2020 Texas Panhandle
Replicated Agronomic Cotton Evaluation (RACE)

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2020 Texas Panhandle Highlights

The Texas Panhandle RACE trials provide regional producers a comparison of top cotton varieties marketed for Panhandle cotton production systems. In 2020, a series of weather events impacted cotton acres from planting through harvest. Regionally, above-average spring temperatures resulted in early planting across much of the northern Texas Panhandle, and above-average growing degree day (GDD) accumulation in May (Figs. 1 and 2). However, above-average temperatures and below-average rainfall resulted in dry soils and no trials planted in the southwestern Texas Panhandle. A June 9 windstorm affected cotton acres across the entire region resulting in blown-out fields or severe crop injury and delayed development. June and July temperatures ranging from 95°F to 108°F at field sites drove crop water demands. Timely precipitation in July coincided with the bloom period across most northern Panhandle sites, but many precipitation events were coupled with hail. Hot and dry conditions in August increased crop water demands. In September, an early cold snap (September 8-9) with low temperatures less than 40°F for 10 to 20 hours depending on the location. A low of 34°F was reached at the Dallam County trial. This weather event negatively impacted micronaire development across the northern Panhandle. An early October ice storm was the final terminating event for regional cotton fields. As a result of cumulative in-season stress, lint yield and grades were negatively impacted at most northern Panhandle trials.

The 2020 Texas Panhandle RACE Trials were planted at eight locations under varying crop rotations, row spacings and populations (Table 1). Two locations were terminated because of hail injury (Sherman/Sunray and Swisher). Early to early-mid maturing double and triple herbicide stacked varieties were planted at each location as a seed company entry or cooperating producer request.

Note: The previous version of this report included color grades representing an average of 3-replications with the exception of the Hutchinson County trial. Color grade averages were completed to show statistical significance between varieties, but because the values were an average, the reported average approximated a U.S. color grade. Color grades are a two digit number with the ones place (from 1-5) representing white, light spotted, spotted, tinged and yellow stained, respectively. More details about color grades for upland cotton can be found at: https://www.cottoninc.com/cotton-production/quality/us-cotton-fiber-chart/grades-of-us-cotton/

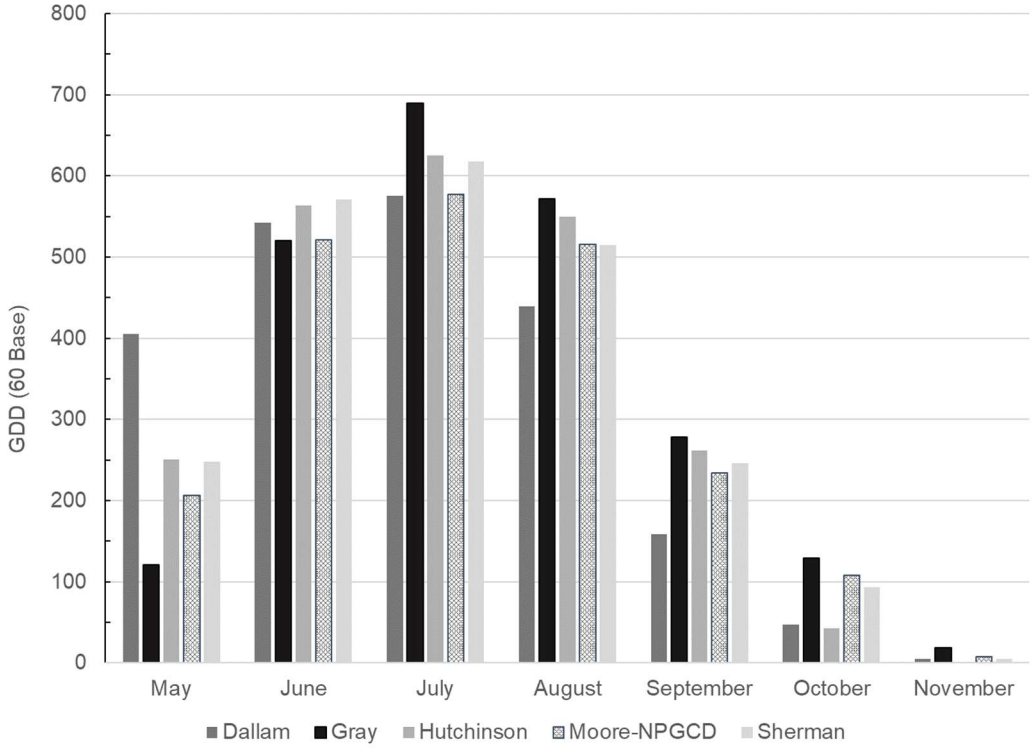

Figure 1. Monthly distribution of accumulated growing degree days (GDD60) from planting for locations where a Texas A&M AgriLife weather station is located.

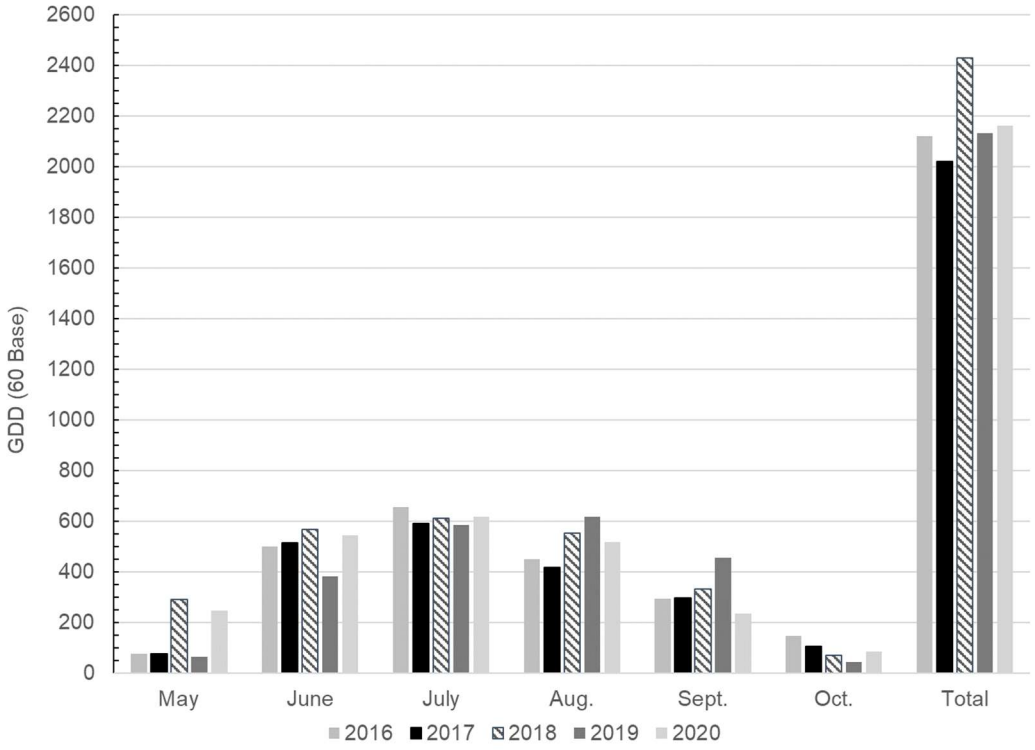

Figure 2. Five-year average growing degree days (GDD60) accumulated at Texas A&M AgriLife Panhandle RACE trial locations by production month and total seasonal accumulation.

Table 1. 2020 Agronomic information by location.

County	Dallam	Gray	Hansford	Hutchinson	Moore	Sherman	Sherman	Swisher
Location (Nearest Town)	Dallhart	Pampa	Spearman	Pringle	Etter	Gruver	Sunray	Kress
Cooperator	Jay Willard	Chandler Bowers	Quentin Shieldknight	Craig McCloy	NPGCD	Greg Slough	Tommy Cartrite	Jeremy Reed
County Agent(s)	Mike Bragg & Dennis Coker	Nick Simpson	Kristy Slough & Matt Whitely	Kristy Slough & Matt Whitely	Marcel Fischbacher & Dennis Coker	Kristy Slough & Matt Whitely	Marcel Fischbacher & Dennis Coker	-----
Irrigation	Irrigated	Irrigated	Dryland	Irrigated	Irrigated	Irrigated	Irrigated	Irrigated
In-season Precipitation (in.)*	13.03	8.01	13.79	13.79	14.20	13.39	----	----
Herbicide Technologies	Only XF	GL and XF	GL and XF	GL and XF	Only XF	GL and XF	Only XF	GL, XF, and E
Planting Date	5/15/2020	5/19/2020	5/2/2020	4/30/2020	5/6/2020	4/29/2020	5/4/2020	5/18/2020
Planting Pop. (Seeds/ac)	45,000	45,000	35,000	80,000	50,000	50,000	65,000	52,000
Soil Temp at Planting (°F) in Furrow	62	75	70	56	78	61	60	62
Harvest Date	11/19/2020	11/18/2020	10/6/2020	Partially Blown Out 11/17/2020	11/11/2020	11/9/2020	Hailed Out	Hailed Out
In-Season Conditions	Wind, Light Hail, Sept. Cold Front, Ice Storm	Wind and Sept. Cold Front, Ice Storm	Wind and Sept. Cold Front, Ice Storm	Wind and Sept. Cold Front, Ice Storm	Wind and Sept. Cold Front, Ice Storm	Wind, Light Hail, Sept. Cold Front, Ice Storm	Hailed Out	Hailed Out
Row Spacing (inches)	30	30	30	20	30	30	30	40
Varieties	DP1820 B3XF	DP1820 B3XF	DP1820 B3XF	DP1820 B3XF	DP1820 B3XF	DP1820 B3XF	DP1820 B3XF	DP1820 B3XF
ǂFarmer entry	----	----	DP1822 XF	----	----	----	----	----
	DP1908 B3XF	----	----	----	DP1908 B3XF	----	----	----
	----	----	DP1909 B3XF	----	----	----	----	----
	DP2012 B3XF	DP2012 B3XF	----	DP2012 B3XF	----	DP2012 B3XF	DP2012 B3XF	DP2012 B3XF
	----	----	DP2022B3XF	----	----	----	----	----
	----	FM1621 GL	FM1621 GL	FM1621 GL	----	FM1621 GL	----	FM1621 GL
	----	FM1888 GL	FM1888 GL	FM1888 GL	----	FM1888 GL	----	FM1888 GL
	----	----	FM2202 GL	----	----	----	----	----
	----	FM2398 GLTP	----	FM2398 GLTP	----	FM2398 GLTP	----	FM2398 GLTP
	NG2982 B3XF	NG2982 B3XF	NG2982 B3XF	NG2982 B3XF	NG2982 B3XF	NG2982 B3XF	NG2982 B3XF	NG2982 B3XF
	NG3500 XF	NG3500 XF	NG3500 XF	NG3500 XF	----	NG3500 XF	NG3500 XF	NG3500 XF
	NG3930 B3XF	NG3930 B3XF	NG3930 B3XF	NG3930 B3XF	NG3930 B3XF	NG3930 B3XF	NG3930 B3XF	NG3930 B3XF
	NG3956 B3XF	NG3956 B3XF	NG3956 B3XF	NG3956 B3XF	NG3956 B3XF	NG3956 B3XF	NG3956 B3XF	NG3956 B3XF
	ST4480 B3XF	ST4480 B3XF	ST4480 B3XF	ST4480 B3XF	----	ST4480 B3XF	ST4480 B3XF	ST4480 B3XF
	CP9210 B3XF	FM1320 GLǂ	DG3109 B2XFǂ	----	DG3385 B2XFǂ	DG3317 B3XFǂ	----	PHY350 W3FEǂ
	DP1612 B2XFǂ	----	DG3470 B3XFǂ	----	----	DG3470 B3XFǂ	----	PHY394 W3FEǂ
	NG3406 B2XFǂ	----	----	----	----	----	----	----

*Precipitation and GDD data from Texas A&M AgriLife weather stations located at the field with the exception of the Spearman/Hansford trial that used closest weather station.

Table 2. Characteristics of varieties evaluated in 2020 Panhandle RACE trials. All variety characteristics are obtained from company variety descriptions. Varieties represented in this table are entered by seed companies.

Variety	Maturity	Herbicide Package	Leaf Type	Storm Tolerance*	Plant Height	Mic	Vert.**	Bacterial Blight**
Deltapine 1820 B3XF	Early-Med	Glyphos., Glufos., and Dicamba	Semi-Smooth	3.5	Med-Tall	4.1	Moderate	Resistant
Deltapine 1822 XF	Early-Med	Glyphos., Glufos., and Dicamba	Semi-Smooth	3	Med-Tall	4.3	Moderate	Resistant
Deltapine 1908 B3XF	Very Early	Glyphos., Glufos., and Dicamba	Smooth	4	Med-Tall	3.4	Mod. Susceptible	Resistant
Deltapine 1909 B3XF	Very Early	Glyphos., Glufos., and Dicamba	Smooth	5	Med-Tall	3.6	Mod. Susceptible	Resistant
Deltapine 2012 B3XF	Early	Glyphos., Glufos., and Dicamba	Smooth	4	Med-Tall	4.3	Mod. Tolerance	Resistant
FiberMax 1621 GL	Early	Glyphosate and Glufosinate	Semi-Hairy	6	Medium	4.2	Fair	Resistant
FiberMax 1888 GL	Early-Med	Glyphosate and Glufosinate	Semi-Smooth	6	Medium	3.6	Fair	Resistant
FiberMax 2202 GL	Med	Glyphosate and Glufosinate	Semi-Smooth	5	Medium	4.6	Outstanding	Resistant
FiberMax 2398 GLTP	Med	Glyphosate and Glufosinate	Semi-Smooth	5	Med-Tall	4.4	Very Good	Resistant
NexGen 2982 B3XF	Early	Glyphos., Glufos., and Dicamba	Semi-Smooth	9	Medium	4.0-4.2	Very Good	Very Tolerant
NexGen 3500 XF	Early-Med	Glyphos., Glufos., and Dicamba	Smooth	6	Med-Tall	3.7-4.6	Very Good	Very Tolerant
NexGen 3930 B3XF	Early-Med	Glyphos., Glufos., and Dicamba	Semi-Smooth	7	Med-Tall	4.1-4.5	Very Good	Very Tolerant
NexGen 3956 B3XF	Early-Med	Glyphos., Glufos., and Dicamba	Semi-Smooth	8	Med-Tall	4.3-4.7	Very Good	Very Tolerant
Stoneville 4480 B3XF	Early-Med	Glyphos., Glufos., and Dicamba	Semi-Smooth	6	Med	4.3	Resistant	Fair

*Storm Tolerance (1-9): 1=Loose Boll, 9=Tight Boll from Company Variety Descriptions.

All variety descriptions, rankings and characteristics provided by each seed company

Table 3. Four-week post planting stand counts by location.

	Dallam	Gray	Hansford	Hutchinson	Moore-NPGCD	Sherman-Cartrite	Sherman-Slough
Planted Seeds/Acre	45,000	45,000	35,000	80,000	50,000	50,000	65,000
	---- Measured plants/acre----						
AR9210 B3XF	26,281	-----	-----	-----	-----	-----	-----
DG3109 B2XF‡	----*	-----	17,134	-----	-----	-----	-----
DG3317 B3XF‡	-----	-----	-----	-----	-----	-----	30,202
DG3385 B2XF‡	-----	-----	-----	-----	28,532	-----	-----
DG3470 B3XF‡	-----	-----	18,731	-----	-----	28,895	-----
DP1612 B2XF‡	33,686	-----	-----	-----	-----	-----	-----
DP1820 B3XF	25,120	19,602	-----	37,897	22,216	22,796	28,867
DP1822 XF	-----	-----	26,354	-----	-----	-----	-----
DP1908 B3XF	28,750	-----	-----	-----	13,504	-----	-----
DP1909 B3XF	-----	-----	20,473	-----	-----	-----	-----
DP2012 B3XF	25,991	20,909	23,522	35,719	-----	20,183	31,799
FM1320 GL‡	-----	17,424	-----	-----	-----	-----	-----
FM1621 GL	-----	21,490	22,796	34,848	-----	-----	-----
FM1888 GL	-----	22,216	22,869	53,797	-----	-----	-----
FM2202 GL	-----	-----	20,909	-----	-----	-----	-----
FM2398 GLTP	-----	29,330	-----	47,045	-----	-----	-----
NG2982 B3XF	31,799	25,846	26,136	37,462	26,354	31,218	34,412
NG3406 B2XF‡	26,281	-----	-----	-----	-----	-----	-----
NG3500 XF	22,942	21,780	22,361	28,314	-----	15,682	31,073
NG3930 B3XF	31,218	29,621	26,136	53,143	30,492	25,730	40,366
NG3956 B3XF	30,202	22,216	25,846	49,005	25,918	21,490	34,993
ST4480 B3XF	25,120	18,586	22,216	39,204	-----	15,972	29,476
Trial Average	**27,944**	**22,638**	**22,729**	**41,643**	**24,503**	**22,746**	**32,648**
CV, %	11	10	8	18	20	30	11
p-value	0.0089	<0.0001	<0.0001	0.0056	0.0005	0.0675	0.0029
LSD	5,299	3,911	3,005	12,829	6,740	NS	6,520

*Varieties not planted at the respective location. ‡Farmer entry

Sherman County-Cartrite trial failed, but stand counts measured prior to crop termination. All locations (including Hutchinson County data) represents stand counts from all 3 replications. Measurements made at Hutchinson County before the June 9 wind storm.

Table 4. Four-week post planting stand counts as a percent of the planted population.

	Dallam	Gray	Hansford	Hutchinson	Moore-NPGCD	Sherman-Cartrite	Sherman-Slough
Planted Seeds/Acre	**45,000**	**45,000**	**35,000**	**80,000**	**50,000**	**50,000**	**65,000**
	----- plants/acre as a % of planted seed-----						
AR9210 B3XF	0.58	-----	-----	-----	-----	-----	-----
DG3109 B2XF╪	-----	-----	0.49	-----	-----	-----	-----
DG3317 B3XF╪	-----	-----	-----	-----	-----	-----	0.46
DG3385 B2XF╪	-----	-----	-----	-----	0.57	-----	-----
DG3470 B3XF╪	0.75	-----	0.54	-----	-----	0.58	-----
DP1612 B2XF╪	0.56	0.44	-----	0.47	0.44	0.46	0.44
DP1820 B3XF	-----	-----	0.75	-----	-----	-----	-----
DP1822 XF	0.64	-----	-----	-----	0.27	-----	-----
DP1908 B3XF	-----	-----	0.58	-----	-----	-----	-----
DP1909 B3XF	0.58	0.46	0.67	0.45	-----	0.40	0.49
DP2012 B3XF	-----	0.39	-----	-----	-----	-----	-----
FM1320 GL╪	-----	0.48	0.65	0.44	-----	-----	-----
FM1621 GL	-----	0.49	0.65	0.67	-----	-----	-----
FM1888 GL	-----	-----	0.60	-----	-----	-----	-----
FM2202 GL	-----	0.65	-----	0.59	-----	-----	-----
FM2398 GLTP	0.71	0.57	0.75	0.47	0.53	0.62	0.53
NG2982 B3XF	0.58	-----	-----	-----	-----	-----	-----
NG3406 B2XF╪	0.51	0.48	0.64	0.35	-----	0.31	0.48
NG3500 XF	0.69	0.66	0.75	0.66	0.61	0.51	0.62
NG3930 B3XF	0.67	0.49	0.74	0.61	0.52	0.43	0.54
NG3956 B3XF	0.56	0.41	0.63	0.49	-----	0.32	0.45
ST4480 B3XF	0.62	0.50	0.65	0.52	0.49	0.45	0.50
Trial Average	**0.62**	**0.50**	**0.65**	**0.52**	**0.49**	**0.45**	**0.50**

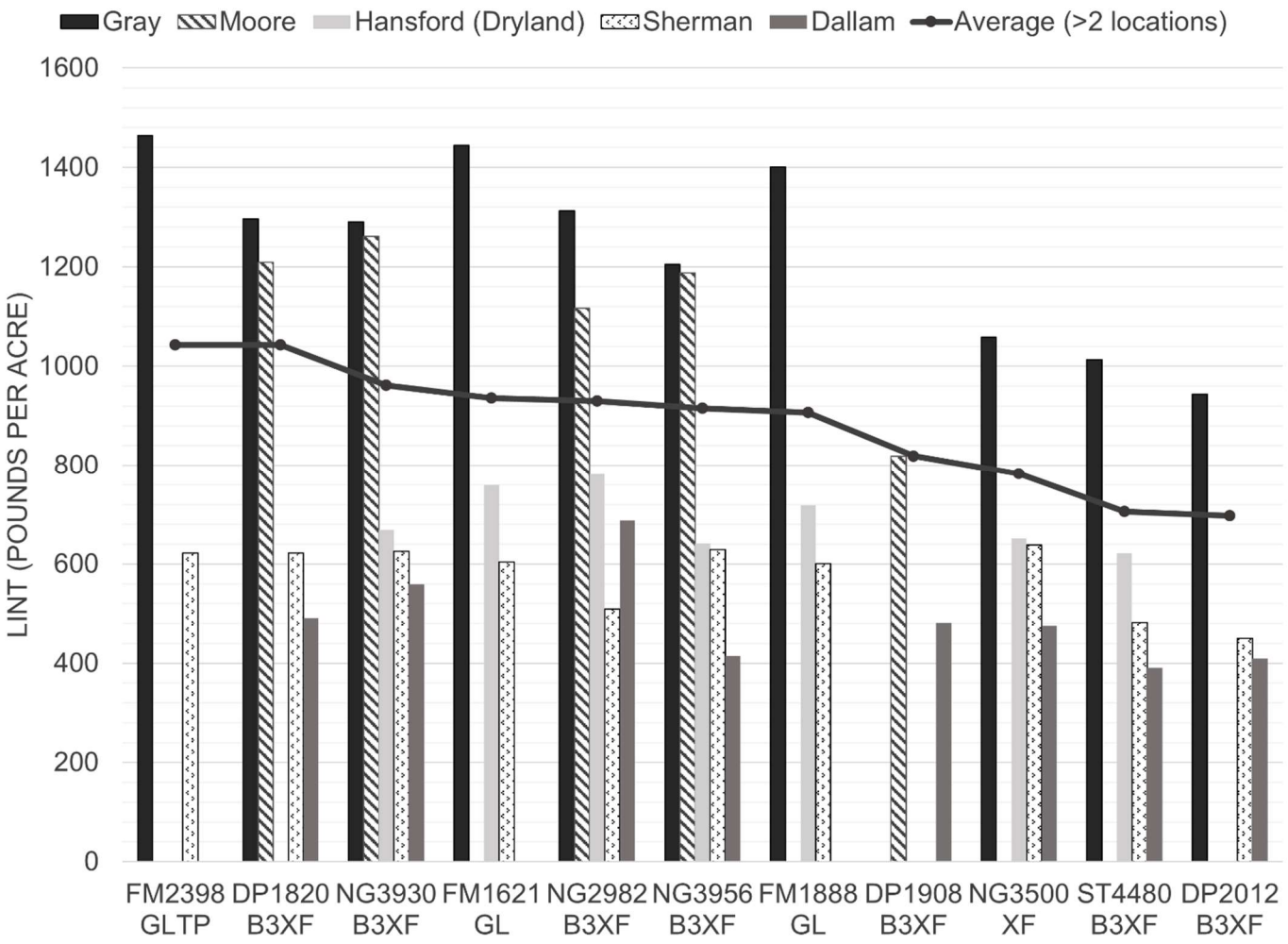

Figure 3. Lint yield from replicated trials representing varieties that are at two or more locations.

Table 5. 2020 Lint yield, quality, and value results from the Texas A&M AgriLife RACE Plots in Dallam County: Jay Willard Cooperator. Reported by maximum lint yield. Values significant at p<0.05. *farmer entry

Variety	Seed Cotton Yield --- lb/acre ---	Turnout --%--	Lint Yield --- lb/acre ---	Seed Yield --- lb/acre ---	Fiber Micro-naire	Fiber Length (in.)	Fiber Uniformity --%--	Fiber Strength (g/tex)	Leaf	Lint loan Value --cents/lb--	Lint Value --- $/acre ---	Seed Value --- $/acre ---
NG2982 B3XF	3396 a	0.20	688	910	2.26	1.06	80.0	28	3	33.83	232.67	91.01
DP1612 B2XF*	2643 b	0.24	623	815	2.49	1.09	80.0	27	2	33.28	207.04	81.53
NG3930 B3XF	2512 bc	0.22	559	733	2.24	1.11	79.5	28	1	34.20	195.57	73.35
AR9210 B3XF	2112 bcd	0.25	516	683	2.41	1.09	78.8	26	1	27.77	144.69	68.29
DP1820 B3XF	2288 bcd	0.21	491	642	2.23	1.08	78.2	26	1	28.93	141.92	64.19
DP1908 B3XF	2317 bcd	0.20	481	632	2.15	1.09	78.6	26	2	33.38	159.33	63.19
NG3500 XF	2366 bcd	0.20	475	629	2.24	1.05	78.7	26	2	29.38	138.70	62.86
NG3406 B2XF*	1927 d	0.22	433	566	2.17	1.04	78.7	26	2	25.42	109.40	56.58
NG3956 B3XF	1848 d	0.23	415	550	2.22	1.03	78.3	26	1	25.88	108.02	54.99
DP2012 B3XF	2024 cd	0.20	409	539	2.04	1.04	77.3	23	1	23.32	96.78	53.88
ST4480 B3XF	1998 cd	0.20	391	513	2.16	1.09	78.1	26	2	34.13	132.81	51.35
Test Average	**2312**	**0.22**	**498**	**656**	**2.24**	**1.07**	**78.7**	**26**	**2**	**29.96**	**151.54**	**65.56**
CV, %	15.2	9.1	17.5	17.6	4.3	1.9	0.9	5.3	37.7	8.3	18.3	17.6
p-value	0.0009	0.0594	0.0054	0.0056	0.0010	0.0004	0.0043	0.0217	0.0247	<0.0001	<0.0001	0.0056
LSD	583	NS	145	192	0.16	0.03	1.2	2.3	1.1	4.2	46.9	19.2

Means within a column with the same letter are not significantly different at the 0.05 probability level.
CV - coefficient of variation.
Value for lint based on CCC loan value from grab samples and FBRI HVI results.
Lint loan value calculated from the 2020 Upland Cotton Loan Valuation Model from Cotton Incorporated using a $0.52/pound base.
Seed value calculated using 1.41 lbs seed/lb lint and $200/ton.

Table 6. 2020 Lint yield, quality, and value results from the Texas A&M AgriLife RACE Plots in Gray County: Chandler Bowers Cooperator. Reported by maximum lint yield. Values significant at p<0.05. *farmer entry

Variety	Seed Cotton Yield --- lb/acre ---	Turnout --%--	Lint Yield --- lb/acre ---	Seed Yield --- lb/acre ---	Fiber Micro-naire	Fiber Length (in.)	Fiber Uniformity --%--	Fiber Strength (g/tex)	Leaf	Lint loan Value cents/lb	Lint Value --- $/acre ---	Seed Value --- $/acre ---
FM2398 GLTP	4860 ab	0.30	1464	2067	3.53	1.13	81.0	28	2	56.05	820.82	206.69
FM1621 GL	4767 abc	0.30	1445	2040	3.38	1.14	81.4	30	5	47.98	692.26	203.99
FM1888 GL	4897 a	0.29	1401	1978	3.29	1.13	80.2	29	3	49.57	694.13	197.77
NG2982 B3XF	4743 abc	0.28	1313	1854	3.11	1.11	81.6	31	6	42.27	554.48	185.36
DP1820 B3XF	4354 cde	0.30	1296	1831	3.15	1.18	80.8	31	2	50.33	653.14	183.06
NG3930 B3XF	4711 abc	0.27	1291	1823	3.37	1.15	82.1	28	3	52.75	680.23	182.25
FM1320 GL*	4590 abc	0.27	1217	1719	3.12	1.10	80.5	30	3	48.28	587.47	171.86
NG3956 B3XF	4440 bcd	0.27	1205	1701	3.33	1.12	80.8	28	3	50.45	607.80	170.12
NG3500 XF	3934 ef	0.27	1058	1495	3.03	1.07	81.8	30	1	47.65	505.05	149.45
ST4480 B3XF	4108 de	0.25	1013	1004	2.84	1.16	80.8	30	2	46.93	324.05	100.39
DP2012 B3XF	3569 f	0.27	944	1293	2.47	1.13	80.3	28	2	40.85	372.72	129.26
Test Average	**4452**	**0.28**	**1241**	**1709**	**3.15**	**1.13**	**81.0**	**29**	**3**	**48.46**	**590.19**	**170.93**
CV, %	5.9	6.5	7.8	14.7	4.9	1.3	0.9	3.1	31.0	4.1	14.7	14.7
p-value	<0.0001	0.0144	<0.0001	0.0005	<0.0001	<0.0001	0.0418	0.0016	<0.0001	<0.0001	<0.0001	0.0005
LSD	434	0.03	159	413	0.26	0.02	1.2	1.5	1.5	3.3	145.3	41.3

Means within a column with the same letter are not significantly different at the 0.05 probability level.
CV - coefficient of variation.
Value for lint based on CCC loan value from grab samples and FBRI HVI results.
Lint loan value calculated from the 2020 Upland Cotton Loan Valuation Model from Cotton Incorporated using a $0.52/pound base.
Seed value calculated using 1.41 lbs seed/lb lint and $200/ton.

Table 7. 2020 Lint yield, quality, and value results from the dryland Texas A&M AgriLife RACE Plots in Hansford: Quentin Shieldknight Cooperator. Reported by maximum lint yield. Values significant at p<0.05. *farmer entry

Variety	Seed Cotton Yield --- lb/acre ---	Turnout --%--	Lint Yield --- lb/acre ---	Seed Yield --- lb/acre ---	Fiber Micro-naire	Fiber Length (in.)	Fiber Uniformity --%--	Fiber Strength (g/tex)	Leaf	Lint loan Value cents/lb	Lint Value --- $/acre ---	Seed Value --- $/acre ---
FM2202 GL	1930 a	0.31	601	849	3.12	1.08	79.0	28	3	47.55	285.84	84.88
NG2982 B3XF	1895 ab	0.29	554	782	2.57	1.12	79.8	30	3	37.40	210.70	78.20
FM1621 GL	1735 bcd	0.31	538	759	3.00	1.09	77.2	27	3	44.78	240.18	75.95
FM1888 GL	1761 abc	0.28	509	719	2.88	1.08	77.3	27	4	43.30	220.48	71.87
DG3470 B3XF*	1546 e	0.31	485	684	3.39	1.03	78.5	27	1	46.23	224.16	68.45
DG3109 B2XF*	1569 de	0.30	479	676	3.07	1.09	78.9	29	4	45.83	206.72	67.61
NG3930 B3XF	1617 cde	0.29	474	669	2.72	1.08	77.6	25	2	39.88	189.31	66.91
NG3500 XF	1494 e	0.31	462	652	3.51	1.03	79.2	29	2	48.00	221.11	65.20
NG3956 B3XF	1675 cde	0.27	454	641	2.90	1.09	77.8	27	2	44.20	201.14	64.12
DP2012 B3XF	1594 cde	0.30	452	638	2.82	1.07	78.0	26	2	42.88	193.82	63.78
DP1909 B3XF	1589 cde	0.28	442	624	2.91	1.11	77.2	27	2	46.48	205.91	62.39
ST4480 B3XF	1626 cde	0.27	440	622	2.79	1.12	77.8	27	2	44.68	197.61	62.20
DP1822 XF	1557 de	0.29	429	606	2.86	1.11	77.1	27	1	44.20	189.01	60.60
Test Average	**1661**	**0.29**	**486**	**686**	**2.96**	**1.08**	**78.1**	**27**	**2**	**44.26**	**214.31**	**68.63**
CV, %	6.5	6.1	10.5	10.5	5.2	1.9	0.9	3.8	32.0	8.6	15.3	10.5
p-value	0.0011	0.0601	0.0368	0.0368	<0.0001	0.0002	0.0006	0.0006	0.0116	0.1189	0.2301	0.0368
LSD	182	NS	86	122	0.27	0.04	1.2	2	1.3	NS	NS	12.2

Means within a column with the same letter are not significantly different at the 0.05 probability level.

CV - coefficient of variation.

Value for lint based on CCC loan value from grab samples and FBRI HVI results.

Lint loan value calculated from the 2020 Upland Cotton Loan Valuation Model from Cotton Incorporated using a $0.52/pound base.

Seed value calculated using 1.41 lbs seed/lb lint and $200/ton.

Table 8. 2020 Lint yield, quality, and value results from the Texas A&M AgriLife RACE Plots in Hutchinson County: Craig McCloy Cooperator. Due to severe wind injury, 2/3 of the field was terminated. Presented data is only from one replication on the north side of the field and sorted by maximum lint yield. Because reported data is not replicated, yield and quality do not reflect variety responses to variability across the field and between plots.

Variety	Seed Cotton Yield --- lb/acre ---	Turnout --%--	Lint Yield --- lb/acre ---	Seed Yield --- lb/acre ---	Micro-naire	Fiber Length (in.)	Uniformity --%--	Strength (g/tex)	Leaf	Lint loan Value cents/lb	Lint Value --- $/acre ---	Seed Value --- $/acre ---
FM2398 GLTP	4917	0.27	1349	1905	2.61	1.17	80.7	28.5	3	42.30	570.59	172.79
FM1888 GL	4477	0.28	1273	2395	2.53	1.12	79.5	30.0	3	41.70	531.00	163.00
NG3956 B3XF	4608	0.26	1194	1686	2.38	1.15	80.6	27.9	4	36.85	439.88	152.91
NG3930 B3XF	4475	0.25	1140	1609	2.27	1.14	78.5	27.6	3	37.30	425.06	145.97
FM1621 GL	3817	0.29	1114	1573	2.67	1.16	79.4	29.2	4	40.90	455.78	142.74
NG2982 B3XF	4127	0.26	1064	1502	2.08	1.13	80.3	30.3	5	34.45	366.42	136.24
DP1820 B3XF	4188	0.25	1055	1490	2.47	1.18	78.4	30.4	2	38.15	402.46	135.13
NG3500 XF	3934	0.26	1022	1444	2.64	1.11	80.8	28.7	2	42.30	432.47	130.96
DP2012 B3XF	3437	0.24	837	1182	2.09	1.11	77.9	25.6	2	34.10	285.45	107.23
ST4480 B3XF	3062	0.24	743	1049	2.13	1.14	77.9	27.9	4	35.80	266.02	95.18
Test Average	**4104**	**0.26**	**1079**	**1583**	**2.39**	**1.14**	**79.4**	**29**	**3**	**38.39**	**417.51**	**138.22**

Value for lint based on CCC loan value from grab samples and FBRI HVI results.
Lint loan value calculated from the 2020 Upland Cotton Loan Valuation Model from Cotton Incorporated using a $0.52/pound base.
Seed value calculated using 1.41 lbs seed/lb lint and $200/ton.

Table 9. 2020 Lint yield, quality, and value results from the Texas A&M AgriLife RACE Plots located at the North Plains Groundwater Conservation District's Water Conservation Center: Stan Spain cooperator. Reported by maximum lint yield. Values significant at p<0.05. *farmer entry

Variety	Seed Cotton Yield --lb/acre--	Turnout --%--	Lint Yield --- lb/acre ---	Seed Yield --- lb/acre ---	Micro-naire	Fiber Length (in.)	Uniformity --%--	Strength (g/tex)	Leaf	Lint loan Value --cents/lb--	Lint Value --- $/acre ---	Seed Value --- $/acre ---
DG3385 B2XF*	4434 bc	0.29	1279	2167	2.73	1.13	81.15	28.75	2	45.0	575.9	216.7
NG3930 B3XF	4584 ab	0.28	1262	2138	2.48	1.17	81.55	29.75	2	40.7	515.0	213.8
DP1820 B3XF	4257 c	0.28	1210	2050	2.89	1.18	80.60	30.00	3	47.7	576.7	205.0
NG3956 B3XF	4499 bc	0.26	1188	2013	2.64	1.15	79.90	29.05	4	43.8	519.8	201.3
NG2982 B3XF	4761 a	0.23	1116	1892	2.20	1.15	80.65	30.75	6	33.1	369.4	189.2
DP1908 B3XF	3705 d	0.22	819	1388	2.16	1.14	79.10	28.75	2	37.6	307.9	138.8
Test Average	**4373**	**0.26**	**1146**	**1941**	**2.52**	**1.15**	**80.5**	**30**	**3**	**41.31**	**477.47**	**194.10**
CV, %	4.2	4.1	4.1	4.1	7.1	1.2	0.8	2.7	22.4	6.8	8.4	4.1
p-value	<0.0001	<0.0001	<0.0001	<0.0001	0.0018	0.0056	0.0068	0.0529	<0.0001	0.0002	<0.0001	<0.0001
LSD	481	0.02	125	141	0.33	0.02	1.1	1.4	1.1	5.10	107.90	14.1

Means within a column with the same letter are not significantly different at the 0.05 probability level.
CV - coefficient of variation.
Value for lint based on CCC loan value from grab samples and FBRI HVI results.
Lint loan value calculated from the 2020 Upland Cotton Loan Valuation Model from Cotton Incorporated using a $0.52/pound base.
Seed value calculated using 1.41 lbs seed/lb lint and $200/ton.

Table 10. 2020 Lint yield, quality, and value results from the Texas A&M AgriLife RACE Plots located in Sherman County: Greg Slough cooperator. Reported by maximum lint yield. Values significant at p<0.05. *farmer entry

Variety	Seed Cotton Yield --lb/acre--		Turnout --%--	Lint Yield --- lb/acre ---	Seed Yield --- lb/acre ---	Micro-naire	Fiber Length (in.)	Uniformity --%--	Strength (g/tex)	Leaf	Lint loan Value --cents/lb--	Lint Value --- $/acre ---	Seed Value --- $/acre ---
NG3500 XF	2018	a	0.32	639	902	4.18	1.03	81.5	29.7	2	51.63	331.00	81.79
NG3956 B3XF	2147	a	0.29	629	888	3.86	1.07	80.9	28.1	3	51.97	324.22	80.54
NG3930 B3XF	1987	a	0.32	626	884	3.98	1.07	81.3	27.7	2	53.85	337.12	80.17
DP1820 B3XF	1869	a	0.33	622	928	3.93	1.12	80.4	30.0	1	55.93	348.35	84.18
FM2398 GLTP	1879	a	0.33	622	878	4.17	1.08	80.8	28.2	1	54.00	335.67	79.69
FM1621 GL	1792	a	0.34	604	853	4.31	1.04	80.2	28.1	4	51.12	309.14	77.41
FM1888 GL	1923	a	0.31	600	848	3.88	1.06	79.7	28.3	3	52.87	317.49	76.91
DG3317 B3XF*	1712	a	0.30	512	723	3.95	1.04	81.2	28.1	2	51.85	266.57	65.63
NG2982 B3XF	1910	a	0.27	509	718	3.26	1.07	81.0	30.8	5	44.73	227.27	65.18
DG3470 B3XF*	1629	a	0.30	491	694	3.82	1.03	80.3	27.2	2	49.48	242.88	62.96
ST4480 B3XF	1699	a	0.28	482	680	3.74	1.11	80.4	29.1	2	54.23	260.37	61.73
DP2012 B3XF	1619	a	0.28	450	636	3.50	1.05	79.8	25.8	2	47.53	213.70	57.68
Test Average	**924**		**0.31**	**566**	**803**	**3.88**	**1.06**	**80.6**	**28**	**3**	**51.60**	**292.82**	**72.82**
CV, %	13.3		8.9	15.7	17.5	6.0	2.1	0.7	2.8	35.3	4.4	16.4	17.5
p-value	0.2457		0.0900	0.0843	0.1366	0.0006	0.0002	0.0113	<0.0001	0.0011	0.0003	0.0125	0.1379
LSD	NS		NS	NS	NS	0.42	0.04	1.1	1.4	1.6	4.1	86.6	NS

Means within a column with the same letter are not significantly different at the 0.05 probability level.

CV - coefficient of variation.

Value for lint based on CCC loan value from grab samples and FBRI HVI results.

Lint loan value calculated from the 2020 Upland Cotton Loan Valuation Model from Cotton Incorporated using a $0.52/pound base.

Seed value calculated using 1.41 lbs seed/lb lint and $200/ton.

Texas A&M AgriLife Extension collaborated with North Plains Groundwater Conservation District to provide weekly video updates rotating between RACE trials within District boundaries. The weekly video series, Cotton and Conservation, provided NPGCD cotton producers real-time agronomic updates under the respective environmental and management systems. Videos are available at:
http://northplainsgcd.org/conservationprograms/agricultural-conservation/cotton/

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http://cotton.tamu.edu