

2015 Texas Coastal Bend and Lower Rio Grande Valley RACE and Monster Cotton Variety Trials

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Appreciation is expressed to the cooperators that provided their land, equipment and time in assisting with prepping, planting, managing and harvesting of these plots throughout the year. All cooperators are listed in Table 1. In addition, we would like to extend our appreciation to **Cotton Incorporated** through the **Texas State Support Committee** for their partial funding of these trials.

Introduction

On the following pages are the summarized results of the 2015 Replicated Agronomic Cotton Evaluation (RACE) and Monster cotton trials in the Texas Coastal Bend and Lower Rio Grande Valley. The trial locations, cooperators, and trial setup information are shown below in Table 1.

Cotton loan values were calculated using the Cotton Incorporated 2015 Upland Cotton Loan Valuation Model, standardizing all varieties to a color and leaf grade of 41-4. All data was subjected to analysis of variance (ANOVA) using JMP 11 software. Mean separation of RACE trial data was conducted using Fisher's least significant difference (LSD). Due to the large number of entries in the Monster trials, mean separation for these trials was conducted using Tukey's honestly significant difference (HSD). In these tables, means followed by different letters are significantly different from one another. **For the Weslaco Monster trial:** Only two replicates were able to be harvested, thus no statistical tests were conducted with those data, only the mean of the two replicates is reported in that table. **For the Matagorda Monster trial:** lint turnout is unusually high for all varieties, this may be attributed to large amounts of motes and immature seed in the harvested cotton that passed through the gin.

Table 1. Trial location information for 2015 Texas A&M AgriLife Extension RACE and Monster cotton variety trials.

County	Cooperator	Planting Date	Harvest Date	Row Spacing (inches)	Plot Dimensions	Irrigated or Dryland	Area Harvested/Plot (acres)
Hidalgo	Richard Drawe	3/31/15	9/8/15	40	12 rows X 865 ft	irrigated	0.79
Nueces (Corpus Christi)	AgriLife Research Farm	4/1/15	8/12/15	38	4 rows X 35 ft	dryland	0.005
San Patricio	Reider Farms	4/30/15	9/17/15	38	6 rows X 2500 ft	dryland	1.09
DeWitt	Tracy Metting	4/9/15	9/3/15, 9/4/15	38	6 rows X 1265 ft	dryland	0.55
Hidalgo (Weslaco Monster)	AgriLife Research Farm	4/2/15	8/31/15	40	2 rows X 37 ft	dryland	0.003
Nueces (Corpus Christi Monster)	AgriLife Research Farm	4/1/15	8/17/15	38	2 rows X 35 ft	dryland	0.005
Matagorda (Monster)	Hansen Farms	4/30/15	9/24/15	40	2 rows X 35 ft	dryland	0.003

HIDALGO RACE

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value (\$/Ac)	
PHY 333WRF	1777	a	45.0	a	4.4	bc	1.15	cd	29.9	cde	82.9	a	54.23	a	964	a
DP 1553B2XF	1735	a	43.0	ab	4.6	abc	1.17	c	28.6	ef	83.1	a	54.13	a	939	a
ST 4946GLB2	1697	a	40.6	bc	4.8	a	1.14	de	31.2	abc	83.3	a	54.53	a	925	a
PHY 499WRF	1666	a	42.8	ab	4.7	ab	1.14	de	32.3	a	83.6	a	54.58	a	909	a
PHY 444WRF	1618	a	42.5	ab	4.0	d	1.26	a	30.3	bcd	85.1	a	54.77	a	886	a
NG 3406B2XF	1607	a	40.3	bc	4.8	a	1.12	e	28.9	def	83.5	a	53.30	a	857	a
DP 1359B2RF	1598	a	41.5	bc	4.6	abc	1.15	cd	31.5	ab	81.7	a	54.35	a	868	a
FM 2007GLT	1588	a	39.7	c	4.3	c	1.21	b	30.7	abc	83.4	a	54.63	a	868	a
NG 5007B2XF	1551	a	41.5	bc	4.5	abc	1.15	cd	27.7	f	82.8	a	54.10	a	839	a
ST 6182GLT	1536	a	44.9	a	4.7	ab	1.14	de	28.9	def	83.3	a	54.17	a	832	a
Mean	1637		42.2		4.6		1.17		30.0		83.3		54.28		889	
P>F	0.1371		0.0079		0.0008		<0.0001		0.0001		0.1063		0.0766		0.1648	
LSD (P=.05)	NS		2.7731		0.30329		0.0258		1.5821		NS		NS		NS	
STD DEV	172.83		2.23		0.28		0.04		1.59		1.16		0.57		94.84	
CV%	10.56		5.29		6.16		3.67		5.31		1.39		1.04		10.67	

CORPUS CHRISTI RACE

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value (\$/Ac)	
PHY 333WRF	1279	a	39.9	cd	3.5	de	1.17	bc	30.8	bc	83.7	ab	53.56	ab	685	a
ST 6182GLT	1249	ab	43.7	a	3.9	ab	1.12	def	30.0	c	83.0	abc	54.20	a	677	a
ST 4946GLB2	1245	ab	38.3	fg	3.5	de	1.14	cde	32.7	a	83.7	ab	53.71	a	669	a
PHY 499WRF	1214	ab	40.2	bc	4.0	a	1.10	f	32.7	a	83.9	a	54.06	a	656	ab
PHY 444WRF	1201	abc	40.6	b	3.0	f	1.22	a	32.6	a	83.9	a	48.81	c	586	cd
FM 2007GLT	1151	bc	36.2	h	3.4	e	1.18	b	31.2	abc	83.1	abc	52.40	b	603	bc
NG 3406B2XF	1113	c	38.9	ef	3.7	bcd	1.12	ef	31.5	abc	83.7	ab	54.39	a	605	bc
NG 5007B2XF	1103	cd	40.1	bc	3.8	abc	1.13	def	30.0	c	82.4	bc	54.09	a	597	cd
DP 1219B2RF	1007	de	38.2	g	3.6	cde	1.15	cd	31.9	ab	82.8	abc	54.08	a	545	de
DP 1549B2XF	955	e	39.4	de	3.7	bcd	1.11	ef	30.7	bc	81.7	c	53.90	a	515	e
Mean	1152		39.5		3.6		1.14		31.4		83.2		53.32		614	
P>F	<0.0001		<0.0001		<0.0001		<0.0001		0.0103		0.05		<0.0001		<0.0001	
LSD (P=.05)	98.41		0.6007		0.24517		0.03229		1.7382		1.4182		1.3111		56.13	
STD DEV	120.84		1.91		0.31		0.04		1.44		1.15		1.78		65.62	
CV%	10.49		4.82		8.51		3.49		4.59		1.38		3.34		10.69	

SAN PATRICIO RACE

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value (\$/Ac)	
ST 6182GLT	1133	a	46.6	a	4.7	a	1.10	b	28.9	de	82.3	bc	53.77	ab	609	a
PHY 333WRF	1105	ab	43.6	bc	4.3	bcd	1.11	b	29.5	b-e	82.9	ab	53.70	b	593	ab
PHY 444WRF	1078	abc	44.3	bc	4.0	e	1.17	a	32.3	a	84.3	a	54.80	a	591	ab
DP 1219B2RF	1073	abc	41.7	de	4.5	abc	1.10	b	31.4	abc	82.5	bc	53.73	b	577	abc
ST 4946GLB2	1027	abcd	40.5	e	4.3	cde	1.09	b	31.5	ab	83.5	ab	53.63	b	551	a-d
NG5007B2XF	984	bcd	43.4	bcd	4.5	abc	1.09	b	29.2	cde	82.2	bc	53.23	b	523	bcd
NG 3406B2XF	973	bcd	42.7	cd	4.5	ab	1.09	b	29.8	b-e	83.0	ab	53.28	b	519	bcd
CG 3885B2XF	963	cd	44.6	b	4.6	a	1.08	bc	28.6	de	83.2	ab	52.88	bc	509	cd
DP 1549B2XF	952	cd	43.3	bcd	4.7	a	1.06	c	28.2	e	82.0	bc	52.03	c	495	d
FM 2007GLT	892	d	40.7	e	4.1	de	1.10	b	30.6	a-d	81.2	c	53.38	b	476	d
Mean	1008		43.1		4.4		1.10		30.0		82.7		53.45		544	
P>F	0.0288		<0.0001		0.0001		<0.0001		0.0147		0.0456		0.0057		0.0151	
LSD (P=.05)	136.74		1.7541		0.25338		0.02919		2.2642		1.6282		1.0474		75.597	
STD DEV	124.19		1.89		0.27		0.03		1.81		1.20		0.88		68.62	
CV%	12.20		4.39		6.13		2.94		6.05		1.45		1.66		12.61	

DEWITT RACE

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value (\$/Ac)	
PHY 333WRF	1327	a	35.5	c	3.3	e	1.14	d	29.1	de	82.6	ab	51.28	cd	680	a
PHY 444WRF	1307	ab	37.0	b	3.1	f	1.21	a	31.2	ab	83.2	a	50.33	d	659	a
ST 6182GLT	1224	bc	38.6	a	4.0	ab	1.11	cd	29.5	cd	81.4	bc	53.62	ab	657	a
NG 5007B2XF	1190	cd	35.8	bc	3.8	b	1.12	bc	27.1	f	81.5	bc	53.57	ab	637	ab
ST 4946GLB2	1189	cd	35.6	c	3.6	cd	1.12	bc	31.4	a	82.9	a	54.13	a	643	ab
CG 3885B2XF	1179	cd	38.6	a	4.0	a	1.08	de	27.9	ef	82.1	ab	53.30	ab	629	ab
NG 3406B2XF	1130	de	35.4	c	3.4	de	1.10	cd	29.6	cd	82.6	ab	52.67	abc	595	bc
FM 2007GLT	1129	de	33.4	d	3.5	de	1.14	b	30.0	bcd	81.5	bc	53.02	ab	598	bc
DP 1219B2RF	1106	de	36.0	bc	3.6	c	1.12	bc	30.6	abc	81.4	bc	54.27	a	600	bc
DP 1549B2XF	1071	e	36.6	bc	3.5	cd	1.07	e	27.5	f	80.2	c	51.92	bcd	556	c
Mean	1185		36.3		3.6		1.12		29.4		81.9		52.81		625	
P>F	<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		0.007		0.0019		0.0054	
LSD (P=.05)	86.58		1.2923		0.16828		0.02817		1.326		1.3543		1.7001		55.392	
STD DEV	108.04		1.66		0.30		0.04		1.59		1.08		1.47		53.83	
CV%	9.12		4.59		8.34		3.52		5.40		1.32		2.78		8.61	

CORPUS CHRISTI MONSTER

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value (\$/Ac)	
PHY 312WRF	1384	a	39.2	f-i	3.5	jk	1.17	b-f	32.8	b-g	83.6	a-e	53.38	abc	739	a
PHY 552WRF	1279	ab	40.5	b-f	3.6	g-j	1.16	c-h	33.8	a-e	84.2	a-d	54.34	abc	695	ab
CT15634B2RF	1250	abc	40.6	b-f	4.0	b-h	1.14	e-j	30.0	ghi	83.9	a-e	54.51	abc	681	abc
ST 4747GLB2	1212	abc	37.8	i-l	3.9	c-j	1.17	b-f	29.2	hi	82.3	def	54.16	abc	656	abc
CT15444B2XF	1211	abc	38.2	g-k	3.8	d-j	1.17	b-f	34.7	abc	85.1	a	54.90	a	665	abc
MON 15R551B2XF	1207	abc	42.0	abc	3.9	b-i	1.21	ab	31.8	c-h	83.9	a-e	54.85	a	662	abc
CT15425B2XF	1192	abc	37.7	i-l	3.5	hij	1.18	a-e	33.7	a-e	83.9	a-e	53.91	abc	643	abc
DP 1518B2XF	1183	abc	38.3	g-k	3.4	jk	1.17	b-g	30.2	f-i	83.5	a-f	53.08	abc	628	a-d
PHY 333WRF	1181	abc	39.4	f-i	3.5	ij	1.16	c-h	31.7	c-h	84.0	a-e	53.29	abc	630	a-d
UA 222	1179	abc	36.5	kl	3.6	g-j	1.20	abc	33.6	a-e	83.6	a-e	54.28	abc	640	abc
ST 4946GLB2	1179	abc	38.0	h-k	3.8	d-j	1.14	e-j	32.9	b-g	84.3	a-d	54.73	a	645	abc
AMDG 7824	1167	abc	39.5	f-i	3.8	d-j	1.08	mn	27.3	i	82.0	ef	52.41	bc	612	a-d
FM 2007GLT	1160	abc	36.5	k-l	3.6	g-j	1.19	a-d	32.8	b-g	83.2	a-f	54.20	abc	628	a-d
UA 103	1149	a-d	37.7	i-l	3.6	g-j	1.20	abc	36.2	a	84.6	ab	54.44	abc	625	a-d
MON 14R934B2XF	1147	a-d	42.4	ab	4.6	a	1.13	f-k	33.3	a-f	83.8	a-e	54.43	abc	624	a-d
PHY 444WRF	1128	a-d	40.0	c-h	3.0	k	1.22	a	33.8	a-e	83.6	a-e	49.75	d	558	a-e
NG 3405B2XF	1125	a-d	38.7	f-j	3.7	f-j	1.07	n	27.4	i	81.5	f	52.35	c	589	a-d
DP 1044B2RF	1122	a-d	36.7	jkl	3.6	g-j	1.12	g-m	31.1	e-h	82.9	b-f	54.09	abc	607	a-d
12WSTR307-2B2RF	1086	a-d	39.4	f-i	3.9	c-j	1.16	c-h	33.4	a-f	83.8	a-e	54.76	a	595	a-d
PHY 495W3RF	1077	a-d	40.3	b-g	3.9	c-j	1.08	lmn	33.5	a-e	84.2	a-d	53.63	abc	578	a-d
PHY 499WRF	1057	a-d	39.8	d-i	4.3	abc	1.10	j-n	34.1	a-e	83.8	a-e	54.08	abc	572	a-d
MON 15R525B2XF	1057	a-e	38.1	h-k	4.2	a-d	1.20	abc	33.2	a-g	84.3	a-d	54.88	a	580	a-d
CT15545B2XF	1054	a-e	41.9	a-d	3.8	e-j	1.14	e-j	34.4	a-d	83.1	a-f	54.64	ab	576	a-d
DP 1555B2RF	1042	b-e	40.5	b-f	4.0	b-g	1.16	c-h	35.5	ab	84.1	a-d	54.83	a	571	a-d
DP 1359B2RF	1036	b-e	38.6	f-k	3.7	e-j	1.14	e-j	32.1	c-h	83.0	b-f	54.61	abc	566	a-e
DG 3385B2XF	1012	b-e	38.3	g-k	3.9	d-j	1.12	g-l	31.7	c-h	84.0	a-d	54.63	ab	553	a-e
DP 1522B2XF	1009	b-e	38.1	h-k	4.1	b-e	1.12	g-l	33.1	a-g	84.2	a-d	54.76	a	553	a-e
NG 3406B2XF	1004	b-e	38.8	f-j	4.0	b-i	1.11	h-n	31.9	c-h	83.6	a-e	54.45	abc	546	b-e
DP 1219B2RF	991	b-e	37.6	i-l	3.8	d-j	1.15	d-i	33.3	a-f	83.4	a-f	54.69	a	542	b-e
CT15426B2XF	982	b-e	41.8	a-e	4.1	b-f	1.09	k-n	31.4	d-h	83.8	a-e	53.50	abc	525	b-e
NG 5007B2XF	966	b-e	39.7	e-i	4.1	b-f	1.13	f-k	30.2	f-i	82.8	b-f	54.15	abc	522	b-e
ST 6182GLT	931	b-e	42.8	a	4.3	ab	1.13	e-k	31.1	e-h	83.1	a-f	54.41	abc	507	b-e
DP 1549B2XF	925	cde	38.0	h-k	3.8	d-j	1.11	i-n	31.0	e-h	82.3	def	53.94	abc	499	cde
DP 1553B2XF	805	de	40.0	c-h	4.1	b-e	1.17	b-g	32.6	b-g	84.4	abc	54.81	a	441	de
HQ 210 CT	709	e	35.8	l	4.2	a-d	1.08	lmn	32.2	c-h	82.4	c-f	53.30	abc	378	e
Mean	1091		39.1		3.9		1.14		32.3		83.5		54.03		589	
P>F	<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001	
HSD (P=.05)	347.4		2.1561		0.45		0.04627		3.221		2.0515		2.2738		188.95	
STD DEV	179.33		1.91		0.34		0.04		2.21		1.01		1.22		96.98	
CV%	16.43		4.88		8.76		3.72		6.83		1.21		2.25		16.45	

MATAGORDA MONSTER

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value (\$/Ac)	
PHY 312WRF	1127	a	46.7	d-i	5.1	a-d	1.13	a-f	31.4	a-e	83.9	a-d	51.93	a-d	585	a
DP 1555B2RF	1075	ab	48.7	a-e	5.5	abc	1.11	b-h	29.6	c-h	82.5	a-f	51.10	a-d	548	ab
PHY 333WRF	998	abc	48.1	b-g	4.9	cd	1.11	b-h	28.7	c-h	83.2	a-f	52.60	abc	523	abc
PHY 444WRF	996	abc	48.6	a-e	4.7	d	1.18	a	31.3	a-f	84.3	abc	54.63	a	544	ab
DP 1219B2RF	976	abc	47.4	c-h	5.2	a-d	1.10	b-j	30.9	a-g	82.0	b-f	50.39	a-d	492	a-e
PHY 552WRF	972	abc	48.6	a-e	5.1	a-d	1.11	b-i	30.8	a-g	83.2	a-f	52.04	a-d	507	a-d
12WSTR307-2B2RF	966	abc	47.5	c-h	5.1	a-d	1.09	e-l	31.7	a-d	82.2	b-f	51.53	a-d	499	a-e
CT15634B2RF	956	abc	47.2	c-i	4.9	cd	1.08	f-l	29.2	c-h	83.3	a-f	52.75	abc	505	a-d
ST 4946GLB2	956	abc	45.6	g-k	5.2	a-d	1.07	g-l	30.4	a-h	83.7	a-e	50.34	a-d	479	a-e
DP 1522B2XF	940	abc	47.8	b-h	5.1	a-d	1.07	g-l	31.0	a-f	82.2	b-f	49.91	a-e	468	a-e
DP 1518B2XF	912	abc	47.4	c-h	5.1	a-d	1.12	g-l	28.7	c-h	83.5	a-f	52.18	abc	475	a-e
PHY 495W3RF	909	abc	49.2	a-d	5.2	a-d	1.05	i-l	32.0	abc	82.6	a-f	48.49	cde	440	a-e
CT15426B2RF	874	abc	49.8	a-c	5.2	a-d	1.08	f-l	29.6	c-h	83.0	a-f	49.81	a-e	434	a-e
PHY 499WRF	871	abc	48.6	a-e	5.2	a-d	1.05	h-l	30.9	a-f	82.9	a-f	49.46	b-e	430	a-e
ST 6182GLT	859	abc	50.2	ab	5.2	a-d	1.09	c-k	28.6	d-i	82.2	b-f	50.14	a-e	431	a-e
AMDG 7824	856	abc	47.4	c-h	5.2	a-d	1.03	l	25.4	ij	80.9	f	45.21	e	387	b-e
MON 15R551B2XF	850	abc	48.1	b-g	5.1	a-d	1.19	a	31.7	a-d	83.9	a-d	53.00	abc	450	a-e
DP 1553B2XF	849	abc	48.3	b-f	5.0	a-d	1.12	b-g	29.3	c-h	83.2	a-f	52.19	abc	443	a-e
ST 4747GLB2	849	abc	44.7	i-k	5.0	bcd	1.15	a-d	27.2	hij	82.3	b-f	52.76	abc	446	a-e
MON 14R934B2XF	846	abc	50.2	ab	5.7	ab	1.09	f-l	31.7	a-d	83.5	a-f	49.33	b-e	416	a-e
DP 1044B2RF	843	abc	46.7	d-i	5.1	a-d	1.07	g-l	29.9	b-h	82.7	a-f	51.14	a-d	431	a-e
DP 1359B2RF	837	abc	49.0	a-d	5.2	a-d	1.09	f-l	30.4	a-h	81.1	ef	50.70	a-d	423	a-e
CT15444B2RF	830	abc	45.5	g-k	5.2	a-d	1.15	ab	33.7	a	85.1	a	51.75	a-d	429	a-e
NG 3405B2XF	823	abc	46.1	e-j	4.7	cd	1.04	jkl	24.9	j	81.1	ef	49.33	b-e	407	a-e
NG 5007B2XF	804	abc	47.1	c-i	5.0	a-d	1.10	b-j	27.6	g-j	82.7	a-f	52.31	abc	421	a-e
UA 222	799	abc	43.9	jk	5.5	abc	1.12	b-g	30.5	a-g	82.6	a-f	51.04	a-d	407	a-e
MON 15R525B2XF	795	abc	46.2	e-j	5.4	a-d	1.15	abc	30.2	b-h	83.1	a-f	50.73	a-d	403	b-e
CT15574B2RF	789	abc	48.0	b-g	4.9	cd	1.11	b-g	29.6	c-h	81.9	c-f	52.78	abc	418	a-e
DP 1549B2XF	787	abc	48.4	a-f	5.2	a-d	1.09	d-l	30.5	a-g	81.6	def	50.44	a-d	397	b-e
CT15425B2RF	770	bc	45.8	f-j	4.7	cd	1.15	ab	33.7	a	84.6	ab	54.06	ab	417	a-e
DG 3385B2XF	769	bc	48.3	d-f	5.1	a-d	1.10	b-j	28.6	d-i	83.6	a-e	51.24	a-d	394	b-e
NG 3406B2XF	746	bc	48.0	b-g	5.1	a-d	1.08	f-l	28.1	f-j	83.2	a-f	51.01	a-d	381	b-e
FM 1900GLT	707	c	45.2	h-k	5.4	a-d	1.15	a-e	31.6	a-d	83.1	a-f	50.95	a-d	360	cde
HQ 210 CT	688	c	43.8	jk	5.2	a-d	1.04	kl	28.1	e-j	81.3	def	47.15	de	324	e
UA 103	682	c	43.0	k	5.4	a-d	1.14	a-f	30.9	a-g	83.2	a-f	51.03	a-d	348	cde
CT15545B2RF	679	c	51.0	a	5.8	a	1.11	b-g	33.1	ab	83.2	a-f	50.06	a-e	340	de
Mean	861		47.4		5.2		1.10		30.0		82.8		50.99		439	
P>F	<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001		<0.0001	
HSD (P=.05)	350.49		2.6336		0.76714		0.05908		3.3202		2.6547		4.9294		179.22	
STD DEV	151.77		2.02		0.34		0.04		2.24		1.27		2.36		81.21	
CV%	17.63		4.27		6.58		3.82		7.44		1.53		4.63		18.50	