

Cotton Performance Trials

In the Texas High Plains 2023

The Texas A&M AgriLife Research and Extension Center at
Lubbock/Halfway/Pecos - 2024



Texas A&M AgriLife Research - Cliff Lamb, Director
TEXAS A&M UNIVERSITY SYSTEM COLLEGE STATION, TX
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Cotton Performance Trials in the Texas High Plains 2023^{1/}

**J.K. Dever, V. Morgan, C.M. Kelly, T.A. Wheeler, R.B. Heinrich,
K. Stair, and K. Legé^{2/}**

**Texas A&M AgriLife Research and Extension Center
Lubbock-Halfway-Pecos**

^{1/} Tests were conducted by Texas A&M AgriLife Research Cotton Improvement Program at Lubbock.

^{2/} Professor-Cotton Breeder, Research Specialist, Research Scientist, Professor-Plant Pathologist, Research Associate, Senior Research Associate Texas A&M AgriLife Research, Assistant Professor and Extension Cotton Specialist Texas A&M AgriLife Extension Lubbock

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INTRODUCTION

Cotton performance trials were planted in 2023 at the Texas A&M AgriLife Research and Extension Center in Lubbock (LREC), research station at Halfway, TX, and at the AG-CARES research farm in Lamesa, TX. Trials were conducted for response to bacterial blight at LREC and root-knot nematode at the AG-CARES farm. Uniform Variety Trials including commercial or soon to be commercially available varieties were conducted in five environments: LREC irrigated, LREC dryland, AG-CARES base water, AG-CARES low water, and Halfway irrigated. New varieties and strains, including potential new commercial varieties or breeding lines, were tested at LREC under furrow-irrigated conditions. Soil types, planting dates, harvest dates, irrigation, and cultural practices for each trial are in Table 1.

All trials were planted in a randomized complete block design with four replications, in 2-row plots, 30-40 ft long on 40 in centers. Following the hot, dry season of 2022, the region continued to experience drought throughout the 2022-23 winter season. Very dry conditions persisted until early May 2023, when heavy rainfall and hail events continued until late May/early June. The few commercial fields in the region that were planted in early- to mid-May experienced weather damage, and many had to be replanted to either cotton or alternative crops. The majority of the cotton in the region was planted in late-May to mid-June. Drought returned to the region along with very high temperatures immediately following planting, and these conditions persisted throughout the remainder of the growing season. As a result of the stress imposed from harsh weather conditions, many fields with limited irrigation capacity, as well as much of the dryland acreage in the region was ultimately abandoned. 2023 FSA certified acreage reports indicated that 61% of the planted acres were abandoned in the region. Commercial acreage brought to harvest did experience higher-than-normal heat unit accumulation well into October, which enabled the later-than-normal planted crop to fully mature. While yields were quite variable compared to long-term average, micronaire values were dramatically higher than average across the region. Since the 2023 harvest season did not experience many rainfall events or very early freezes, color and leaf grades were generally good, such that most of any discounts was attributed to the high micronaire values and/or shorter fiber length on much of the crop.

ACKNOWLEDGMENTS

Fiber properties were measured at the Fiber and Biopolymer Research Institute, Texas Tech University, with financial support from Texas A&M AgriLife Research Fiber Initiative. Plains Cotton Improvement Program and CSREES Hatch project TEX09297 supplement variety testing fees from participating companies. The Plains Cotton Improvement Committee facilitates this independent variety testing service and provides guidance for the variety testing strategy of the Texas A&M AgriLife Research cotton breeding project at Lubbock. Planting, seed and field preparation, plot maintenance, harvest, sample ginning, and data collection were assisted by student workers Caden Barron, Mitchell Bowman, Cameron Clancey, Trevor Clark, Claire Haden, Nathaniel Haden, Briggs Hill, Caton Keinast, Caroline Leach, and Reymie Monasterio. Permanent staff of the breeding program contributed extra effort, especially manual weed control and sample harvesting so these trials could be conducted. Special acknowledgment to Te'Andra Burton, Reagan Heinrich, Carol Kelly, Valerie Morgan, Monica Sheehan, Koy Stair, and Leslie Wells. Bacterial blight and root-knot nematode ratings were conducted by the Texas A&M AgriLife Research plant pathology project at Lubbock under the supervision of Dr. Terry Wheeler.

GLOSSARY OF TABLE HEADINGS

Yield and Agronomic Properties - Determined from hand-snapped samples.

Yield - Pounds of lint harvested per acre.

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.

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 (SR)- 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.

Disease

Rk - Number of root-knot nematodes in 500 cc of soil.

LRK - Log transformation +1 of the Rk number, which is done to account for pressure in the field.

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.

GLOSSARY OF TABLE HEADINGS

Fiber Properties - Measured by High Volume Instrument (HVI®).

Micronaire (Mic)- 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 ^{1/}- 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).

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.^{2/}

^{1/}*Plot stripper used to harvest these tests is not equipped with a field cleaner. Experimental gin set-up may not always approximate Leaf Index values obtained at commercial gins.*

^{2/}*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.*

COMPANY IDENTIFICATION

Company	Brand	Variety Designation	Experimental Designation
Americot	NexGen	NG	NGX
BASF	FiberMax	FM	BX
BASF	Stoneville	ST	BX
Brownfield Seed and Delinting	Brownfield Seed and Delinting	BSD	
Bayer Crop Science	Deltapine	DP	20R, 21R
Nutrien Ag Solutions	DynaGro	DG	
ExCeed Genetics (May)	ExCeed	ExCeed	XC
Gowan Cotton Seed	Gowan	GS	
PhytoGen	PhytoGen	PHY	PX
Seed Source Genetics	Seed Source Genetics	SSG	

Notes

Table 1. Locations, soil types, planting dates, harvest dates, and production information for the cotton performance tests in the Texas High Plains, 2023.

Soil Type	Date Planted	Date Harvested	Production Information
Lubbock Uniform Irrigated			
Olton Clay Loam	June 2	November 26	1 fertilizer application 3 herbicide applications (1 PPI, 1 pre, 1 post) furrow irrigation 4.4 acre inches pre-plant furrow irrigation 8.7 acre inches post plant
Lubbock New Varieties and Strains (NVST)			
Olton Clay Loam	June 2	November 28	
Lubbock Regional High Quality			
Olton Clay	June 2	November 29	
<hr/>			
Lubbock Uniform Water Limited			
Acuff Loam	May 24	November 3	1 fertilizer application 2 herbicide applications (1 pre, 1 post) 2 harvest aid applications 5.5 acre inches pre-irrigation for rain simulation 10.4 inches rainfall in season 1 harvest aid application
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Halfway Uniform Irrigated			
Pullman Clay Loam	June 12	November 14	1 fertilizer application 5 herbicide applications (1 PPI, 1 pre, 3 post) pivot irrigation 7.2 acre inches in season
<hr/>			
Lamesa Uniform Base Water			
Amarillo Fine Sandy Loam	May 10	November 6	1 fertilizer application 2 herbicide applications (1 pre, 1 post) pivot base water, 10.3 acre inches in season
Lamesa Uniform Low Water			
	May 17	November 7	pivot low water, 8.2 acre inches in season pivot high water, 12.4 acre inches in season 1 harvest aid application
Lamesa Nematode High Water			
	May 17	November 7	

Table 2. Yield, agronomic, and fiber quality data from the irrigated uniform cotton variety performance trial at Texas A&M AgriLife Research, Lubbock, 2023.

Designation	Yield	Agronomic Properties				% Open Bolls	Fiber Properties									
		% Lint	Picked	Pulled	Boll Seed Index	Seed per Boll	11/3	SR	Height	Mic	Length	Unif-ormity	Strength	Elong-ation	CG	Leaf
PX1124B236-04W3FE	2405	37.4	29.5	6.5	11.8	29.3	41	5	35	5.2	1.22	84.1	35.2	7.3	11-2,21-1	2
PHY 415W3FE	2226	38.8	32.0	5.7	10.6	28.5	49	6	31	5.0	1.25	84.6	36.6	6.9	21-1	2
PHY 332W3FE	2103	37.7	30.1	6.1	10.7	30.7	66	6	32	5.1	1.20	84.3	36.4	7.2	21-1	2
PHY 411W3FE	2096	40.0	31.4	5.2	9.5	25.4	59	5	30	5.4	1.16	84.0	34.8	6.6	21-1	2
PHY 136W3E1	2070	41.5	32.5	5.8	10.0	29.4	60	6	28	5.2	1.22	82.8	35.2	7.4	21-1	2
PX1125B234-04W3FE	2033	37.5	28.8	5.1	10.9	25.8	55	6	30	5.4	1.19	83.5	34.3	6.9	21-1	3
PHY 475W3FE	1993	38.6	31.2	5.8	10.1	28.5	65	5	32	5.2	1.17	82.9	34.7	6.7	21-1,21-2	2
DP 2143NR B3XF	1983	39.5	32.2	5.4	9.4	25.9	66	4	30	5.5	1.21	83.6	35.7	7.2	21-1,21-2	3
DP 2141NR B3XF	1978	38.8	30.4	5.5	10.0	28.6	63	4	30	5.3	1.21	82.6	34.0	6.7	11-1,21-1	2
PHY 443W3FE	1832	39.4	30.8	5.9	10.1	29.6	58	6	33	5.2	1.17	82.9	32.8	6.9	21-1	2
BRS 1294	1751	39.8	32.2	5.3	9.6	29.6	53	5	34	5.3	1.17	84.1	34.0	6.4	21-1,21-2	2
PHY 545W3FE	1590	41.2	31.0	5.2	10.4	25.1	26	6	30	5.3	1.13	83.1	34.6	7.2	21-1	2
BRS 1299	1556	44.4	35.4	5.0	8.8	28.3	44	6	34	5.4	1.15	83.3	32.9	6.2	21-1,21-2	2
FM 868AXTP	1530	38.7	30.2	5.6	10.7	27.5	49	6	27	5.3	1.22	84.3	35.0	6.9	11-2,21-1	2
BRS 286	1517	35.4	29.4	5.1	10.6	25.8	60	4	27	4.9	1.19	82.9	34.9	6.4	21-1	2
SSG UA 222	1488	35.2	28.7	6.0	11.3	29.5	40	5	27	5.0	1.27	84.1	35.3	7.1	21-2	3
PHY 390W3FE	1484	37.8	29.0	5.5	10.3	28.5	64	6	24	4.9	1.18	83.0	34.8	7.1	21-1	2
PHY 400W3FE	1483	39.3	30.8	5.1	9.5	27.4	68	6	24	5.2	1.17	83.2	34.2	7.1	21-1	2
DP 2317 B3TXF	1478	38.9	31.1	4.2	8.4	24.7	64	4	26	5.0	1.20	82.7	32.7	6.8	11-1,21-1	2
FM 823AXTP	1416	38.1	31.0	5.4	9.7	29.4	54	5	26	5.2	1.17	83.3	34.2	6.9	21-1	2
DP 2211 B3TXF	1402	40.0	31.4	4.6	9.2	24.6	69	3	27	5.1	1.17	83.4	33.3	6.7	11-2	2
PX1122A214-04W3FE	1385	36.9	29.8	5.7	10.9	27.8	56	6	26	4.8	1.18	83.6	35.8	7.0	21-1	2
PHY 205W3FE	1382	36.0	27.5	5.9	11.3	29.1	71	7	24	5.1	1.16	83.9	35.0	6.4	21-2,31-1	2
BRS 1754	1366	35.7	28.4	4.8	10.6	25.4	44	5	28	5.4	1.21	83.3	35.9	7.1	21-1,21-2	2
FM 1621GL	1364	40.2	32.2	5.5	9.6	26.7	49	7	25	5.2	1.14	83.1	33.6	7.0	21-1,21-2	3
BRS 1382	1360	38.9	30.4	5.3	9.9	25.7	44	4	29	5.5	1.14	83.8	35.1	6.3	21-1,21-2	2
FM 2498GLT	1346	38.2	30.7	6.4	11.3	30.5	35	6	27	5.6	1.20	84.3	35.3	6.4	21-1	2
BSD Ton Buster Magnum	1338	33.9	27.4	6.2	11.9	30.6	64	6	25	4.9	1.18	82.6	34.2	6.4	11-1,21-1	2
NG 4335 B3TXF	1314	39.3	30.2	5.0	8.5	27.8	58	4	30	5.0	1.17	84.1	33.4	7.3	21-1	2
DP 2436NR B3TXF	1293	41.6	32.4	4.6	8.6	23.9	34	4	27	5.0	1.17	83.5	33.5	7.9	11-2,21-1	2
PHY 480W3FE	1283	35.9	26.9	5.4	10.0	27.6	44	6	26	5.0	1.20	84.4	35.9	6.9	11-2,21-3	3
AMX21COO5B3TXF	1276	36.2	29.8	5.1	10.4	26.8	44	5	30	4.7	1.19	84.2	34.1	7.2	21-1	2
NG 4098 B3XF	1251	37.4	29.4	5.9	11.4	28.3	30	5	27	4.8	1.21	82.2	35.2	6.9	21-1	2
BRS 416	1235	32.3	25.3	6.1	11.7	31.3	53	4	31	5.1	1.21	83.2	35.3	6.4	11-2,21-1	2
AMX160030-AB3XF	1223	40.0	31.4	6.0	9.6	30.8	50	6	26	5.2	1.21	83.8	34.3	7.5	21-1	3
BRS 2353	1215	36.6	28.0	4.4	10.0	23.4	40	6	27	5.0	1.21	83.2	36.3	6.2	21-1	2
FM 1730GLTP	1212	37.0	29.8	5.4	10.1	27.8	74	4	24	5.1	1.16	83.9	35.4	6.1	21-1,21-2	2
AMX20T079B3XF	1189	39.0	31.2	4.9	9.5	27.1	73	5	26	5.3	1.17	82.9	31.9	7.5	11-1,21-1	1
BSD 9X	1181	34.7	26.8	5.8	11.2	30.4	50	5	26	5.2	1.21	83.1	36.8	6.1	21-1	2
BRS 335	1179	33.8	26.4	5.4	10.4	29.5	55	5	30	5.1	1.20	84.2	34.4	6.9	21-1,21-2	3
PHY 210W3FE	1178	38.2	29.8	5.3	10.6	27.0	59	6	25	5.2	1.15	83.9	33.9	6.4	21-1	2
SSG UA 248	1175	33.5	26.1	5.7	11.2	29.8	66	4	27	4.9	1.24	84.1	36.5	6.3	21-1	2
BSD 4X	1170	33.0	26.3	6.1	10.7	33.9	60	6	26	5.1	1.20	82.9	35.1	6.5	11-2,21-1	2
PHY 137W3E1	1168	37.1	29.9	5.3	10.3	25.8	40	5	25	4.9	1.21	83.8	36.7	6.9	21-1	2
DP 2012 B3XF	1160	38.1	28.3	4.6	9.0	28.2	66	5	27	4.9	1.20	82.5	33.3	6.5	21-1	2

Table 2. cont.

Designation	Agronomic Properties						% Open Bolls		Fiber Properties							
	Yield	% Picked	Pulled	Boll Size	Seed Index	Seed per Boll	11/3	SR	Height	Mic	Length	ormity	Strength	Elong- ation	CG	Leaf
AMX160030-BB3XF	1160	37.5	30.4	5.6	10.4	29.1	39	6	27	5.2	1.22	84.9	36.3	7.2	21-1,31-1	2
AMX20T157B3XF	1160	38.5	29.8	5.2	9.5	28.3	50	5	25	5.3	1.14	82.5	32.3	7.0	21-1	2
PHY 250W3FE	1158	36.2	27.6	5.4	10.5	28.5	64	6	25	5.0	1.15	83.0	33.5	6.8	21-1	3
DP 2239 B3XF	1155	39.9	30.4	5.2	8.7	27.7	50	5	24	5.1	1.21	81.8	32.6	6.9	11-1,11-2	2
FM 2398GLTP	1152	37.1	28.4	5.6	9.9	29.1	53	5	27	5.0	1.16	82.6	32.5	6.6	21-1	2
DP 2335 B3XF	1125	39.7	30.5	5.4	9.8	27.5	36	6	27	5.2	1.25	84.0	33.4	7.8	22-1	2
NG 3930 B3XF	1074	37.0	28.5	5.3	9.8	28.5	50	6	25	5.1	1.19	83.9	33.2	7.6	21-1	2
BRS 293	1028	35.3	28.6	5.6	11.0	28.9	38	5	27	5.5	1.16	83.8	35.0	7.2	11-2,21-1	2
AMX20T114B3XF	1012	37.1	28.9	4.4	8.9	23.8	53	4	26	5.4	1.18	83.8	32.3	8.4	21-1	2
NG 4350 B3TXF	989	37.0	28.3	4.8	9.8	25.9	51	4	27	5.0	1.22	83.8	34.5	6.8	21-1	3
Mean	1430	37.7	29.7	5.4	10.1	27.9	53	5	27	5.1	1.19	83.5	34.5	6.9		2
c.v.%	16.0	2.0	3.7	5.5	5.4	5.8	23.1	14.8	7.2	4.9	2.6	1.0	4.0	6.5		23.0
LSD 0.05	267	1.3	1.9	0.5	0.9	2.7	14	1	2	0.4	0.05	1.4	2.3	0.7		1

Table 3. Yield, agronomic, and fiber quality data from the irrigated uniform cotton variety performance trial at Texas A&M AgriLife Research, Halfway, 2023.

Designation	Agronomic Properties					% Open			Fiber Properties							
	Yield	% Picked	Pulled	Boll Size	Seed Index	Seed per Boll	11/6	Bolls SR	Height	Mic	Length	Unif-ormity	Strength	Elong-ation	CG	Leaf
BRS 1299	1237	41.4	31.8	5.0	8.1	30.0	64	6	28	4.8	1.11	82.4	29.1	5.7	22-1,22-2	2
FM 2498GLT	1118	41.8	33.1	7.1	10.5	34.7	74	5	23	5.5	1.12	82.6	29.4	6.2	22-2,32-1	2
BSD 9X	1003	36.2	28.4	6.3	10.2	33.0	78	5	23	4.9	1.12	83.0	32.4	6.2	22-2,32-1	2
FM 1621GL	983	40.7	31.8	5.6	9.8	24.8	86	7	23	5.3	1.10	83.1	29.9	6.1	31-3,32-1	3
DP 2335 B3XF	977	40.3	31.3	6.1	9.5	31.5	70	6	23	4.7	1.17	83.0	32.2	5.9	21-3	2
DP 2141NR B3XF	972	38.0	30.3	5.9	9.5	33.1	63	5	26	5.3	1.15	82.6	31.8	6.5	22-2,32-1	2
PHY 136W3E1	941	40.2	30.6	5.4	9.0	30.1	78	6	23	4.8	1.16	82.7	32.2	7.2	22-2	2
PX1124B236-04W3FE	930	37.3	28.2	6.3	10.5	33.7	55	5	25	4.8	1.14	83.7	32.6	6.8	21-4,22-2	2
FM 1730GLTP	920	38.9	30.4	5.9	10.0	29.1	91	4	21	5.0	1.16	82.9	34.1	5.8	22-2,32-1	2
BRS 1382	917	38.2	31.1	5.2	8.7	27.6	73	5	27	5.2	1.14	83.1	32.7	6.2	21-4,31-3	2
BRS 286	917	35.9	28.1	5.6	10.9	27.8	76	3	26	4.8	1.09	82.3	32.1	6.2	21-4,32-1	1
BRS 335	914	34.8	27.6	5.5	10.0	30.4	75	6	25	4.5	1.13	82.0	29.8	6.6	21-2,21-4	2
PHY 400W3FE	914	41.4	31.6	5.4	8.9	29.1	88	6	20	4.7	1.12	81.2	31.4	6.5	32-1	2
BRS 416	909	33.6	26.5	6.0	11.5	31.3	86	4	23	4.7	1.22	83.0	32.0	5.7	21-2,31-3	2
BSD Ton Buster Magnum	907	35.2	27.8	6.4	10.7	32.6	83	6	23	4.6	1.13	81.6	31.1	6.2	22-2,32-1	1
DP 2239 B3XF	904	41.4	32.6	5.6	8.4	29.8	76	6	22	4.9	1.17	83.5	30.7	6.9	22-1	2
FM 2398GLTP	896	40.1	31.1	6.4	10.3	32.8	76	6	23	5.2	1.16	83.9	31.3	6.3	22-2,32-1	2
PHY 411W3FE	895	39.8	30.4	4.8	8.9	24.5	73	5	24	4.8	1.09	82.8	32.2	6.7	21-2,21-4	2
BSD 4X	892	37.0	29.1	6.6	11.6	31.5	84	6	22	4.6	1.13	81.4	30.2	6.2	21-1	2
NG 4098 B3XF	887	37.1	29.6	6.1	10.7	31.3	79	4	21	4.5	1.23	82.2	35.1	6.3	32-1	2
DP 2143NR B3XF	883	38.7	30.2	5.6	9.1	29.3	65	4	26	5.5	1.15	83.2	32.3	6.6	32-1	2
PHY 137W3E1	881	38.1	29.9	5.6	9.1	29.2	84	4	22	4.9	1.14	83.2	33.5	7.5	32-1	2
PHY 332W3FE	875	38.7	30.0	5.9	10.3	30.0	66	5	23	5.0	1.17	82.9	30.7	6.9	22-2	2
DP 2012 B3XF	873	38.8	29.2	5.1	8.6	30.5	81	5	25	4.6	1.15	81.9	29.8	6.0	21-4,32-1	2
BRS 1294	870	39.4	30.8	5.8	9.5	32.1	60	5	29	5.3	1.09	82.7	29.9	5.9	32-1	2
PHY 210W3FE	862	37.1	29.6	5.6	10.4	29.1	89	6	21	4.6	1.12	82.6	30.8	6.1	21-4,22-2	2
DP 2317 B3TXF	861	39.6	29.5	4.6	8.6	25.9	80	4	26	4.7	1.15	82.5	28.6	5.9	32-1	2
PHY 443W3FE	858	39.5	30.1	6.2	10.3	31.6	71	5	23	4.9	1.12	83.1	31.6	6.6	22-2,32-1	2
PHY 480W3FE	851	38.1	28.0	5.4	10.3	27.1	68	5	23	4.3	1.11	84.1	31.0	7.6	22-2	2
PHY 475W3FE	850	39.2	30.9	5.3	8.8	28.7	78	5	25	5.1	1.08	81.8	31.9	7.0	22-2	1
PHY 250W3FE	846	38.1	28.4	5.7	10.8	28.1	88	6	21	4.6	1.14	82.9	30.9	6.2	21-4,32-1	2
DP 2436NR B3TXF	840	40.7	30.7	5.1	8.7	30.6	56	4	26	4.3	1.19	82.4	32.9	7.6	32-1	2
PX1122A214-04W3FE	817	39.3	30.2	5.6	10.2	27.3	94	5	23	4.5	1.10	81.5	32.0	6.8	22-2,32-1	2
SSG UA 248	809	35.3	27.5	6.3	10.4	32.3	73	5	23	4.6	1.19	81.5	31.9	7.1	22-1,32-1	2
NG 3930 B3XF	802	37.9	29.4	5.2	9.1	29.8	89	6	22	4.7	1.15	83.5	30.1	6.8	32-1	2
PHY 415W3FE	797	37.6	28.8	5.6	9.8	31.4	70	5	22	4.6	1.18	83.7	33.8	6.7	32-1	2
PHY 205W3FE	794	37.9	28.8	5.9	10.7	28.4	91	7	20	5.4	1.08	82.8	31.0	6.3	22-1,22-2	4
SSG UA 222	794	36.8	29.6	5.7	11.4	27.6	71	4	23	5.0	1.20	83.6	33.1	7.5	22-2,32-1	2
PHY 545W3FE	772	38.0	29.0	5.8	10.3	29.7	59	5	23	4.8	1.14	82.6	31.8	6.9	32-1	2
AMX20T157B3XF	770	37.7	29.4	5.8	9.9	31.0	64	6	24	4.9	1.18	84.2	31.7	7.3	32-1	2
PHY 390W3FE	760	38.4	29.1	5.2	9.2	27.8	88	6	21	4.7	1.10	81.0	29.4	6.2	32-1	2
DP 2211 B3TXF	743	38.0	29.1	5.1	9.1	27.1	78	3	26	4.7	1.14	82.4	29.5	6.8	22-1,31-3	2
AMX160030-BB3XF	722	37.0	28.5	6.6	11.0	32.6	59	6	25	4.8	1.18	83.2	33.2	6.6	22-1,22-2	1
FM 823AXTP	713	38.0	29.7	6.0	9.4	34.1	85	6	21	4.7	1.16	83.7	33.1	6.6	32-1	2
BRS 293	705	35.7	28.4	6.2	10.0	34.3	61	5	23	5.0	1.12	82.9	32.9	6.6	22-1	2

Table 3. cont.

Designation	Agronomic Properties						% Open Bolls		Fiber Properties						
	Yield	% Picked	Pulled	Boll Size	Seed Index	Boll	11/6	SR	Height	Mic	Length	Unif-ormity	Elongation	CG	Leaf
FM 868AXTP	701	39.1	30.3	6.5	10.4	33.4	75	5	24	4.5	1.13	82.2	32.4	6.6	22-1,32-1
BRS 2353	692	35.4	25.7	5.2	9.5	29.2	84	7	24	4.3	1.25	83.7	35.8	5.7	21-4,31-3
BRS 1754	690	35.8	26.7	4.8	9.1	28.2	73	6	24	5.0	1.19	83.9	33.8	6.9	31-3,32-1
AMX21COO5B3TXF	690	36.1	28.2	4.9	8.3	30.2	81	4	26	3.8	1.17	83.2	31.3	7.1	21-4,32-1
PX1125B234-04W3FE	689	37.6	27.9	5.3	10.2	27.7	79	5	23	5.0	1.11	82.4	29.8	6.2	22-1,32-1
NG 4350 B3TXF	685	36.6	27.4	5.3	9.2	32.1	76	5	23	4.4	1.24	85.6	36.0	6.4	32-1
AMX20T079B3XF	661	39.1	29.6	5.7	10.1	29.9	71	4	24	5.1	1.18	83.7	32.1	6.8	32-1
AMX160030-AB3XF	623	37.0	29.1	6.1	9.8	33.0	56	6	24	4.8	1.17	83.2	31.8	6.8	32-1
NG 4335 B3TXF	595	40.2	30.5	5.7	8.5	34.6	78	5	25	4.7	1.13	84.3	32.5	6.6	32-1
AMX20T114B3XF	548	37.6	28.8	4.9	8.9	28.5	63	5	24	5.1	1.17	84.4	31.2	7.6	32-1
Mean	835	38.1	29.4	5.7	9.7	30.2	75	5	24	4.8	1.15	82.9	31.7	6.5	2
c.v.%	14.4	1.9	2.6	4.9	4.3	6.4	15.2	14.5	10.2	3.3	1.8	0.8	3.3	3.2	30.5
LSD 0.05	141	1.2	1.3	0.5	0.7	3.2	13	1	3	0.3	0.03	1.1	1.8	0.3	1

Table 4. Yield, agronomic, and fiber quality data from the base water uniform cotton variety performance trial at the AG-CARES research farm Lamesa, 2023.

Designation	Agronomic Properties						% Open Bolls		Fiber Properties							
	Yield	Picked	Pulled	Boll Size	Seed Index	Seed per Boll	9/19	SR	Height	Mic	Length	Unif-ormity	Elong-ation	CG	Leaf	
PX1124B236-04W3FE	657	37.9	27.8	4.4	8.8	20.7	50	5	22	5.4	1.07	80.7	33.1	6.0	21-1,21-2	3
PHY 545W3FE	588	43.9	32.6	3.6	8.2	16.6	68	5	21	5.0	1.01	80.3	30.0	6.8	21-4,32-1	2
PHY 480W3FE	578	42.7	31.2	4.0	7.9	21.3	58	5	21	4.9	1.05	81.9	30.7	6.7	21-4,32-1	3
PHY 136W3E1	556	39.5	28.7	3.3	7.7	16.4	70	7	20	4.9	1.09	80.4	30.4	6.6	22-2	2
PHY 475W3FE	546	38.6	27.8	3.5	7.9	17.8	73	6	22	5.2	1.01	79.7	30.1	6.3	22-2,31-3	3
PX1125B234-04W3FE	515	39.8	28.7	3.9	8.3	20.1	80	5	20	5.3	1.02	79.5	28.2	5.9	31-3,32-2	3
NG 4098 B3XF	505	38.3	28.8	4.0	10.0	20.6	65	4	22	4.6	1.13	79.7	33.0	5.9	31-3	3
PHY 411W3FE	502	39.1	29.0	3.4	7.8	16.6	80	5	20	5.1	1.01	80.0	28.7	6.2	31-1,31-3	3
PHY 415W3FE	499	35.7	26.3	3.7	8.8	19.9	70	5	22	5.0	1.12	81.5	32.5	6.4	31-3,32-1	2
NG 3930 B3XF	489	35.5	26.6	3.9	8.5	21.6	64	5	21	5.1	1.10	81.1	28.9	6.0	31-3,32-1	2
FM 1621GL	486	36.7	27.8	4.4	9.7	19.8	50	7	22	5.1	1.06	81.1	29.1	5.7	31-3,31-4	4
DP 2317 B3TXF	469	41.7	30.0	3.4	7.8	21.7	89	4	22	4.7	1.09	79.7	27.5	5.8	21-1,31-1	2
PHY 390W3FE	464	41.1	30.6	3.9	7.7	19.4	84	6	19	4.7	0.98	78.0	26.4	6.0	31-4,32-1	3
AMX21COO5B3TXF	454	36.4	26.7	3.0	8.3	14.8	75	4	24	4.3	1.07	80.2	29.3	6.4	31-3	3
PHY 137W2E1	451	37.7	27.6	3.4	9.2	15.8	68	5	21	4.9	1.14	82.3	33.8	6.7	32-1	3
PHY 443W3FE	449	39.4	27.5	3.7	8.9	18.7	65	5	21	5.4	1.06	81.1	31.5	6.3	32-1	2
AMX160030-AB3XF	447	43.0	30.9	3.8	8.8	18.8	80	6	20	5.0	1.08	81.4	30.3	6.2	21-4,32-1	2
PX1122A214-04W3FE	442	38.7	29.1	3.7	8.3	18.8	83	6	18	4.2	1.00	78.6	28.3	6.3	21-4,31-3	2
AMX160030-BB3XF	441	38.0	29.2	4.5	8.9	22.5	83	6	22	5.1	1.05	81.3	29.7	6.0	21-4	2
DP 2335 B3XF	435	38.1	28.7	4.0	8.0	20.2	60	6	22	4.6	1.06	79.3	28.2	5.5	21-1	2
PHY 332W3FE	433	36.7	25.2	3.3	8.4	16.6	70	6	21	5.0	1.07	79.7	29.0	6.4	32-1	3
DP 2436NR B3TXF	432	39.7	28.7	3.2	8.7	15.8	68	3	22	4.9	1.16	81.1	32.4	7.3	32-1,32-2	3
DP 2141NR B3XF	426	37.6	28.3	3.7	8.7	18.1	60	4	22	5.5	1.09	80.1	29.9	6.5	31-3,41-1	2
PHY 250W3FE	424	37.6	26.8	3.6	8.7	18.0	65	6	19	4.9	1.02	79.9	27.1	5.9	21-4,31-3	2
FM 823AXTP	418	42.3	31.3	3.9	8.9	19.5	86	4	20	4.8	1.05	81.1	30.0	6.2	31-1,31-3	2
DP 2239 B3XF	417	40.1	30.5	4.4	8.0	22.1	73	4	21	5.1	1.10	80.4	28.4	6.1	21-4	2
PHY 400W3FE	413	39.2	27.8	3.7	8.3	19.2	74	7	19	5.0	1.04	79.9	28.5	6.4	32-1	3
DP 2012 B3XF	408	37.5	27.1	3.6	7.7	21.3	85	3	22	4.9	1.08	79.3	26.5	5.6	31-1,31-3	2
BRS 335	403	35.7	26.6	3.5	8.7	19.6	60	4	20	4.9	1.04	80.1	28.8	5.9	21-2,31-1	2
DP 2143NR B3XF	389	37.5	27.0	3.6	9.0	17.7	65	2	22	5.5	1.13	81.3	32.3	6.3	31-3	3
BRS 1294	388	37.7	26.5	3.4	8.9	18.1	43	4	22	5.3	1.07	83.3	31.5	5.3	21.4	2
AMX20T157B3XF	383	37.4	26.0	3.5	8.5	19.5	70	5	20	4.9	1.10	81.4	29.9	6.7	22-2,32-1	3
FM 2398GLTP	381	42.6	31.0	4.2	9.1	19.8	73	5	19	5.5	1.07	80.9	29.5	5.9	21-2,21-4	2
BRS 293	377	36.2	26.5	3.7	9.3	19.2	40	3	19	5.2	1.06	81.1	31.2	6.3	21-4,3,-1	2
PHY 205W3FE	377	40.2	28.7	3.5	8.8	18.7	88	7	19	4.7	0.99	79.5	27.2	6.1	31-3	3
PHY 210W3FE	376	39.0	27.2	3.2	8.9	15.7	88	6	18	5.1	1.03	80.5	28.4	5.8	21-4,32-1	2
SSG UA 222	374	37.1	28.4	3.8	9.0	19.6	68	4	19	5.1	1.07	80.6	29.9	6.6	32-1	3
FM 868AXTP	371	39.1	28.5	4.5	10.2	22.4	84	5	20	4.9	1.10	81.2	31.9	6.3	22-1,32-1	2
BRS 1382	367	38.6	27.4	3.5	9.3	16.3	53	4	19	5.3	1.08	82.2	31.7	5.9	31-1,31-3	2
NG 4335 B3TXF	367	39.1	28.2	3.7	8.1	20.0	84	6	22	4.8	1.13	82.6	31.7	6.1	31-1,32-1	3
BRS 1754	364	38.5	27.8	2.9	8.1	16.2	40	5	21	5.2	1.14	81.6	33.3	6.5	21-2,31-3	2
BSD 4X	360	33.8	23.9	3.5	9.9	17.6	58	6	20	4.5	1.04	79.3	27.5	5.6	21-4	3
AMX20T079B3XF	359	37.8	27.2	3.4	8.5	18.4	83	4	19	4.9	1.05	79.3	27.9	6.0	32-1	2
SSG UA 248	359	38.8	27.7	3.1	9.0	17.9	59	4	19	5.0	1.09	80.1	29.6	6.5	21-4,32-1	2
BRS 416	357	35.6	25.3	4.3	10.1	23.1	50	4	23	4.8	1.13	79.9	30.9	5.6	21-2,31-1	2

Table 4. cont.

Designation	Agronomic Properties						% Open Bolls		Fiber Properties						
	Yield	Picked	Pulled	Boll Size	Seed Index	Seed per Boll	9/19	SR	Height	Mic	Length	Unif-ormity	Elong-ation	CG	Leaf
BSD 9X	353	37.8	27.3	4.4	10.6	20.9	40	5	20	5.2	1.06	80.9	31.6	5.6	21-4 2
BSD Ton Buster Magnum	351	36.0	25.9	3.7	9.5	19.7	53	5	20	4.5	1.03	78.8	26.7	5.8	21-4 3
BRS 286	348	36.9	26.6	4.2	9.5	22.8	58	3	19	5.0	1.04	80.6	29.7	5.9	31-1 2
BRS 1299	348	40.9	27.9	3.1	8.3	16.6	40	5	20	5.2	1.05	82.2	29.1	5.2	21-2,21-4 2
FM 1730GLTP	337	37.4	27.4	3.2	7.7	17.9	75	4	21	4.2	1.01	79.9	26.8	5.5	31-1,31-3 3
FM 2498GLT	333	39.3	28.5	3.9	10.3	17.7	80	5	21	5.0	1.03	80.2	27.0	5.8	31-3,32-1 3
DP 2211 B3TXF	313	41.2	28.6	3.2	8.3	16.3	83	5	19	4.7	1.04	79.8	25.6	5.8	21-4,31-1 2
NG 4350 B3TXF	309	36.4	25.5	3.1	8.2	19.1	78	7	20	4.0	1.12	81.5	31.1	6.0	31-3,32-1 3
AMX20T114B3XF	303	38.2	25.0	3.0	7.8	17.7	78	4	22	5.2	1.10	81.4	30.4	6.9	31-3,32-1 3
BRS 2353	208	36.2	23.5	2.6	8.7	13.1	38	5	20	4.5	1.12	81.5	30.3	6.0	31-,31-3 3
Mean	416	38.5	27.8	3.9	8.1	18.8	68	5	20	4.9	1.07	80.5	29.7	6.1	2
c.v.%	15.8	1.9	2.5	7.1	4.2	8.5	18.0	21.2	10.2	4.0	1.8	0.9	14.1	2.7	19.0
LSD 0.05	77	1.2	1.1	0.4	0.6	2.7	14	1	2	0.3	0.03	1.2	2.0	0.3	1

Table 5. Yield, agronomic, and fiber property data from the dryland uniform cotton variety performance trial at Texas A&M AgriLife Research, Lubbock, 2023.

Designation	Agronomic Properties						% Open		Fiber Properties							
	Yield	Picked	Pulled	Boll Size	Seed Index	Seed per Boll	10/2	Height	SR	Mic	Length	Uniformity	Strength	Elongation	Color Grade	Leaf
FM 868AXTP	358	40.4	29.6	4.2	8.6	20.0	94	18	6	5.1	1.01	80.6	28.5	5.9	22-2,32-1	2
PX1125B234-04W3FE	356	39.7	28.4	3.4	8.0	16.5	94	17	6	5.4	0.99	79.4	25.9	6.0	22-1,32-1	2
PX1122A214-04W3FE	341	39.9	27.9	3.2	7.7	12.7	95	17	7	4.7	0.95	77.8	26.4	6.2	22-2,32-1	2
BRS 335	333	37.2	27.2	3.6	8.0	18.0	94	19	6	4.8	0.99	78.2	25.4	6.1	21-2,21-4	2
DP 2211 B3TXF	330	41.9	29.2	3.1	7.8	13.8	94	20	3	4.9	1.02	78.0	23.7	6.1	22-1,31-3	2
PX1124B236-04W3FE	326	40.2	27.3	3.6	7.9	17.2	88	17	5	5.4	1.04	80.0	30.2	6.1	21-4,22-2	3
PHY 136W3E1	324	41.3	28.7	3.4	6.9	16.3	89	17	8	4.9	1.00	78.3	26.3	6.7	22-2	2
PHY 390W3FE	324	38.8	28.1	3.3	8.0	13.9	93	15	7	4.8	0.99	78.7	26.3	6.0	32-1	3
PHY 332W3FE	320	38.8	27.0	3.4	8.0	14.6	90	19	6	4.8	1.04	79.8	27.1	6.5	22-2	2
PHY 480W3FE	317	38.9	27.3	3.5	8.1	15.5	93	17	6	4.8	0.99	79.9	27.9	7.0	22-2	2
BRS 416	307	37.4	26.3	4.0	9.4	19.4	89	18	5	5.0	1.08	79.8	29.4	5.6	21-2,31-3	2
PHY 545W3FE	302	42.3	29.1	3.2	7.5	13.5	89	18	6	5.0	0.96	79.5	27.3	6.7	32-1	2
PHY 210W3FE	300	38.5	26.8	3.3	8.0	14.5	93	15	6	4.9	0.99	79.0	26.3	5.8	21-4,22-2	2
NG 4098 B3XF	299	36.8	26.1	3.5	8.3	18.0	88	15	4	4.4	1.04	77.2	27.8	5.9	32-1	3
BRS 1299	294	42.2	29.4	3.3	6.8	15.7	89	20	7	5.1	0.97	79.8	25.3	5.4	21-1,22-1	2
FM 2398GLTP	294	41.7	28.6	3.7	8.1	17.5	94	17	6	5.4	0.99	80.0	24.9	6.0	22-1,32-1	2
PHY 411W3FE	294	39.6	28.6	3.6	7.3	13.0	91	17	5	5.3	0.95	79.0	26.4	6.4	21-2,21-4	2
PHY 137W3E1	292	39.9	28.0	3.5	7.7	13.6	95	16	5	4.7	1.05	80.3	28.9	6.8	32-1	3
DP 2335 B3XF	286	40.7	29.1	3.8	7.4	16.2	85	18	6	4.8	1.01	78.1	26.0	5.5	21-3	2
PHY 250W3FE	286	39.1	27.1	3.5	8.3	15.8	93	16	6	5.0	0.98	78.6	24.8	5.9	21-4,32-1	2
AMX160030-BB3XF	285	38.8	27.5	4.2	8.1	21.1	89	18	8	4.9	1.01	79.9	27.8	6.0	22-1,22-2	2
NG 3930 B3XF	282	39.3	27.8	3.6	7.2	17.7	89	17	7	4.9	1.05	79.5	25.9	6.3	32-1	2
BSD 9X	280	36.5	26.1	4.0	8.7	18.7	90	18	6	5.2	0.99	79.1	26.7	5.8	22-2,32-1	2
FM 1621GL	277	38.5	26.2	3.8	8.5	15.0	91	17	6	5.2	0.96	79.4	25.4	5.4	31-3,32-1	3
FM 823AXTP	277	40.8	28.9	3.6	7.6	18.5	95	17	6	4.9	0.99	79.2	26.3	6.0	32-1	2
PHY 415W3FE	276	40.0	28.3	3.3	8.1	16.5	90	16	7	4.7	1.03	79.5	27.0	6.4	32-1	2
BRS 286	275	36.3	25.9	3.5	8.0	15.7	91	19	4	5.1	0.95	79.0	25.8	5.7	21-4,32-1	2
FM 2498GLT	273	41.1	28.9	4.0	8.3	19.1	93	17	7	5.4	1.00	79.8	25.7	5.6	22-2,32-1	1
PHY 400W3FE	270	40.8	28.1	3.0	7.2	14.5	91	16	7	4.8	0.98	77.8	26.5	6.4	32-1	3
AMX20T157B3XF	269	39.3	28.5	3.9	7.5	20.6	93	17	5	4.9	1.02	80.2	27.1	7.1	32-1	2
SSG UA 222	269	36.8	26.3	3.6	8.4	16.9	94	16	4	5.1	1.00	80.3	26.8	6.5	22-2,32-1	2
PHY 443W3FE	268	39.4	26.6	3.4	8.3	15.9	93	19	5	5.2	1.00	78.5	26.5	6.4	22-2,32-1	2
BSD Ton Buster Magnum	264	34.4	24.3	3.7	8.7	18.8	89	17	5	4.9	0.96	78.3	24.1	5.8	22-2,32-1	2
PHY 475W3FE	262	38.7	26.4	2.8	7.2	10.7	93	18	5	5.1	0.95	77.9	25.9	6.5	22-2	2
DP 2239 B3XF	261	40.6	28.9	3.7	7.1	16.0	88	17	6	5.0	1.05	79.2	26.2	6.2	22-1	2
AMX20T079B3XF	258	40.1	27.6	3.6	7.6	18.6	90	19	5	5.1	1.01	79.9	25.6	6.1	32-1	2
AMX160030-AB3XF	256	40.0	28.9	4.1	8.1	18.1	88	18	7	4.9	1.03	80.2	27.2	6.3	32-1	2
BRS 293	255	36.4	25.9	3.6	8.4	16.2	89	18	5	5.2	1.00	78.9	28.6	6.3	22-1	2
PHY 205W3FE	254	38.7	27.0	3.3	7.6	15.3	95	15	7	4.8	0.94	77.8	24.9	5.8	22-1,22-2	2
DP 2317 B3TXF	240	38.2	25.2	2.5	7.0	10.9	94	18	4	4.5	1.00	78.8	23.5	5.7	32-1	2
DP 2012 B3XF	238	37.1	24.4	2.9	7.2	13.4	93	18	6	4.7	1.00	79.2	24.2	5.6	21-4,32-1	2
DP 2143NR B3XF	237	39.3	27.4	3.6	7.9	15.1	90	19	5	5.5	1.04	79.5	27.7	6.1	32-1,32-2	3
SSG UA 248	237	36.3	25.4	3.2	7.8	17.0	94	17	5	4.8	1.00	78.2	26.6	6.4	22-1,32-1	2
BSD 4X	236	35.7	25.6	4.1	8.9	20.0	89	17	6	4.8	0.96	78.3	24.3	5.5	22-1	2
BRS 1294	235	38.3	26.3	3.4	7.2	16.7	91	19	6	5.3	0.99	80.4	27.8	5.5	32-1	2

Table 5. cont.

Designation	Agronomic Properties						% Open Bolls			Fiber Properties					
	Yield	Lint % Picked	Pulled	Boll Size	Seed Index	Seed per Boll	10/2	Height	SR	Mic	Length	Unif-ormity	Elong-ation	Color Grade	Leaf
NG 4350 B3TXF	226	36.3	25.0	3.3	7.5	20.1	89	17	6	4.2	1.08	80.4	28.6	5.9	32-1 2
AMX21COO5B3TXF	225	37.4	25.4	2.9	7.5	13.0	93	18	6	4.6	1.02	79.1	26.3	6.6	21-4,32-1 2
DP 2141NR B3XF	218	38.7	26.9	3.2	7.7	14.7	90	18	5	5.4	1.01	78.5	26.5	6.2	22-2,32-1 2
DP 2436NR B3TXF	211	39.7	26.4	2.7	7.3	11.9	93	18	4	4.8	1.09	79.8	29.7	7.4	32-1 2
BRS 1754	206	40.3	28.8	2.7	7.6	11.5	89	16	5	5.2	1.05	80.5	30.0	6.3	31-3,32-1 3
FM 1730GLTP	206	39.1	26.1	3.0	7.4	11.5	91	17	6	4.8	0.97	79.2	25.0	5.3	22-2,32-1 2
BRS 1382	205	38.5	27.1	3.2	7.4	13.5	95	18	5	5.3	0.97	80.3	26.4	5.6	21-4,31-3 2
NG 4335 B3TXF	197	37.7	25.3	3.4	7.4	16.4	90	18	6	4.6	1.03	80.2	27.1	6.1	32-1 2
BRS 2353	176	39.0	24.2	2.8	8.4	12.5	89	18	7	4.4	1.09	80.0	29.5	5.9	21-4,31-3 2
AMX20T114B3XF	159	38.7	25.7	3.1	7.6	15.0	93	20	4	5.2	1.05	81.1	26.7	7.2	32-1 3
Mean	270	38.9	27.1	3.4	7.8	15.8	91	17	5	4.9	1.00	79.2	26.6	6.1	2
c.v.%	15.7	2.1	2.5	7.0	4.4	7.3	3.7	7.6	16	2.5	1.9	0.8	3.3	2.4	14.3
LSD 0.05	49	1.4	1.1	0.4	0.6	1.9	4	2	1	0.2	0.03	1.0	1.5	0.2	1

Table 6. Yield, agronomic, and fiber property data from the low water uniform cotton variety performance trial at the AG-CARES research farm Lamesa, 2023.

Designation	Agronomic Properties					% Open Bolls		Fiber Properties								
	Yield	Lint%	Picked	Pulled	Boll Size	Seed Index	Seed per Boll	9/19	SR	Height	Mic	Length	Uniformity	Strength	Elongation	CG
PHY 136W3E1	511	38.8	28.6	3.8	7.4	20.1	73	7	22	4.7	1.01	79.0	27.5	6.7	22-2,32-1	3
PHY 480W3FE	492	40.1	30.1	4.5	7.6	21.8	67	6	20	4.8	0.98	79.8	27.6	7.1	32-1	3
AMX20T157B3XF	471	41.1	30.6	2.9	7.4	18.5	70	5	22	4.8	1.02	80.0	27.3	6.9	32-1,32-2	2
DP 2335 B3XF	463	39.8	30.2	3.9	7.4	18.5	87	6	23	4.4	0.98	78.2	24.6	5.8	21-2,21-4	2
PHY 545W3FE	457	44.5	32.3	3.4	7.6	16.6	67	5	22	4.9	0.98	79.2	27.0	6.6	32-1	3
DP 2239 B3XF	454	40.8	30.5	3.5	7.3	17.2	87	5	21	4.9	1.03	79.4	25.4	6.0	31-3,32-1	2
AMX160030-BB3XF	444	35.7	26.8	4.2	8.4	21.7	77	6	24	4.8	1.02	79.9	27.8	6.1	32-1	2
PHY 332W3FE	441	36.6	25.8	3.3	8.3	15.5	80	6	22	4.6	1.05	79.0	27.7	6.5	22-2,32-1	2
PHY 475W3FE	439	37.9	28.0	3.7	7.3	17.9	87	5	21	4.9	0.97	78.4	27.1	6.4	32-1,32-2	2
PX1124B236-04W3FE	438	37.6	26.6	4.6	8.8	20.9	73	5	23	5.3	1.02	80.4	29.6	6.1	31-3	3
PHY 390W3FE	435	39.4	28.4	3.5	7.7	18.4	83	6	21	4.6	0.98	78.5	25.6	6.1	32-1	3
PHY 210W3FE	434	40.1	27.7	3.6	8.1	19.5	87	7	22	4.6	1.00	79.0	25.8	5.9	31-3,32-1	2
AMX21COO5B3TXF	426	37.4	26.9	2.8	7.3	14.3	83	4	24	4.5	1.01	79.6	26.5	6.5	31-1,31-4	3
NG 4098 B3XF	426	36.0	27.5	3.8	8.6	21.3	83	4	21	4.3	1.04	77.8	28.4	6.1	32-1	3
DP 2012 B3XF	423	37.5	27.9	3.1	7.1	16.6	90	4	22	4.4	1.00	78.9	23.9	5.7	31-2,31-3	3
AMX20T079B3XF	423	35.6	25.8	3.2	8.1	17.7	73	4	23	4.5	1.01	79.5	25.3	6.0	32-1,32-2	2
PX1122A214-04W3FE	413	41.1	29.4	3.3	7.7	15.5	77	6	21	4.1	0.95	77.6	26.1	6.0	31-3,32-1	2
PX1125B234-04W3FE	403	38.2	26.5	2.9	8.0	15.9	83	5	23	5.0	0.97	78.7	25.8	5.7	1-3,32-1,32	3
NG 3930 B3XF	395	36.0	26.3	3.5	7.8	19.3	82	3	21	4.4	1.03	79.8	25.2	6.1	32-1,33-1	3
BRS 335	394	35.5	27.9	3.9	7.9	21.2	67	4	22	4.6	0.99	78.6	25.7	6.0	31-1	3
BRS 1299	393	40.9	28.5	2.9	7.0	17.1	57	6	22	5.2	0.99	80.1	26.5	5.5	32-1	2
PHY 400W3FE	392	37.2	27.3	3.6	7.4	19.1	85	5	21	4.6	0.99	78.3	26.2	6.3	2-2,31-3,32	2
SSG UA 222	384	37.2	27.8	3.2	9.0	15.8	80	4	23	4.7	1.01	79.8	27.8	6.6	31-3,32-1	3
FM 1730GLTP	383	36.7	28.5	4.2	7.6	20.4	88	6	20	4.1	0.98	78.4	25.7	5.5	1-1,31-2,31	3
AMX160030-AB3XF	383	39.9	29.6	4.5	7.8	23.8	70	6	23	4.7	1.03	79.3	27.2	6.5	32-1	2
PHY 411W3FE	378	38.7	27.8	3.1	7.0	13.9	80	5	20	5.1	0.97	79.5	26.8	6.3	31-3,31-4	3
DP 2211 B3TXF	369	39.9	28.4	2.6	7.2	13.4	80	3	21	4.7	1.00	78.4	24.4	5.9	31-3,32-1	2
NG 4335 B3TXF	369	39.6	27.1	3.0	7.1	16.8	87	6	21	4.5	1.03	80.4	27.1	6.1	32-1,32-2	3
PHY 137W3E1	369	35.6	25.7	3.1	7.7	15.2	77	5	21	4.5	1.05	80.7	30.3	6.7	32-1	3
BSD 4X	362	32.7	23.7	4.0	8.8	21.7	72	7	21	4.3	0.97	77.4	24.5	5.6	21-4,22-2	2
FM 2498GLT	360	37.9	27.7	4.0	9.0	19.7	77	5	23	4.7	1.02	78.9	25.0	5.9	1-3,32-1,32	3
PHY 250W3FE	359	37.0	26.3	3.4	8.6	18.2	82	7	21	4.4	0.98	78.2	25.0	5.9	31-3,32-1	3
BRS 416	350	32.1	23.5	3.4	9.2	17.9	70	4	23	4.8	1.07	79.7	29.2	5.6	1-1,31-2,31	2
BRS 1382	349	37.1	27.9	3.7	7.6	17.5	67	3	22	5.2	1.02	79.9	29.2	5.7	31-1,31-4	2
PHY 205W3FE	345	33.2	23.0	3.4	8.2	18.3	80	7	22	4.2	0.96	78.6	25.5	5.9	31-3,32-1	3
DP 2143NR B3XF	344	39.2	28.7	3.2	8.2	15.5	68	3	22	5.5	1.03	80.0	29.0	6.1	1-4,32-1,32	2
FM 1621GL	339	34.9	25.4	4.1	8.8	18.1	73	6	20	4.8	0.99	79.5	26.6	5.7	31-1,31-3	3
FM 868AXTP	337	37.0	27.4	3.9	8.9	20.6	82	5	21	4.4	1.01	79.9	27.9	6.0	32-132-1	2
AMX20T114B3XF	336	36.9	26.0	3.5	7.4	18.2	83	3	23	5.1	1.01	80.6	26.7	7.0	32-2,42-1	3
PHY 443W3FE	335	38.2	26.9	3.6	8.0	17.7	70	5	23	5.1	0.98	80.5	27.4	6.0	32-1	2
DP 2141NR B3XF	334	37.4	27.5	3.1	8.3	15.6	77	3	22	5.4	1.02	78.8	26.8	6.2	32-2,41-3	3
DP 2317 B3TXF	334	40.8	26.9	3.0	6.7	15.8	92	2	22	4.5	1.00	78.9	24.4	5.9	1-2,31-3,31	2
PHY 415W3FE	321	37.1	27.1	3.9	8.4	20.2	77	5	22	4.7	1.05	80.4	28.8	6.3	32-1	3
FM 2398GLTP	295	37.4	27.4	3.5	7.8	18.9	85	6	20	4.5	1.01	79.5	25.3	6.0	31-3,32-1	2
BSD Ton Buster Magnum	290	32.7	23.6	3.7	8.6	20.1	78	4	19	4.7	0.99	78.4	25.0	6.0	31-3,32-1	2

Table 6. cont.

Designation	Agronomic Properties						% Open Bolls 9/19	Fiber Properties								
	Yield	Lint%	Picked	Pulled	Boll	Seed per Boll		SR	Height	Mic	Length	Unif- ormity	Strength	Elong- ation	CG	Leaf
BSD 9X	281	35.6	25.5	3.4	9.1	16.7	73	4	20	4.6	0.97	78.0	25.2	6.1	32-1	2
FM 823AXTP	281	37.9	27.6	3.3	7.3	19.7	87	5	19	4.3	1.00	78.8	27.1	6.1	31-3,32-1	3
SSG UA 248	277	33.3	25.0	3.0	7.8	17.5	80	4	21	4.8	0.99	78.7	26.4	6.2	31-4,32-1	2
BRS 286	276	36.3	26.9	3.4	8.2	17.7	73	3	21	4.6	0.95	77.9	25.3	5.9	31-3	2
NG 4350 B3TXF	262	33.9	23.7	2.7	7.1	18.3	83	6	21	3.6	1.05	79.5	28.2	6.0	32-1	2
DP 2436NR B3TXF	260	39.9	28.7	2.7	7.1	14.2	80	2	19	4.5	1.03	79.4	28.6	6.8	32-1,32-2	3
BRS 1294	256	38.0	26.6	3.0	7.6	16.9	67	3	23	5.0	1.01	81.1	27.7	5.6	31-1,32-2	2
BRS 293	232	32.1	23.6	3.4	8.5	18.5	77	3	21	4.9	1.02	80.0	28.7	6.1	32-1	2
BRS 1754	228	34.1	23.5	2.8	7.7	14	67	4	20	5.2	1.08	80.7	30.9	6.5	31-3,32-2	3
BRS 2353	200	35.0	22.8	2.9	8.5	14.8	63	6	22	4.4	1.09	81.0	30.7	5.8	1-1,31-2,32	2
Mean	366	37.3	27.0	3.4	7.9	17.9	77	5	21	4.7	1.01	9.3	26.9	6.1		3
c.v.%	18.5	2.4	4.2	9.7	5.6	10.7	11.4	23.4	8.8	3.7	2.0	1.0	4.1	2.6		21.0
LSD 0.05	92	1.2	1.5	0.5	0.6	2.6	12	2	3	0.2	0.03	1.1	1.5	0.2		1

Table 7. Yield summary over five locations of the uniform cotton variety performance trials conducted by Texas A&M AgriLife Research, Lubbock, 2023.

Designation	Overall Average	Lubbock Irr Rank	Halfway Irr Rank	Lamesa Base Rank	Lubbock Dry Rank	Lamesa Low Rank
PX1124B236-04W3FE	951	1	8	1	6	10
PHY 136W3E1	880	5	7	4	7	1
PHY 332W3FE	834	3	23	21	9	8
PHY 411W3FE	833	4	18	8	17	26
PHY 415W3FE	824	2	36	9	26	43
PHY 475W3FE	818	7	30	5	34	9
PX1125B234-04W3FE	799	6	50	6	2	18
DP 2141NR B3XF	786	9	6	23	48	41
DP 2143NR B3XF	767	8	21	30	42	36
BRS 1299	766	13	1	49	15	21
PHY 443W3FE	748	10	28	16	32	40
PHY 545W3FE	742	12	39	2	12	5
PHY 480W3FE	704	31	29	3	10	2
BRS 1294	700	11	25	31	45	52
PHY 400W3FE	694	18	13	27	29	22
PHY 390W3FE	693	17	41	13	8	11
FM 1621GL	690	25	4	11	24	37
FM 2498GLT	686	27	2	51	28	31
PX1122A214-04W3FE	680	22	33	18	3	17
DP 2317 B3TXF	676	19	27	12	40	42
NG 4098 B3XF	674	33	20	7	14	14
BRS 286	667	15	11	48	27	49
SSG UA 222	662	16	38	37	31	23
BX 2330AXTP	659	14	46	38	1	38
DP 2335 B3XF	657	51	5	20	19	4
BRS 335	645	40	12	29	4	20
BRS 1382	640	26	10	39	52	34
DP 2239 B3XF	638	49	16	26	35	6
PHY 137W3E1	632	44	22	15	18	29
BRS 416	632	34	14	45	11	33
DP 2211 B3TXF	631	21	42	52	5	27
PHY 205W3FE	630	23	37	35	39	35
BSD Ton Buster Magnum	630	28	15	47	33	45
PHY 210W3FE	630	41	26	36	13	12
BX 2423AXTP	621	20	44	25	25	47
DP 2012 B3XF	620	45	24	28	41	15
BSD 9X	620	39	3	46	23	46
PHY 250W3FE	615	48	31	24	20	32
AMX21COO5B3TXF	614	32	49	14	47	13
FM 1730GLTP	612	37	9	50	51	24
AMX20T157B3XF	611	47	40	32	30	3
AMX160030-BB3XF	610	46	43	19	21	7
NG 3930 B3XF	608	52	35	10	22	19
DP 2436NR B3TXF	607	30	32	22	49	51
BSD 4X	604	43	19	42	44	30
FM 2398GLTP	604	50	17	33	16	44
AMX160030-AB3XF	586	35	53	17	37	25
AMX20T079B3XF	578	38	52	43	36	16
SSG UA 248	571	42	34	44	43	48
BRS 1754	571	24	48	41	50	54
NG 4335 B3TXF	568	29	54	40	53	28
BRS 293	519	53	45	34	38	53
BRS 2353	498	36	47	55	54	55
NG 4350 B3TXF	494	55	51	53	46	50
AMX20T114B3XF	472	54	55	54	55	39

Table 8. Yield, agronomic, and fiber quality data from the irrigated national standards variety performance trial at Texas A&M AgriLife Research, Lubbock, 2023.

Designation	Agronomic Properties					% Open Bolls			Fiber Properties							
	Yield	Picked	Pulled	Lint %	Boll Size Index	Seed per Boll	11/3	SR	Height	Mic	Length	Unif-ormity	Elong-ation	Strength	CG	Leaf
DG 3519 B3XF	1108	36.4	28.6	5.4	9.8	30.8	41	6	28	4.9	1.21	83.4	34.9	6.9	21-1,21-2	2
DP 2127 B3XF	1059	40.5	31.3	5.6	10.2	29.7	43	4	27	5.4	1.15	82.4	31.8	6.7	21-1	1
FM 2498GLT	1011	34.6	28.5	6.3	11.7	30.5	21	5	26	5.6	1.17	83.1	33.1	6.3	11-2,21-1	1
ARMOR 9371 B3XF	986	40.2	32.2	5	9.8	28	40	4	26	5.2	1.14	82.7	30.4	6.8	21-1,31-1	2
DP 2012 B3XF	809	35.9	27.3	4.8	8.9	30.9	51	5	26	4.9	1.17	81.8	31.1	6.4	11-2,11-2-21-2	2
DP 2239 B3XF	807	41.1	32.5	4.7	8.5	29.2	40	5	21	5.0	1.18	81.6	31.1	7.1	11-1,11-2,21-1	1
ST 5091 B3XF	710	35.5	29	4.8	9.2	28.7	45	4	26	5.0	1.12	80.4	29.7	6.3	11-2,21-1	2
NG 4936B3XF	651	35.5	27.9	4.5	9.3	27.4	48	4	22	4.9	1.15	82.3	31.1	7.0	11-2,21-1,21-2	1
Mean	892	37.4	29.7	5.1	9.6	29.4	41	5	25	5.1	1.16	82.2	31.7	6.7		2
c.v.%	14.3	2.6	2.9	5.7	2.7	6.6	25.2	18.6	9.7	1.9	2.3	0.8	3.3	3.1		36.1
LSD 0.05	155	1.2	1	0.4	0.3	2.3	13	1	3	0.1	0.03	0.8	1.3	0.3		1

Table 9. Yield, agronomic, and fiber quality data from the low water national standards cotton performance trial at the AG-CARES research farm Lamesa, 2023.

Designation	Agronomic Properties					% Open Bolls			Fiber Properties							
	Yield	Picked	Pulled	Lint %	Boll Size Index	Seed per Boll	10/5	Height	SR	Mic	Length	Unif-ormity	Elong-ation	Strength	CG	Leaf
DP 2127 B3XF	401	41.8	31.1	3.8	8.1	19.3	80	26	4	5.4	0.99	79.2	23.9	5.8	21-1,21-3	2
ARMOR 9371 B3XF	347	39.8	29.7	3.5	7.8	16.9	79	24	4	5.0	1.01	79.5	24.0	5.8	11-1,1-2,21-1	2
DG 3519 B3XF	342	37.9	27.2	3.5	7.9	17.4	81	24	6	4.4	1.07	80.5	28.1	6.0	21-1,21-2,21-4	3
DP 2239 B3XF	338	41.1	30.8	3.6	7.0	17.9	85	22	6	5.0	1.02	79.0	23.8	5.9	11-2,11-3,21-3	2
FM 2498GLT	313	40.3	29.8	4.3	8.7	23.0	88	25	7	4.9	1.04	79.9	25.0	5.5	11-2,21-1	2
ST 5091 B3XF	300	37.4	27.7	3.6	7.4	18.7	79	24	4	4.4	0.97	77.5	21.3	5.6	11-2,21-1	2
DP 2012 B3XF	294	36.5	26.1	3.1	6.8	18.3	88	21	5	4.3	1.00	78.1	22.3	5.5	11-1,11-2	2
NG 4936B3XF	189	36.2	26.7	3.5	7.6	19.8	85	21	5	4.4	1.03	78.8	23.5	6.1	21-1	2
Mean	315	38.9	28.6	3.6	7.7	18.9	82	23	5	4.7	1.01	79.0	24.0	5.8		2
c.v.%	12.6	2.4	2.6	6.8	3.0	8.1	6.9	7.4	18.3	3.0	1.8	0.8	3.2	2.2		18.5
LSD 0.05	48	1.1	0.9	0.3	0.3	1.9	7	2	1	0.2	0.02	0.7	0.9	0.2		1

Table 10. Yield, agronomic, and fiber quality data from the irrigated new varieties and strains performance trial at Texas A&M AgriLife Research Lubbock, 2023.

Designation	Agronomic Properties						Fiber Properties									
	Yield	% Picked	Pulled	Boll Size	Seed Index	Seed per Boll	% Open Bolls	11/7	SR	Height	Mic	Length	Unif-ormity	Strength	Elong-ation	CG
PX1140B373-04W3FE	2106	41.0	31.1	4.7	10.1	20.7	74	6	31	5.3	1.13	83.4	32.0	8.3	21-1,21-3	2
PHY 411W3FE	2102	40.8	30.6	4.7	8.5	22.5	89	6	28	5.5	1.08	81.9	31.8	7.4	21-1,31-1	2
PX1124B236-04W3FE	2045	38.5	29.2	6.6	11.9	29.3	59	5	31	5.4	1.20	84.2	33.3	7.4	11-2,21-1	2
PHY 332W3FE	2007	40.1	30.2	6.0	10.9	27.8	85	5	31	5.2	1.20	82.3	33.1	7.6	21-1	2
PX1130D303-04W3FE	1992	40.3	31.7	4.7	9.3	21.5	71	7	29	5.2	1.14	83.3	33.1	7.1	21-2,31-1	2
PX1150D490-04W3FE	1933	41.8	31.8	5.8	10.9	25.2	49	5	33	5.3	1.14	82.4	30.0	7.9	21-1,21-2	2
PX1150D445-03W3E1	1906	38.1	29.3	6.1	11.3	27.4	41	7	33	4.8	1.22	82.9	33.8	7.3	21-1	2
PX1150D446-03W3E1	1850	39.1	30.1	6.2	10.6	29.4	50	6	29	4.9	1.21	82.9	32.9	7.2	21-1	2
PX1124D252-03W3E1	1844	38.4	29.1	4.9	10.7	23.9	78	7	27	5.2	1.22	84.0	32.9	7.7	31-1	3
PX1140D328-04W3FE	1816	40.0	31.0	5.4	10.5	25.7	84	5	31	5.0	1.21	82.1	33.3	7.1	21-1	2
PHY 136W3E1	1790	41.2	31.3	5.8	10.1	27.3	80	6	27	5.0	1.17	81.9	32.9	7.7	21-1,21-1	2
PX1140D326-03W3E1	1774	40.3	30.4	4.9	10.3	22.6	81	5	26	5.3	1.15	84.0	34.2	7.2	21-1	2
PX1125B234-04W3FE	1748	37.3	28.6	5.4	11.3	25.3	79	5	29	5.5	1.19	82.7	32.8	7.1	21-1,31-1	2
PX1125D251-03W3E1	1726	37.6	28.0	5.2	11.3	24.6	89	6	31	4.9	1.23	82.8	33.2	7.6	21-1,21-2	2
PHY 475W3FE	1719	39.0	29.5	5.0	10.2	22.8	79	5	30	5.3	1.11	81.7	32.2	7.5	21-1,21-2	2
PX1127D245-04W3FE	1685	40.0	29.4	4.6	9.8	23.2	84	6	28	5.0	1.21	83.0	34.1	6.9	31-1	2
PHY 205W3FE	1668	40.6	30.0	5.3	11.0	23.9	94	7	24	5.4	1.11	83.0	32.7	6.8	212	2
BX 2451AXTP	1619	39.6	29.5	5.2	10.3	24.5	85	5	33	5.1	1.16	82.1	29.2	6.9	21-1,21-2	2
PX1130B333-04W3FE	1574	39.8	28.3	5.4	11.3	22.7	93	6	27	5.1	1.16	83.8	32.9	7.3	21-1,21-2	2
BX 2359AXTP	1521	41.8	31.1	5.2	10.3	23.5	89	4	32	5.2	1.17	83.6	30.8	7.2	21-1,21-2	2
BSD TBCXP 0014-12	1497	41.0	31.0	5.5	9.8	25.0	54	5	31	5.3	1.14	82.8	33.0	6.6	31-1	2
BX 2362AXTP	1461	39.0	28.9	4.8	9.7	24.0	79	4	26	5.1	1.20	83.6	32.1	7.0	21-1,21-2	2
BRS 316	1388	40.7	30.5	4.9	10.3	22.7	74	6	29	5.3	1.13	81.6	32.1	6.7	21-1,21-2	2
PX1122A214-04W3FE	1387	40.2	29.8	5.2	10.9	23.8	86	6	25	5.0	1.09	81.7	32.1	7.1	21-2,31-1	2
BSD TB19CXP 0022	1381	39.0	29.1	5.5	11.3	25.2	50	5	33	5.4	1.16	83.4	32.5	6.9	21-1,21-2	2
BRS 1294	1378	41.0	31.4	5.1	10.2	25.2	56	5	30	5.7	1.10	82.7	31.5	6.3	21-1	1
DP 2436NR B3XF	1338	42.6	31.3	4.8	9.5	21.9	74	4	27	4.9	1.15	82.1	31.3	8.0	21-1,21-2	2
FM 868AXTP	1140	40.1	29.6	5.7	11.4	25.9	64	6	27	5.2	1.16	82.4	32.9	7.0	21-1,21-3	2
PHY 137W3E1	1129	37.9	28.3	5.3	10.7	24.0	86	4	26	5.1	1.18	83.3	34.8	7.6	31-1	2
ST 6000AXTP	1128	41.8	30.4	5.4	9.7	25.9	53	5	28	5.3	1.16	83.9	33.3	7.1	21-1,21-2	2
BRS 486	1114	38.7	28.5	5.0	10.1	25.6	66	5	29	5.1	1.16	81.8	29.5	6.3	21-1,21-2	2
BSD TBCXP 00310	1063	37.4	28.2	5.6	11.2	27.1	90	4	23	5.2	1.18	83.5	33.5	7.3	21-2,31-1	2
FM 823AXTP	1061	37.9	28.4	5.6	10.2	27.6	68	5	23	4.9	1.17	83.1	32.7	7.0	21-1,21-2	2
BRS 696	1044	36.7	26.7	3.9	10.1	20.2	64	5	29	5.3	1.15	83.0	32.3	6.9	21-2,31-1	2
BRS 3788	965	37.7	27.8	4.4	10.1	20.4	55	4	30	5.1	1.14	81.9	32.1	6.6	21-1	2
BRS 1583	946	37.2	27.8	3.9	8.9	18.4	75	5	27	5.1	1.12	83.4	32.9	7.0	21-2	2
BRS 2163	899	39.0	27.7	4.3	9.7	23.1	75	5	28	5.1	1.14	81.8	32.4	6.0	21-1,21-2	2
BRS 1060	896	39.7	28.1	4.2	11.5	19.9	68	5	29	4.7	1.25	83.0	37.0	6.0	21-2,31-1	2
BSD TBCXP 00214	884	35.6	25.8	5.2	11.5	25.4	74	4	24	5.4	1.10	81.6	30.9	6.8	21-1,21-2	2
BRS 1958	838	38.8	27.8	3.9	9.3	21.4	81	5	27	4.8	1.19	82.3	32.0	6.8	21-1,31-1	2
PX1140A385-04W3FE	761	38.6	27.4	4.2	9.3	20.5	50	5	29	5.2	1.10	82.5	32.4	7.7	21-2,22-1	3
BRS 1575	720	38.6	27.7	4.2	11.8	20.0	78	6	25	4.7	1.24	83.4	36.9	5.8	21-1,21-2	2
Mean	1448	39.4	29.3	5.1	10.4	24.0	73	5	28	5.1	1.16	82.7	32.6	7.1		2
c.v.%	17.4	1.6	2.6	5.4	4.9	8.4	16.4	14.0	9.6	2.6	1.4	0.8	2.8	2.8		23.5
LSD 0.05	295	1.1	1.3	0.5	0.9	3.4	14	1	3	0.3	0.04	1.6	2.2	0.5		1

Notes

Table 11. Yield, agronomic, and fiber quality data from the high water nematode performance trial at the AG-CARES farm, Lamesa, 2023.

Designation	Agronomic Properties						% Open Bolls 9/25	Fiber Properties							
	Yield	% Picked	Pulled	Boll	Seed	Seed per Boll		SR	Height	Mic	Length	Unif-ormity	Elong-ation	CG	Leaf
PHY 480W3FE	836	40.8	29.5	4.4	8.7	19.2	91	6	22	4.9	1.03	80.6	29.2	7.1	22-2,32-1
PX1150D445-03W3E1	794	40.6	30.1	3.9	8.4	19.4	88	6	20	4.7	1.05	80.3	30.5	6.4	21-4,31-3
PHY 475W3FE	789	39.5	29.3	3.8	7.8	18.7	90	5	22	5.0	1.00	79.2	28.2	6.3	21-4,32-1
PHY 136W3E1	772	41.8	31.0	3.9	8.0	22.0	86	7	20	4.9	1.07	80.0	29.9	6.7	21-4,22-2,32-3
PX1150D490-04W3FE	739	39.9	29.9	4.0	7.9	19.1	84	6	21	5.0	1.07	80.3	30.7	6.3	21-4,31-3,32-2
PX1140A385-04W3FE	736	41.7	31.0	3.4	7.8	17.0	88	6	23	5.3	1.01	81.3	30.2	7.1	32-1
PX1130D303-04W3FE	731	40.9	29.9	3.8	7.5	18.0	90	7	23	5.3	1.01	80.5	28.3	5.9	1-3,31-4,32-2
PHY 545W3FE	717	42.8	31.0	3.7	8.4	18.3	93	6	21	5.2	1.00	81.0	29.2	6.7	31-3
PX1125B234-04W3FE	708	38.9	28.0	3.8	8.7	20.8	89	5	22	5.4	1.00	79.2	27.4	5.9	31-3,42-1
PX1125D251-03W3E1	703	40.1	29.0	3.7	8.5	18.4	88	7	20	5.1	1.02	80.0	29.0	6.6	22-2,32-1
PX1124B236-04W3FE	696	38.3	27.6	4.3	9.5	18.9	88	5	20	5.2	1.04	80.6	31.5	6.2	1-4,22-1,31-3
PHY 415W3FE	693	39.3	29.9	3.8	8.4	20.2	86	6	22	5.0	1.06	80.6	30.7	6.3	32-1
PHY 137W3E1	692	39.9	29.1	3.1	8.1	13.9	89	5	21	4.6	1.07	80.8	30.5	7.0	31-3,32-1
FM 1621GL	688	40.5	30.7	4.5	9.1	18.8	88	6	21	5.0	1.02	80.4	28.4	5.7	31-1,31-1
FM 868AXTP	681	40.8	31.0	5.1	9.5	26.0	93	5	21	4.7	1.06	80.7	30.3	6.3	2-2,31-3,32-2
PX1124D252-03W3E1	681	38.4	27.8	3.4	8.4	17.8	95	7	19	5.2	1.07	81.7	32.1	6.5	2-1,31-4,32-3
PX1130B333-04W3FE	679	37.3	27.0	3.3	8.2	16.5	91	7	21	4.9	1.03	81.3	30.0	6.5	32-1,32-2
PX1150D446-03W3E1	661	39.9	29.2	4.2	8.1	19.2	84	6	19	5.0	1.06	80.5	31.1	6.3	21-4,31-3
PHY 400W3FE	661	40.2	29.2	3.8	8.2	19.1	90	6	18	4.8	1.01	79.4	28.0	6.3	21-4,32-1
PX1140D326-03W3E1	659	38.9	27.2	3.5	8.5	17.0	88	6	19	5.0	1.04	81.8	30.9	6.5	21-4,32-1
PX1140D328-04W3FE	648	39.1	29.1	4.0	8.6	20.9	89	6	22	4.9	1.08	79.8	30.4	6.4	21-4,31-3
PHY 443W3FE	647	40.1	28.6	4.0	8.8	19.0	88	5	24	5.2	1.02	80.0	29.7	6.3	32-1
AMX20T079B3XF	625	39.7	28.6	3.6	8.1	19.0	91	3	22	5.1	1.04	79.9	26.9	6.2	32-1,32-2
PX1122A214-04W3FE	624	38.3	28.1	3.8	8.3	18.7	91	7	20	4.3	0.97	78.8	27.4	6.2	21-2,21-4,31-2
AMX20T157B3XF	618	39.3	30.1	4.6	8.2	22.7	88	5	23	5.1	1.06	81.0	29.4	7.0	22-2,31-3
AMX21COO5B3TXF	597	37.7	26.9	3.3	7.1	19.9	94	5	23	4.7	1.05	81.2	28.2	6.6	31-1,31-3
NG 3930 B3XF	597	38.2	28.4	3.8	8.3	20.8	89	6	21	5.0	1.04	80.5	26.9	6.3	32-1
BX 2359AXTP	595	40.3	30.1	3.7	9.3	18.3	89	4	25	5.0	1.09	81.5	29.7	6.3	21-4,31-3
FM 1730GLTP	592	39.2	29.5	3.9	8.3	18.5	96	4	19	4.7	1.03	80.2	27.8	5.6	31-2,31-2
BX 2451AXTP	591	40.6	30.4	4.2	8.2	20.7	88	5	22	5.0	1.06	79.4	27.5	6.3	21-4,31-3
PHY 332W3FE	585	40.0	27.6	3.8	8.4	17.8	88	6	20	4.9	1.06	80.6	29.4	6.5	22-2,32-1
AMX160030-BB3XF	584	38.2	28.5	4.3	9.4	23.0	91	6	21	4.8	1.04	80.3	28.3	6.2	21-4,32-1
PX1140B373-04W3FE	579	38.1	27.8	3.1	7.9	17.3	91	6	20	4.9	1.01	80.2	29.9	7.2	32-1
PHY 411W3FE	579	40.4	29.2	3.3	7.3	14.3	91	7	20	5.2	0.97	79.2	28.0	6.4	1-4,31-1,31-2
DP 2141NR B3XF	573	38.9	28.2	3.5	9.2	16.6	86	5	21	5.5	1.07	79.9	29.8	6.2	32-1
AMX20T114B3XF	559	38.6	28.2	4.0	8.0	21.0	93	3	24	5.4	1.08	81.6	29.8	7.2	1-3,32-1,42-3
PHY 205W3FE	550	36.3	26.2	3.5	8.9	17.9	93	6	19	4.5	0.99	79.6	27.6	6.1	31-3
NG 4335 B3TXF	546	38.5	27.0	3.3	7.5	16.6	95	5	21	4.7	1.06	81.4	29.2	6.1	1-3,32-1,32-2
FM 2334GLT (check)	530	39.8	29.7	3.7	8.3	18.8	96	4	20	4.9	1.04	79.7	27.4	5.7	31-2,31-3
DP 2436NR B3TXF	510	41.5	29.8	3.2	8.3	15.9	91	4	21	4.7	1.10	80.7	31.8	7.1	32-1,32-2
PX1127D245-04W3FE	510	36.4	26.6	3.2	8.1	16.9	91	6	18	4.7	1.02	80.2	28.0	5.9	31-1,31-2
DP 2143NR B3XF	490	37.7	27.7	3.7	8.1	16.5	88	4	22	5.6	1.05	80.2	29.4	6.2	1-3,32-1,32-3
FM 823AXTP	481	40.6	29.8	3.8	7.9	19.4	95	4	18	4.5	1.05	79.8	29.7	6.2	31-1,31-3
AMX160030-AB3XF	480	38.8	29.5	4.6	8.9	22.9	93	6	22	4.8	1.04	80.0	28.9	6.2	31-3,32-1
BX 2362AXTP	464	38.5	28.6	3.3	8.1	17.0	89	4	21	4.8	1.08	80.9	29.5	6.4	21-4,31-3
ST 6000AXTP	448	42.7	31.9	4.5	8.6	21.3	88	5	22	5.1	1.07	81.5	31.2	6.2	31-1,31-1
NG 4350 B3TXF	430	34.5	24.5	3.3	8.1	20.8	95	7	20	4.3	1.06	80.1	28.9	6.1	1-3,31-4,32-3
Mean	624	39.4	28.9	3.8	8.3	18.9	90	5	21	5.0	1.04	80.4	29.3	6.4	2
c.v.%	16.1	1.6	2.6	9.3	4.4	7.1	4.0	14.8	8.4	3.1	2.0	0.9	3.1	2.3	21.3
LSD 0.05	118	0.9	1.0	0.5	0.6	2.3	4	1	2	0.3	0.04	1.3	1.7	0.3	1

Table 11. cont.

Nematode Ratings				
Designation	RK	LRK	Waller	Rating
PHY 480W3FE	30	0.52	opq	Resistant
PX1150D445-03W3E1	75	1.46	k-p	Resistant
PHY 475W3FE	1505	0.94	l-q	Resistant
PHY 136W3E1	1468	3.01	a-g	Susceptible
PX1150D490-04W3FE	455	2.61	d-k	Resistant
PX1140A385-04W3FE	26	0.85	m-q	Resistant
PX1130D303-04W3FE	26	0.51	opq	Resistant
PHY 545W3FE	0	0.00	q	Resistant
PX1125B234-04W3FE	10	0.40	pq	Resistant
PX1125D251-03W3E1	60	0.60	n-q	Resistant
PX1124B236-04W3FE	18	0.46	opq	Resistant
PHY 415W3FE	80	1.09	l-q	Resistant
PHY 137W3E1	2695	3.34	a-e	Susceptible
FM 1621GL	11215	3.82	abc	Susceptible
FM 868AXTP	825	2.71	c-j	Resistant
PX1124D252-03W3E1	1375	2.96	a-h	Susceptible
PX1130B333-04W3FE	0	0.00	q	Resistant
PX1150D446-03W3E1	420	2.05	f-l	Resistant
PHY 400W3FE	2090	2.70	c-j	Resistant
PX1140D326-03W3E1	50	1.00	l-q	Resistant
PX1140D328-04W3FE	625	1.85	g-m	Resistant
PHY 443W3FE	84	1.01	l-q	Resistant
AMX20T079B3XF	3538	3.17	a-f	Susceptible
PX1122A214-04W3FE	7778	3.80	abc	Susceptible
AMX20T157B3XF	2938	3.36	a-e	Susceptible
AMX21COO5B3TXF	3905	3.56	a-e	Susceptible
NG 3930 B3XF	3588	3.37	a-e	Susceptible
BX 2359AXTP	773	2.77	b-i	Resistant
FM 1730GLTP	2430	2.42	e-k	Resistant
BX 2451AXTP	1638	1.59	j-o	Resistant
PHY 332W3FE	58	1.01	l-q	Resistant
AMX160030-BB3XF	15288	4.01	a	Susceptible
PX1140B373-04W3FE	11176	2.88	a-h	Susceptible
PHY 411W3FE	18	0.46	opq	Resistant
DP 2141NR B3XF	0	0.00	q	Resistant
AMX20T114B3XF	1970	3.05	a-f	Susceptible
PHY 205W3FE	613	1.82	h-m	Resistant
NG 4335 B3TXF	3733	3.46	a-e	Susceptible
FM 2334GLT (check)	8915	3.88	ab	Susceptible
DP 2436NR B3TXF	1168	2.83	b-i	Resistant
PX1127D245-04W3FE	263	1.68	i-n	Resistant
DP 2143NR B3XF	13	0.43	opq	Resistant
FM 823AXTP	2283	3.35	a-e	Susceptible
AMX160030-AB3XF	10528	3.65	a-d	Susceptible
BX 2362AXTP	1235	2.97	a-h	Susceptible
ST 6000AXTP	3413	3.39	a-e	Susceptible
NG 4350 B3TXF	2210	3.29	a-e	Susceptible
Prob.>F	0.001	0.001		
MSD 0.05		1.16		

Table 12. Yield, agronomic, and fiber quality data from the irrigated regional high quality cotton performance trial at Texas A&M AgriLife, Lubbock, 2023.

Designation	Agronomic Properties						% Open			Fiber Properties					
	Yield	% Picked	Pulled	Boll Size	Seed Index	Seed per Boll	Bolls 11/3	SR	Height	Mic	Length	Unif-ormity	Elong-ation	CG	Leaf
MD 24-26	1290	34.2	27.6	5.7	10.9	28.3	54	4	29	4.7	1.15	82.2	34.9	6.5	21-1,31-1,41-1
Ark 1511-17	1253	36.8	28.9	5.2	10.3	24.5	48	4	23	4.8	1.24	82.4	33.3	6.9	11-2,21-1,21-2
MD 24-10	1225	36.6	29.0	6.2	12.5	26.7	38	5	24	5.2	1.18	83.1	36.5	6.7	21-1,31-1
Ark 1511-33	1135	36.8	29.5	5.3	10.9	25.0	50	4	25	4.8	1.21	81.9	31.8	7.9	11-2,21-1
Ark 1511-49	1108	35.7	28.1	5.8	11.2	27.6	45	4	25	4.9	1.22	82.4	35.0	7.5	21-1
PHY 400W3FE	1027	38.6	30.1	5.1	9.4	26.3	44	6	22	5.0	1.15	81.9	33.1	6.5	11-2,21-1,21-2
DP 2127B3XF	920	39.4	30.4	5.7	10.4	26.5	50	4	27	5.3	1.16	82.8	31.8	6.8	21-1,21-2
ExCeed 509	912	36.6	28.3	5.4	10.1	26.0	36	4	25	5.2	1.21	82.6	34.5	7.3	21-1,21-2,31-1
TAM 190-66-21-19	861	33.3	25.3	5.4	11.1	26.6	50	4	23	4.9	1.25	83.8	39.2	6.5	21-1,21-2
TAM YDC105	859	30.4	23.5	6.3	13.0	28.7	44	4	24	4.8	1.31	83.7	38.9	6.4	21-2,31-1,41-1
17 SHK-47	852	35.1	28.1	5.5	10.7	26.5	36	5	26	5.0	1.22	82.8	34.2	6.4	21-1,31-1
DP 2012B3XF	849	36.6	27.0	4.9	8.7	27.7	59	5	26	4.9	1.18	81.7	32.1	6.5	11-1,21-1
FM 2498GLT	845	37.5	29.6	5.2	9.9	25.8	64	4	25	5.1	1.20	81.9	33.1	6.3	11-2,21-1
18 SHA-27	818	35.6	27.5	5.8	11.6	27.7	54	5	23	4.6	1.25	82.7	34.8	7.0	21-1,321-2
XC 190518	804	36.0	28.0	5.5	10.2	26.8	60	4	23	4.8	1.26	82.6	35.4	6.4	21-1,21-2
DP 2239B3XF	786	39.3	30.8	5.0	8.8	25.3	50	5	22	5.0	1.17	81.0	32.2	6.9	21-1,21-2,31-1
XC 190519	785	33.7	26.3	5.6	10.1	28.9	55	4	26	4.9	1.29	82.7	35.0	6.3	21-1,21-2
DP 2131B3TXF	775	39.5	30.2	4.4	8.3	23.6	43	4	28	4.8	1.17	80.4	30.4	7.5	11-2,21-1
TAM 17ESE-17	685	32.2	25.5	5.2	12.2	23.8	44	4	23	4.4	1.32	81.2	35.6	6.3	21-1,31-1
ST 5091B3XF	665	35.1	27.0	4.9	9.6	25.4	48	3	23	5.1	1.19	82.2	31.5	7.3	21-1,21-2
Mean	923	35.9	28.0	5.4	10.5	26.4	48	4	24	4.9	1.22	82.3	34.1	6.8	2
c.v.%	13.1	2.1	3.2	6.2	4.8	7.6	20.9	16.6	7.9	3.1	2.3	0.9	3.6	3.7	31.2
LSD 0.05	143	0.9	1.1	0.4	0.6	2.4	12	1	2	0.3	0.03	0.9	1.5	0.3	1

Table 13. Results of the irrigated bacterial blight cotton variety screening at Texas A&M AgriLife Research Lubbock, 2023.

Designation	%Blight	Waller	Rating
PX1127D245-04W3FE	0.00 e		Resistant
PX1150D490-04W3FE	0.00 e		Resistant
PX1124D252-03W3E1	0.00 e		Resistant
PX1150D445-03W3E1	0.00 e		Resistant
PX1130D303-04W3FE	1.25 de		Resistant
ST 6000AXTP	2.50 de		Resistant
PX1140D328-04W3FE	2.50 de		Resistant
19-1-305BB	2.50 de		Resistant
BX 2362AXTP	3.75 de		Resistant
FM 823AXTP	5.00 de		Resistant
FM 2334GLT (check)	5.00 de		Resistant
BX 2451AXTP	6.25 de		Resistant
PX1125D251-03W3E1	7.50 d		Resistant
PX1150D446-03W3E1	7.50 d		Resistant
PX1140D326-03W3E1	15.00 c		Partially Resistant
19-1-204BB	32.50 b		Partially Resistant
BX 2359AXTP	93.75 a		Susceptible
FM 868AXTP	100.00 a		Susceptible
DP 2143NR B3XF (check)	100.00 a		Susceptible
Prob>F	0.0001		
MSD 0.05	6.7		

Table 14. Variety index for the cotton performance trials conducted by Texas A&M AgriLife Research Lubbock, 2023.

		Uniform	Location	National	New	Root-knot	Regional	Bacterial
	OVT	Summary	Standards	Varieties	Nematode	High Quality		
Designation	Page:	7-17	18	19	20	22	24	25
17 SHK-47							X	
18 SHA-27							X	
19-1-204BB								X
19-1-305BB								X
AMX160030-AB3XF		X	X			X		
AMX20T079B3XF		X	X			X		
AMX20T114B3XF		X	X			X		
AMX20T157B3XF		X	X			X		
AMX21COO5B3TXF		X	X			X		
Ark 1511-17							X	
Ark 1511-33							X	
Ark 1511-49							X	
ARMOR 9371 B3XF				X				
BRS 286		X	X					
BRS 293		X	X					
BRS 316					X			
BRS 335		X	X					
BRS 416		X	X					
BRS 486					X			
BRS 696						X		
BRS 1060						X		
BRS 1294		X	X			X		
BRS 1299		X	X					
BRS 1382		X	X					
BRS 1575						X		
BRS 1583						X		
BRS 1754		X	X					
BRS 1958						X		
BRS 2163						X		
BRS 2353		X	X					
BRS 3788					X			
BSD 4X		X	X					
BSD 9X		X	X					
BSD TB19CXP 0022						X		
BSD TBCXP 0014-12						X		
BSD TBCXP 00214						X		
BSD TBCXP 00310						X		
BSD Ton Buster Magnum		X	X					
BX 2330AXTP		X	X					
BX 2359AXTP					X	X		X
BX 2362AXTP					X	X		X
BX 2423AXTP		X	X		X			
BX 2451AXTP					X	X		X
DG 3519 B3XF				X				
DP 2012 B3XF		X	X	X			X	
DP 2127 B3XF				X				X
DP 2131B3TXF								X
DP 2141NR B3XF		X	X			X		
DP 2143NR B3XF		X	X			X		X
DP 2211 B3TXF		X	X					
DP 2239 B3XF		X	X	X			X	
DP 2317 B3TXF		X	X					
DP 2335 B3XF		X	X					

Table 14. cont.

	Uniform	Location	National	New	Root-knot	Regional	Bacterial	
	OVT	Summary	Standards	Varieties	Nematode	High Quality	Blight	
Designation	Page:	7-17	18	19	20	22	24	25
DP 2436NR B3TXF		X	X		X	X		
ExCeed 509							X	
FM 823AXTP					X	X		X
FM 868AXTP					X	X		X
FM 1621GL		X	X			X		
FM 1730GLTP		X	X			X		
FM 2334GLT						X		X
FM 2398GLTP		X	X					
FM 2498GLT		X	X	X			X	
MD 24-10							X	
MD 24-26							X	
NG 3930 B3XF		X	X			X		
NG 4098 B3XF		X	X					
NG 4335 B3TXF		X	X			X		
NG 4350 B3TXF		X	X			X		
NG 4936B3XF				X				
PHY 136W3E1		X	X		X	X		
PHY 137W3E1		X	X		X	X		
PHY 205W3FE		X	X		X	X		
PHY 210W3FE		X	X					
PHY 250W3FE		X	X					
PHY 332W3FE		X	X		X	X		
PHY 390W3FE		X	X					
PHY 400W3FE		X	X			X	X	
PHY 411W3FE		X	X		X	X		
PHY 415W3FE		X	X			X		
PHY 443W3FE		X	X			X		
PHY 475W3FE		X	X		X	X		
PHY 480W3FE		X	X			X		
PHY 545W3FE		X	X			X		
PX1122A214-04W3FE		X	X		X	X		
PX1124B236-04W3FE		X	X		X	X		
PX1125B234-04W3FE		X	X		X	X		
PX1124D252-03W3E1					X	X		X
PX1125D251-03W3E1					X	X		X
PX1127D245-04W3FE					X	X		X
PX1130B333-04W3FE					X	X		
PX1130D303-04W3FE					X	X		X
PX1140D326-03W3E1					X	X		X
PX1140D328-04W3FE					X	X		X
PX1140B373-04W3FE					X	X		
PX1140A385-04W3FE					X	X		
PX1150D445-03W3E1					X	X		X
PX1150D446-03W3E1					X	X		X
PX1150D490-04W3FE					X	X		X
SSG UA 222		X	X					
SSG UA 248		X	X					
ST 5091 B3XF				X			X	
ST 6000AXTP					X	X		X
TAM 17ESE-17							X	
TAM 190-66-21-19							X	
TAM YDC105							X	
XC 190518							X	
XC 190519							X	