2019 REPLICATED AGRONOMIC COTTON EVALUATION (RACE) SOUTH, EAST AND CENTRAL REGIONS OF TEXAS

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SOUTH, EAST AND CENTRAL REGIONS OF TEXAS, 2019

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2019 HIGHLIGHTS

Variety selection is the most important decision made during the year. Unlike herbicide or insecticide decisions that can be changed during the season to address specific conditions and pests, variety selection is made only once, and variety selection dictates the management of a field for the entire season. Variety decisions should be based on genetics first and transgenic technology second. Attention should be focused on agronomic characteristics such as yield, maturity, and fiber quality when selecting varieties. Figure 1 illustrates the cotton production regions of Texas.

According to the USDA-Agricultural Marketing Service "Cotton Varieties Planted 2019 Crop" survey, The Deltapine brand of Upland cottonseed was the most popular planted in the United States for the 2019-2020 season. The Americot brand was the second most popular followed by Phytogen, BASF-FiberMax, ALL-TEX/DYNA-GRO, BASF-Stoneville, CROPLAN, and Miscellaneous.

Deltapine brand varieties were the most popular planted in 2019, accounting for 41.0 percent of the United States acreage. This brand accounted for 53.6 percent of the acreage planted in the southeastern states (Alabama, Florida, Georgia, North Carolina, South Carolina, and Virginia). It accounted for about 78.0 percent in the south central states (Arkansas, Louisiana, Mississippi, Missouri, and Tennessee), 25.4 percent in the southwestern states (Texas, Oklahoma, and Kansas), and 38.7 percent in the western states (Arizona, California, and New Mexico). Deltapine's most popular varieties were DP 1646 B2XF, DP 1518 B2XF, DP 1845 B3XF, and DP 1820 B3XF, accounting respectively for 22.3, 3.7, 3.4, and 1.9 percent of the U.S. Upland cotton acreage.

Americot brand varieties were the second most popular planted in 2019, accounting for 22.8 percent of the United States acreage. These varieties accounted for 14.2 percent of the acreage planted in the southeastern states, 6.7 percent in the south central states, 31.4 percent in the southwestern states, and 0 percent in the western states. The most popular Americot varieties were NG 4545 B2XF , NG 4777 B2XF, NG 3406 B2XF, and NG 5711 B3XF, accounting respectively for about 3.6, 3.3, 2.6, and 1.8 percent of the United States acreage planted to Upland cotton.

Phytogen brand varieties were the third most popular planted in 2019, accounting for 17.8 percent of the United States acreage. They accounted for 19.2 percent of the acreage planted in the southeastern states, 5.9 percent of the acreage in the south central states, 20.6 percent in the

southwestern states and 24.2 percent in the western states. The most popular Phytogen brand varieties were PHY 350 W3FE, PHY 480 W3FE, PHY 444 WRF, and PHY 330 W3FE, accounting respectively for 2.6, 2.0, 1.8, and 1.5 percent of the United States acreage planted to Upland cotton.

BASF-FiberMax brand varieties were the fourth most popular planted in 2019. These varieties accounted for about 6.6 percent of the acreage planted. They accounted for 0 percent of the acreage planted in the southeastern states, 0 percent of the acreage in the south central states, 10.3 percent in the southwestern states and 27.6 percent in the western states. The most popular BASF-FiberMax varieties were FM 1830 GLT, FM 2007 GLT, FM 1911 GLT, and FM 1953 GLTP, accounting respectively for 1.4, 1.0, 0.8, and 0.7 percent of the United States acreage planted to Upland cotton.

ALL-TEX/DYNA-GRO brand varieties were the fifth most popular and accounted for about 5.5 percent of the U.S. acreage planted in 2019. BASF-Stoneville varieties were the sixth most popular and accounted for about 3.8 percent of the 2019 cotton acreage. CROPLAN varieties were the seventh most popular and accounted for about 2.2 percent of the 2019 cotton acreage.

Estimates of the percentage of the various varieties of cotton planted in the United States for 2019 were based on informal surveys made by the Cotton and Tobacco Program Classing Offices. Those surveyed included ginners, seed dealers, extension agents, and other knowledgeable sources.

To assist Texas cotton producers in remaining competitive in the Lower Rio Grande Valley, Blacklands, South Texas/Wintergarden, and Upper Coastal regions (Figure 1), the Texas A&M AgriLife Extension Service-Cotton Agronomy program has been conducting, large plot, on-farm, replicated variety trials for the past eleven years. This approach provides a good foundation of information that can be utilized to assist the variety selection process, where all companies have the opportunity to participate. These trials occur on producer's farms and are managed by the producers.

Nineteen Replicated Agronomic Cotton Evaluation (RACE) Trials and three Monster trials were harvested in 2019 with several lost or impacted by extended rain that began to fall during the fall and herbicide injury. The harvested locations are listed in Table 1.

Mean non-irrigated locations yields for the 2019 RACE Trials ranged from 1450 lbs/ac to 398 lbs/ac for Refugio and Willacy county locations, respectively. Mean irrigated location yields ranged from 1926 lbs/ac to 1229 lbs/ac for Medina and Hidalgo (TX AgriScience) locations, respectively.

All the major cotton seed companies with GlyTol® LibertyLink®, XtendFlex® or Enlist® technology had the opportunity to include at least one variety in the RACE trial at each location.

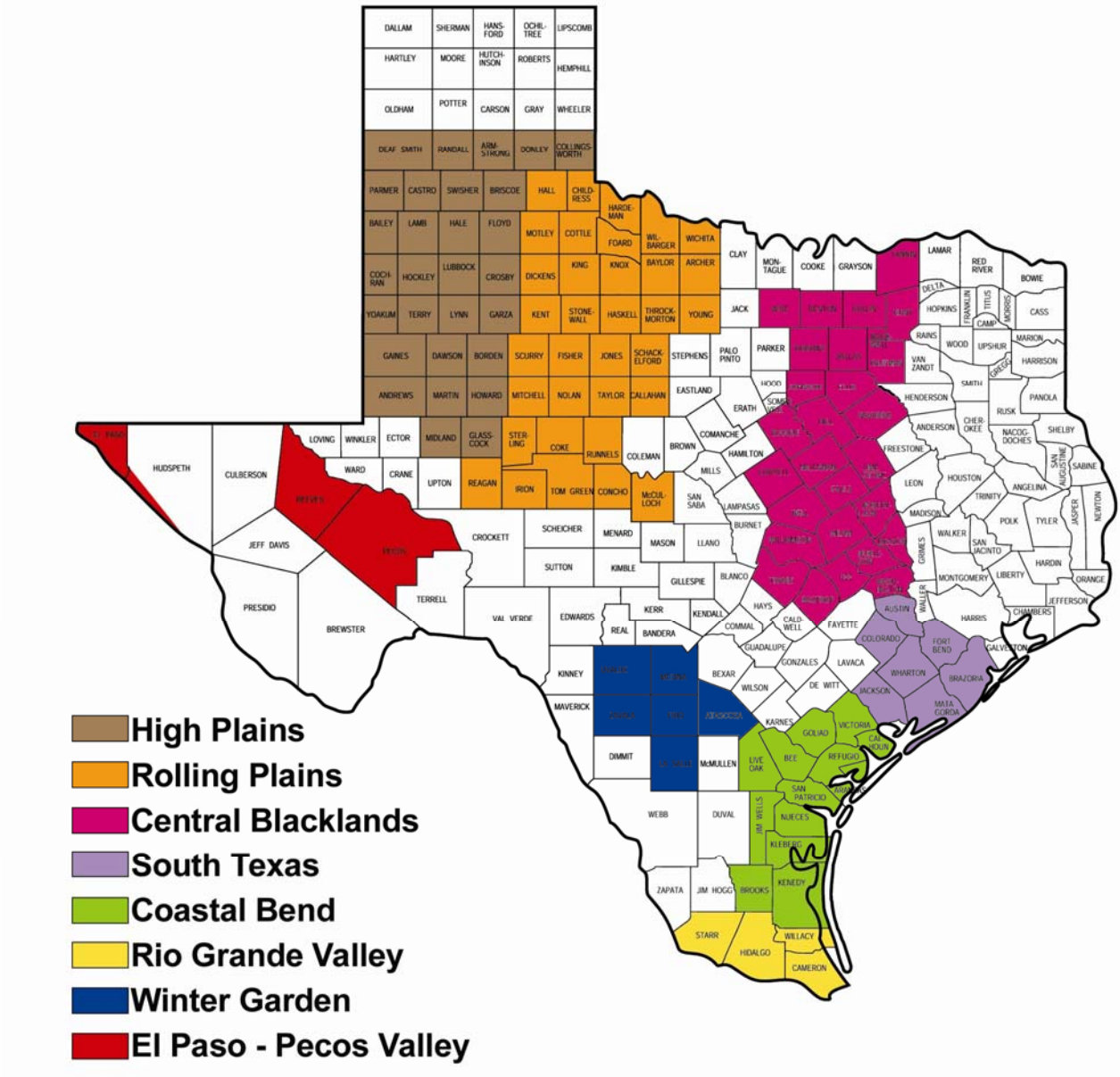
All varieties were treated with either Aeris or Avicta Complete Pak seed treatment. Included in this publication are the cotton variety descriptions provided by the companies. See descriptions on page 5-7.

Table 1 also provides a list of cooperators, planting and harvest dates, row spacing and plot area for each location. Tables 2 - 5 show numerical rankings based upon lint yield for the varieties across all locations within a production region.

Tables 6 to 24 include the individual RACE trial yield data and fiber analysis for each location. Data featured in these tables include: statistical analysis of yield, turnout, fiber quality parameters, loan and gross lint value/acre. Most locations were ginned with a 20-saw table-top gin with no lint cleaner, unless indicated as otherwise. This table-top gin method consistently produces higher lint turnout percentages than would be common in a commercial gin due to having no lint cleaner. Consequently, higher turnouts equate to lint yields which are generally higher than area-wide commercial yields. Additionally, all data were standardized to a color grade and leaf of 41-4, because an accurate estimate of leaf grade and color are not possible without a lint cleaner on the gin. In addition to the RACE trials, several Monster cotton variety trials (Tables 25-27) were conducted in 2019 and the final yields and grades are provided in this publication. These trials are conducted as small-plot variety evaluations and include a larger number of both commercially-available and experimental cotton varieties.

The statistical analysis quantifies the variability of the test site conditions, such as soil type, harvesting, insect damage, etc. A CV (coefficient of variation) of 15% or less is generally considered acceptable and means the data are dependable. A trial with a small LSD (least significant difference) indicates more consistency within the trial and higher likelihood of identifying differences among varieties. A trial location with a large LSD and large CV indicates a higher degree of variability at the trial location. Non-statistical significance is represented as "NS" and indicates no differences among the varieties within the data column at a 90% confidence level.

COTTON PRODUCTION REGIONS - TEXAS



Variety Characteristics/Highlights

Below are the cotton variety characteristics and highlights that were included in the 2019 RACE trials. These cotton variety descriptions were provided by individual seed company representatives or publicly available information.

DeltaPine 1646 B2XF

- Smooth leaf, mid-full maturity
- Broadly adapted to full-season environments
- Exceptional fiber length and overall quality
- Medium-tall plant that responds well to PGR management

DeltaPine 1845 B3XF

- Mid-full maturing BG3XF product
- Excellent fiber quality
- Bacterial blight resistance
- Semi-smooth leaf type
- Excellent fit for South and Central TX dry land and irrigated acres

DeltaPine 1948 B3XF

- Semi Smooth, mid full maturity
- Excellent fiber length and strength
- Bacterial blight resistance
- Excellent fit on limited water scenarios
- Extendflex and Bollgard 3 technology

Dyna-Gro 3421 B3XF

- Enhanced with new BollGard III XtendFlex trait
- Excellent Seedling Vigor
- Medium Early Maturity
- Medium plant with smooth leaf characteristics
- Excellent fiber quality
- RKN and Reniform Nematode Tolerance
- Bacterial Blight Susceptible
- Broadly Adapted for Texas & Southeast

Dyna-Gro 3555 B3XF

- Enhanced with new BollGard III XtendFlex trait
- Adopted for Delta and TX
- Medium plant height with semi-smooth leaf characterstics
- Excellent fiber quality and seedling vigor
- Excellent Verticillium wilt tolerance and bacterial blight resistance
- Excellent storm tolerance

Dyna-Gro 3615 B3XF

- Enhanced with new BollGard III XtendFlex trait
- Adapted to TX, Delta, and Southeast
- Medium-tall plant height with smooth leaf characteristics
- Excellent fiber quality and seedling vigor
- Excellent Verticillium wilt tolerance and bacterial blight resistance
- Excellent storm tolerance

FiberMax 1953 GLTP

- Consistently high performance in varied environments
- Resistant to bacterial blight
- Excellent fiber quality package
- Excellent heat tolerance
- Liberty® and glyphosate herbicide tolerant
- Good early-season vigor
- Three-gene Bt trait for enhanced protection against bollworm and fall armyworm

FiberMax 2398 GLTP

- Medium maturity, slightly earlier than FM 2498GLT
- Excellent yield potential
- High gin turnout
- Very good Verticillium wilt tolerance
- Resistant to bacterial blight
- Liberty® herbicide and glyphosate tolerant
- Three-gene lepidopteran resistance for improved protection against worms

NexGen 5711 B3XF

- Medium-full maturity
- Smooth leaf
- Bacterial blight tolerance
- Widely adapted with good heat tolerance.
- Excellent fiber quality package
- Tall, requires higher level of PGR management

NexGen 4936 B3XF

- Medium to medium-early maturity
- Semi-smooth leaf
- Widely adapted with good heat tolerance
- Very high yield potential
- Excellent fiber quality package
- Medium plant height , easy to manage

Phytogen 400 W3FE

- Early-mid maturity, wide area of adaptation, dryland or irrigated
- Outstanding seedling vigor
- Bacterial blight resistant
- Lt hairy leaf
- Medium height plant, easy to manage with growth regulators
- Tolerance to Enlist, glyphosate, and glufosinate herbicides with Widestrike 3 lep control

Phytogen 480 W3FE

- Mid-maturity ,wide area of adaption, dryland and irrigated
- Outstanding seedling vigor
- Baterical blight and root know nematode resistant plus low to medium tolerance to reniform nematodes
- Semi-smooth leaf
- Tolerance to Enlist, glyphosate and glufosinate herbices and Widestrike 3 lep control

Stoneville 4848 GLT

- Exceptional yield potential
- Very good fiber quality
- Good seedling vigor
- High lint percent
- Liberty® and glyphosate herbicide tolerant
- TwinLink protection

Stoneville 5471 GLTP

- Outstanding yield potential
- Excellent fiber package
- High gin turnout
- Very good *Verticillium* wilt tolerance
- Resistant to bacterial blight
- Smooth leaf
- Liberty and glyphosate herbicide tolerant
- Three-gene lepidopteran resistance, which decreases the likelihood that a worm application will be needed

Table 1. Trial location, cooperator, planting date, harvest date, row spacing, plot dimensions and area of 2019 Texas A&M AgriLife Extension RACE Trials harvested.

County	Hildago (TX AgriScience)	Hildago (Drawe)	Willacy	Nueces (Lawhon)
Location (Nearest town)	Lyford	Progreso	Sebastian	Driscoll
Latitude, Longitude	26.3548908, -97.9019148	26.069115, -98.009173	26.345640, -97.768234	27.630670, -97.705683
Cooperator	Texas AgriScience	Richard Drawe	Lynn Johnson	Darrell Lawhon
Soil Type	Raymondville clay loam, 0 to 1 percent slopes	Rio Grande silt loam, 0 to 1 percent slopes	Hidalgo sandy clay loam, 0 to 1 percent slopes	Victoria clay, 0 to 1 percent slopes
Irrigation	furrow	furrow	none	none
Precipitation (Estimated)	14.5”	14.97”	7.4” before June 23, 11.8” event on June 24	11.81”
Previous Crop	Corn	Corn	Sorghum	Sorghum
Row Spacing (in)	40	40	40	38
Plot Dimensions	2 rows x 35 ft	12 rows x 850 ft	12 rows x 1090 ft	6 rows x 2979 ft
Area harvested/plot	0.005 acre	0.78 acre	1.0 acre	1.29 acre
Plant Population (/Ac)	55,000	50,000	40,000	38,000
Planting Date	Apr 10	Mar 14	Mar 12	Apr 16
Harvest Date	Aug 23	Aug 9	Jul 30	Aug 23
Yield Limiting Factor(s)			Dry early season with late-season flooding	

Table 1. Continued.

County	Nueces (Massey)	San Patricio	Refugio	DeWitt
Location (Nearest town)	Petronila	Edroy	Austwell	Yorktown
Latitude, Longitude	27.702002, -97.597500	28.086600, -97.645778	28.358870, -96.867348	28.980676, -97.619160
Cooperator	Jim Massey	Robert Rieder	Jimmy Jackson	Joseph Respondek
Soil Type	Victoria clay, 0 to 1 percent slopes	Victoria clay, 0 to 1 percent slopes	Victoria clay, 0 to 1 percent slopes	Sarnosa fine sandy loam, 1 to 3 percent slopes
Irrigation	none	none	none	none
Precipitation (Estimated)	10.68”	10.73”	10.72”	11.21”
Previous Crop	Sorghum	Corn	Sorghum	Corn
Row Spacing (in)	30	38	38	38
Plot Dimensions	6 rows x 1200 ft	6 rows x 2500 ft	2 rows x 30 ft	4 rows x 980 ft
Area harvested/plot	0.41 acre	1.09 acre	0.002 acre	0.28 acre
Plant Population (/Ac)	41,000	39,000	55,000	38,000
Planting Date	March 29	Mar 25	Mar 26	Apr 15
Harvest Date	Aug 23	Aug 13	Aug 14	Aug 29
Yield Limiting Factor(s)		First rep plots of FM2398, ST 5471, DP 1845, and NG 4936 were replanted 4/23/19 due to blowing sand damage. Root rot across the trial area.		

Table 1. Continued.

County	Calhoun	Victoria	Jackson	Matagorda
Location (Nearest town)	Port Lavaca	Telferner	Edna	Tin Top
Latitude, Longitude	28.608223, -96.659659	28.790256, -96.839218	29.021662 -96.396345	28.78407 -96.14276
Cooperator	Dannie May	Chris Buzek	Chris Hajovosky	Bill Hansen
Soil Type	Laewest clay, 0 to 1 percent slopes	Laewest clay, 0 to 1 percent slopes	Dacosta sandy clay loam, 0 to 1 percent slopes, Laewest clay, 0 to 1 percent slopes	Laewest clay, 0 to 1 percent slopes
Irrigation	none	none	none	none
Precipitation (Estimated)	12.28”	13.42”	16.35”	19.16”
Previous Crop	Sorghum	Corn	Corn	Sorghum
Row Spacing (in)	38	38	38	40
Plot Dimensions	2 rows x 30 ft	2 rows x 30 ft	6 rows x 3163 ft	6 rows x 1378 ft
Area harvested/plot	0.004 acre	0.004 acre	1.38 acre	0.65 acre
Plant Population (/Ac)	41,250	41,250	35,800	41,900
Planting Date	Apr 19	Apr 24	Apr 12	Apr 16
Harvest Date	Sept 2	Sept 6	Sept 5	Sept 12
Yield Limiting Factor(s)				

Table 1. Continued.

County	Wharton	Fort Bend	Colorado	Burleson
Location (Nearest town)	El Campo	Beasley	Eagle Lake	Snook
Latitude, Longitude	29.293993, -96.21497	29.496, -96.0016	29.472514, -96.346719	30.5361, -96.42142
Cooperator	Michael Beard	Alan & Lisa Stasney	Mahalitc Farms	AgriLife Research Farm
Soil Type	Lake Charles clay, 0 to 1 percent slopes	Lake Charles clay, 0 to 1 percent slopes	Norwood silty clay loam, 0 to 1 percent slopes, occasionally flooded	Belk clay, 0 to 1 percent slopes, rarely flooded
Irrigation	none	furrow	none	furrow
Precipitation (Estimated)	20.36”			12.8”, (4.5” was after open boll)
Previous Crop	Corn	Corn	Cotton	Corn
Row Spacing (in)	40	36	36	40
Plot Dimensions	6 rows x 1930 ft	6 rows x 1550 ft	6 row x 1600 ft	2 rows x 675 ft
Area harvested/plot	0.89 acre	0.65 acre	0.65 acre	0.08 acre
Plant Population (/Ac)	34,780	33,700	31,770	36,190
Planting Date	Apr 12	Apr 26	Apr 15	Apr 30
Harvest Date	Sept 3	Sept 15	Sept 6	Sept 30
Yield Limiting Factor(s)				

Table 1. Continued.

County	Medina	Williamson	Navarro	Comanche
Location (Nearest town)	Lytle	Hutto	Corsicana	Gustine
Latitude, Longitude	29.269490, -98.811215	30°33'28.29"N 97°32'19.45"W	32.06019, -96.60793	31.874811, -98.43322
Cooperator	Kriedwald Farms	Kruger Farms	Reed Farms	Rodney Stephenson
Soil Type	Victoria clay, 0 to 1 percent slopes	Branyon clay, 0 to 1 percent slopes	Houston Black clay, 1 to 3 percent slopes	Chaney loamy sand, Nimrod fine sand, Pedernales loamy fine sand, 1-5% Slopes
Irrigation	linear	none	none	pivot
Precipitation (Estimated)	27.3", (12.3" was after open boll)	5.7"	9.6"	9.8"
Previous Crop	Corn	Corn	Corn	Cotton
Row Spacing (in)	36	38	30	36
Plot Dimensions	6 rows x 1205 ft	6 rows x 1050 ft	12 rows x 570 ft	6 rows x 3260 ft
Area harvested/plot	0.50 acre	0.46 acre	0.40 acre	Approx. 1.0 Acre
Plant Population (/Ac)		35,270	42,000	42,000
Planting Date	Apr 22	May 24	May 16	May 20
Harvest Date	Sept 19	Oct 2	Oct 15	Oct 14
Yield Limiting Factor(s)			Herbicide injury (data not shown)	

Table 1. Continued.

County	LRGV Monster	Corpus Christi Monster	UGC Monster
Location (Nearest town)	Lyford	Corpus Christi	Danevang
Latitude, Longitude	26.3548908, -97.9019148	27.780827, -97.573877	29.070986, -96.245290
Cooperator	Texas AgriScience	Corpus Christi AgriLife Research	Dean Hansen
Soil Type	Raymondville clay loam, 0 to 1 percent slopes	Victoria clay, 0 to 1 percent slopes	Lake Charles clay, 0 to 1 percent slopes
Irrigation	none	none	none
Precipitation (Estimated)	14.5”	9.3”	7.23” before Jun 3, 7.7” event Jun 4-6, 26.11” season total
Previous Crop	Corn	Sorghum	Corn
Row Spacing (in)	40	38	38
Plot Dimensions	2 rows x 35 ft	2 rows x 35 ft	2 rows x 35 ft
Area harvested/plot	0.005 acre	0.005 acre	0.002 acre
Plant Population (/Ac)	55,000	55,000	55,000
Planting Date	Apr 10	Mar 28	Apr 16
Harvest Date	Aug 23	Aug 7	Sept 6
Yield Limiting Factor(s)			Mid-season flooding

Table 2. Variety ranking based on lint value, Lower Rio Grande Valley irrigated trials, 2019.

Location	Hidalgo - TX AgriScience	Hidalgo - Drawe	Mean Ranking
Mean Yield (lbs/A)	1229	1406	
Variety			
PHY 400 W3FE	1	1	**1**
ST 4848 GLT	3	4	**3.5**
DP 1646 B2XF	5	3	**4**
DP 1845 B3XF	6	2	**4**
FM 2398 GLTP	2	8	**5**
PHY 480 W3FE	4	6	**5**
ST 5471 GLTP	7	7	**7**
NG 4936 B3XF	9	5	**7**
NG 5711 B3XF	8	9	**8.5**

Table 3. Variety ranking based on lint value, Coastal Bend, 2019.

Location	Nueces - Lawhon	Nueces - Massey	San Patricio	Refugio – Jackson	DeWitt	Mean Ranking
Mean Yield (lbs/A)	**1235**	**1298**	**849**	**1450**	**1364**	
Variety						
PHY 400 W3FE	1	3	2	5	1	**2.4**
PHY 480 W3FE	6	2	1	4	4	**3.4**
DG 3555 B2XF	3	1	3	6	7	**4**
ST 4848 GLT	2	4	6	1	10	**4.6**
DP 1646 B2XF	5	6	4	10	2	**5.4**
DP 1845 B3XF	10	9	5	2	3	**5.8**
FM 2398 GLTP	7	7	10	3	5	**6.4**
ST 5471 GLTP	8	5	8	7	8	**7.2**
NG 4936 B3XF	4	10	9	9	6	**7.6**
NG 5711 B3XF	9	8	7	8	9	**8.2**

Table 4. Mean location lint yield and variety ranking based on lint value, Upper Gulf Coast Counties, 2019.

Location	Calhoun	Victoria	Jackson	Matagorda	Wharton	Fort Bend[1]	Colorado	Mean
Mean Yield (lbs/A)	**1036**	**1336**	**749**	**1347**	**1325**	**1243**	**1250**	
Variety								
PHY 400 W3FE	3	1	4	4	3	1	1	**2.4**
DG 3421 B3XF	2	2	3	2	5	3	3	**2.9**
NG 4936 B3XF	5	3	2	7	4	5	4	**4.3**
DP 1646 B2XF	7	4	1	5	6	2	5	**4.3**
FM 2398 GLTP	4	9	5	8	2	4	2	**4.9**
PHY 480 W3FE	1	5	9	3	1	9	7	**5.0**
ST 5471 GLTP	6	6	7	9	7	6	6	**6.7**
ST 4848 GLT	8	7	8	1	9	8	8	**7.0**
NG 5711 B3XF	9	8	6	10	10	7	9	**8.4**
DP 1948 B3XF			10	6	8	10	10	**8.8**

[1]Indicates the location furrow irrigated one time.

Table 5. Mean location lint yield and variety ranking based on lint value, Brazos Bottom and Winter Garden Regions, irrigated trials 2019.

Location	Burleson	Medina	Mean
Mean Yield (lbs/A)	1896	1926	
Variety			
DG 3615 B3XF	3	1	**2.0**
PHY 400 W3FE	2	3	**2.5**
DP 1646 B2XF	1	7	**4.0**
ST 4848GLT	6	2	**4.0**
DP 1948 B3XF	4	4	**4.0**
ST 5471GLTP	8	5	**6.5**
NG 5711 B3XF	5	10	**7.5**
FM 2398 GLTP	10	6	**8.0**
NG 4936 B3XF	7	9	**8.0**
PHY 480 W3FE	9	8	**8.5**

Table 6. Hidalgo County RACE Trial, 2019[1]

Cooperator: Texas AgriScience, Lyford, TX

Dr. Josh McGinty, Clinton Livingston, and Rudy Alaniz, Texas A&M AgriLife Extension Service - Corpus Christi

Variety	Lint (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lb)		Lint Value ($/acre)[2]	
PHY 400 W3FE	1340	ab	40.0	bc	4.4	cd	1.18	c	33.6	a	83.5	def	54.30	a	727	a
FM 2398 GLTP	1374	a	42.0	a	5.1	a	1.14	de	31.6	b	84.0	cd	52.08	b	715	ab
ST 4848 GLT	1302	bc	39.4	bcd	4.7	b	1.15	d	31.5	bc	84.6	bc	54.08	a	704	ab
PHY 480 W3FE	1272	bc	39.1	cde	4.4	cd	1.15	d	32.2	ab	84.1	cd	54.13	a	688	bc
DG 3555 B3XF	1225	cd	38.2	ef	4.3	de	1.18	c	32.0	ab	85.5	a	54.41	a	667	c
DP 1845 B3XF	1222	cde	37.2	g	4.2	e	1.19	bc	32.0	ab	85.3	ab	54.35	a	664	c
DP 1646 B2XF	1159	def	40.3	b	4.5	bc	1.21	ab	30.8	bc	83.2	ef	54.06	a	626	d
NG 4936 B3XF	1153	ef	37.7	fg	4.5	bc	1.19	bc	29.9	c	83.8	cd	53.98	a	622	d
NG 5711 B3XF	1136	f	38.9	de	4.5	bc	1.22	a	32.1	ab	83.8	de	54.24	a	616	d
ST 5471 GLTP	1107	f	37.4	fg	4.6	bc	1.12	e	32.2	ab	82.8	f	53.91	a	597	d
Mean	**1229**		**39.0**		**4.5**		**1.17**		**31.8**		**84.1**		**53.95**		**663**	
P>F	<0.0001		<0.0001		<0.0001		<0.0001		0.0883		0.0001		0.0018		<0.0001	
LSD (P=.10)	70.34		1.014		0.233		0.023		1.677		0.8465		0.8006		33.67	
STD DEV	102.22		1.60		0.30		0.03		1.51		1.02		0.87		50.90	
CV%	8.32		4.10		6.58		2.87		4.74		1.22		1.62		7.68	

[1] Indicates the location was irrigated

[2] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.

DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 7. Hidalgo County RACE Trial, 2019[1]

Cooperator: Richard Drawe

Danielle Sekula - Hidalgo, Cameron, and Willacy County IPM Agent - Weslaco, TX

Dr. Josh McGinty, Clinton Livingston, and Rudy Alaniz, Texas A&M AgriLife Extension Service - Corpus Christi

Variety	Lint (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lb)		Lint Value ($/acre)[2]	
PHY 400 W3FE	1706	a	44.2	bc	4.6	d	1.16	cd	32.4	a	82.4	cd	54.10	a	923	a
DP 1646 B2XF	1528	bc	44.3	b	4.9	bc	1.23	a	30.8	b	83.7	ab	53.35	a	817	b
DP 1845 B3XF	1448	bcd	46.0	a	4.7	cd	1.23	a	33.3	a	84.3	a	54.33	a	787	b
ST 4848 GLT	1552	ab	44.7	b	5.3	a	1.11	e	30.8	b	82.6	bc	50.10	b	777	b
ST 5471 GLTP	1418	b-e	42.1	e	4.9	b	1.15	d	32.9	a	83.1	ab	53.32	a	752	b
PHY 480 W3FE	1382	cde	43.4	d	4.7	cd	1.15	d	32.9	a	84.4	a	54.20	a	749	b
NG 4936 B3XF	1354	de	41.2	f	4.5	d	1.20	ab	30.0	b	84.2	a	54.05	a	732	b
FM 2398 GLTP	1253	e	44.7	b	5.3	a	1.19	bc	32.5	a	84.1	ab	50.95	b	638	c
NG 5711 B3XF	1016	f	43.7	cd	4.7	bc	1.18	bcd	30.3	b	81.5	d	53.95	a	548	d
Mean	**1406**		**43.8**		**4.8**		**1.18**		**31.8**		**83.4**		**53.15**		**747**	
P>F	0.0002		<0.0001		0.0004		0.0003		0.0079		0.0421		0.0001		<0.0001	
LSD (P=.10)	167.8		0.626		0.275		0.035		1.555		1.508		1.2957		85.66	
STD DEV	244.38		1.44		0.34		0.04		1.51		1.30		1.65		129.58	
CV%	17.38		3.28		6.94		3.67		4.75		1.56		3.10		17.35	

[1] Indicates the location was irrigated

[2] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.

DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 8. Willacy County RACE Trial, 2019
Cooperator: Lynn Johnson
Danielle Sekula - Hidalgo, Cameron, and Willacy County IPM Agent - Weslaco, TX
Dr. Josh McGinty, Clinton Livingston, and Rudy Alaniz, Texas A&M AgriLife Extension Service - Corpus Christi

Variety	Lint (lbs/acre)	Turnout %	Micronaire	Length (inches)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)[1]
DP 1646 B2XF	456	45.3	4.6	1.16	33.8	83.1	54.25	247
PHY 400 W3FE	437	41.0	4.6	1.15	31.5	84.7	54.20	237
PHY 480 W3FE	430	47.2	4.7	1.16	33.7	83.7	54.25	234
ST 5471 GLTP	403	43.1	4.2	1.11	33.5	83.1	54.10	218
DP 1845 B3XF	401	40.0	4.6	1.05	32.0	82.5	52.45	210
NG 5711B3XF	379	44.1	4.4	1.19	36.4	84.2	54.35	206
NG 4936 B3XF	380	43.3	4.2	1.06	30.7	84.0	52.50	200
FM 2398 GLTP	345	42.0	5.0	1.13	34.3	83.7	54.00	186
ST 4848GLT	349	42.1	4.7	1.06	31.4	83.9	52.50	183
DP 1646 B2XF	456	45.3	4.6	1.16	33.8	83.1	54.25	247
Mean	**398**	**43.1**	**4.6**	**1.12**	**33.0**	**83.7**	**53.62**	**213**
P>F[2]								
LSD (P=.10)								
STD DEV								
CV%								

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.
[2]Due to very small modules when harvested into single plots all three replications were harvested into single modules, thus statistics are missing.

Table 9. Nueces County RACE Trial, 2019
Cooperator: Darrell Lawhon
Jason Ott - Nueces County Extension Agent, Agriculture and Natural Resources
Dr. Josh McGinty, Clinton Livingston, and Rudy Alaniz, Texas A&M AgriLife Extension Service - Corpus Christi

Variety	Lint (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lb)		Lint Value ($/acre)[1]	
PHY 400 W3FE	1331	ab	43.7	cd	4.3	de	1.19	c	36.2	a	84.7	ab	54.43	a	724	a
ST 4848 GLT	1343	a	44.7	b	4.7	b	1.11	f	31.7	de	83.1	c	53.63	bc	720	ab
DG 3555 B2XF	1318	ab	42.3	f	4.1	f	1.17	cd	35.4	ab	84.5	ab	54.45	a	718	ab
NG 4936 B3XF	1257	abc	41.8	g	4.2	ef	1.17	cd	31.2	e	85.2	a	54.30	ab	682	abc
DP 1646 B2XF	1247	abc	44.8	b	4.6	bc	1.22	b	32.7	d	84.1	b	54.27	ab	677	a-d
PHY 480 W3FE	1233	bc	43.4	de	4.4	cde	1.14	e	34.4	b	84.9	ab	54.20	ab	668	bcd
FM 2398 GLTP	1238	bc	45.9	a	5.0	a	1.16	d	31.9	de	84.8	ab	52.70	d	653	cde
ST 5471 GLTP	1172	cd	41.3	h	4.5	bc	1.11	f	32.9	cd	83.0	c	53.38	cd	625	def
NG 5711 B3XF	1114	d	43.0	e	4.4	cd	1.19	c	34.3	bc	84.7	ab	54.37	a	606	ef
DP 1845 B3XF	1094	d	44.0	c	4.3	de	1.25	a	36.4	a	85.2	a	54.45	a	596	f
Mean	**1235**		**43.5**		**4.4**		**1.17**		**33.7**		**84.4**		**54.02**		**667**	
P>F	0.0054		<0.0001		<0.0001		<0.0001		<0.0001		0.001		0.0052		0.0045	
LSD (P=.10)	104.53		0.482		0.191		0.022		1.434		0.8234		0.714		55.957	
STD DEV	116.88		1.43		0.29		0.05		1.99		0.91		0.69		63.21	
CV%	9.47		3.28		6.54		3.85		5.92		1.08		1.29		9.48	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 10. Nueces County RACE Trial, 2019
Cooperator: Jim Massey
Jason Ott - Nueces County Extension Agent, Agriculture and Natural Resources
Dr. Josh McGinty, Clinton Livingston, and Rudy Alaniz, Texas A&M AgriLife Extension Service - Corpus Christi

Variety	Lint (lbs/acre)	Turnout %	Micronaire	Length (inches)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)[1]
DG 3555 B2XF	1452	41.9	3.9	1.17	31.7	85.0	54.40	790
PHY 480 W3FE	1392	43.0	4.1	1.12	32.2	84.7	54.05	752
PHY 400 W3FE	1346	44.1	4.0	1.16	32.5	83.4	54.25	730
ST 4848 GLT	1361	43.9	4.5	1.09	29.2	82.5	52.65	717
ST 5471 GLTP	1364	41.3	4.4	1.07	29.7	81.8	52.05	710
DP 1646 B2XF	1273	44.5	4.5	1.21	29.7	83.8	53.85	685
FM 2398 GLTP	1249	44.3	4.4	1.13	30.8	83.0	53.75	671
NG 5711 B2XF	1203	42.2	4.2	1.16	33.7	83.0	54.35	654
DP 1845 B3XF	1167	44.6	4.5	1.25	33.3	83.4	54.30	634
NG 4936 B3XF	1172	40.4	4.2	1.16	29.4	82.8	53.85	631
Mean	**1298**	**43.0**	**4.3**	**1.15**	**31.2**	**83.3**	**53.8**	**697**
P>F[2]								
LSD (P=.10)								
STD DEV								
CV%								

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.
[2]Due to very small modules when harvested into single plots all three replications were harvested into single modules, thus statistics are missing.

Table 11. San Patricio County RACE Trial, 2019
Cooperator: Robert Rieder
Bob McCool - San Patricio County Extension Agent, Agriculture and Natural Resources
Dr. Josh McGinty, Clinton Livingston, and Rudy Alaniz, Texas A&M AgriLife Extension Service - Corpus Christi

Variety	Lint (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lb)		Lint Value ($/acre)[1]	
PHY 480 W3FE	958		43.7	b	4.1	cd	1.12	d	32.8	bc	84.4	a	54.08	b	518	
PHY 400 W3FE	941		43.7	b	4.0	d	1.16	c	34.9	a	83.6	ab	54.32	ab	511	
DG 3555 B3XF	920		42.0	c	3.7	e	1.16	c	32.4	bc	84.7	a	54.23	ab	499	
DP 1646 B2XF	881		44.6	ab	4.2	bcd	1.19	ab	32.1	c	84.4	a	54.35	ab	479	
DP 1845 B3XF	863		44.8	a	4.0	d	1.21	a	34.2	ab	83.6	ab	54.40	a	469	
ST 4848 GLT	864		44.1	ab	4.5	ab	1.10	d	31.5	c	82.9	bc	52.98	d	458	
NG 5711 B3XF	777		42.8	c	4.1	cd	1.17	c	32.3	bc	83.8	ab	54.22	ab	421	
ST 5471 GLTP	783		42.4	c	4.3	abc	1.11	d	32.6	bc	82.3	c	53.58	c	419	
NG 4936 B3XF	769		42.0	c	4.0	cd	1.17	bc	31.8	c	84.3	a	54.30	ab	418	
FM 2398 GLTP	729		44.8	a	4.5	a	1.15	c	31.9	c	83.6	ab	54.07	b	394	
Mean	**849**		**43.5**		**4.1**		**1.15**		**32.6**		**83.8**		**54.05**		**459**	
P>F	0.3188		<0.0001		0.0018		<0.0001		0.0971		0.0828		<0.0001		0.2975	
LSD (P=.10)	NS		0.886		0.282		0.025		1.884		1.2565		0.3041		NS	
STD DEV	123.59		1.20		0.30		0.04		1.50		1.04		0.46		67.16	
CV%	14.57		2.76		7.24		3.24		4.61		1.24		0.85		14.64	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 12. Refugio County RACE Trial, 2019
Cooperator: Jimmy Jackson
Candace Moeller - Refugio County Extension Agent, Agriculture and Natural Resources
Stephen Biles - Victoria, Calhoun, and Refugio County IPM Agent, Port Lavaca
Dr. Josh McGinty, Clinton Livingston, and Rudy Alaniz, Texas A&M AgriLife Extension Service - Corpus Christi

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
ST 4848 GLT	1595	a	45.2	b	4.9	b	1.15	d	33.6	b	84.7	bc	53.68	a	859	
DP 1845 B3XF	1493	ab	43.5	c	4.3	g	1.22	b	33.3	bcd	85.7	a	54.46	a	813	
FM 2398 GLTP	1547	ab	46.4	a	5.1	a	1.17	cd	32.7	cde	84.0	cd	52.11	b	808	
PHY 480 W3FE	1484	ab	44.1	c	4.5	fg	1.18	c	33.1	bcd	85.7	a	54.41	a	808	
PHY 400 W3FE	1442	ab	45.1	b	4.8	bcd	1.19	c	34.8	a	84.4	bc	54.34	a	784	
DG 3555 B3XF	1428	ab	43.2	cd	4.6	ef	1.23	b	33.5	bc	85.3	ab	54.41	a	777	
ST 5471 GLTP	1426	ab	42.3	d	4.8	bc	1.18	c	33.3	bcd	83.4	d	54.21	a	773	
NG 5711 B3XF	1373	ab	44.0	c	4.7	de	1.22	b	33.9	b	83.8	cd	54.31	a	746	
NG 4936 B3XF	1350	b	42.4	d	4.7	cde	1.21	b	32.4	de	85.2	ab	54.38	a	734	
DP 1646 B2XF	1359	b	45.7	ab	4.8	bc	1.26	a	32.2	e	85.1	ab	53.73	a	731	
Mean	**1450**		**44.2**		**4.7**		**1.20**		**33.3**		**84.7**		**54.00**		**783**	
P>F	0.0124		<0.0001		<0.0001		<0.0001		0.0025		0.002		0.0043		0.815	
LSD (P=.10)	225.62		1.007		0.151		0.018		0.924		0.9588		0.9109		NS	
STD DEV	205.19		1.54		0.25		0.03		0.97		1.04		0.97		113.90	
CV%	14.15		3.48		5.24		2.79		2.93		1.22		1.80		14.54	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 13. DeWitt County RACE Trial, 2019
Cooperator: Joseph Respondek
Anthony Netardus - DeWitt County Extension Agent, Agriculture and Natural Resources
Dr. Josh McGinty, Clinton Livingston, and Rudy Alaniz, Texas A&M AgriLife Extension Service - Corpus Christi

Variety	Yield (lbs/acre)	Turnout %	Micronaire	Length (inches)	Strength (g/tex)	Uniformity	Loan Value (¢/lbs)	Lint Value ($/Ac)[1]
PHY 400 W3FE	1491	36.4	4.3	1.21 ab	34.2 a	84.8 ab	54.45	812
DP 1646 B2XF	1412	37.5	4.9	1.21 abc	31.5 def	83.7 bc	52.97	748
DP 1845 B3XF	1376	38.2	4.4	1.22 a	33.6 ab	84.4 ab	54.40	748
PHY 480 W3FE	1388	38.5	4.6	1.14 de	31.5 def	84.5 ab	53.73	748
FM 2398 GLTP	1436	40.0	5.0	1.17 cd	31.2 ef	85.1 a	52.07	746
NG 4936 B3XF	1352	37.4	4.6	1.21 abc	30.5 fg	84.6 ab	53.35	721
DG 3555 B3XF	1321	37.0	4.2	1.18 bc	33.2 abc	84.8 ab	54.37	719
ST 5471 GLTP	1301	36.2	4.7	1.13 e	32.5 bcd	82.9 d	52.98	689
NG 5711 B3XF	1267	37.4	4.5	1.18 bc	32.0 cde	83.2 cd	54.17	686
ST 4848 GLT	1300	38.1	4.9	1.11 e	29.6 g	83.0 d	52.57	683
Mean	**1364**	**37.7**	**4.6**	**1.18**	**32.0**	**84.1**	**53.51**	**730**
P>F	0.479	0.5587	0.0105	0.0005	0.0003	0.0684	0.3789	0.3857
LSD (P=.10)	NS	NS	NS	0.036	1.327	1.3249	NS	NS
STD DEV	133.03	1.98	0.37	0.04	1.59	1.13	1.36	71.92
CV%	9.75	5.27	8.08	3.56	4.99	1.35	2.54	9.85

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 14. Calhoun County RACE Trial, 2019
Cooperator: Danny May
Geri Kline - Calhoun County Extension Agent, Agriculture and Natural Resources
Stephen Biles - Victoria, Calhoun, and Refugio County IPM Agent, Port Lavaca
Dr. Josh McGinty, Clinton Livingston, and Rudy Alaniz, Texas A&M AgriLife Extension Service - Corpus Christi

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity	Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
PHY 480 W3FE	1132	a	45.3	a	4.5	bcd	1.11	d	30.9	cd	83.7	53.58	abc	606	a
DG 3421 B3XF	1135	a	43.8	cd	4.5	b-e	1.10	d	30.1	cd	83.0	53.05	bc	602	a
PHY 400 W3FE	1116	a	44.9	ab	4.4	cde	1.13	bc	32.7	b	83.6	53.93	ab	602	a
DP 1845 B3XF	1072	ab	44.3	bc	4.4	e	1.20	a	34.6	a	84.0	54.37	a	583	ab
FM 2398 GLTP	1063	ab	45.5	a	5.0	a	1.11	d	30.1	cd	82.5	51.63	d	549	bc
NG 4936 B3XF	1009	bc	41.5	e	4.4	de	1.15	b	30.2	cd	83.6	54.03	ab	545	bc
ST 5471 GLTP	1000	bcd	41.4	e	4.6	bcd	1.10	d	30.1	d	82.3	53.32	abc	533	cd
DP 1646 B2XF	952	cd	44.9	ab	4.6	b	1.18	a	31.7	bc	82.9	54.17	ab	516	cd
ST 4848 GLT	956	cd	43.4	d	4.9	a	1.12	cd	30.3	cd	83.4	52.68	cd	504	cd
NG 5711 B3XF	922	d	43.5	d	4.6	bc	1.15	b	31.4	bcd	83.3	54.00	ab	498	d
Mean	**1036**		**43.8**		**4.6**		**1.14**		**31.2**		**83.2**	**53.48**		**554**	
P>F	0.0016		<0.0001		<0.0001		<0.0001		0.0016		0.2285	0.025		0.003	
LSD (P=.10)	85.51		0.740		0.181		0.021		1.599		NS	1.1994		48.15	
STD DEV	94.21		1.51		0.24		0.04		1.71		0.80	1.07		51.08	
CV%	9.10		3.44		5.18		3.08		5.46		0.96	1.99		9.22	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 15. Victoria County RACE Trial, 2019
Cooperator: Chris Buzek
Matt Bochat - Victoria County Extension Agent, Agriculture and Natural Resources
Stephen Biles - Victoria, Calhoun, and Refugio County IPM Agent, Port Lavaca
Dr. Josh McGinty, Clinton Livingston, and Rudy Alaniz, Texas A&M AgriLife Extension Service - Corpus Christi

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
PHY 400 W3FE	1469	a	42.5	bc	4.2	d	1.17	d	33.5	ab	84.4	bc	54.43	a	799	a
DG 3421 B3XF	1395	ab	43.4	ab	4.3	cd	1.14	ef	32.0	cd	85.0	ab	54.18	a	756	ab
NG 4936 B3XF	1387	ab	41.3	c	4.4	bcd	1.20	bc	30.6	ef	84.9	ab	54.22	a	752	ab
DP 1845 B3XF	1377	ab	44.4	a	4.4	bcd	1.23	a	33.7	a	84.6	ab	54.37	a	749	ab
DP 1646 B2XF	1384	ab	44.6	a	4.5	bc	1.23	ab	29.8	fg	83.7	cd	53.97	ab	747	ab
PHY 480 W3FE	1327	b	42.0	bc	4.2	cd	1.17	de	32.5	bc	85.4	a	54.37	a	722	b
ST 5471 GLTP	1299	b	41.4	c	4.4	bcd	1.14	f	31.3	de	83.8	cd	53.95	ab	701	b
ST 4848 GLT	1308	b	43.4	ab	4.6	b	1.13	f	28.8	g	84.2	bc	53.33	b	698	b
NG 5711 B3XF	1290	b	42.1	bc	4.4	bcd	1.18	cd	31.0	de	83.4	d	54.08	a	698	b
FM 2398 GLTP	1128	c	44.0	a	4.9	a	1.16	def	31.7	cde	84.1	bc	53.37	b	602	c
Mean	**1336**		**42.9**		**4.4**		**1.17**		**31.5**		**84.4**		**54.03**		**722**	
P>F	0.0074		0.0035		0.0039		<0.0001		0.0001		0.0624		0.0879		0.0048	
LSD (P=.10)	114.47		1.404		0.247		0.030		1.147		1.0327		0.66617		63.77	
STD DEV	138.54		1.42		0.24		0.04		1.63		0.85		0.54		77.30	
CV%	10.37		3.32		5.53		3.28		5.18		1.01		0.99		10.70	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 16. Jackson County RACE Trial, 2019
Cooperator: Chris Hajovosky
Michael Hiller - Jackson County Extension Agent, Agriculture and Natural Resources
Dale A. Mott - Texas A&M AgriLife Extension, College Station

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
DP 1646 B2XF	856	a	42.1	ab	4.15		1.19	a	30.9		83.2		54.18		464	a
NG 4936 B3XF	840	a	40.3	cd	3.90		1.18	ab	30.9		83.4		54.18		455	ab
DG 3421 B3XF	803	a	40.7	bc	3.75		1.13	cd	30.5		82.3		53.75		431	ab
PHY 400 W3FE	793	a	43.2	a	4.05		1.14	bcd	32.0		83.5		53.95		428	ab
FM 2398 GLTP	781	b	41.8	a-	4.25		1.11	de	30.7		82.2		53.38		417	bc
NG 5711 B3XF	686	c	38.4	e	3.90		1.17	abc	32.7		81.7		54.23		372	cd
ST 5471 GLTP	690	c	40.0	de	4.15		1.10	de	31.7		83.2		53.40		369	d
ST 4848 GLT	678	c	42.4	ab	3.90		1.12	de	31.9		82.2		53.50		363	d
PHY 480 W3FE	686	c	42.7	a	3.70		1.09	e	31.1		83.1		52.73		362	d
DP 1948 B3XF	684	c	40.7	bc	3.55		1.19	a	34.1		82.8		52.53		360	d
Mean	749		**41.2**		**3.93**		**1.14**		**31.6**		**82.7**		**53.58**		402	
P>F	0.0054		0.0199		0.1598		0.0096		0.8346		0.6937		0.6476		0.0099	
LSD (P=.10)	73.44		1.839		0.409		0.0436		4.023		1.906		1.7646		45.96	
STD DEV	40.06		1.00		0.22		0.02		2.20		1.04		0.96		25.07	
CV%	5.35		2.43		5.68		2.08		6.94		1.26		1.80		6.24	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 17. Matagorda County RACE Trial, 2019
Cooperator: Hansen Farms
Aaron Sumrall, County Extension Agent, Kate Harrell, Extension Agent-IPM
Dale A. Mott - Texas A&M AgriLife Extension, College Station

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
ST 4848 GLT	1416	a	44.5	c	4.99	ab	1.16	cd	31.8	cd	83.8	a	53.35	ab	695	a
DG 3421 B3XF	1392	abc	44.3	c	4.83	b	1.14	d	32.5	bcd	83.0	ab	54.00	a	690	ab
PHY 480 W3FE	1376	abc	45.2	abc	4.76	b	1.14	d	33.7	ab	83.8	a	53.95	a	687	ab
PHY 400 W3FE	1410	ab	45.7	a	4.82	b	1.18	bc	33.1	abc	83.0	ab	52.95	ab	683	ab
DP 1646 B2XF	1328	bcd	45.1	abc	4.99	ab	1.22	a	31.5	cd	83.1	ab	53.37	ab	655	abc
DP 1948 B3XF	1321	cd	45.5	ab	4.80	b	1.22	a	34.7	a	84.2	a	54.37	a	652	abc
NG 4936 B3XF	1330	bcd	41.9	e	4.78	b	1.20	ab	31.2	d	83.6	a	53.40	ab	651	abc
FM 2398 GLTP	1346	a-d	46.1	a	5.12	a	1.20	ab	32.3	bcd	83.9	a	52.23	b	648	bc
ST 5471 GLTP	1276	d	42.9	d	4.86	b	1.13	d	31.8	cd	81.9	b	53.92	a	630	c
NG 5711 B3XF	1275	d	44.7	bc	4.85	b	1.19	ab	32.3	bcd	83.8	a	54.25	a	628	c
Mean	**1347**		**44.6**		**4.88**		**1.18**		**32.5**		**83.4**		**53.58**		**662**	
P>F	0.0755		0.0001		0.3479		0.0001		0.0764		0.2111		0.3742		0.1292	
LSD (P=.10)	83.7		0.988		0.2572		0.027		1.808		1.293		1.4856		44.78	
STD DEV	59.12		0.70		0.18		0.02		1.28		0.91		1.05		31.63	
CV%	4.39		1.57		3.72		1.62		3.93		1.09		1.96		4.78	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 18. Wharton County RACE Trial - 2019

Cooperator: Michael Beard

Corrie Bowen, County Extension Agent, Kate Harrell, Extension Agent- IPM

Dale A. Mott - Texas A&M AgriLife Extension, College Station

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
PHY 480 W3FE	1360	ab	44.7		4.61	bc	1.12	f	31.8	bcd	84.4		54.02	ab	734	a
FM 2398 GLTP	1407	a	44.6		5.10	a	1.15	cde	31.8	bcd	83.7		52.58	c	729	a
PHY 400 W3FE	1344	ab	43.6		4.51	c	1.16	bcd	32.7	bc	83.0		54.22	a	729	a
NG 4936 B3XF	1339	ab	44.7		4.50	c	1.18	b	31.9	bcd	84.1		53.37	abc	726	a
DG 3421 B3XF	1286	bc	44.9		4.54	c	1.14	def	31.8	bcd	82.8		54.03	ab	694	ab
DP 1646 B2XF	1258	cd	44.4		4.79	b	1.22	a	31.6	cd	83.8		53.08	bc	681	bc
ST 5471 GLTP	1218	cde	43.7		4.58	c	1.13	ef	33.1	ab	83.2		54.20	a	654	bc
DP 1948 B3XF	1199	de	44.2		4.49	c	1.22	a	34.2	a	84.2		54.07	ab	652	cd
ST 4848 GLT	1160	ef	44.8		4.78	b	1.15	cd	30.7	d	82.9		54.15	a	616	de
NG 5711 B3XF	1102	f	44.1		4.59	c	1.17	bc	32.9	abc	82.7		54.32	a	597	e
Mean	**1267**		**44.4**		**4.65**		**1.16**		**32.3**		**83.5**		**53.77**		**681**	
P>F	0.0001		0.9077		0.0004		0.0001		0.02		0.242		0.0001		0.0001	
LSD (P=.10)	78.53		1.753		0.1848		0.0227		1.361		1.263		0.6248		41.25	
STD DEV	55.47		1.24		0.13		0.02		0.96		0.89		0.44		29.13	
CV%	4.38		2.79		2.81		1.37		2.98		1.07		0.82		4.28	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.

DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 19. Fort Bend County RACE Trial - 2019
Cooperator: Alan and Lisa Stasney
Dale A. Mott - Texas A&M AgriLife Extension, College Station

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
PHY 400 W3FE	1326	a	43.3	a	3.75	de	1.21	a-d	33.1	a	83.7	ab	54.30		720	
DP 1646 B2XF	1306	ab	42.4	ab	3.85	cde	1.22	ab	29.5	cd	82.0	c	53.83		703	
DG 3421 B3XF	1294	ab	41.4	ab	3.65	ef	1.17	cde	32.7	a	83.8	ab	54.05		700	
FM 2398 GLTP	1266	ab	43.3	a	4.00	bc	1.17	de	30.9	abc	82.1	c	54.00		684	
NG 4936 B3XF	1264	ab	39.7	c	4.15	ab	1.21	a-d	29.8	bcd	83.2	b	54.03		683	
ST 5471 GLTP	1230	bc	41.1	bc	4.35	a	1.16	e	31.3	abc	81.8	c	53.93		663	
NG 5711 B3XF	1188	cd	40.0	c	3.75	de	1.22	abc	32.1	abc	81.9	c	54.15		644	
ST 4848 GLT	1188	cd	42.4	ab	3.95	bcd	1.14	e	27.6	d	81.8	c	53.60		637	
PHY 480 W3FE	1211	cd	41.0	bc	3.50	f	1.18	b-e	32.2	abc	84.5	a	52.30		635	
DP 1948 B3XF	1162	d	41.6	ab	4.05	bc	1.25	a	32.4	ab	83.8	ab	54.33		632	
Mean	**1243**		**41.6**		**3.90**		**1.19**		**31.1**		**82.8**		**53.85**		**670**	
P>F	0.0419		0.0953		0.0013		0.0423		0.0748		0.0042		0.6173		0.1045	
LSD (P=.10)	78.83		2.039		0.213		0.0484		2.719		1.05		1.6806		53.96	
STD DEV	43.00		1.11		0.12		0.03		1.48		0.57		0.92		29.44	
CV%	3.46		2.67		2.99		2.22		4.76		0.69		1.70		4.39	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 20. Colorado County RACE Trial, 2019
Cooperator: Mahalitc Farms
Laramie Naumann, County Extension Agent
Dale A. Mott - Texas A&M AgriLife Extension, College Station

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
PHY 400 W3FE	1475	a	43.8	a	3.60	cd	1.18	d	34.4	ab	83.4	c	53.15	ab	783	a
FM 2398 GLTP	1313	b	43.3	a	4.50	a	1.19	cd	32.5	bc	84.4	abc	54.27	a	713	b
DG 3421 B3XF	1298	bc	41.7	c	3.83	bc	1.17	de	32.9	bc	84.0	bc	54.20	a	703	b
NG 4936 B3XF	1274	bc	40.9	cd	3.90	b	1.22	b	32.7	bc	85.2	a	54.42	a	693	b
DP 1646 B2XF	1274	bc	42.8	ab	3.90	b	1.25	a	31.4	cd	83.6	bc	54.33	a	692	b
ST 5471 GLTP	1250	c	40.6	d	3.97	b	1.15	e	33.7	b	82.0	d	54.10	a	676	b
PHY 480 W3FE	1327	b	41.9	bc	3.30	e	1.17	de	33.7	b	84.4	abc	50.65	c	672	b
ST 4848 GLT	1183	d	41.9	bc	3.57	cde	1.12	f	30.3	d	83.4	bc	52.52	ab	622	c
NG 5711 B3XF	1040	e	38.4	e	3.60	cd	1.21	bc	33.4	b	83.7	bc	54.25	a	564	d
DP 1948 B3XF	1070	e	40.5	d	3.50	de	1.26	a	35.8	a	84.5	ab	51.38	bc	550	d
Mean	**1250**		**41.6**		**3.77**		**1.19**		**33.1**		**83.9**		**53.31**		**666**	
P>F	0.0001		0.0001		0.0001		0.0001		0.0068		0.0048		0.059		0.0001	
LSD (P=.10)	62.29		1.007		0.279		0.0235		1.904		1.036		2.179		40.91	
STD DEV	43.99		0.71		0.20		0.02		1.35		0.73		1.53		28.80	
CV%	3.52		1.71		5.23		1.39		4.07		0.87		2.88		4.33	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 21. Burleson County RACE Trial, 2019[1]
Texas A&M AgriLife Research and Extension Center, Snook, Texas
Dale A. Mott - Texas A&M AgriLife Extension, College Station

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[2]	
DP 1646 B2XF	2068	a	44.5	ab	4.31	d	1.23	abc	31.8	b	83.6		54.24		1122	a
PHY 400 W3FE	1975	ab	43.5	bc	4.42	cd	1.20	b-e	32.2	b	84.1		54.28		1072	a
DG 3615 B3XF	1977	ab	43.7	bc	4.73	ab	1.22	a-d	32.3	b	84.1		53.68		1061	a
DP 1948 B3XF	1945	ab	45.8	a	4.48	bcd	1.26	a	34.5	a	84.4		54.39		1058	a
NG 5711 B3XF	1939	ab	43.6	bc	4.56	a-d	1.23	ab	31.3	b	84.3		54.20		1051	a
ST 4848GLT	1918	ab	43.4	bcd	4.66	abc	1.18	de	31.5	b	83.7		54.09		1037	b
NG 4936 B3XF	1842	bc	43.4	bcd	4.49	bcd	1.19	de	31.1	b	83.7		53.98		994	b
ST 5471GLTP	1807	cd	41.9	d	4.51	bcd	1.17	e	31.7	b	83.7		54.11		978	c
PHY 480 W3FE	1796	cd	42.1	cd	4.44	cd	1.19	cde	31.4	b	84.6		54.25		974	d
FM 2398 GLTP	1694	d	44.3	ab	4.78	a	1.18	e	31.3	b	84.4		53.64		908	e
Mean	**1896**		**43.6**		**4.54**		**1.20**		**31.9**		**84.0**		**54.08**		**1025**	
P>F	0.013		0.0188		0.0965		0.0119		0.0499		0.6032		0.5432		0.0074	
LSD (P=.10)	153.06		1.595		0.2569		0.0394		1.569		0.996		0.6424		81.51	
STD DEV	127.08		1.32		0.21		0.03		1.30		0.83		0.53		67.67	
CV%	6.70		3.04		4.70		2.72		4.08		0.98		0.99		6.60	

[1] Indicates the location was irrigated
[2] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 22. Medina County RACE Trial, 2019[1]
Cooperator: David Kriewald
Dale A. Mott - Texas A&M AgriLife Extension, College Station

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[2]	
DG 3615 B3XF	2031	a	44.1	bc	4.33	bc	1.21	bc	33.0		83.1		54.28		1102	a
ST 4848GLT	1984	ab	45.7	ab	4.27	bcd	1.19	cd	31.7		84.2		54.28		1077	ab
PHY 400 W3FE	1974	abc	45.2	ab	3.89	e	1.20	bc	36.4		84.3		54.43		1074	ab
DP 1948 B3XF	1964	abc	46.4	a	4.25	bcd	1.26	a	34.9		84.7		54.50		1070	ab
ST 5471GLTP	1909	bcd	43.0	cd	4.28	bcd	1.18	de	32.6		82.7		54.25		1035	bc
FM 2398 GLTP	1908	bcd	46.8	a	4.70	a	1.16	e	33.1		84.2		54.23		1034	bc
DP 1646 B2XF	1900	bcd	45.3	ab	4.24	bcd	1.26	a	31.9		84.1		54.33		1032	bc
PHY 480 W3FE	1884	cd	44.4	bc	4.12	cde	1.19	cd	34.4		84.6		54.43		1026	bc
NG 4936 B3XF	1862	d	42.2	d	4.04	de	1.21	b	32.1		84.1		54.33		1012	c
NG 5711 B3XF	1842	d	44.3	bc	4.42	b	1.21	b	33.1		83.7		54.25		1000	c
Mean	**1926**		**44.7**		**4.25**		**1.21**		**33.3**		**83.9**		**54.33**		**1046**	
P>F	0.0831		0.0213		0.0236		0.0004		0.1271		0.2752		0.2078		0.0863	
LSD (P=.10)	95.91		1.803		0.2783		0.0243		2.606		1.339		0.1809		52.78	
STD DEV	52.32		0.98		0.15		0.01		1.42		0.73		0.10		28.79	
CV%	2.72		2.20		3.57		1.10		4.27		0.87		0.18		2.75	

[1] Indicates the location was irrigated
[2] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 23. Williamson County RACE Trial, 2019
Cooperator: Greg and Adam Shirocky
Dale A. Mott - Texas A&M AgriLife Extension, College Station

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
DP 1646 B2XF	715	a	45.4	a	4.39	ab	1.08	bc	28.4	bc	80.9	cd	52.38	ab	374	a
PHY 400 W3FE	708	a	43.8	bc	3.98	def	1.04	e	28.6	b	80.9	cd	50.98	b	360	ab
DG 3615 B3XF	685	ab	41.7	ef	3.97	def	1.04	e	27.7	bcd	81.0	cd	50.87	bc	349	bc
PHY 480 W3FE	695	a	44.4	b	4.20	bc	1.02	f	28.9	b	82.1	ab	49.02	cd	341	bcd
DP 1948 B3XF	617	c	44.1	b	4.50	a	1.12	a	32.4	a	82.7	a	53.93	a	333	cd
NG 4936 B3XF	638	c	41.5	f	4.03	cde	1.06	cd	27.2	cd	81.7	bc	51.32	b	327	d
ST 4848GLT	644	bc	42.5	de	3.89	ef	1.05	de	26.7	d	81.7	bc	50.62	bc	326	d
ST 5471GLTP	603	c	41.7	f	3.66	g	1.00	f	26.4	d	80.5	d	48.05	d	290	e
NG 5711 B3XF	543	d	42.3	def	4.10	cd	1.09	b	28.5	bc	82.0	ab	52.52	ab	285	e
FM 2398 GLTP	549	d	43.1	cd	3.80	fg	1.08	bc	26.4	d	81.7	bc	51.92	b	285	e
Mean	**640**		**43.0**		**4.05**		**1.06**		**28.1**		**81.5**		**51.16**		**327**	
P>F	0.0001		0.0001		0.0001		0.0001		0.0001		0.0211		0.0027		0.0001	
LSD (P=.10)	42.22		0.85		0.2096		0.0172		1.39		0.961		1.9427		20.78	
STD DEV	29.82		0.60		0.15		0.01		0.98		0.68		1.37		14.68	
CV%	4.66		1.40		3.65		1.15		3.49		0.83		2.68		4.49	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 24. Comanche County RACE Trial, 2019
Cooperator: Rodney Stephens
Michael Berry, County Extension Agent
Dale A. Mott - Texas A&M AgriLife Extension, College Station

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
PHY 400 W3FE	2017	a	45.6	a	4.28	b	1.21	c	34.5	a	84.0	bc	54.40		1097	a
DG 3421 B3XF	1946	ab	42.7	bc	4.31	b	1.25	ab	31.9	cd	85.0	a	54.38		1058	ab
DP 1646 B2XF	1880	abc	45.8	a	4.31	b	1.25	ab	30.7	d	83.6	cd	54.17		1018	bc
NG 4936 B3XF	1830	bcd	44.9	a	4.40	b	1.17	e	32.6	c	83.2	d	54.13		991	bcd
ST 5471GLTP	1789	cde	41.6	c	4.35	b	1.18	de	33.3	abc	83.2	d	54.30		971	cde
NG 5711 B3XF	1781	cde	43.0	bc	4.39	b	1.23	bc	32.6	c	83.8	bc	54.28		967	cde
ST 4848GLT	1753	cde	44.9	a	4.57	ab	1.16	e	32.9	bc	84.2	ab	54.15		949	cde
PHY 480 W3FE	1737	de	43.3	b	3.93	c	1.21	c	33.4	abc	85.1	a	54.45		946	de
DP 1948 B3XF	1739	de	43.3	b	3.93	c	1.27	a	33.1	abc	84.0	bc	54.35		945	de
FM 2398 GLTP	1687	e	45.3	a	4.85	a	1.20	cd	34.2	ab	84.6	ab	53.55		902	e
Mean	**1816**		**44.0**		**4.33**		**1.21**		**32.9**		**84.1**		**54.22**		**984**	
P>F	0.0139		0.0011		0.0064		0.0001		0.0212		0.0218		0.373		0.0062	
LSD (P=.10)	138.45		1.511		0.3349		0.0291		1.525		0.929		0.5887		72.01	
STD DEV	97.78		1.07		0.24		0.02		1.08		0.66		0.42		50.86	
CV%	5.38		2.42		5.46		1.69		3.27		0.78		0.77		5.17	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.
DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Table 25. Lower Rio Grande Valley Monster Cotton Variety Trial, 2019
Cooperator: Texas AgriScience - Lyford, TX
Dr. Josh McGinty, Clinton Livingston, and Rudy Alaniz, Texas A&M AgriLife Extension Service - Corpus Christi

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
PHY 580 W3FE	1617	a	44.1	cde	5.0	k-n	1.11	n-r	33.0	f-j	83.9	f-n	52.64	c-i	851	a
PHY 480 W3FE	1623	a	42.8	fgh	4.9	l-o	1.12	m-	32.2	h-n	84.4	c-i	52.01	f-l	844	ab
PHY 500 W3FE	1442	a-d	43.0	fgh	4.6	qrs	1.12	m-	34.0	b-f	83.6	h-o	53.99	ab	778	abc
18R421B3XF	1388	b-g	41.3	klm	4.7	pqr	1.18	cde	31.3	lmn	84.2	c-l	54.15	a	752	a-d
PX5C05 W3FE	1473	abc	45.2	ab	5.1	f-k	1.09	qrs	33.2	e-i	84.2	c-l	50.93	k-r	751	a-d
PHY 350 W3FE	1494	ab	42.9	fgh	5.3	b-f	1.10	pqr	31.5	k-n	83.7	g-o	50.11	o-t	750	a-d
DP 1725 B3XF	1399	a-f	44.1	cde	4.9	mno	1.15	f-l	31.3	lmn	83.2	m-p	52.76	b-h	736	a-e
NG 4936 B3XF	1343	b-h	40.1	no	4.8	opq	1.19	cd	31.8	i-n	85.4	ab	54.33	a	730	a-f
18R4111B3XF	1335	b-i	42.4	ghi	4.8	opq	1.17	d-h	31.6	j-n	83.9	e-n	54.09	a	722	b-f
FM 2398 GLTP	1410	a-e	44.1	cde	5.3	b-e	1.16	e-j	32.8	f-l	84.4	c-j	51.16	j-q	721	b-f
ST 4848 GLT	1408	a-e	42.3	g-j	5.3	b-g	1.13	k-o	32.1	h-n	84.7	b-f	51.19	j-p	721	b-f
PX3D32 W3FE	1377	b-g	43.0	fgh	5.0	l-n	1.15	f-l	32.8	f-l	84.1	d-l	52.39	e-j	721	b-f
PHY 400 W3FE	1345	b-h	43.3	efg	4.9	l-o	1.13	j-o	33.2	d-i	83.1	m-p	53.19	a-g	719	c-f
DGX 14003-1 GLTP	1396	a-f	42.6	gh	5.4	bcd	1.14	h-	31.3	mn	83.6	i-o	50.50	n-s	704	c-g
DP 1646 B2XF	1308	b-j	43.7	c-f	4.9	l-o	1.22	ab	31.8	i-n	84.1	c-l	53.65	a-e	703	c-g
NG 5711 B3XF	1270	b-j	41.5	i-m	4.7	qrs	1.20	bc	33.0	f-j	83.8	g-o	54.21	a	688	c-h
PX5E34 W3FE	1260	c-j	39.2	op	4.3	t	1.13	k-o	34.5	a-e	84.3	c-k	54.13	a	682	c-i
FM 1953 GLTP	1251	c-j	39.5	op	4.9	no	1.15	f-l	32.4	g-m	84.6	b-g	54.08	a	677	c-j
DG 3555 B3XF	1248	c-j	41.4	j-m	4.6	rs	1.13	k-o	33.2	e-i	85.0	abc	54.11	a	675	c-j
PX5C045 W3FE	1324	b-i	44.4	bc	5.1	i-n	1.07	s	32.2	h-n	83.4	k-p	50.85	k-r	673	c-j
DP 1845 B3XF	1235	d-j	43.3	d-g	4.8	opq	1.23	a	35.7	a	84.8	a-e	54.40	a	672	c-j
DG 3402 B3XF	1292	b-j	42.8	fgh	5.2	e-j	1.14	i-n	32.4	g-m	84.4	c-j	51.40	i-o	665	c-j
PHY 340 W3FE	1241	d-j	44.1	cde	4.9	l-o	1.12	m-	30.9	n	83.8	f-n	53.24	a-f	661	c-j
PX3C06 W3FE	1326	b-i	43.3	efg	5.2	c-h	1.09	rs	28.7	o	82.6	p	49.48	st	657	c-k
18R445B3XF	1202	e-k	44.0	cde	4.8	op	1.22	ab	32.7	f-m	84.3	c-j	53.70	a-d	645	d-k
DG 3520 B3XF	1176	f-k	39.2	op	4.3	t	1.18	cde	34.6	a-e	85.7	a	54.48	a	641	d-k
ST 5471 GLTP	1255	c-j	41.1	lmn	5.2	e-j	1.11	o-r	34.6	a-e	83.0	nop	50.73	l-s	637	d-k

Table 25 continued.

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
PX3D43 W3FE	1272	b-j	44.1	cde	5.2	b-h	1.09	qrs	33.2	d-i	83.5	j-o	50.09	p-t	636	d-k
BX 2022 GLTP	1210	e-k	42.2	h-k	4.9	l-o	1.16	e-k	34.5	a-e	84.0	e-m	52.41	d-j	636	d-k
PX5E28 W3FE	1175	f-k	39.6	op	4.5	st	1.13	j-o	34.7	a-d	83.3	l-p	54.09	a	636	d-k
DG H959 B3XF	1213	e-k	39.2	op	5.1	g-l	1.18	c-f	33.8	b-g	84.3	c-j	52.13	f-k	635	d-k
ST 5707 B2XF	1232	d-j	39.6	op	5.2	d-i	1.15	f-l	34.8	abc	84.8	a-e	51.55	h-n	635	d-k
FM 2498 GLT	1293	b-j	44.3	bcd	5.7	a	1.08	rs	30.8	n	83.1	m-p	49.00	t	633	d-k
ST 4550 GLTP	1212	e-k	44.7	bc	5.1	h-m	1.11	o-r	35.1	ab	83.7	g-o	51.90	g-m	628	d-k
DGX 1902 GLTP	1257	c-j	45.9	a	5.3	b-e	1.10	pqr	32.9	f-k	82.9	op	49.89	q-t	628	d-k
BX 2076 GLTP	1238	d-j	42.9	fgh	5.4	b	1.11	o-r	33.5	c-h	83.6	h-o	49.78	rst	616	e-k
ST 5600 B2XF	1166	g-k	41.0	mn	5.1	g-l	1.16	d-i	35.1	ab	84.0	e-m	51.99	f-l	606	f-k
NG 3728 B2XF	1142	h-k	42.1	h-l	5.1	f-k	1.14	g-	32.2	h-n	84.2	c-k	51.94	g-m	592	g-k
UA 222 CV	1129	h-k	39.6	op	5.2	d-i	1.17	c-g	33.2	d-i	84.2	c-l	51.21	j-p	579	h-k
UA 114 CV	1107	ijk	38.7	p	5.4	bc	1.14	i-n	33.2	d-i	84.5	c-h	50.68	m-s	560	ijk
UA 107 CV	1089	jk	41.6	i-m	5.2	c-i	1.12	l-p	33.2	e-i	84.2	c-l	51.13	j-q	557	jk
BX 2016 GLTP	994	k	38.8	p	4.7	pqr	1.17	d-h	32.8	f-l	85.0	a-d	53.74	abc	534	k
Mean	1290		42.2		5.0		1.14		32.9		84.0		52.22		673	
P>F	0.009		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		0.0128	
LSD (P=.05)	229		0.995		0.175		0.029		1.480		0.901		1.299		123.85	
STD DEV	222.47		2.07		0.32		0.04		1.77		0.94		1.87		119.22	
CV%	15.747		4.000		4.934		4.476		4.295		0.117		4.703		17.21	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.

AT =AllTex, ATX = AllTexExperimental, DP=DeltaPine, DPX = DeltaPine Experimental, DG= DynaGrow, FM=FiberMax, NG=NexGen, PHY=Phytogen, PX = Phytogen Experimental, SSG= Seed Source Genetics, ST= Stoneville

Table 26. Corpus Christi Center Monster Cotton Variety Trial, 2019
Texas A&M AgriLife Research and Extension Center, Corpus Christi, Texas
Dr. Josh McGinty, Clinton Livingston, and Rudy Alaniz, Texas A&M AgriLife Extension Service - Corpus Christi

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
DGX 14003-1 GLTP	1381	a	39.8	i-m	3.9	h-o	1.20	bc	31.3	j-n	83.0	l-p	54.24	abc	749	a
PHY 350 W3FE	1363	a	39.6	j-n	3.7	o-r	1.15	ijk	31.0	j-n	83.3	j-n	53.98	a-d	736	ab
PX5C045 W3FE	1326	abc	42.2	bcd	3.8	k-q	1.13	kl	31.7	g-k	83.9	d-k	53.95	a-d	715	abc
DG 3555 B3XF	1361	ab	39.2	l-o	3.6	rst	1.18	c-f	31.4	i-l	84.6	a-d	52.45	fg	714	abc
DG 3402 B3XF	1308	a-d	40.4	g-k	4.0	f-l	1.18	c-f	31.5	h-k	84.6	a-e	54.29	abc	710	abc
PHY 580 W3FE	1300	a-d	43.2	ab	4.0	d-i	1.13	jkl	33.4	abc	83.7	f-l	54.16	abc	704	abc
PHY 400 W3FE	1272	a-e	41.0	e-h	3.7	o-r	1.18	c-f	32.7	b-h	83.7	g-l	54.26	abc	690	a-d
18R411B3XF	1263	a-f	40.2	h-l	3.9	i-p	1.17	fgh	29.0	qrs	83.6	h-m	53.88	a-d	680	a-e
PHY 480 W3FE	1253	a-g	40.8	f-i	3.7	p-s	1.15	hij	32.9	b-f	84.5	a-e	54.26	abc	680	a-f
PX3C06 W3FE	1194	a-i	40.7	f-i	4.0	f-l	1.16	f-i	29.7	o-s	83.2	k-o	53.98	a-d	645	a-g
PX5C05 W3FE	1198	a-i	43.7	a	4.0	e-j	1.09	m	32.1	d-j	83.6	g-l	53.25	b-f	638	b-h
FM 2498 GLT	1187	a-i	39.2	l-o	4.1	d-h	1.15	ijk	28.7	rs	83.3	j-n	53.73	a-d	638	b-i
PX3D32 W3FE	1228	a-h	38.3	op	3.4	tu	1.19	bcd	31.2	j-n	82.8	nop	50.46	i	620	c-j
ST 4550 GLTP	1144	c-j	41.8	cde	3.8	m-q	1.13	jkl	31.7	g-k	84.4	a-g	54.01	abc	618	c-k
PX3D43 W3FE	1135	c-j	40.9	e-h	3.7	n-r	1.13	kl	33.1	b-e	84.3	a-h	54.11	abc	614	c-k
DP 1725 B3XF	1140	c-j	42.7	abc	4.3	bc	1.13	kl	29.1	p-s	82.5	op	53.58	a-d	611	c-k
DG 3520 B3XF	1157	b-j	37.1	qrs	3.4	u	1.20	bc	32.6	b-i	85.0	ab	50.75	hi	588	d-l
ST 5471 GLTP	1082	e-k	38.0	pq	3.9	g-n	1.12	l	30.6	k-o	82.4	p	53.84	a-d	583	d-l
PHY 340 W3FE	1095	e-k	40.6	g-j	3.7	p-s	1.14	ijk	30.1	n-q	83.9	d-k	52.91	def	578	e-m
DP 1646 B2XF	1059	f-l	41.7	def	4.2	b-e	1.21	b	31.0	j-n	83.9	d-k	54.19	abc	574	e-m
NG 4936 B3XF	1056	g-l	38.6	nop	4.0	d-i	1.19	b-e	29.7	o-r	84.0	d-j	54.01	abc	570	e-m
ST 4848 GLT	1063	f-l	41.0	e-h	4.1	c-g	1.12	l	30.1	m-q	83.8	e-k	53.56	a-e	569	f-m
FM 2398 GLTP	1057	g-l	41.3	d-g	4.1	c-g	1.15	ijk	29.5	o-s	83.4	i-n	53.80	a-d	569	g-m
PHY 500 W3FE	1115	d-k	40.7	f-i	3.5	stu	1.12	l	30.2	l-p	83.3	j-n	50.60	hi	567	g-m
FM 1953 GLTP	1019	i-l	36.7	rst	3.8	l-q	1.17	fgh	31.3	j-m	83.8	e-k	54.19	abc	552	g-m
UA 114 CV	1010	i-l	36.3	stu	4.4	b	1.15	hij	33.7	ab	85.0	a	54.26	abc	548	g-m
PX5E28 W3FE	1043	h-l	37.6	pqr	3.4	tu	1.17	d-h	33.4	abc	84.2	b-h	52.49	efg	548	g-m

Table 26 continued.

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
PX5E34 W3FE	1055	g-l	37.2	qrs	3.4	tu	1.17	e-h	33.4	abc	84.5	a-f	51.60	gh	544	g-m
BX 2076 GLTP	977	jkl	39.4	k-n	4.0	d-i	1.15	ijk	31.9	e-j	83.2	k-o	54.04	abc	528	h-m
DP 1845 B3XF	969	jkl	40.2	h-l	3.9	i-o	1.23	a	33.3	a-d	84.0	d-i	54.40	a	527	i-m
18R445B3XF	960	jkl	41.7	def	4.2	bcd	1.20	bc	31.1	j-n	83.7	g-l	54.23	abc	521	j-m
ST 5707 B2XF	953	jkl	36.2	stu	3.8	j-p	1.16	ghi	34.3	a	84.1	d-i	54.28	abc	517	j-m
18R421B3XF	967	jkl	39.1	mno	3.6	qrs	1.18	d-g	28.5	s	82.8	m-p	52.90	def	510	j-m
DG H959 B3XF	954	jkl	35.9	tu	3.5	stu	1.19	b-e	31.7	f-k	82.8	nop	53.23	c-f	507	klm
ST 5600 B2XF	911	lkm	40.6	g-j	4.8	a	1.16	ghi	33.2	a-d	84.8	abc	54.28	abc	495	lmn
NG 3729 B2XF	871	lm	39.1	mno	4.1	c-f	1.15	ijk	30.6	k-o	83.8	e-k	54.00	abc	470	mno
UA 222 CV	716	mn	35.3	u	4.0	f-m	1.20	bc	32.2	c-j	83.8	e-k	54.33	ab	389	nop
BX 2022 GLTP	673	no	40.8	e-h	4.0	e-k	1.13	kl	33.1	a-e	83.6	g-l	54.05	abc	364	op
Mean	1087		39.7		3.9		1.16		31.5		83.8		53.56		582	
P>F	<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001	
LSD (P=.05)	204.55		1.018		0.193		0.020		1.214		0.754		1.081		110.68	
STD DEV	238.63		2.19		0.32		0.03		1.77		0.87		1.32		127.97	
CV%	21.95		5.51		8.36		3.01		5.63		1.03		2.46		21.99	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.

AT =AllTex, ATX = AllTexExperimental, DP=DeltaPine, DPX = DeltaPine Experimental, DG= DynaGrow, FM=FiberMax, NG=NexGen, PHY=Phytogen, PX = Phytogen Experimental, SSG= Seed Source Genetics, ST= Stoneville

Table 27. Upper Gulf Coast Monster Cotton Variety Trial, 2019
Texas A&M AgriLife Research and Extension Center, Corpus Christi, Texas
Dr. Josh McGinty, Clinton Livingston, and Rudy Alaniz, Texas A&M AgriLife Extension Service - Corpus Christi

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
PHY 400 W3FE	1234	a	44.6	b-g	4.4	k-n	1.17	def	33.7	b-f	84.2	c-i	54.33	abc	670	a
18R421B3XF	1189	ab	41.4	opq	4.2	p-s	1.17	efg	30.3	pq	83.3	h-o	53.95	c-k	641	ab
CG 9608 B3XF	1153	abc	45.5	ab	4.6	g-k	1.14	j-m	28.6	r	82.9	k-p	53.56	klm	618	abc
ST 5600 B2XF	1123	a-d	43.3	h-k	5.2	a	1.16	e-h	33.6	b-g	84.4	b-f	51.95	p	583	a-d
DG 3615 B3XF	1056	a-e	43.4	hij	4.7	d-h	1.14	j-m	31.4	l-p	83.1	j-o	53.96	c-k	570	a-e
PHY 340 W3FE	1038	a-f	44.8	b-e	4.6	e-j	1.15	g-l	31.5	l-p	85.0	abc	54.09	a-h	561	a-f
DP 1646 B2XF	1030	a-f	43.9	d-i	4.5	j-m	1.21	ab	31.8	l-o	83.9	d-j	54.16	a-h	558	a-f
PX3C06 W3FE	1033	a-f	42.8	j-m	4.6	e-j	1.14	h-l	29.8	qr	82.5	op	53.64	i-l	555	a-g
PX5C045 W3FE	1017	a-g	45.6	ab	4.7	d-g	1.11	n-q	32.4	f-m	84.0	d-j	53.53	klm	544	b-h
PHY 480 W3FE	992	b-g	42.8	j-m	4.2	o-r	1.13	j-n	32.6	d-m	84.8	a-d	53.95	c-k	535	b-h
UA 222 CV	982	b-g	39.4	t	4.2	opq	1.17	def	33.6	b-h	84.2	c-i	54.36	abc	534	b-h
18R411B3XF	971	b-g	42.0	mno	4.3	n-q	1.15	g-l	29.5	qr	82.7	m-p	53.75	h-k	522	a-h
DGX 14003-1 GLTP	952	c-h	42.3	k-o	4.5	h-k	1.22	a	32.3	f-m	84.2	b-h	54.23	a-f	516	c-i
DP 1845 B3XF	948	c-i	42.7	j-m	4.2	o-r	1.21	ab	33.3	b-j	83.7	f-l	54.36	abc	515	c-j
PX3D32 W3FE	928	c-i	42.3	l-o	4.3	m-p	1.18	cde	32.4	f-m	83.8	e-l	54.28	a-d	504	c-j
BX 2022 GLTP	925	c-i	42.3	k-o	4.6	e-j	1.15	f-j	33.2	b-k	83.6	f-m	54.19	a-h	501	c-j
DGX 1902 GLTP	936	c-i	45.6	ab	4.7	def	1.10	pq	30.3	pq	83.1	j-o	53.54	klm	501	c-j
DG 3555 B3XF	920	d-i	43.0	i-m	4.0	t	1.17	efg	30.7	n-q	84.4	b-g	54.10	a-h	498	c-j
DG 3520 B3XF	914	d-i	42.3	l-o	4.0	st	1.19	bcd	32.8	c-l	85.5	a	54.46	a	498	c-j
DP 1725 B3XF	925	c-i	44.9	bcd	4.7	d-h	1.11	m-	29.4	qr	82.5	op	53.29	lmn	494	c-j
DG 3402 B3XF	908	d-i	43.6	g-j	4.4	l-o	1.14	g-l	32.1	i-n	83.6	f-n	54.09	a-h	492	d-k
ST 5707 B2XF	906	d-j	40.4	q-t	4.7	d-h	1.14	h-l	34.4	ab	84.1	c-i	54.13	a-h	491	d-k
PHY 500 W3FE	909	d-i	44.7	b-e	4.4	l-o	1.11	n-q	32.7	c-l	83.3	i-o	53.76	g-k	489	d-k
NG 5711 B3XF	903	d-j	42.6	j-n	4.6	e-j	1.16	e-i	31.3	m-p	83.4	g-o	54.01	b-j	488	d-k
18R445B3XF	890	e-k	43.5	hij	4.7	def	1.22	a	32.2	g-m	83.7	e-l	54.24	a-f	483	d-l
PX5E28 W3FE	856	e-l	39.9	st	4.1	qrs	1.16	e-i	33.9	a-d	83.1	j-o	54.26	a-e	464	d-m
ST 4550 GLTP	864	e-l	45.0	bc	4.6	f-k	1.11	op	33.7	b-f	84.1	c-i	53.60	jkl	463	d-m

Table 27 continued.

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/Ac)[1]	
DG H959 B3XF	849	e-l	41.6	nop	4.6	e-j	1.16	e-i	32.4	e-m	82.1	p	54.08	a-i	460	d-m
NG 3729 B2XF	843	e-l	41.6	nop	4.7	cde	1.13	j-n	31.5	l-p	84.0	d-j	53.93	c-k	454	e-m
PHY 580 W3FE	838	e-l	44.7	b-f	4.7	d-h	1.13	k-o	33.7	b-f	84.2	c-i	53.85	d-k	451	e-m
PX3D43 W3FE	832	e-l	44.2	c-h	4.7	d-h	1.11	m-	34.6	ab	84.0	d-j	54.04	a-j	450	e-m
ST 5471 GLTP	833	e-l	41.3	o-r	4.5	j-m	1.12	l-p	31.8	k-o	82.8	l-p	53.83	e-k	448	e-m
NG 4936 B3XF	830	e-l	40.8	p-s	4.3	n-q	1.15	f-j	30.3	pq	83.7	e-l	53.94	c-k	448	e-m
ST 4848 GLT	837	e-l	43.3	h-l	4.7	d-h	1.10	pq	29.4	qr	82.6	nop	53.13	mn	446	e-m
UA 107 CV	817	f-l	40.5	q-t	4.4	k-n	1.18	de	33.4	b-i	84.3	b-g	54.34	abc	444	f-m
PX5C05 W3FE	839	e-l	46.4	a	4.8	cd	1.09	q	32.3	f-m	84.7	a-e	52.55	o	442	f-m
BX 2016 GLTP	814	f-l	39.6	t	4.2	o-r	1.15	f-j	32.6	d-m	84.4	b-f	54.15	a-h	441	f-m
19XB9 B3XF	795	g-l	41.4	o-r	4.6	e-i	1.20	abc	33.8	a-e	84.7	a-e	54.34	abc	432	g-m
FM 2398 GLTP	788	g-l	44.7	b-f	4.8	cd	1.14	h-l	30.5	opq	83.6	f-n	53.83	e-k	424	h-m
FM 2498 GLT	794	g-l	43.7	e-j	5.0	b	1.15	f-k	32.3	f-m	83.9	e-k	52.90	no	423	h-m
PHY 350 W3FE	734	h-l	42.9	i-m	4.6	e-j	1.14	i-l	31.9	k-o	83.7	f-l	53.81	f-k	395	i-m
PX5E34 W3FE	723	h-l	39.9	st	4.1	rst	1.16	e-i	33.6	b-g	84.4	b-f	54.30	abc	393	i-m
UA 114 CV	721	i-l	37.9	u	4.7	d-h	1.15	f-j	34.1	abc	84.4	b-f	54.23	a-f	391	j-m
DP 1948 B3XF	677	jkl	42.0	mno	4.5	i-l	1.22	a	35.2	a	85.2	ab	54.43	ab	368	klm
BX 2076 GLTP	670	kl	43.6	f-j	4.9	bc	1.13	j-n	32.0	j-n	83.7	e-l	53.93	c-k	361	lm
FM 1953 GLTP	643	l	40.3	rst	4.2	o-r	1.16	e-i	32.2	h-m	83.7	f-l	54.20	a-g	349	m
Mean	900		42.7		4.5		1.15		32.2		83.8		53.90		485	
P>F	0.0061		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		0.0091	
LSD (P=.05)	230.02		1.079		0.160		0.023		1.409		0.954		0.448		124.83	
STD DEV	219.99		2.06		0.29		0.04		1.85		1.02		0.59		118.73	
CV%	24.46		4.83		6.37		3.23		5.74		1.22		1.10		24.48	

[1] Lint values were calculated using the 2019 Upland Cotton Loan Valuation Model from Cotton Incorporated.

AT =AllTex, ATX = AllTexExperimental, DP=DeltaPine, DPX = DeltaPine Experimental, DG= DynaGrow, FM=FiberMax, NG=NexGen, PHY=Phytogen, PX = Phytogen Experimental, SSG= Seed Source Genetics, ST= Stoneville

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