

TEXAS ROLLING PLAINS REPLICATED AGRONOMIC COTTON EVALUATION (RACE) TRIALS | 2016



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**Resigned

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Appreciation is expressed to the cooperators who provided their land, equipment, and time in assisting for preparation, planting, field management, and harvesting of these plots throughout the year. All cooperators are listed in Table 3. We would like to extend our appreciation to **Cotton Incorporated** through the **Texas State Support Committee, Americot/NexGen, Bayer CropScience, Delta Pine, and Phytogen Cottonseed** for their partial funding of these trials.

2016 HIGHLIGHT

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. To assist Texas cotton producers in remaining competitive in the Rolling Plains, the Texas A&M AgriLife Extension Service Agronomy program has been conducting, large plot, on-farm, replicated variety trials since 2012. This approach provides a good foundation of information that can be utilized to

assist farmers with the variety selection process. The results from the RACE trial are summarized in the Table 7 – Table 19.



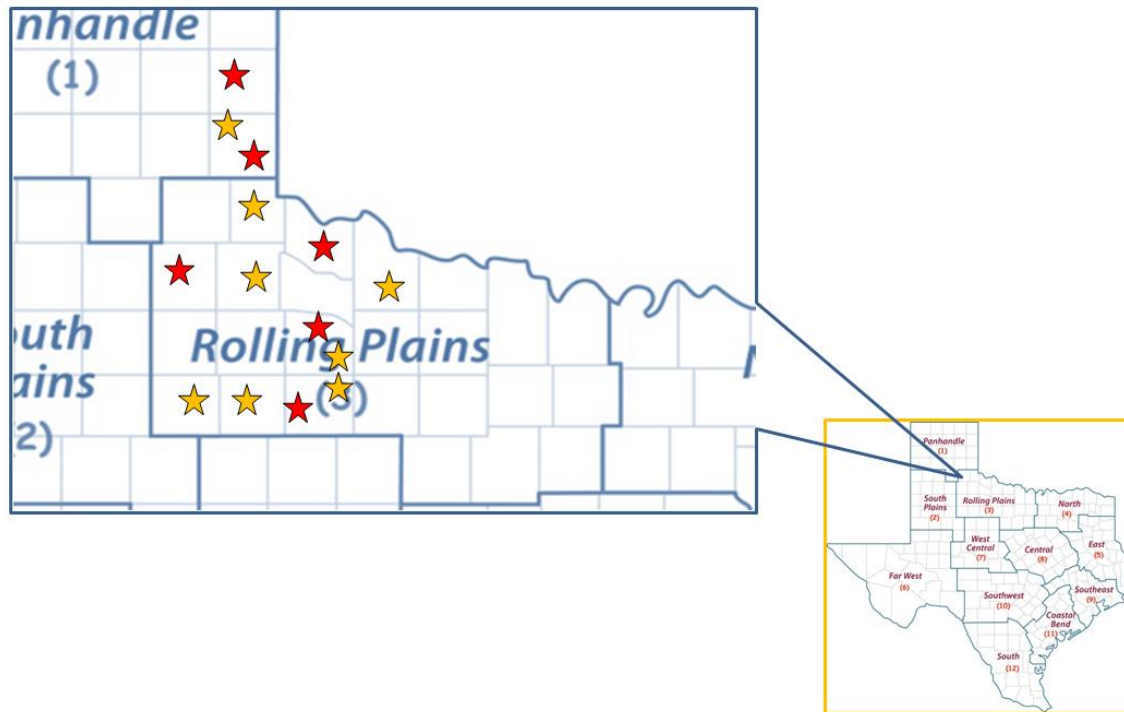


Figure 1. The 2016 RACE trial locations in the Rolling Plains of Texas. Red stars represent irrigated trials, while orange stars represent dryland trials.

The RACE trials were planted in 14 locations across the Rolling Plains in 2016, of which 13 locations were harvested. Planting dates ranged from May 10th to June 14th, while the harvesting dates ranged from November 10th to January 13 in 2017. Mean location yields for the 2016 RACE trials in the Rolling Plains ranged from 797 lb/ac (Haskell Co.) to 1974 lb/ac (Collingsworth Co.) in the irrigated sites and from 409 lb/ac (Kent Co.) to 1574 lb/ac (Haskell Co.) in the dryland sites. Average lint yields across all locations were 1209 lb/ac in irrigated sites and 930 lb/ac in dryland sites. Average yield across locations were 375 lb/ac less in irrigated and 346 lb/ac more in dryland sites than 2015 growing season.

Tables 7-19 include the RACE trial yield data and fiber analysis for each individual 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. This method consistently produces higher lint turnout percentages than would be common in a commercial gin. Consequently, higher turnouts equate to lint yields which are generally higher than area-wide commercial yields. 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. Values with same lower case letters (for example, a, b, and c) within a column are not statistically different at a 90% confidence level. Lint values were calculated using the 2016 Upland Cotton Loan Valuation Model from Cotton Incorporated.

Table 1. Variety characteristics/Highlights

Below are the cotton variety characteristics and highlights that were included in the 2016 RACE trials and other common varieties planted in these regions. These cotton variety descriptions were provided by individual seed company representatives or publicly available information.

Variety	Characteristics
Croplan 3475B2XF	Early maturity, Compact growth habit
Deltapine 1044B2RF	Mid-full maturity, Semi-smooth leaf, Fit on dryland and limited irrigation, Very good Verticillium and Bacterial Blight resistance
Deltapine 1219B2RF	Early maturity variety, Semi-smooth leaf, Medium-tall plant height Broadly adapted across Texas
Deltapine 1321B2RF	Early/medium maturity, Mid-tall plant height Widely adapted to short-season environments and management
Deltapine 1522B2XF	Early maturity, Semi-smooth, Medium height
Deltapine 1549B2XF	Full- season maturity, Semi-smooth Leaf Excellent performance under dryland and limited water situations
FiberMax 1830GLT	Early/medium maturity, TwinLink two-gene Bt protection against worm pets, Liberty and glyphosate herbicide-tolerant
FiberMax 1900GLT	Early/medium maturity, Widely adapted to full and limited irrigation production, Liberty and glyphosate tolerance for resistant weed management, TwinLink two-gene Bt protection against worm pests, such as cotton bollworm and tobacco budworm
FiberMax 2007GLT	Early-medium maturity, semi-smooth leaf, medium plant height
FiberMax 2334GLT	Medium maturity, Full tolerance to both Liberty and glyphosate herbicides Moderate growth habit that can mature later in high-moisture and late-planted situations
NexGen 1511B2RF	Medium maturity, Semi-smooth leaf, Medium to Tall plant height Moderate to aggressive plant growth regulation may be necessary, especially prior to first bloom, on highly productive soils
NexGen 3406B2XF	Early-mid maturity, Semi-smooth leaf
NexGen 4545B2XF	Medium maturity, Smooth leaf, Tall plant height Verticillium Wilt Tolerance
Phytogen 243WRF	Early maturity, Semi-smooth leaf Short-medium height
Phytogen 333WRF	Early maturity, Hairy leaf Dryland or irrigated conditions
Phytogen 339WRF	Indeterminate, very early maturing Semi-smooth leaf, Tall plant height
Phytogen 444WRF	Mid-maturity Smooth leaf and tighter in bur than other phytogen varieties
Phytogen 499WRF	Mid-maturity variety, Aggressive growth, Suited for dryland and irrigated fields, Larger seed size ~ 4,000 – 4,200 seed/lb.
Stoneville 4747GLB2	Early/Medium maturity, Full tolerance to both Liberty herbicide and glyphosate, Two Bt genes for effective management of major worm pests
Stoneville 4946GLB2	Medium maturity, Root-knot nematode tolerance Moderately aggressive growth habits

Table 2. FIBER EVALUATION

Parameters	Definition	Degrees
Micronaire (Mic)	Micronaire is a measurement of both fiber fineness and maturity.	Premium range: 3.7-4.2 Base range: 3.5-3.6 or 4.3-4.9 Discount range: 0-3.4 or >5.0
Fiber length	The average length of the longer half of the fibers.	Extra-long: >1.26 Long: 1.11-1.26 Medium: 0.99-1.10 Short: <0.99
Fiber strength	Fiber strength as measured on the High Volume Instrument is the force in grams required to break a bundle of fibers one tex unit in mass.	Very strong: > 31 Strong: 29-30 Average: 26-28 Intermediate: 24-25 Weak: < 23
Length uniformity (unif)	Length uniformity index is the ratio between the "mean length" of the fibers and the "upper half mean length".	Very high: >85 High: 83-85 Intermediate: 80-82 Low: 77-79 Very low: <77

Source: "Classification of Upland Cotton" Adapted from Cotton Incorporated website (<http://www.cottoninc.com/fiber/quality/Classification-Of-Cotton/Classification-Upland-Cotton/>)

BACKGROUND INFORMATION

Table 3. Background information of 2016 Texas A&M AgriLife Extension RACE Trials in the Rolling Plains

County	Producer cooperators	Irri/dry	Population Seeds/ac	Planting date	Harvest date	Row Spacing (inches)	Rows /plot	Acres harvested /plot
Childress	Cade Wyatt	Dryland	26000	6/13	12/28	40	8	0.53
Collingsworth	Micah Carter	Irrigated	40000	5/9	11/10	40	6	2.90
Collingsworth	Jerry Dan Davis	Dryland	30000	6/7	11/30	30	8	0.46
Cottle	Joe Smith	Dryland	NA	6/9	Unable to harvest			
Hardeman	AgriLife	Irrigated	40000	6/8	11/20	40	4	0.19
Haskell	Doug Easterling	Irrigated	41000	5/27	11/7	30	8	1.22
Haskell	Gilbert Casillias	Dryland	36000	6/14	11/21	30	4	0.23
Kent	Gary Myers	Dryland	21785	6/5	11/26	40	8	0.38
Knox	Harlan Farms	Irrigated	55000	6/15	12/19	40	8	0.37
Knox	Harlan Farms	Dryland	40000	6/14	12/12	40	8	0.77
Motley	Josh Lee	Irrigated	39000	5/27	12/14	40	1	0.001
Stonewall	Billy Kirk Meador	Dryland	19602	6/14	1/13	40	8	0.67
Wheeler	Hardcastle Farms	Irrigated	42000	5/24	11/22	40	6	0.28
Wilbarger	Donald Shoppa	Dryland	23000	6/10	1/11	40	8	0.69

BACKGROUND INFORMATION CONTD.

Table 4. Background information of 2016 Texas A&M AgriLife Extension RACE Trials in the Rolling Plains

County	Previous crop	Soil map unit name*/soil texture	Precipitation received during May to October, 2016 (in)**
Childress	Dryland	Cotton Carey loam/ very fine sandy loam, silt loam, or loam	20.5
Collingsworth	Irrigated	Oat Carey loam/ very fine sandy loam, silt loam, or loam	21.2
Collingsworth	Dryland	Carey loam/ very fine sandy loam, silt loam, or loam	21.2
Cottle	Dryland	Cotton Woodward loam/ very fine sandy loam, loam, or silt loam	21.2
Hardeman	Irrigated	Cotton Abilene clay loam/ loam, silt loam, clay loam, silty clay loam	15.4
Haskell	Irrigated	Wheat Grandfield-Devol/ loamy sand, loamy fine sand, or fine sandy loam	15.1
Haskell	Dryland	Abilene loam/ loam, silt loam, clay loam, silty clay loam	15.1
Kent	Dryland	Miles loamy fine sand/ fine sandy loam or loamy fine sand	11.8
Knox	Irrigated	Cotton Miles loamy fine sand/ fine sandy loam or loamy fine sand	17.1
Knox	Dryland	Rotan-Winters-Miles/fine sandy loam or loamy fine sand	17.1
Motley	Irrigated	Cotton Motley loam/ loam or sandy clay loam	9.9
Stonewall	Dryland	Cotton Paducah very fine/ silt loam, loam, or very fine sandy loam	15.5
Wheeler	Irrigated	Cotton Grandfield-Devol/ loamy sand, loamy fine sand, or fine sandy loam	7.3
Wilbarger	Dryland	Rotan loam/ loam, clay loam, or silty clay loam	16.0

*Soil map unit name was obtained from web soil survey. Soil texture is a representative soil texture of the soil map unit in A horizon.

**Precipitation during May to October was obtained from the nearest weather station.

VARIETY RANKING

Table 5. Irrigated trials: Variety ranking based on ling yield (lb/acre) in the Rolling Plains, 2016

Entry	Collings-worth	Haskell	Hardemann	Knox	Motley	Wheeler	AVG ranking
FM1830GLT	1	5	2	6	4	1	3.17
PHY243WRF	2	2	7	5	1	5	3.67
ST4747GLB2	5	1	4	1	7	4	3.67
NG4545B2XF	6	7	1	7	2	2	4.17
DP1522B2XF	3	4	6	4	6	3	4.33
PHY333WRF	7	3	3	2	5	6	4.33
NG3406B2XF	4	6	5	3	3	7	4.67

Table 6. Dryland trials: Variety ranking based on ling yield (lb/acre) in the Rolling Plains, 2016

Entry	Childress	Collings-worth	Haskell	Kent	Knox	Stone-wall	Wil-barger	AVG ranking
PHY444WRF	3	6	1	1	1	3	3	2.57
NG4545B2XF	2	1	6	3	2	6	1	3.00
NG3406B2XF	5	2	3	4	7	4	2	3.86
FM2007GLT	1	3	7	5	5	5	4	4.29
PHY333WRF	7	5	5	2	4	1	6	4.29
DP1522B2XF	4	4	4	7	6	2	5	4.57
ST4946GLB2	6	7	2	6	3	7	7	5.43

ON-FARM RACE TRIAL RESULTS

Table 7. Childress County RACE trial (dryland), 2016

Cooperator: Cade Wyatt

County Extension Agent: Zeb Petty

Variety	Lint (Lbs/ac)	Gin TO (%)	Mic	Fiber Length (inch)	Strength (g/tex)	Uni- formity	Loan Value (¢/lb)	Lint Value* (\$/acre)
FM2007GLT	1341	31	3.9 c	1.15 b	29 a	81	56.5 a	757
NG4545B2XF	1253	31	4.4 a	1.12 c	29 a	81	56.6 a	709
PHY444WRF	1186	32	3.5 d	1.20 a	29 a	81	56.2 a	667
DP1522B2XF	1181	30	4.1 b	1.13 bc	29 a	82	56.0 a	661
NG3406B2XF	1151	31	3.9 c	1.08 d	27 b	80	53.9 b	620
ST4946GLB2	1094	32	4.2 ab	1.10 cd	28 a	81	55.7 a	608
PHY333WRF	1087	31	3.8 c	1.12 bc	27 b	80	53.6 b	581
Mean	1185	31	4.0	1.13	28	81	55.5	657
P>F	0.4266	0.7898	<.0001	0.0001	0.0038	0.4489	0.0128	0.1881
STD DEV	90	1	0.3	0.04	1.0	0.5	1.2	61
CV %	13	5	3	2	2	1	2	12

Table 8. Collingsworth County RACE trial (irrigated), 2016

Cooperator: Micah Carter

County Extension Agent: Katy White

Variety	Lint (Lbs/ac)	Gin TO (%)	Mic	Fiber Length (inch)	Strength (g/tex)	Uni-formity	Loan Value (¢/lb)	Lint Value (\$/acre)
FM1830GLT	2408	40 ab	4.2 a	1.26 a	30 a	83 a	57.3 a	1379
Grower*	2381	44 a	4.0 a	1.24 b	29 ab	82 cd	57.0 a	1355
PHY243WRF	2091	36 b	3.5 b	1.22 c	26 d	80 f	53.8 b	1186
DP1522B2XF	2043	39 ab	4.1 a	1.18 de	28 b	83 abc	56.9 a	1162
NG3406B2XF	1999	37 b	4.1 a	1.17 e	29 ab	82 bcd	56.9 a	1141
ST4747GLB2	1886	27 c	4.0 a	1.19 d	27 cd	81 ef	54.4 b	1036
NG4545B2XF	1823	39 ab	4.1 a	1.18 de	30 a	83 ab	56.9 a	1039
PHY333WRF	1162	37 ab	3.7 b	1.18 de	28 bd	81 de	54.9 b	638
Mean	1974	37	4.0	1.20	29	82	56.0	1117
P>F	NA	0.0357	0.0010	<.0001	0.0052	0.0002	0.0078	NA
STD DEV	NA	5	0.2	0.03	1.5	1	1.4	NA
CV %	NA	13	4	1	4	1	2	NA

*Grower variety: FM1830GLT

Table 9. Collingsworth County RACE trial (Dryland), 2016

Cooperator: Jerry Dan Davis

County Extension Agent: Katy White

Variety	Lint (Lbs/ac)	Gin TO (%)	Mic	Fiber Length (inch)	Strength (g/tex)	Uni-formity	Loan Value (¢/lb)	Lint Value (\$/acre)
NG4545B2XF	1512	43	4.3 ab	1.13 c	29 abc	82 ab	56.6 b	615
Grower	1178	34	4.0 cde	1.13 bc	29 a	82 a	56.8 b	669
NG3406B2XF	1097	35	4.2 bc	1.11 c	28 c	81 bcd	56.0 c	856
FM2007GLT	1090	33	4.1 bcd	1.19 a	29 ab	81 cd	56.9 ab	621
DP1522B2XF	1029	34	4.5 a	1.14 bc	28 bc	82 a	56.6 b	582
PHY333WRF	974	32	4.1 bcd	1.14 bc	29 abc	82 ab	56.8 b	553
PHY444WRF	964	30	3.8 e	1.18 a	28 bc	81 d	57.4 a	554
ST4946GLB2	870	28	3.9 de	1.16 ab	29 abc	82 abc	56.9 ab	494
Mean	1089	34	4.1	1.15	29	82	56.7	618
P>F	0.4295	0.31	0.0030	0.0037	0.2437	0.0244	0.0197	0.4518
STD DEV	195	5	0.20	0.03	0.6	0.44	0.4	110
CV %	30	20	4	2	3	1	1	30

*Grower variety: ST4946GLB2

Table 10. Hardeman County RACE trial (Irrigated), 2016
Cooperator: Texas A&M AgriLife
County Extension Agent: Justin Gilliam

Variety	Lint (Lbs/ac)	Gin TO (%)	Mic	Fiber Length (inch)	Strength (g/tex)	Uni- formity	Loan Value (¢/lb)	Lint Value (\$/acre)
NG4545B2XF	1602 a	32 ab	4.0 ab	1.14 c	31 a	81 ab	54.7 ab	875 a
FM1830GLT	1599 a	33 a	4.1 a	1.18 a	29 bc	81 ab	56.9 a	910 a
PHY333WRF	1328 b	29 abc	3.8 b	1.15 bc	28 cd	81 ab	54.5 b	724 b
ST4747GLB2	1312 b	26 c	3.9 ab	1.16 ab	27 e	80 b	54.6 ab	717 b
NG3406B2XF	1287 b	28 bc	3.7 bc	1.13 c	30 b	82 a	55.0 ab	708 b
DP1522B2XF	1274 b	26 c	3.9 ab	1.15 bc	31 a	82 a	55.2 ab	703 b
PHY243WRF	1187 b	25 c	3.4 c	1.15 bc	28 de	79 c	52.1 c	623 b
Mean	1370	28	3.81	1.15	29	81	54.7	751
P>F	0.0207	0.0405	0.0431	0.0365	<.0001	0.0072	0.0963	0.0146
STD DEV	164	3	0.23	0.02	1.6	1.01	1.4	103
CV %	10	11	6	1	2	1	3	11

Table 11. Haskell County RACE trial (Irrigated), 2016
Cooperator: Doug Easterling
County Extension Agent: Jason Westbrook

Variety	Lint (Lbs/ac)	Gin TO (%)	Mic	Fiber Length (inch)	Strength (g/tex)	Uni-formity	Loan Value (¢/lb)	Lint Value (\$/acre)
ST4747GLB2	946	30 d	4.6 ab	1.21 a	29 bc	81 ab	54.8 ab	518 a
PHY243WRF	944	31 cd	3.9 d	1.18 ab	28 cd	81 bc	55.0 ab	518 a
Grower	885	33 abc	4.5 ab	1.13 d	28 d	80 c	54.1 bc	477 ab
PHY333WRF	845	33 abc	4.3 c	1.17 bc	29 c	82 ab	54.7 bc	462 ab
DP1522B2XF	775	34 ab	4.7 a	1.15 cd	29 bc	82 a	54.8 bc	425 ab
FM1830GLT	723	35 a	4.4 bc	1.21 a	31 a	82 ab	55.8 a	405 ab
NG3406B2XF	692	33 bc	4.6 ab	1.12 d	27 d	82 a	54.4 bc	375 ab
NG4545B2XF	571	34 ab	4.6 ab	1.14 d	30 b	82 ab	53.8 c	305 b
Mean	797	33	4.4	1.16	29	81	54.7	436
P>F	0.4859	0.0584	0.0001	0.0008	0.0002	0.0368	0.0930	0.4555
STD DEV	132	1	0.24	0.04	1.2	0.68	0.6	73
CV %	29	5	3	2	2	1	1	29

*Grower variety: DP1044

Table 12. Haskell County RACE trial (Dryland), 2016
Cooperator: Gilbert Casillias
County Extension Agent: Jason Westbrook

Variety	Lint (Lbs/ac)	Gin TO (%)	Mic	Fiber Length (inch)	Strength (g/tex)	Uni-formity	Loan Value (¢/lb)	Lint Value (\$/acre)
PHY444WRF	1721 a	36 a	3.4 b	1.19 a	29 ab	82 a	51.3	884 a
ST4946GLB2	1691 ab	34 ab	4.2 a	1.11 c	29 ab	82 a	52.9	893 a
NG3406B2XF	1621 abc	36 ab	4.2 a	1.12 c	28 c	81 bc	54.6	884 a
Grower*	1559 bc	34 ab	4.3 a	1.13 c	29 bc	81 ab	53.6	836 ab
DP1522B2XF	1548 c	36 a	4.2 a	1.13 c	28 bc	82 ab	52.8	816 b
PHY333WRF	1537 c	33 bc	4.1 a	1.13 c	28 bc	81 bc	52.7	810 b
NG4545B2XF	1522 cd	33 bc	4.1 a	1.13 c	31 a	82 a	52.8	803 bc
FM2007GLT	1392 d	31 c	4.2 a	1.17 b	28 ab	81 c	53.6	744 c
Mean	1574	34	4.1	1.14	29	82	53.0	834
P>F	0.0193	0.0605	0.0201	0.0001	0.0926	0.0194	0.2770	0.0119
STD DEV	104	2	0.30	0.03	1.0	0.57	0.9	51
CV %	6	5	7	1	4	1	3	5

*Grower variety: DP1321

Table 13. Kent County RACE trial (Dryland), 2016

Cooperator: Gary Myers

County Extension Agent: Cody Myer

Variety	Lint (Lbs/ac)	Gin TO (%)	Mic	Fiber Length (inch)	Strength (g/tex)	Uni- formity	Loan Value (¢/lb)	Lint Value (\$/acre)
PHY444WRF	514	36	4.7 d	1.19 a	30 a	82 a	56.2 a	289 a
PHY333WRF	432	33	5.2 ab	1.13 b	28 bc	81 bc	51.4 c	222 b
NG4545B2XF	418	31	5.4 a	1.11 b	29 bc	81 cd	50.6 cd	211 b
NG3406B2XF	407	34	5.2 b	1.10 bc	28 c	81 cd	51.7 c	210 b
FM2007GLT	398	29	5.0 c	1.18 a	29 a	82 ab	54.2 b	216 b
ST4946GLB2	378	32	5.3 a	1.08 c	29 ab	81 cd	49.6 d	188 b
DP1522B2XF	317	27	5.3 a	1.11 b	28 c	80 d	50.6 cd	162 b
Mean	409	32	5.2	1.13	29	81	52.0	214
P>F	0.2585	0.3157	<.0001	0.0004	0.044	0.0312	<.0001	0.0938
STD DEV	59	3	0.25	0.04	0.61	0.66	2.3	39
CV %	21	15	2	2	2	1	2	20

Table 14. Knox County RACE trial (Irrigated), 2016
Cooperator: Harlan Farms
County Extension Agent: Jerry Coplen

Variety	Lint (Lbs/ac)	Gin TO (%)	Mic	Fiber Length (inch)	Strength (g/tex)	Uni-formity	Loan Value (¢/lb)	Lint Value (\$/acre)
ST4747GLB2	1230	39	4.1 ab	1.17 c	28 d	81 c	56.8 b	697
PHY333WRF	1130	37	3.7 c	1.17 c	30 bc	83 ab	57.4 ab	649
NG3406B2XF	1033	34	3.9 bc	1.16 cd	29 cd	82 c	57.2 ab	590
DP1522B2XF	1017	35	4.2 a	1.16 cd	30 bc	82 c	56.9 b	578
PHY243WRF	992	34	3.2 d	1.21 b	30 bc	82 c	54.6 c	540
FM1830GLT	833	35	4.0 abc	1.25 a	32 a	84 a	57.8 a	480
NG4545B2XF	773	31	4.2 a	1.15 d	31 ab	82 bc	57.2 ab	443
Mean	1001	35	3.9	1.18	30	82	56.8	568
P>F	0.2234	0.2296	0.0010	<.0001	0.0083	0.0175	0.0004	0.2234
STD DEV	159	3	0.33	0.03	1.2	0.77	1.1	89
CV %	20	10	5	1	3	1	1	20

Table 15. Knox County RACE trial (Dryland), 2016
Cooperator: Harlan Farms
County Extension Agent: Jerry Coplen

Variety	Lint (Lbs/ac)	Gin TO (%)	Mic	Fiber Length (inch)	Strength (g/tex)	Uni-formity	Loan Value (¢/lb)	Lint Value (\$/acre)
PHY444WRF	795 a	40 a	4.1 c	1.13 a	28 a	80	54.8 a	436 a
NG4545B2XF	709 ab	38 ab	4.7 a	1.08 b	28 a	80	50.8 bc	363 ab
ST4946GLB2	680 abc	34 abc	4.7 a	1.08 b	29 a	81	53.5 ab	363 ab
PHY333WRF	648 bc	32 bc	4.4 b	1.09 b	26 b	80	50.4 c	326 bc
FM2007GLT	618 bc	30 c	4.5 b	1.13 a	29 a	80	54.4 a	336 bc
DP1522B2XF	597 bc	32 bc	4.7 a	1.08 b	28 a	80	50.0 c	299 bc
NG3406B2XF	542 c	28 c	4.4 b	1.04 c	26 b	80	50.2 c	271 c
Mean	656	34	4.5	1.09	28	80	52.0	342
P>F	0.1245	0.1197	<.0001	0.0027	0.0032	0.2730	0.0381	0.0743
STD DEV	82	4	0.24	0.03	1.2	0.54	2.1	53
CV %	15	15	2	2	3	1	4	17

Table 16. Motley County RACE trial (Irrigated), 2016

Cooperator: Josh Lee

County Extension Agent: Ryan Martin

Variety	Lint (Lbs/ac)	Gin TO (%)	Mic	Fiber Length (inch)	Strength (g/tex)	Uni-formity	Loan Value (¢/lb)	Lint Value (\$/acre)
PHY243WRF	1083	27	3.6 ed	1.16 b	27 d	79 d	53.1	577
NG4545B2XF	1068	28	3.7 cde	1.11 d	31 a	81 c	55.5	590
NG3406B2XF	1033	38	4.4 a	1.09 e	28 cd	81 bc	55.3	572
FM1830GLT	965	29	3.8 bcde	1.23 a	31 ab	82 ab	56.2	541
FM989*	883	25	3.4 e	1.17 b	32 a	81 abc	54.4	480
PHY333WRF	881	27	3.9 bcd	1.14 c	28 cd	82 a	56.7	499
DP1522B2XF	733	25	4.1 abc	1.12 d	29 bc	81 bc	55.7	408
ST4747GLB2	713	23	4.2 ab	1.13 c	28 b	81 c	54.7	390
Alltex7A*	675	28	3.9 bcd	1.11 d	28 cd	81 c	56.0	378
Mean	892	28	3.9	1.14	29	81	55.3	493
P>F	0.3786	0.2844	0.0403	<.0001	0.0051	0.0226	0.2305	0.4037
STD DEV	132	5	0.34	0.05	2.0	0.87	1.2	71
CV %	22	18	6	1	3	1	2	22

*Grower variety: Conventional varieties

Table 17. Stonewall County RACE trial (Dryland), 2016

Cooperator: Billy Kirk Meador

County Extension Agent: Cody Myers

Variety	Lint (Lbs/ac)	Gin TO (%)	Mic	Fiber Length (inch)	Strength (g/tex)	Uni-formity	Loan Value (¢/lb)	Lint Value (\$/acre)
PHY333WRF	586 a	35	4.9 b	1.13 c	27	82	51.9 cd	304 a
DP1522B2XF	571 ab	30	4.9 b	1.12 c	29	81	54.2 ab	310 a
PHY444WRF	568 abc	33	4.3 d	1.20 a	30	82	55.8 a	317 a
NG3406B2XF	521 bcd	33	4.8 b	1.06 d	27	81	52.2 bc	272 b
FM2007GLT	509 cd	31	4.6 c	1.16 b	28	82	54.7 a	278 b
NG4545B2XF	487 d	32	5.1 a	1.07 d	28	80	49.8 d	243 c
ST4946GLB2	473 d	31	5.1 a	1.06 d	29	82	50.4 cd	238 c
Mean	531	32	4.8	1.11	28	81	52.7	280
P>F	0.0547	0.2900	0.0004	<.0001	0.2787	0.1250	0.0137	0.0032
STD DEV	44	2	0.27	0.05	1.10	0.80	2.3	32
CV %	6	6	1	1	4	1	2	4

Table 18. Wheeler County RACE trial (Irrigated), 2016

Cooperator: Hardcastle Farms

County Extension Agent: Dale Dunlap

Variety	Lint (Lbs/ac)	Gin TO (%)	Mic	Fiber Length (inch)	Strength (g/tex)	Uni-formity	Loan Value (¢/lb)	Lint Value (\$/acre)
Grower	1583 a	34 a	3.3	1.20	30 a	81	55.7	880 a
FM1830GLT	1456 ab	34 a	3.3	1.21	30 a	81	55.1	800 ab
NG4545B2XF	1282 bc	32 b	3.3	1.18	29 a	81	55.2	705 bc
DP1522B2XF	1269 bc	30 c	3.2	1.15	27 b	80	52.7	671 c
ST4747GLB2	1249 bc	31 bc	3.2	1.16	27 b	80	52.8	659 c
PHY243WRF	1235 bc	30 c	3.0	1.17	27 b	80	52.3	646 c
PHY333WRF	1179 c	30 c	3.0	1.15	28 b	80	52.6	620 c
NG3406B2XF	1137 c	31 bc	3.3	1.13	27 b	81	52.8	600 c
Mean	1299	32	3.2	1.17	28	80	53.7	698
P>F	0.1104	0.0007	0.6289	0.2581	0.0022	0.1471	0.4770	0.0293
STD DEV	148	2	0.12	0.03	1.3	0.68	1.4	96
CV %	14	3	8	3	3	1	5	13

*Grower variety: FM2011

Table 19. Wilbarger County RACE trial (Dryland), 2016

Cooperator: Donald Shoppa

County Extension Agent: Langdon Reagan

Variety	Lint (Lbs/ac)	Gin TO (%)	Mic	Fiber Length (inch)	Strength (g/tex)	Uni-formity	Loan Value (¢/lb)	Lint Value (\$/acre)
NG4545B2XF	1200 a	32	5.3 a	1.05 e	27 d	81	49.2 c	590 abc
NG3406B2XF	1139 a	34	4.7 c	1.07 de	27 cd	81	52.9 b	602 ab
PHY444WRF	1117 ab	33	4.2 e	1.15 a	29 a	81	56.2 a	628 a
FM2007GLT	1040 bc	30	4.5 d	1.12 b	28 bc	80	54.1 b	561 bcd
DP1522B2XF	1033 bc	31	5.0 b	1.08 cd	27 cd	81	52.7 b	544 cd
PHY333WRF	1007 c	32	4.5 d	1.10 bc	27 cd	80	53.8 b	541 cd
ST4946GLB2	1004 c	31	4.8 c	1.07 de	28 ab	81	52.6 b	528 d
Mean	1077	32	4.7	1.09	28	81	53.1	571
P>F	0.0256	0.3169	<.0001	0.0003	0.0157	0.5128	0.0004	0.0436
STD DEV	75	1	0.36	0.03	1.0	0.41	2.1	37
CV %	6	6	1	2	3	1	2	6



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