.0	32.4	4.9	8.1	5.8	34.0	68	5	31	90	ef	
Stoneville ST 4747GLB2	1048	30.3	44.8	37.6	30.2	6.0	10.2	6.5	34.9	69	6	29	3750	ab	
NexGen NG 1511 B2RF	1019	33.4	44.0	38.6	31.7	5.7	9.8	6.6	33.7	75	5	31	3390	ab	
FiberMax FM 1320GL	1010	32.9	44.0	38.6	31.6	6.0	10.1	7.0	33.1	71	6	30	1710	bcde	
FiberMax FM 2007GLT	994	32.1	46.1	39.3	32.1	5.3	10.0	6.7	31.1	80	6	28	13350	abc	
FiberMax FM 2322GL	984	34.6	41.6	41.8	32.8	5.9	9.9	7.6	32.2	68	6	31	2730	ab	
FiberMax FM 1830GLT	947	33.2	42.1	42.4	34.7	5.5	9.0	6.9	33.9	81	5	28	9870	ab	
NexGen NG 4111 RF	939	31.1	45.4	37.4	30.4	5.8	10.1	6.4	34.4	68	6	30	6630	a	
PhytoGen PHY 367 WRF	933	29.8	43.7	40.6	37.1	5.5	9.2	6.8	33.0	75	4	31	1275	def	
NexGen NG 3306 B2RF	908	32.2	45.6	37.9	31.0	5.3	10.1	6.5	31.0	74	5	31	5490	ab	
FiberMax FM 2334GLT	878	32.9	41.5	40.4	32.5	5.7	8.4	6.3	36.3	78	5	30	14970	a	
FiberMax FM 1900GLT	810	32.2	43.2	39.4	32.4	6.4	10.3	7.1	35.1	83	6	28	6540	a	
Mean	1054	32.6	44.2	39.3	32.0	5.9	9.7	6.8	34.3	72	5	30			
c.v.%	13.1	2.5	2.3	2.2	4.4	4.8	3.7	5.3	3.7	10.0	13.8	6.5			
LSD 0.05	163	0.9	1.2	1.5	2.2	0.5	0.6	0.6	2.2	9	1	2			

Table 13A. Fiber quality results from the irrigated root-knot nematode cotton variety performance test at the AG-CARES farm in Lamesa, 2014.

Designation	Micronaire	Length	Uniformity	Strength	Elongation	Leaf	Rd	+b	Color Grade
Deltapine DP 1558NR B2RF	4.7	1.09	81.6	32.8	8.3	1	77.3	8.9	21-2,31-1
Deltapine DP 1454NR B2RF	4.5	1.04	81.5	30.0	8.8	1	78.2	8.5	21-2,31-1
Monsanto 14R1455 B2R2	5.2	1.08	82.7	32.8	8.8	2	76.7	9.0	31-1,31-3
Stoneville ST 4946GLB2	5.0	1.08	82.8	32.0	9.0	1	74.9	8.8	31-4,41-1
FiberMax FM 2484B2F	4.4	1.11	81.9	31.1	7.3	1	77.1	7.6	31-2,41-1
FiberMax FM 2011GT	4.6	1.08	81.6	29.7	7.3	2	75.3	7.8	31-2,41-2
PhytoGen PHY 427 WRF	4.7	1.06	81.7	29.7	9.0	1	72.4	7.9	41-1,41-2
PhytoGen PHY 499 WRF	4.7	1.05	82.0	31.4	11.2	2	73.2	8.2	41-1
PhytoGen PHY 417 WRF	4.3	1.04	80.6	29.8	9.8	2	75.4	8.5	31-1,41-3
Stoneville ST 4747GLB2	4.8	1.10	81.4	27.3	6.2	3	74.8	7.1	41-1,41-2
NexGen NG 1511 B2RF	5.2	1.05	82.2	29.9	9.4	1	72.7	8.6	41-3
FiberMax FM 1320GL	4.6	1.03	80.7	29.8	8.6	2	73.7	8.0	41-1,41-2
FiberMax FM 2007GLT	4.4	1.11	81.3	31.2	8.0	2	77.4	7.4	31-2,41-1
FiberMax FM 2322GL	4.6	1.08	80.2	30.5	6.7	2	75.1	8.0	31-2,41-1
FiberMax FM 1830GLT	4.8	1.11	80.6	29.5	7.0	1	74.9	7.3	41-1,41-2
NexGen NG 4111 RF	4.8	1.05	80.8	31.1	9.2	1	75.2	8.9	31-2,31-4
PhytoGen PHY 367 WRF	4.5	1.06	80.2	28.5	9.9	3	73.1	8.5	41-1,41-3
NexGen NG 3306 B2RF	4.8	1.11	82.9	32.8	9.3	1	75.6	8.4	31-2,41-1
FiberMax FM 2334GLT	4.9	1.13	82.6	31.3	6.9	2	74.5	7.6	41-1,41-2
FiberMax FM 1900GLT	4.8	1.06	79.9	29.3	6.6	3	73.8	7.6	41-1,41-2
Mean	4.7	1.07	81.4	30.5	8.3	1	75.0	8.1	
c.v. %	4.6	1.5	1.1	2.4	5.3	48.4	2.0	3.4	
LSD 0.05	0.4	0.03	1.6	1.3	0.8	1	2.6	0.5	

Table 14. Results of the irrigated bacterial blight cotton variety screening test at Texas A&M AgriLife Research Lubbock 2014.

Variety	Blight %	Rating
NexGen NG 1511 B2RF	100	Susceptible
PhytoGen PHY 222 WRF	100	Susceptible
PhytoGen PHY 333 WRF	100	Susceptible
PhytoGen PHY 417 WRF	100	Susceptible
PhytoGen PHY 427 WRF	100	Susceptible
Deltapine DP 0912 B2RF	100	Susceptible
FiberMax FM 2322GL	94	Susceptible
Stoneville ST 5032GLT	92	Susceptible
FiberMax FM 1320GL	88	Susceptible
PhytoGen PHY 339 WRF	22	Partially Resistant
NexGen NG 4111 RF	18	Partially Resistant
FiberMax FM 2007GLT	6	Resistant
10-14-814BB	5	Resistant
FiberMax FM 1830GLT	0	Resistant
FiberMax FM 2334GLT	0	Resistant
FiberMax FM 1900GLT	0	Resistant
FiberMax FM 2484B2F	0	Resistant
Stoneville ST 5289GLT	0	Resistant
10-14-111BB	0	Resistant
10-14-616BB	0	Resistant

^{1/} NexGen NG 3306B2RF

^{1/} Several rows in the trial did not develop adequate bacterial blight symptoms, despite two sprayings, even with the susceptible check variety planted; therefore, only rows with symptoms in the susceptible check were rated. NexGen NG 3306 B2RF unfortunately did not have any replications within the rows that developed symptoms.

Table 15. Variety index for cotton variety performance tests conducted by Texas A&M AgriLife Research Lubbock, 2014.

Designation	Pages:	Uniform Ct var test 8-16	Location Summary 18	Salt Screening 19	5 yr Summary 20	Late Planted 22-23	New Varieties 24-25	Verticillium wilt 26-27	Root-knot Nematode 28-29	Bacterial blight 30
All-Tex 12WSTF794 RF							*	*		
All-Tex 12WSTR1551 B2RF							*	*		
All-Tex 12WSTR563 B2RF							*	*		
All-Tex 12WSTR755 B2RF							*	*		
All-Tex 12WSTR761-2 B2RF							*			
All-Tex CT 13442 B2RF		*	*	*						
All-Tex CT 14515 B2RF		*	*	*						
All-Tex Nitro-44B2RF		*	*	*	*					
Deltapine DP 0912 B2F		*	*	*	*			*		*
Deltapine DP 104 B2RF						*				
Deltapine DP 1044 B2RF		*	*	*	*					
Deltapine DP 1212 B2RF						*				
Deltapine DP 1219 B2RF		*	*	*	*					
Deltapine DP 1321 B2RF		*	*	*						
Deltapine DP 1410 B2RF						*		*		
Deltapine DP 1454NR B2RF									*	
Deltapine DP 1558NR B2RF									*	
FiberMax FM 1320GL		*	*	*		*			*	*
FiberMax FM 1830GLT		*	*	*		*		*	*	*
FiberMax FM 1900GLT							*	*	*	*
FiberMax FM 1944GLB2		*	*	*	*					
FiberMax FM 2007GLT							*	*	*	*
FiberMax FM 2011GT		*	*	*	*			*	*	
FiberMax FM 2322GL		*	*	*		*		*	*	*
FiberMax FM 2334GLT		*	*	*				*	*	*
FiberMax FM 2484B2F		*	*	*	*	*		*	*	*
Stoneville ST 4747GLB2		*	*	*		*		*	*	
FiberMax FM 9180B2F							*			
FiberMax FM 9250GL		*	*	*	*					
Monsanto 13R310 B2R2						*		*		
Monsanto 14R1455 B2R2									*	
NexGen NG 1511 B2RF		*	*	*	*	*	*	*	*	*
NexGen NG 3306 B2RF		*	*	*		*	*	*	*	*
NexGen NG 4111 RF		*	*	*	*	*	*	*	*	*
PhytoGen PHY 222 WRF		*	*	*		*		*		*
PhytoGen PHY 333 WRF		*	*	*		*		*		*
PhytoGen PHY 339 WRF		*	*	*		*		*		*
PhytoGen PHY 367 WRF		*	*	*	*	*		*	*	
PhytoGen PHY 417 WRF								*	*	*
PhytoGen PHY 427 WRF								*	*	*
PhytoGen PHY 499 WRF		*	*	*	*			*	*	
PhytoGen PHY 725 RF		*	*	*	*					
PhytoGen PX 2033-03 WRF							*			
PhytoGen PX 2034-03 WRF							*			
PhytoGen PX 2042-02 WRF							*			
PhytoGen PX 3003-04 WRF							*			
PhytoGen PX 4444-13 WRF							*			
Seed Source Genetics SSG HQ 210 CT				*	*					
Stoneville ST 4747GIB2								*	*	
Stoneville ST 4946GLB2		*	*	*	*				*	
Stoneville ST 5032GLT								*		*
Stoneville ST 5289GLT								*		*
Stoneville ST 5288B2F							*			