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TEXAS A&M AGRILIFE EXTENSION

ROLLING PLAINS REPLICATED AGRONOMIC COTTON EVALUATION (RACE) TRIALS, 2015

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REPLICATED AGRONOMIC COTTON EVALUATION (RACE)

ROLLING PLAINS OF TEXAS, 2015

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Appreciation is expressed to the cooperators that 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 1. We would like to extend our appreciation to **Cotton Incorporated** through the **Texas State Support Committee**, **Americot/NexGen**, **Bayer CropScience**, **Croplan Genetics, Delta Pine, and Phytogen Cottonseed** for their partial funding of these trials.

2015 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.

From the latest data available, transgenic varieties accounted for 99% of the state acreage again in 2015. According to the USDA-Agricultural Marketing Service "Cotton Varieties Planted 2015 Crop" survey, the estimated percentage of upland cotton planted to specific Brands in Texas are as follows: Alltex had 4.0%, Americot/NexGen had 8.2%, Bayer CropScience – FiberMax had 34.5%, Bayer CropScience – Stoneville had 12.9%, Croplan Genetics had 0.5%, Delta Pine had 21.9%, Dyna-Grow had 7.2%, and Phytogen had 9.4%. During the 2015 cotton growing season, total upland cotton production was estimated to 5.75 million bales (down 7% from 2014) with 613 lb/ac (down 31 lb/ac from 2014) in Texas. Texas upland cotton was harvested from 4.5 million acres in 2015 down 2% from 2014 (USDA NASS-January 2106).

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 for the past four years. 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 2 – Table 14. In addition, we have been evaluating the use of TopGuard® for Cotton Root Rot control to help farmers control cotton root rot. In 2015, we evaluated the effect of application methods and TopGuard rates on cotton stand density and lint yield. The results for the Cotton Root Rot Control trials are summarized in the Table 15- Table 16.

The RACE trials were planted in ten locations across the Rolling Plains in 2015. Planting was two to three weeks delayed as compared to 2014 RACE trials due to the excessive rain events during April to June. Planting dates ranged from May 26th to June 23rd, while the harvesting dates ranged from November 11th to December 17th in 2015, resulting the study duration of 153-186 days (Table 2). Mean location yields for the 2015 RACE trials in the Rolling Plains ranged from 886 lb/ac (Knox Co) to 2415 lb/ac (Collingsworth Co) in the irrigated sites and from 265 lb/ac (Collingsworth Co) to 793 lb/ac (Motley Co) in the dryland sites. Average lint yields across all locations were 1584 lb/ac in irrigated sites and 534 lb/ac in dryland sites. Despite the late planting in 2015, average yield across locations were 11 % and 16 % higher than average yields in 2014 RACE trials in the irrigated and dryland sites, respectively. The delayed planting may have been compensated by the heat unit (range: 2419 to 3171) given during 2015 growing season (Table 2). However, it is recommended to pay attention to the maturity of each variety and select appropriate maturity level for the season.

Tables 2 - 16 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.

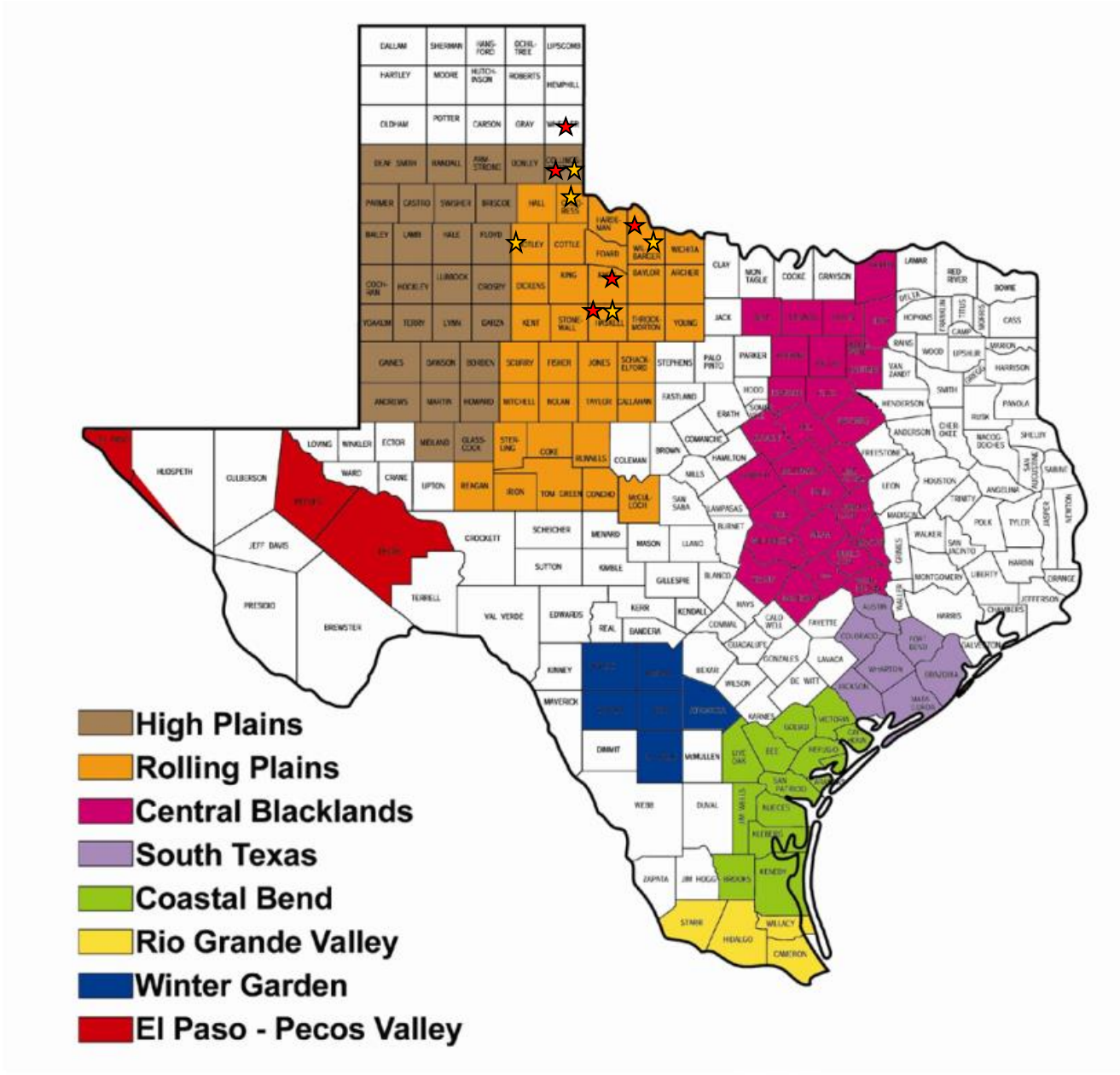

Figure 1. Cotton production regions of Texas. Red stars represent irrigated RACE trial sites, while yellow stars represent dryland RACE trial sites in the Rolling Plains in 2015.

Table 1. Variety characteristics/Highlights

Below are the cotton variety characteristics and highlights that were included in the 2015 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 ▪ Excellent fiber package coupled with high yield potential
Deltapine 1321B2RF	▪ Early/medium maturity ▪ Mid-tall plant height ▪ Excellent fiber quality potential ▪ Widely adapted to short-season environments and management
Deltapine 1219B2RF	▪ Early maturity variety ▪ Medium-tall plant height ▪ Semi-smooth leaf ▪ Broadly adapted across Texas ▪ Good combination of yield and fiber quality
Deltapine 1044B2RF	▪ Semi-smooth leaf ▪ Mid-full maturity ▪ Excellent fit on dryland and limited irrigation ▪ Very good Verticillium and Bacterial Blight resistance
Deltapine 1549B2XF	▪ Semi-smooth Leaf ▪ Full- season maturity ▪ Manage closely with PGR with irrigation or strong growing conditions ▪ Excellent performance under dryland and limited water situations
FiberMax 2334GLT	▪ Medium maturity ▪ Full tolerance to both Liberty and glyphosate herbicides ▪ Broad-spectrum lepidopteran insect protection utilizing tow Bt genes ▪ Moderate growth habit that can mature later in high-moisture and late-planted situations

Table 1. Continued

Variety	Characteristics
FiberMax 1900GLT	▪ Early/medium maturity ▪ Excellent storm tolerance ▪ High gin turnout ▪ Improved micronaire and strength over FM 2484B2F ▪ Excellent yield potential and fiber quality ▪ Widely adapted to full and limited irrigation production ▪ Good early season vigor ▪ Liberty and glyphosate tolerance for resistant weed management ▪ TwinLink two-gene Bt protection against worm pests, such as cotton bollworm and tobacco budworm
NexGen 1511B2RF	▪ Medium maturity ▪ Semi-smooth leaf ▪ Excellent seedling vigor ▪ Medium to Tall plant height ▪ Moderate to aggressive plant growth regulation may be necessary, especially prior to first bloom, on highly productive soils ▪ Broad adaptation across soil types, geographies, and production systems ▪ Well adapted to irrigated or dryland throughout all areas of Texas ▪ High turnout and very good fiber quality
NexGen 3406B2XF	▪ Early-mid maturity ▪ Semi-smooth leaf ▪ Excellent fiber quality and turnout ▪ Broadly adapted variety for the US cotton belt
Phytogen 333WRF	▪ Early maturity ▪ Excellent seedling vigor ▪ Outstanding fiber quality package ▪ Dryland or irrigated conditions ▪ Hairy leaf
Phytogen 339WRF	▪ Indeterminate, very early maturing ▪ Semi-smooth leaf ▪ Tall plant height ▪ Excellent seedling vigor

Table 1. Continued

Variety	Characteristics
Phytogen 499WRF	▪ Mid-maturity variety with exceptional yield potential and very high turnout ▪ Aggressive growth ▪ Consistent across soils and environments, suited for dryland and irrigated fields ▪ Outstanding seedling vigor and early season growth ▪ Larger seed size ~ 4,000 – 4,200 seed/lb.
Stoneville 4747GLB2	▪ Early/Medium maturity ▪ Full tolerance to both Liverty herbicide and glyphosate ▪ Two Bt genes for effective management of major worm pests
Stoneville 4946GLB2	▪ Medium maturity ▪ High yield potential ▪ Root-knot nematode tolerance ▪ Moderately aggressive growth habits ▪ Adapted across all cotton-growing regions

Table 2. Background information of 2015 Texas A&M AgriLife Extension RACE Trials in the Rolling Plains

County	Producer cooperators	Irri/dry	Population Seeds/ac	Planting date	Harvest date	Duration (days)	Heat Unit	Row Spacing (inches)	Plot width	Acres harvested /plot
Childress	Cade Wyatt	Dryland	26000	6/22	12/17	178	2419	40	8 rows	.49
Collingsworth	Rex Henard	Irrigated	40000	5/27	11/14	171	2866	40	6 rows	.86
Collingsworth	Jason Wischkaemper	Dryland	32000	6/5	12/8	186	2754	40	6 rows	.41
Haskell	Doug Easterling	Irrigated	39000	6/11	11/18	160	2824	40	8 rows	.76
Haskell	Gilbert Casillias	Dryland	36000	6/3	11/3	153	2941	32	6 rows	.53
Knox	Jeremy Sanders	Irrigated	31363	6/6	11/9	156	3110	40	6 rows	.52
Motley	Hal Martin	Dryland	26500	6/6	11/25	172	2739	40	1 row	.001
Wheeler	Hardcastle Farms	Irrigated	45000	5/26	11/24	182	2763	40	6 rows	.22
Wilbarger	Layne Chapman	Irrigated	45650	6/3	11/12	162	3171	40	8 rows	.36
Wilbarger	Donald Shoppa	Dryland	23000	6/23	12/10	170	2733	40	8 rows	1.05

Table 3. Irrigated trials: Variety ranking based on ling yield (lb/acre) in the Rolling Plains, 2015

Entry	Collingsworth	Knox	Wheeler	AVG ranking
ST4747GLB2	3	3	3	3
FM2334GLT	4	5	1	3.3
CL3475B2XF	1	4	7	4
DP1321B2RF	7	1	4	4
PHY333WRF	5	2	5	4
PHY339WRF	2	6	6	4.7
NG3406B2XF	6	7	2	5

*Haskell and Wilbarger irrigated sites were not included in the ranking due to lack of replications on yield data.

Table 4. Dryland trials: Variety ranking based on ling yield (lb/acre) in the Rolling Plains, 2015

Entry	Childress	Collingsworth	Haskell	Motley	Wilbarger	AVG ranking*
PHY333WRF	5	2	2	3	1	2.5
ST4946GLB	2	3	5	1	5	2.8
PHY499WRF	3	1	3	5	3	3.2
CL3475B2XF	6	6	1	2	4	3.7
FM1900GLT	1	4	7	6	6	4.8
NG3406B2XF	7	5	4	7	2	5.2
DP1044B2RF	4	7	6	4	7	5.8

Table 5. Childress County RACE trial (dryland), 2015

Cooperator: Cade Wyatt

Zeb Petty, County Extension Agent; Dr. Emi Kimura, Extension Agronomist; and Jonathan Ramirez, Extension Assistant

Variety	Lint (Lbs/ac)	Turnout %	Micronaire	Length (inch)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)
FM1900GLT	664 a	32 ab	4.3 a	1.16 ab	32.2 a	82.5 bcd	52.3 a	347 a
ST4946GLB2	626 a	32 bc	4.3 a	1.15 ab	31.7 a	83.6 a	48.5 b	304 a
PHY499WRF	618 a	31 bc	4.3 a	1.12 bc	31.8 a	82.9 abc	50.3 ab	312 a
DP1044B2RF	597 a	30 c	4.3 a	1.10 c	29.5 b	81.8 d	50.6 ab	303 a
PHY333WRF	581 a	31 bc	4.1 a	1.17 a	31.9 a	83.3 ab	53.0 a	309 a
CL3475B2XF	564 a	34 a	4.5 a	1.11 bc	31.1 a	82.2 cd	50.7 ab	286 a
NG3406B2XF	549 a	34 a	4.6 a	1.10 c	29.2 b	82.7 abcd	52.9 a	291 a
Mean	**600**	**32**	**4.3**	**1.13**	**31.3**	**82.7**	**51.2**	**307**
P>F	0.6814	0.0027	0.8005	0.0386	0.0074	0.0121	0.1600	0.8705
STD DEV	80.2	1.5	0.3	0.04	1.3	0.8	2.1	46
CV %	14.2	2.8	6.9	2.3	2.7	0.6	3.6	16.8

Table 6. Collingsworth County RACE trial (Irrigated), 2015

Cooperator: Rex Henard

Katy White, County Extension Agent; Dr. Emi Kimura, Extension Agronomist; and Jonathan Ramirez, Extension Assistant

Variety	Lint (Lbs/ac)	Turnout %	Micronaire	Length (inch)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)
NG1511B2RF	2491 a	37 a	4.1 a	1.15 de	31.5 a	83.7 ab	55.2 a	1374 a
CL3475B2XF	2415 ab	37 a	3.9 ab	1.14 e	30.9 a	82.9 abc	55.7 a	1347 a
PHY339WRF	2393 ab	34 bc	3.8 bc	1.20 ab	31.3 a	83.8 a	56.8 a	1359 a
ST4747GLB2	2320 abc	34 bc	3.8 b	1.19 bc	29.7 b	82.2 c	54.9 a	1273 a
FM2334GLT	2228 bcd	36 ab	3.8 bc	1.22 a	31.2 a	82.9 abc	57.6 a	1284 a
PHY333WRF	2180 bcd	32 c	3.5 c	1.17 cd	30.9 a	81.7 c	55.9 a	1219 a
NG3406B2XF	2122 dc	33 c	3.7 bc	1.14 e	29.6 b	82.4 bc	57.0 a	1209 a
DP1321B2RF	2003 d	33 c	4.0 ab	1.16 de	31.8 a	83.7 a	56.0 a	1121 a
Mean	**2269**	**35**	**3.8**	**1.17**	**30.9**	**82.9**	**56.1**	**1273**
P>F	0.1071	0.0049	0.0304	0.0001	0.0070	0.0277	0.1964	0.2257
STD DEV	217.2	1.9	0.2	0.03	0.9	1.0	1.3	122
CV %	7.9	3.5	4.4	1.3	2.0	0.9	2.1	8.5

Table 7. Collingsworth County RACE trial (Dryland), 2015

Cooperator: Jason Wischkaemper

Katy White, County Extension Agent; Dr. Emi Kimura, Extension Agronomist; and Jonathan Ramirez, Extension Assistant

Variety	Lint (Lbs/ac)	Turnout %	Micronaire	Length (inch)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)
PHY499WRF	375 a	39 a	4.4 a	1.05 d	30.4 a	80.7 a	51.6 c	193 ab
PHY333WRF	371 a	37 a	4.2 ab	1.10 b	29.1 a	80.7 a	53.8 a	200 a
ST4946GLB	359 ab	36 a	4.1 b	1.09 bc	31.9 a	81.2 a	54.4 a	195 a
FM1900GLT	353 ab	37 a	4.1 b	1.13 a	31.6 a	80.2 a	54.4 a	192 ab
DP1219B2RF	329 bc	36 a	3.9 b	1.10 ab	31.9 a	80.3 a	54.0 a	178 b
NG3406B2XF	301 c	37 a	4.2 ab	1.07 cd	30.6 a	81.4 a	53.2 ab	160 c
CL3475B2XF	300 c	37 a	4.2 ab	1.09 bc	31.6 a	81.4 a	51.7 bc	155 c
DP1044B2RF	265 d	35 a	3.9 b	1.08 bc	30.2 a	81.0 a	51.9 bc	137 d
Mean	**332**	**37**	**4.1**	**1.09**	**30.9**	**80.9**	**53.1**	**176**
P>F	<0.0001	0.3409	0.0332	0.0033	0.1953	0.6083	<0.0001	<0.0001
STD DEV	42	1.9	0.2	0.02	1.3	0.8	1.4	24
CV %	5.6	5.1	3.9	1.4	3.9	1.0	1.7	5.4

Table 8. Haskell County RACE trial (Irrigated), 2015

Cooperator: Doug Easterling

Jason Westbrook, County Extension Agent; Dr. Emi Kimura, Extension Agronomist; and Jonathan Ramirez, Extension Assistant

Variety	Lint (Lbs/ac)[1]	Turnout %	Micronaire	Length (inch)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)[1]
CL3475B2XF	-	36 c	4.2 bc	1.11 c	31.6 a	82.5 b	54.7 c	-
DP1321B2RF	-	37 ab	4.3 ab	1.13 cb	31.0 ab	83.0 ab	56.5 ab	-
FM2334GLT	-	38 a	4.4 a	1.17 a	31.5 a	82.9 ab	57.2 a	-
NG3406B2XF	-	37 ab	4.0 c	1.11 c	29.4 cd	81.7 c	56.5 ab	-
PHY333WRF	-	35 c	4.2 bc	1.15 b	30.0 bc	83.4 a	55.6 bc	-
PHY339WRF	-	36 bc	4.2 bc	1.14 b	31.2 ab	82.9 ab	57.3 a	-
ST4747GLB2	-	35 c	4.2 ab	1.14 b	28.6 d	81.0 d	55.4 bc	-
Mean	-	**36**	**4.2**	**1.13**	**30.5**	**82.5**	**56.2**	-
P>F	-	0.0084	0.0258	0.0041	0.0043	<0.0001	0.0055	-
STD DEV	-	3.6	0.17	0.02	1.32	0.87	0.16	-
CV %	-	2.3	2.8	1.2	2.6	0.4	1.3	-

[1]Lint yields and lint values are not reported due to the lack of replication.

Table 9. Haskell County RACE trial (Dryland), 2015

Cooperator: Gilbert Casillias

Jason Westbrook, County Extension Agent; Dr. Emi Kimura, Extension Agronomist; and Jonathan Ramirez, Extension Assistant

Variety	Lint (Lbs/ac)	Turnout %	Micronaire	Length (inch)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)
CL3475B2XF	762 a	41 a	4.5 a	1.06 a	31.5 a	81.3 abc	51.1 a	391 a
PHY333WRF	706 ab	36 a	4.6 a	1.07 a	28.0 e	81.6 ab	51.5 a	364 ab
PHY499WRF	699 ab	37 a	4.7 a	1.06 a	31.9 a	81.4 ab	52.1 a	364 ab
NG3406B2XF	683 abc	36 a	4.5 a	1.04 a	28.5 de	81.7 ab	50.6 a	345 abc
ST4946GLB	677 abc	34 a	4.7 a	1.06 a	31.3 ab	82.1 a	51.9 a	351 ab
DP1044B2RF	657 bc	36 a	4.7 a	1.04 a	30.2 bc	80.7 bcd	51.3 a	337 abc
FM1900GLT	645 bc	35 a	4.7 a	1.08 a	29.3 cd	79.7 d	51.5 a	332 bc
DP1549B2XF	586 c	37 a	4.6 a	1.03 a	29.3 cd	80.1 cd	49.6 a	292 c
Mean	**677**	**36**	**4.6**	**1.06**	**30**	**81.1**	**51.6**	**347**
P>F	0.1068	0.6388	0.3249	0.0723	<0.0001	0.0293	0.3009	0.1082
STD DEV	83	4	0.1	0.02	1.5	1.0	1.2	46
CV %	10.2	10.4	3.0	1.5	2.3	0.9	2.2	11.2

Table 10. Knox County RACE trial (Irrigated), 2015

Cooperator: Jeremy Sanders

Jerry Coplen, County Extension Agent; Dr. Emi Kimura, Extension Agronomist; and Jonathan Ramirez, Extension Assistant

Variety	Lint (Lbs/ac)	Turnout %	Micronaire	Length (inch)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)
DP1321B2RF	1150 a	37 b	4.1 a	1.13 a	32.3 a	82.8 a	55.0 a	632 a
PHY333WRF	1123 a	37 b	3.7 b	1.17 a	30.7 a	82.3 a	54.9 a	617 a
ST4747GLB2	1074 ab	35 c	3.7 b	1.16 a	29.0 a	80.6 a	54.4 a	584 ab
CL3475B2XF	1044 ab	35 c	3.8 b	1.14 a	31.6 a	82.3 a	54.4 a	568 ab
FM2334GLT	1043 ab	41 a	4.1 a	1.16 a	31.2 a	82.1 a	54.9 a	573 ab
PHY339WRF	942 bc	36 bc	3.6 b	1.14 a	32.1 a	81.8 a	53.9 a	508 b
NG3406B2XF	886 c	36 bc	3.7 b	1.13 a	30.9 a	82.0 a	54.2 a	482 c
Mean	**1037**	**37**	**3.8**	**1.15**	**31.1**	**82.0**	**54.5**	**566**
P>F	0.0286	0.0003	0.0004	0.2195	0.0603	0.2436	0.6732	0.0208
STD DEV	123	1.9	0.3	0.02	1.4	1.0	0.8	70
CV %	8.5	2.4	3.3	1.8	3.5	1.1	1.5	8.6

Table 11. Motley County RACE trial (Dryland), 2015

Cooperator: Hal Martin

Ryan Martin, County Extension Agent; Dr. Emi Kimura, Extension Agronomist; and Jonathan Ramirez, Extension Assistant

Variety	Lint (Lbs/ac)	Turnout %	Micronaire	Length (inch)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)
DYN2570B2RF	801 a	26 a	3.4 bcd	1.09 a	30.4 abc	81.4 ab	54.0 ab	432 a
ST4946GLB	793 a	27 a	3.7 ab	1.11 a	33.2 a	82.2 a	56.6 a	449 a
CL3475B2XF	721 ab	26 a	3.7 ab	1.10 a	32.1 ab	81.9 ab	53.4 ab	386 ab
PHY333WRF	715 ab	29 a	3.2 a	1.10 a	27.5 d	79.5 cd	48.7 c	349 bc
DP1044B2RF	596 bc	25 a	3.9 a	1.09 a	29.8 bcd	80.6 bc	51.4 bc	307 dc
PHY499WRF	567 c	27 a	3.7 abc	1.07 a	30.8 ab	80.5 bc	51.5 bc	292 cd
FM1900GLT	531 c	27 a	3.1 d	1.12 a	27.6 cd	78.5 d	49.5 bc	262 d
NG3406B2XF	516 c	26 a	3.3 cd	1.08 a	29.4 bcd	81.2 ab	50.6 bc	263 d
Mean	**655**	**26**	**3.5**	**1.09**	**30.1**	**80.7**	**51.9**	**342**
P>F	0.0034	0.6416	0.0641	0.5016	0.0257	0.0132	0.0213	0.0012
STD DEV	135	1.8	0.4	0.02	2.1	1.3	2.9	84
CV %	8.3	7.1	6.7	2.1	4.1	0.8	3.1	8.5

Table 12. Wheeler County RACE trial (Irrigated), 2015

Cooperator: Hardcastle Farms

Dale Dunlap, County Extension Agent; Dr. Emi Kimura, Extension Agronomist; and Jonathan Ramirez, Extension Assistant

Variety	Lint (Lbs/ac)	Turnout %	Micronaire	Length (inch)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)
FM2334GLT	1725 a	38 a	3.9 b	1.22 a	32.3 a	82.9 a	55.3 bc	954 a
NG3406B2XF	1517 a	32 a	4.2 ab	1.16 b	28.5 c	81.7 bc	55.4 bc	840 a
ST4747GLB2	1489 a	33 a	4.1 ab	1.14 b	29.7 bc	81.4 c	54.7 c	815 a
DP1321B2RF	1474 a	33 a	4.1 ab	1.16 b	31.0 ab	81.7 bc	57.2 a	844 a
PHY333WRF	1465 a	30 a	3.9 b	1.18 b	31.4 a	81.9 bc	56.7 ab	829 a
NG1511B2RF[1]	1420 a	31 a	4.3 a	1.15 b	32.0 a	83.1 a	57.3 a	813 a
PHY339WRF	1407 a	32 a	3.9 b	1.16 b	31.1 ab	82.4 ab	56.6 ab	796 a
CL3475B2XF	1258 a	28 a	4.3 a	1.16 b	31.4 a	82.3 ab	55.7 bc	697 a
Mean	**1469**	**32**	**4.1**	**1.17**	**30.9**	**82.2**	**56.1**	**824**
P>F	0.5931	0.5529	0.0489	0.0205	0.0015	0.0504	0.0197	0.5411
STD DEV	222	4.6	0.2	0.03	1.5	0.8	1.2	119
CV %	15.6	14.4	4.1	1.8	2.8	0.7	1.5	14.8

Table 13. Wilbarger County RACE trial (Irrigated), 2015

Cooperator: Layne Chapman

Langdon Reagan, County Extension Agent; Dr. Emi Kimura, Extension Agronomist; and Jonathan Ramirez, Extension Assistant

Variety	Lint (Lbs/ac) [1]	Turnout %	Micronaire	Length (inch)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)[1]
CL3475B2XF	-	36 ab	4.2 a	1.13 dc	33.0 a	83.4 a	54.9 b	-
DP1219	-	30 c	4.1 a	1.10 bcd	31.4 ab	82.4 a	55.0 b	-
DP1321B2RF	-	36 ab	4.3 a	1.11 d	32.2 ab	82.4 a	54.6 b	-
FM2334GLT	-	39 a	4.3 a	1.19 a	32.7 ab	83.2 a	57.6 a	-
NG3406B2XF	-	36 ab	4.1 a	1.13 cd	31.1 bc	82.8 a	54.8 b	-
PHY333WRF	-	37 ab	3.8 b	1.15 abc	31.1 bc	83.2 a	50.8 c	-
PHY339WRF	-	36 b	3.8 b	1.16 abc	31.7 ab	82.2 a	55.0 b	-
ST4747GLB2	-	35 b	3.7 b	1.17 ab	29.3 c	81.3 a	54.7 b	-
Mean	-	**35**	**4.0**	**1.14**	**31.5**	**82.6**	**54.7**	-
P>F	-	0.0036	0.0079	0.0232	0.0449	0.2783	0.0032	-
STD DEV	-	2	0.3	0.03	1.3	0.9	1.9	-
CV %	-	3.0	3.1	1.4	2.5	0.9	1.4	-

[1]Lint yields and lint values are not reported due to the lack of replication.

Table 14. Wilbarger County RACE trial (Dryland), 2015

Cooperator: Donald Shoppa

Langdon Reagan, County Extension Agent; Dr. Emi Kimura, Extension Agronomist; and Jonathan Ramirez, Extension Assistant

Variety	Lint (Lbs/ac)	Turnout %	Micronaire	Length (inch)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)
PHY333WRF	448 a	29 abc	4.3 abc	1.06 a	29.5 a	79.9 b	47.8 a	214 a
NG3406B2XF	436 a	30 ab	4.0 c	1.04 a	30.2 a	80.1 b	50.0 a	218 a
PHY499WRF	434 a	31 a	4.8 a	1.03 a	31.2 a	81.4 a	49.0 a	213 a
CL3475B2XF	431 a	29 abc	4.3 bc	1.04 a	31.1 a	80.1 b	49.2 a	212 a
ST4946GLB	421 a	31 a	4.7 ab	1.01 a	30.2 a	80.1 b	48.5 a	204 ab
FM1900GLT	367 b	27 bc	4.4 abc	1.05 a	30.2 a	79.3 b	50.6 a	186 bc
DP1044B2RF	347 b	26 c	4.6 ab	1.06 a	30.9 a	80.3 b	50.7 a	177 c
Mean	**412**	**29**	**4.4**	**1.04**	**30.5**	**80.2**	**49.4**	**203**
P>F	0.0001	0.0275	0.0331	0.1384	0.2770	0.0403	0.1802	0.0004
STD DEV	2.5	57.2	0.3	0.02	1.1	0.8	1.8	29
CV %	6.0	6.0	5.6	1.8	3.3	0.8	3.1	6.7

Table 15. Evaluation of TopGuard® for Cotton Root Rot Control, 2015
Knox County, Munday, TX
Cooperator: Ramirez Farms
Dr. Emi Kimura, Agronomist
Dr. Jason Woodward, Plant Pathologist
Jonathan Ramirez, Extension Assistant

Method	Rate (fl oz/a)	Lint (Lbs/ac)	Turnout %	Micronaire	Length (inch)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)
Control	**0**	715 a	26 a	3.6 a	1.09 a	31.7 a	80.4 a	52 a	372 a
T-band	**4**	738 a	27 a	3.3 a	1.07 a	30.7 a	80.3 a	50 a	371 a
T-band	**6**	625 a	24 a	3.3 a	1.08 a	30.0 a	79.9 a	50 a	314 a
T-band	**8**	677 a	27 a	3.4 a	1.07 a	31.1 a	79.2 a	50 a	340 a
Post-dir	**4**	671 a	25 a	3.3 a	1.07 a	31.0 a	79.9 a	50 a	337 a
Post-dir	**8**	538 a	20 a	3.3 a	1.10 a	31.2 a	80.2 a	51 a	276 a
Y-split	**4**	691 a	29 a	3.5 a	1.08 a	31.1 a	79.8 a	51 a	353 a
Mean		**665**	**25**	**3.4**	**1.08**	**31.0**	**80.0**	**50.6**	**338**
P>F		0.3461	0.1123	0.1082	0.2401	0.8729	0.2323	0.0574	0.3177
STD DEV		105	4.1	0.2	0.01	0.7	0.6	1.5	55
CV %		15.3	14.1	4.9	1.3	2.5	0.7	2.4	15.5

Table 15. Evaluation of TopGuard® for Cotton Root Rot Control, 2015
Knox County, Munday, TX
Cooperator: Ramirez Farms
Dr. Emi Kimura, Agronomist
Dr. Jason Woodward, Plant Pathologist
Jonathan Ramirez, Extension Assistant

Rate (fl oz/a)	Depth (in)	Lint (Lbs/ac)	Turnout %	Micronaire	Length (inch)	Strength (g/tex)	Uniformity	Loan Value (¢/lb)	Lint Value ($/acre)
Control	**0**	691 a	26 a	3.3 a	1.08 a	30.9 a	79.9 a	50 a	345 a
6	**6**	714 a	28 a	3.1 a	1.09 a	29.9 a	79.8 a	49 a	348 a
6	**8**	662 a	25 a	3.2 a	1.08 a	31.2 a	80.2 a	48 a	320 a
6	**10**	673 a	25 a	3.1 a	1.09 a	31.5 a	80.1 a	49 a	330 a
8	**6**	700 a	26 a	3.1 a	1.08 a	30.9 a	79.5 a	48 a	334 a
8	**8**	623 a	25 a	3.2 a	1.09 a	31.6 a	80.5 a	50 a	311 a
8	**10**	651 a	26 a	3.1 a	1.09 a	30.6 a	79.7 a	49 a	320 a
Mean		**673**	**26**	**3.2**	**1.09**	**30.9**	**80.0**	**49**	**330**
P>F		0.9319	0.9877	0.048	0.7964	0. 5731	0.1081	0.0938	0.8843
STD DEV		128	5	0.1	0.02	1.1	1.0	2	66
CV %		21	20	3.6	2.0	3.8	1.1	2.8	22

http://cotton.tamu.edu/

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