AgriLIFE EXTENSION
Texas A&M System

UNIFORM STACKED-GENE COTTON VARIETY TRIALS

COASTAL BEND, UPPER GULF COAST, BRAZOS RIVER VALLEY, AND SOUTHERN BLACKLANDS REGIONS OF TEXAS, 2009

UNIFORM STACKED-GENE COTTON VARIETY TRIALS

COASTAL BEND, UPPER GULF COAST, BRAZOS RIVER VALLEY, AND SOUTHERN BLACKLANDS REGIONS OF TEXAS, 2009

Dr. Gaylon Morgan[1], Associate Professor and Extension Cotton Specialist
Dr. Dan D. Fromme[2], Assistant Professor and Extension Agronomist
Dale Mott[1], Extension Program Specialist – Cotton
Bradley Cowan[3], County Extension Agent
Enrique Perez[4], County Extension Agent
Anthony Netardus[5] , County Extension Agent
Joe Janak[6], County Extension Agent
Stephen Biles[7], Extension Agent - IPM
Phoenix Rogers[7], County Extension Agent
Michael Hiller[8], County Extension Agent
Brent Batchelor[9], County Extension Agent
Clyde Crumley[10], Extension Agent - IPM
Joe Mask[11], County Extension Agent
Dale Rankin[12], County Extension Agent
Dusty Tittle[13],County Extension Agent
Jared Ripple[14], Extension Agent - IPM
Robert Whitney[14],County Extension Agent

Texas AgriLife Extension Service
[1,2]Department of Soil and Crop Sciences
[1]College Station, [2]Corpus Christi, [3]Edinburg, [4]San Benito, [5]Cuero, [6]Victoria,
[7]Port Lavaca, [8]Edna, [9]Bay City, [10]Wharton, [11]Rosenberg, [12]Eagle Lake, [13]Caldwell,
and [14]Georgetown, Texas

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 outlines the Best Management Practices for variety selection.

Texas producers planted 4.9 million acres in 2009 which was similar acreage to the previous two years. In the east/south Texas regions (Coastal Bend, Upper Gulf Coast, Brazos River Valley and Blacklands), 540,000 acres were planted in 2009.

Transgenic varieties accounted for 90% of the state acreage in 2009, the same as 2008 and up from 87% in 2007. According to the USDA-Agricultural Marketing Service "Cotton Varieties Planted 2009 Crop" survey for the Corpus Christi Classing Office, about 19% of acres were Bollgard/Roundup Ready, 31% Bollgard II/Roundup Ready Flex, 14% Liberty Link and Liberty Link Bollgard II, 5% Widestrike Roundup Flex, and 9% Conventional cotton varieties. The most popular varieties for the region were: Delta Pine 161 B2RF 14 %, Delta Pine 555 BGRR – 12%, Fiber Max 832 – 9%, Delta Pine 141 B2RF - 8%, Fiber Max 840 B2RF – 6%, Fiber Max 835 LLB2 – 5%, Phytogen 375 WRF – 5%, Fiber Max 955 LLB2 - 5%, Delta Pine 449 BGRR – 4%, Fiber Max 832 LL – 4%, Delta Pine 0935 B2RF - 3%, and Delta Pine 444 BGRR – 3%.

To assist Texas cotton producers in remaining competitive in the Coastal Bend, Upper Gulf Coast, Brazos River Valley, and the Southern Blacklands regions the AgriLife Extension Cotton Agronomy program has been conducting uniform, large plot, on-farm, replicated variety trials for the past seven years (Figure 2). This approach provides a good foundation of information that can be utilized to begin the decision making process.

Thirteen locations were planted in 2009. Counties included in the variety trials were Cameron, Hildago, Nueces, DeWitt, Victoria, Calhoun, Jackson, Matagorda, Wharton, Colorado, Fort Bend, Burleson and Williamson, but only 11 made it to harvest. The 2009 season was characterized as very dry through boll fill, followed by late season rainfall which began in September and continued through the fall. Crop loss in the Coastal Bend due to poor stand establishment was about a 350,000 acres.

Commercial seed companies represented in the trials included Fibermax (FM), Stoneville (ST), Deltapine (DPL), Phytogen (PHY), Dyna-Gro (DG), Croplan Genetics (CG), and Alltex. All varieties were treated with either Aeris or Avicta Complete Pak seed treatment.

Table 1 provides a list of planting and harvest dates, row spacing and plot area for each location. Tables 4 to 14 include the cotton variety 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. Plot samples were ginned with a 10-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. Additionally, all data were standardized to a color grade and leaf of 41 - 4. Tables 2 and 3 shows numerical rankings based upon lint yield for all varieties across all locations. Only varieties that were planted at a minimum of three locations for the Lower Rio Grand Valley and Mid-Coastal Bend Counties (Table 2) and four locations for

the Upper Coastal Bend and Blacklands Counties (Table 3) were included in these two tables.

The statistical analysis indicates a general overview of the uniformity or variability of the test conditions, such as soil type, cultural practices, insect damage, etc. Trial locations with large least significant differences (LSD's) and CVs indicate a higher degree of variability. The smaller the LSD, the more precise are the test results and higher likelihood of identifying differences among varieties. Non-significance is represented as "NS" and indicates no differences among the varieties within the data column.

Varieties that are statistically different from one another will not have the same letter next to the corresponding number value in a column. For example, Table 4 (Hildago County) lint yields for the first three varieties (DG 2570, FM 1740, and CG 3220) are statistically similar (each variety followed by a common letter "a" designation). However, the first variety (DG 2570) is significantly higher than PHY 375, ST 5327, FM 840, DP 0920, DP 141 because none of which are followed by an "a" designation).

Variety Characteristics/Highlights

Below are the cotton variety characteristics and highlights that were included in the 2009 Uniform Variety Trials. These cotton variety descriptions were provided by individual seed company representatives or publicly available information.

ALLTEX Apex WRF

- Medium to medium/early maturing variety
- Good fiber package
- Good storm tolerance

CROPLAN GENETICS 3220 B2F COTTON

- Early/medium maturity variety
- Semi-smooth leaf
- Moderate plant height
- Good storm tolerance
- Early plant vigor
- Easily managed plant growth
- Premium lint quality

DeltaPine 141 B2RF

- Medium maturity variety
- Medium-tall plant height
- Semi-smooth leaf

- Outstanding fiber quality potential
- Has demonstrated high lint turnout and excellent yield potential on irrigated and good, productive soils

DeltaPine 161 B2RF
- Medium/full maturity variety
- Tall plant height
- High lint turnout
- Outstanding fiber quality potential
- Has demonstrated good tolerance to Fusarium and good tolerance to Verticillium Wilt

DeltaPine 0920 B2RF
- Early –mid maturity variety
- Medium plant height
- Semi-smooth leaf
- Widely adapted with strong performance in South Texas

DeltaPine 0935 B2RF
- Mid maturity variety
- Smooth leaf
- High gin turnout
- Nectariless trait for plant bug suppression
- Good overall fiber quality

DynaGrow 2570 B2RF
- Mid maturity variety
- Smooth leaf
- Above average height
- Excellent seedling vigor
- Reponds well to irrigation

FiberMax 840 B2F
- Medium/full maturity, okra-leaf variety
- Medium-tall plant with a vigorous growth habit
- Benefits from early season PGR applications under most conditions
- Well-adapted to South Texas

FiberMax 1740 B2F
- Early/medium maturity variety
- Medium-tall plant with a slightly bushy growth habit
- Benefits from early season PRG applications
- Features good fiber properties
- Well-adapted to all cotton growing areas
-

FiberMax 9160 B2F

- Medium maturity variety
- Medium-tall plant
- Excellent fiber package
- Benefits from early season PGR applications
- Adapted to the Southwest regions and responds well to irrigation and high management practices

HQ 212 CT

- Medium/early maturing variety
- Smooth leaf
- Produces large bolls with a cluster fruiting pattern
- Adapted to dryland and irrigated systems

Phytogen 375 WRF

- In-determinant, early maturing variety with broad adaptation
- Semi-smooth leaf
- Medium-tall plant height
- Excellent seedling vigor
- Has atypical high degree of yield stability and quality for an early maturing cotton

Phytogen 485 WRF

- Indeterminant, early-mid maturing variety with broad adaptation
- Hairy leaf
- Relatively tall plant height
- Excellent seedling vigor
- Good fiber package

Stoneville 4498 B2F

- Early/medium variety
- Medium-tall plant with compact shape
- Low PGR needs
- Features good fiber properties

Stoneville 4554B2F

- Early/medium variety
- Medium plant height with compact shape
- Responds well to PGR use
- Features good fiber properties

Stoneville 5288 B2F

- Medium maturity variety
- Features excellent seedling vigor and sets a exhibits a high level of fruiting nodes
- Well suited for irrigated and dryland conditions
- Low PGR needs
- Features good fiber properties
- Benefits from an early, aggressive harvest aid management strategy
- Well adapted to the Southwest

Stoneville 5327 B2F

- Medium maturity variety
- Features a stovepipe fruiting habit
- Aggressive growth habit, so does have a moderate PGR requirement under favorable growing conditions
- Features good fiber properties

Stoneville 5458 B2F

- Moderately aggressive growth
- Features root-knot nematode tolerance

Figure 1.

First 40 Days – Fruiting to Finish

The Most Critical Period in Cotton Production
Expert Recommendations of Best Management Practices for an Efficient, Cost Effective Cotton Production System

Variety Selection

Cultivar selection is the most important decision made in the production enterprise. This decision has a lasting effect on the crop's early-season vigor and on overall plant health and uniformity during the *First 40 Days.* The crop's ultimate yield and fiber quality potential at harvest begin with variety selection and seed quality.

❖ *Consider planting disease tolerant varieties, or those that have at least some resistance, where disease is a problem*

Choose Varieties with Genetic Potential for Higher Yield and Excellent Fiber Quality

Yield remains the ultimate measure of the crop, although the ever-increasing demand for higher fiber quality makes this factor a close second in priority. With more than 70% of the U.S. crop exported, fiber quality will become the single most important factor for U.S. cotton in the foreseeable future. International mill standards and specifications are higher than domestic mills.

❖ *Long staple length - 35 to 36 (1.08 – 1.13 inches)*
❖ *High strength - 28 to 29 g/tex*
❖ *Premium micronaire - 3.8 to 4.6*
❖ *High uniformity index - 82*
❖ *Smooth leaf with plant conformation suitable for efficient harvest - 21/31 Grades 2-3 leaf*

Plant Several Varieties: Consider Specific Traits and Crop Maturity after Yield and Quality

Consider planting 3 to 4 varieties to determine which cultivars and trait combinations perform best on your farms. Multiple varieties also minimizes the risk of planting the entire farm to a potentially poor performing variety or using traits that do not add value to the individual cropping system.

❖ *Always evaluate more than one year of variety data prior to planting large acreage to a new cultivar*

Select the Highest Quality Seed for Planting

High quality seed is critical to early success and the crop's ultimate performance. Rapid germination and emergence is best, because it narrows the window for seedling disease and minimizes pest impact. In addition to the standard warm germination test, a cool germination test is recommended. Cool/Warm Vigor Index of 160 is best (e.g. 90 warm germ + 70 cool germ = 160)

❖ *Early planting into cool soils requires the best vigor index available in the variety you are planting*
  ❖ *CWVI > 160 = Excellent*
  ❖ *CWVI 140 – 159 = Good*
  ❖ *CWVI 120 – 139 = Fair*
  ❖ *CWVI < 120 = Poor*

Figure 2 .

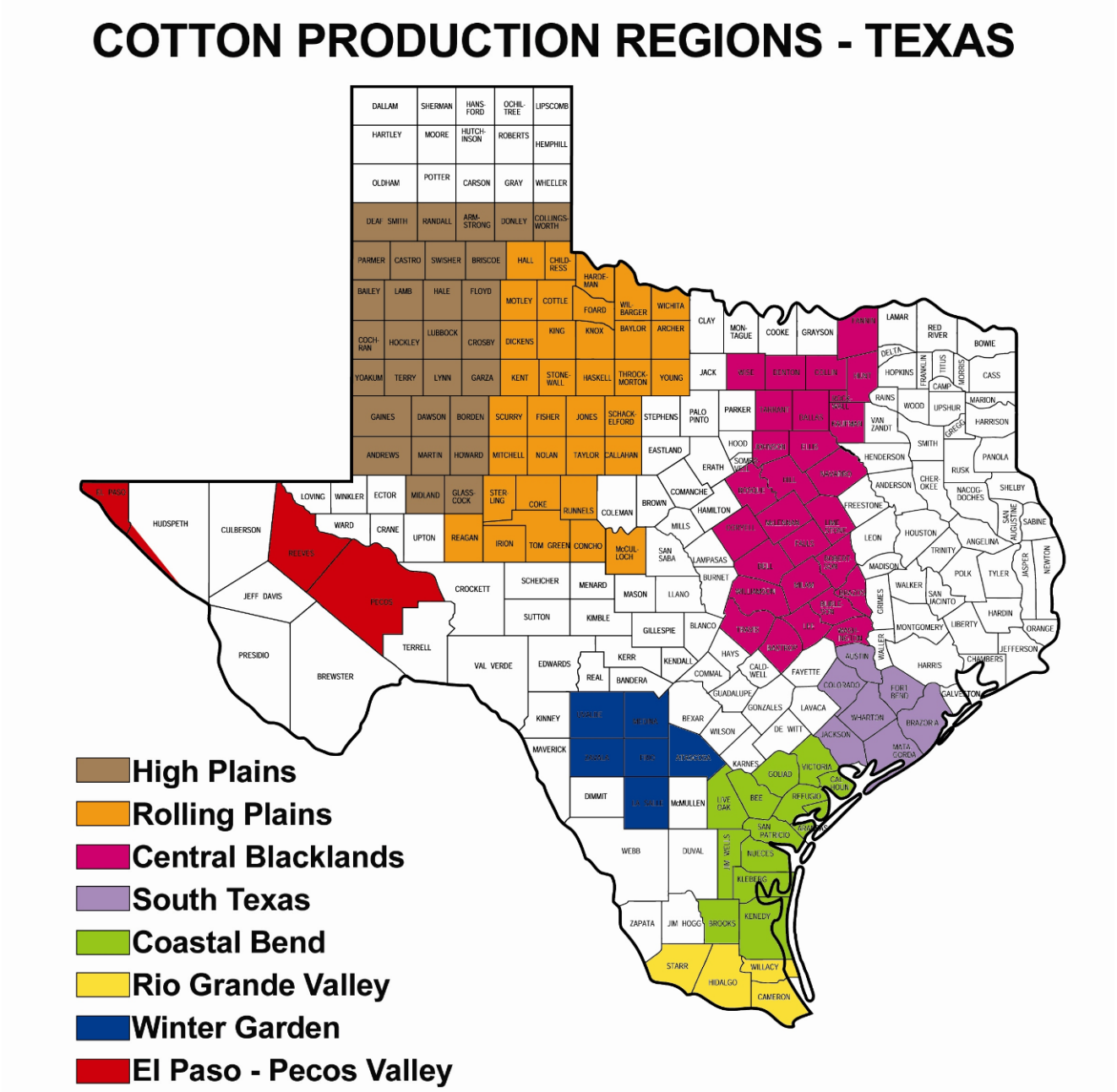
COTTON PRODUCTION REGIONS - TEXAS
High Plains
Rolling Plains
Central Blacklands
South Texas
Coastal Bend
Rio Grande Valley
Winter Garden
El Paso - Pecos Valley

Table 1. Trial, Cooperator, Planting date, harvest date, row spacing, plot dimensions and area of 2009 Texas AgriLife Extension RACE Trials harvested.

County	Coop-erator	Planting Date	Harvest Date	Row Spacing (inches)	Plot Dimensions	Irrigated or Dryland	Area harvested/plot
Cameron	James Bauer	Mar 24	Aug 21	40	6 rows x 2896 ft	Irrigated	1.33 acres
Hildago	Richard Drawe	Mar 10	Aug 7	40	12 x 700 ft	Irrigated	0.64 acres
Victoria	Jerry Leita	Mar 30	Aug 4	38	6 rows x 3480 ft	Dryland	1.52 acres
Calhoun	David Hahn	Apr 3	Aug 17	38	4 rows x 1868 ft	Dryland	0.86 acres
Dewitt	Joseph Respondek	May 8	Aug 25	38	4 rows x 1260 ft	Dryland	0.37 acres
Jackson	Dale Allen	Mar 31	Aug 17	38	8 rows x 2039 ft	Dryland	1.18 acres
Matagorda	Hansen Farms	Apr 7	Aug 10	40	8 rows x 490 ft	Dryland	0.30 acres
Fort Bend	Alan Stasney	Apr 10	Oct 19	36	6 rows x ft	Dryland	0.56 acres
Colorado	Mahaltic Farms	Apr 15	Sept 12	36	8 rows x 900 ft	Irrigated	0.50 acres
Burleson	John Mallazzo	May 8	Nov 18	40	6 rows x ft	Irrigated	0.52 acres
Williamson	Herbert Raesz	Apr 15	Aug 19	38	8 rows x 860 ft	Dryland	0.50 acres

Table 2. Variety ranking based on lint yield[1], Lower Rio Grande Valley and Mid-Coastal Bend Counties, 2009.

Variety	Trial					Mean
	Hildago	Cameron	DeWitt	Victoria	Calhoun	
FiberMax FM 1740 B2F	2	1	1			1.3
Phytogen PHY 375 WRF	4	4	4	1	1	2.8
DynaGrow DG 2570 B2F	1	5	3	2	3	2.8
Croplan Genetics CG 3220 B2RF	3	3	2	6	2	3.2
DeltaPine DP 0920 B2F	5	2	5	5	6	4.6
Phytogen PHY 485 WRF			8	4	4	5.3
FiberMax FM 840 B2F	6	6		8	5	6.3
Stoneville ST 5458 B2F			9	3	7	6.3
DeltaPine DP 141 B2F	7	7	6			6.7
FiberMax FM 9160 B2F			7	7	8	7.3

[1] Ranking is performed only on varieties that were planted at a minimum of 3 locations.

Table 3. Variety ranking based on lint yield[1], Upper Gulf Coast Counties and Blacklands, 2009.

Variety	Trial						
	Jackson	Matagorda	Fort Bend	Colorado	Brazos	Williamson	Mean
DeltaPine DP 0920 B2F	1	4	3	2	3	3	3.0
DynaGrow DG 2570 B2F	2	7	4	1	5	1	3.2
Phytogen PHY 375 WRF	5	1	2	6	4	5	3.8
Stoneville ST 5458 B2F	6	2	1	4	7		4.0
Croplan Genetics CG 3220 B2RF	3	3		5	6	4	4.2
Stoneville ST 4554 B2F	4	6	7	8	2		5.4
DeltaPine DP 0935 B2F	9	8	6	7	1	2	5.5
Phytogen PHY 485 WRF	6	5		3	9	6	5.8
FiberMax FM 9160 B2F	8	9	4	9	8	7	7.5

[1] Ranking is performed only on varieties that were planted at a minimum of 4 locations.

Table 4.
Hildago County - 2009
Cooperator: Richard Draw
Bradley Cowan, County Extension Agent

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/acre)	
DynaGrow DG 2570 B2F	1994	a	42.6	a	5.07	a	1.13	c	30.17	bc	83.93	a	51.73	de	1032	a
FiberMax FM 1740 B2F	1872	ab	42.3	a	4.83	bc	1.13	cd	29.83	bcd	82.33	a	52.88	bcd	991	ab
Croplan Genetics CG 3220 B2F	1867	ab	41.4	b	4.93	ab	1.11	cd	28.13	d	82.37	a	52.57	cd	983	abc
Phytogen PHY 375 WF	1746	bc	42.8	a	4.67	cd	1.11	d	28.47	cd	83.00	a	53.40	abc	932	abc
Stoneville ST 5327 B2F	1665	bc	42.6	a	4.83	bc	1.12	cd	31.23	ab	83.77	a	53.77	ab	895	a-d
FiberMax FM 840 B2F	1580	cd	39.7	c	4.73	cd	1.19	a	32.23	a	84.20	a	54.18	a	856	bcd
DeltaPine DP 0920 B2F	1666	bc	43.0	a	5.10	a	1.12	cd	28.40	cd	82.63	a	51.13	e	852	ab
DeltaPine DP 141 B2F	1417	d	41.1	b	4.57	d	1.16	b	30.83	ab	81.90	a	53.83	ab	763	d
Mean	**1726**		**41.9**		**4.84**		**1.14**		**29.91**		**83.02**		**52.94**		**913**	
P>(F)	0.0046		0.0001		0.0008		0.0001		0.003		0.0779		0.0006		0.0164	
LSD (P=.05)	246.7		0.9		0.2		0.02		1.9		1.7		1.2		138.7	
STD DEV	140.9		0.5		0.118		0.013		1.088		0.955		0.6622		79.2	
CV %	8.16		1.18		2.44		1.14		3.64		1.15		1.25		8.67	

Table 5.
Cameron County - 2009
Cooperator: James Bauer
Enrique Perez, County Extension Agent

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/acre)	
FiberMax FM 1740 B2F	1016	a	42.1	ab	4.63	ab	1.11	c	27.50	bc	82.73	a	53.17	a	540	a
DeltaPine DP 0920 B2F	989	a	41.5	bc	4.80	ab	1.11	bc	27.77	bc	82.83	a	53.40	a	528	a
Croplan Genetics CG 3220 B2F	986	a	40.3	de	4.57	ab	1.11	c	27.97	b	82.93	a	53.13	a	524	a
Phytogen PHY 375 WF	985	a	41.5	bc	4.50	bc	1.08	c	26.33	c	82.40	a	52.22	a	515	ab
Stoneville ST 5327 B2F	968	a	41.1	cd	4.67	ab	1.09	c	28.53	b	83.00	a	53.07	a	514	ab
DynaGrow DG 2570 B2F	975	a	42.5	a	4.87	a	1.09	c	27.90	b	83.23	a	52.57	a	513	ab
FiberMax FM 840 B2F	871	b	38.5	f	4.23	c	1.18	a	31.17	a	84.37	a	54.22	a	472	bc
DeltaPine DP 141 B2F	849	b	39.7	e	4.67	ab	1.14	b	28.53	b	81.87	a	53.40	a	454	c
Mean	**955**		**40.9**		**4.62**		**1.11**		**28.21**		**82.92**		**53.15**		**508**	
P>(F)	0.0081		0.0001		0.0171		0.0002		0.0007		0.1522		0.183		0.0268	
LSD (P=.05)	86.3		0.93		0.30		0.031		1.52		1.60		1.38		48.9	
STD DEV	49.3		0.54		0.17		0.018		0.87		0.91		0.79		27.9	
CV %	5.16		1.33		3.77		1.57		3.08		1.1		1.48		5.5	

Table 6.
DeWitt County - 2009
Cooperator: Joseph Respondek
Anthony Netardus, County Extension Agent

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/acre)	
FiberMax FM 1740 B2F	335	a	43.4	ab	4.70	a	0.96	bc	24.90	bcd	79.77	b	48.00	a	161	a
Croplan Genetics CG 3220 B2F	317	a	42.1	c	4.73	a	1.01	a	25.13	abc	81.17	a	49.12	a	156	ab
DynaGrow DG 2570 B2F	316	a	42.9	abc	4.90	a	0.98	abc	25.13	abc	80.97	a	47.68	a	150	abc
Stoneville ST 4498 B2F	314	a	43.5	a	4.87	a	0.97	bc	26.80	a	81.00	a	47.62	a	149	abc
FiberMax FM 9160 B2F	298	a	42.5	abc	4.57	a	1.02	a	24.73	bcd	81.03	a	49.42	a	147	bcd
DeltaPine DP 141 B2F	299	a	40.7	d	4.43	a	0.99	ab	23.30	d	79.27	b	48.42	a	145	bcd
DeltaPine DP 0920 B2F	304	a	42.8	abc	4.93	a	0.97	bc	23.73	cd	80.03	ab	47.62	a	145	bcd
Phytogen PHY 375 WF	311	a	43.5	a	5.03	a	0.95	c	23.40	cd	79.17	a	46.22	a	144	bcd
Phytogen PHY 485 WF	284	a	42.1	c	4.73	a	0.97	bc	25.67	ab	81.13	a	48.38	a	137	cd
Stoneville ST 5458 B2F	281	a	42.3	bc	4.97	a	0.97	bc	24.33	bcd	79.20	b	46.57	a	131	d
Mean	**306**		**42.6**		**4.79**		**0.98**		**24.71**		**80.27**		**47.90**		**147**	
P>(F)	0.0753		0.0007		0.1315		0.0187		0.019		0.0023		0.0501		0.0235	
LSD (P=.05)	32.81		1.08		0.41		0.04		1.81		1.18		1.91		14.80	
STD DEV	19.13		0.63		0.24		0.02		1.06		0.69		1.11		8.60	
CV %	6.25		1.47		5.05		2.2		4.28		0.86		2.32		5.89	

Table 7.
Victoria County - 2009
Cooperator: Jerry Leita
Joe Janak, County Extension Agent
Stephen Biles, Extension Agent – IPM

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/acre)	
DynaGrow DG2570 B2F	718	a	44.5	bcd	4.80	ab	1.06	b	29.05	bcd	83.15	a	52.20	a	375	a
Phytogen PHY 375 WRF	721	a	45.1	ab	4.60	b	1.05	b	27.40	def	82.40	a	51.10	a	368	a
Stoneveille ST 4554 B2F	690	ab	43.3	ef	4.65	ab	1.06	b	30.55	ab	82.10	a	52.35	a	361	ab
Stoneville ST 5458 B2F	680	abc	44.0	de	4.55	b	1.05	b	28.40	cde	81.10	a	51.13	a	348	abc
DeltaPine DP 0935 B2F	687	ab	45.3	a	4.65	ab	1.04	b	27.20	ef	81.60	a	50.00	a	344	abc
Croplan Genetics CG 3220 B2F	627	cde	44.2	cd	4.70	ab	1.07	b	28.40	cde	82.35	a	51.55	a	323	bc
Phytogen PHY 485 WRF	639	bcd	43.1	f	4.85	ab	1.06	b	29.65	bc	83.30	a	50.28	a	322	c
DeltaPine DP 0920 B2F	633	bcd	44.9	abc	4.95	a	1.04	b	25.85	f	81.15	a	49.33	a	312	c
FiberMax FM 9160 B2F	593	de	42.7	f	4.05	c	1.07	b	27.90	de	82.15	a	52.60	a	312	c
FiberMax FM 840 B2F	571	e	41.8	g	3.95	c	1.14	a	31.40	a	83.75	a	54.30	a	310	c
Mean	**656**		**43.9**		**4.58**		**1.06**		**28.58**		**82.31**		**51.48**		**337.5**	
P>(F)	0.0025		0.0001		0.0016		0.0293		0.0012		0.1005		0.3875		0.0239	
LSD (P=.05)	58.187		0.735		0.349		0.0469		1.705		1.829		4.2186		39.4	
STD DEV	25.724		0.325		0.154		0.0208		0.754		0.809		1.865		17.4	
CV %	3.92		0.74		3.37		1.96		2.64		0.98		3.62		5.17	

Table 8.
Calhoun County - 2009
Cooperator: David Hahn
Phoenix Rogers, County Extension Agent
Stephen Biles, Extension Agent – IPM

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/acre)	
Phytogen PHY 375 WRF	592	a	46.3	a	5.10	ab	1.05	cd	28.03	bc	82.57	a	49.88	bcd	296	a
Stoneville ST 4554 B2F	517	b	43.1	d	5.13	ab	1.06	bcd	31.77	a	83.30	a	49.52	cd	256	b
FiberMax FM 840 B2F	471	bcd	41.5	e	4.73	cd	1.12	a	32.33	a	82.93	a	53.85	a	254	bc
Croplan Genetics CG 3220 B2RF	485	bcd	43.3	d	5.03	ab	1.07	bc	28.23	bc	83.20	a	51.22	abc	248	bc
DeltaPine DP 0935 B2RF	496	bc	44.5	bc	4.90	bc	1.03	e	28.50	bc	81.70	a	49.27	cd	244	bc
FiberMax FM 9160 B2F	443	d	43.3	d	4.63	d	1.08	b	29.07	bc	83.03	a	52.68	ab	234	bc
Phytogen PHY 485 WRF	474	bcd	43.7	cd	5.07	ab	1.04	de	29.37	b	83.17	a	49.20	cd	234	bc
Stoneveille ST 5458 B2F	460	cd	43.9	cd	5.10	ab	1.05	cd	29.23	bc	82.03	a	50.68	bcd	233	bc
DynaGrow DG 2570 B2F	475	bcd	44.4	bc	5.13	ab	1.04	de	28.57	bc	83.23	a	48.50	cd	231	bc
DeltaPine DP 0920 B2RF	466	bcd	44.9	b	5.20	a	1.05	cde	27.57	c	81.80	a	48.12	d	224	b
Mean	**488**		**43.9**		**5.00**		**1.06**		**29.27**		**82.70**		**50.29**		**245**	
P>(F)	0.0008		0.0001		0.0017		0.0001		0.0003		0.0873		0.008		0.0053	
LSD (P=.05)	51.83		0.885		0.248		0.022		1.786		1.29		2.81		30.2	
STD DEV	30.21		0.516		0.144		0.0128		1.041		0.753		1.6378		17.6	
CV %	6.19		1.18		2.89		1.21		3.56		0.91		3.26		7.17	

Table 9.
Jackson County - 2009
Cooperator: Dale Allen
Michael Hiller, County Extension Agent
Clyde Crumley, Extension Agent – IPM

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/acre)	
DeltaPine DP 0920 B2F	558.5	a	41.0	a	5.00	ab	1.05	c	28.03	ef	82.67	a	51.47	bc	287	a
DynaGrow DG 2570 B2F	553.1	a	40.0	a	4.80	bc	1.04	cde	30.10	bcd	82.90	a	51.08	bc	283	a
Croplan Genetics CG 3220 B2F	546	a	40.6	a	4.60	cd	1.05	c	29.20	cde	83.03	a	51.65	bc	282	a
Stonveille ST 5458 B2F	517.7	ab	39.4	a	4.80	bc	1.05	c	28.73	ef	82.20	a	51.48	bc	267	ab
Stoneville ST 4554 B2F	534.6	ab	38.8	a	5.00	a	1.04	cd	31.00	b	82.43	a	49.78	c	266	ab
Phytogen PHY 375 WRF	524.1	ab	37.9	a	4.80	bc	1.02	e	27.60	f	81.97	a	49.67	c	260	ab
Phytogen PHY 485 WRF	518	ab	39.4	a	4.80	bc	1.02	de	30.17	bc	83.27	a	50.13	c	260	ab
FiberMax FM 9160 B2F	488.8	bc	38.6	a	4.30	e	1.08	b	28.47	ef	83.33	a	52.93	ab	259	ab
DeltaPine DP 0935 B2F	486.7	bc	39.2	a	4.80	abc	1.03	cde	28.80	def	82.53	a	50.07	c	244	b
FiberMax FM 840 B2F	439.9	c	37.9	a	4.50	de	1.11	a	32.37	a	83.03	a	54.05	a	238	b
Mean	**516.74**		**39.3**		**4.74**		**1.05**		**29.45**		**82.74**		**51.23**		**265**	
P>(F)	0.0099		0.3499		0.0001		0.0001		0.0001		0.2073		0.0046		0.0333	
LSD (P=.05)	56.91		2.787		0.21		0.021		1.346		1.086		2.065		29.3	
STD DEV	33.17		1.625		0.12		0.012		0.785		0.633		1.204		17.1	
CV %	6.42		4.14		2.59		1.15		2.66		0.77		2.35		6.46	

Table 10.
Matagorda County - 2009
Cooperator: Hansen Farms
Brent Batchelor, County Extension Agent
Clyde Crumley, Extension Agent – IPM

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/acre)	
PHY 375 WRF[1]	1239	a	42.1	a	3.93	d-g	1.05	de	26.27	a	82.53	c-g	51.65	a	640	a
CG 3220 B2F[2]	1194	ab	40.2	c	4.03	cde	1.09	a-d	27.80	a	83.53	a-e	53.28	a	636	a
ST 5458 B2F[3]	1196	ab	41.5	ab	4.40	a	1.06	cde	27.33	a	81.80	g	51.63	a	618	ab
PHY 485 WRF	1147	bcd	40.8	bc	4.30	ab	1.06	cde	29.40	a	83.87	abc	52.52	a	603	abc
DP 0920 B2F[4]	1152	bc	42.4	a	4.23	abc	1.08	b-e	26.67	a	81.97	fg	52.27	a	603	abc
TAM 03WY-37S[5,6]	1114	bcd	38.0	d	3.50	h	1.14	a	28.63	a	83.40	b-f	52.97	a	590	a-d
ST 4554 B2F	1118	bcd	39.9	c	4.07	b-e	1.05	de	29.27	a	82.53	c-g	51.33	a	574	bcd
DG 2570 B2F[7]	1094	cde	40.5	bc	3.93	d-g	1.06	cde	28.67	a	83.57	a-d	52.05	a	570	bcd
FM 1740 B2F	1064	de	40.6	bc	4.00	c-f	1.08	b-e	28.03	a	83.03	b-g	52.92	a	563	cde
TAM 04 WA-24[1,2]	1071	cde	38.4	d	3.90	d-g	1.08	b-e	27.80	a	82.23	d-g	52.02	a	557	c-f
FM 9160 B2F	1023	ef	40.0	c	3.77	fg	1.12	ab	27.70	a	84.30	ab	53.67	a	549	def
DP 0935 B2F	1073	cde	42.0	a	4.13	bcd	1.04	e	27.33	a	82.10	efg	50.88	a	546	def
Seedtec 212[2]	977	f	38.1	d	3.73	gh	1.11	abc	28.23	a	82.53	c-g	52.53	a	513	ef
TAM 02 WK-11L[1,2]	940	f	40.9	bc	3.87	efg	1.12	Ab	29.27	a	84.90	a	54.05	a	508	f
Mean	**1100**		**40.4**		**3.99**		**1.08**		**28.03**		**83.02**		**52.41**		**576**	
P>(F)	0.0001		0.0001		0.0001		0.0081		0.0786		0.0033		0.0842		0.0001	
LSD (P=.05)	86.98		1.048		0.241		0.049		2.015		1.455		1.918		51.3	
STD DEV	51.81		0.624		0.144		0.029		1.201		0.867		1.143		30.6	
CV %	4.71		1.55		3.61		2.69		4.28		1.04		2.18		5.3	

[1]PHY=Phytogen, [2]CG= Croplan Genetics, [3]ST=Stoneville, [4]DP=DeltaPine, [5]Non-transgenic varieties, [6] Texas A&M Experimental breeding lines, [7]DG=DynaGrow

Table 11.
Fort Bend County - 2009
Cooperator: Stasney Farms
Joe Mask, County Extension Agent

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/acre)	
ST 5458 B2F	1085	a	45.57	a	4.47	d	1.1	a	28.6	a	82.2	a	53.15	a	577	a
PHY 375 WRF	1021	a	45.93	a	4.83	bcd	1.08	a	28.7	a	83	a	51.65	a	531	a
DG 2570 B2F	996	a	46.13	a	5.13	ab	1.07	a	28.57	a	82.57	a	51.03	a	507	a
AllTex APEX B2F	940	a	46.5	a	4.63	cd	1.1	a	27.57	a	82.23	a	53.25	a	500	a
FM 9160 B2F	959	a	46.93	a	5.03	abc	1.07	a	28.6	a	82.33	a	51.5	a	494	a
DP 0920B2F	968	a	46.4	a	5.3	a	1.09	a	28.4	a	82.03	a	50.07	a	484	a
DP 0935 B2F	922	a	46.93	a	5.1	ab	1.09	a	28.47	a	81.13	a	51.02	a	470	a
ST 4554 B2F	876	a	45.7	a	5	abc	1.07	a	28.6	a	82.73	a	51.85	a	455	a
Mean	**971**		**46.3**		**4.94**		**1.08**		**28.44**		**82.28**		**51.69**		**502**	
P>(F)	0.3864		0.9291		0.0519		0.6298		0.9969		0.5695		0.5889		0.2315	
LSD (P=.05)	345.22		2.765		0.507		0.05		3.372		1.843		3.893		112.5	
STD DEV	197.12		1.579		0.29		0.028		1.925		1.052		2.166		62.6	
CV %	21.07		3.41		5.86		2.61		6.77		1.28		4.21		12.54	

[1]Significant weathering occurred prior to harvest

Table 12.
Colorado County - 2009
Cooperator: Mahaltic Farms
Dale Rankin, County Extension Agent

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/acre)	
DynaGrow DG 2570 B2F	1550	a	43.9	a	5.00	bc	1.14	bc	30.37	a	83.53	bc	53.17	ab	824	a
DeltaPine DP 0920B2F	1545	a	43.3	a	5.07	ab	1.15	bc	29.27	a	83.63	bc	51.58	bc	797	a
Phytogen PHY 485 WRF	1475	a	45.4	a	5.00	bc	1.13	bc	30.53	a	83.63	bc	52.8	ab	779	a
Croplan Genetics CG 3220 B2F	1462	a	41.7	a	4.97	bcd	1.16	bc	29.67	a	84	ab	53.12	ab	776	a
Phytogen PHY 375 WRF	1439	a	44.5	a	4.67	e	1.14	bc	28.8	a	83.33	bc	53.75	a	774	a
DeltaPine DP 0935 B2F	1429	a	42.3	a	4.90	b-e	1.11	c	28.67	a	82.87	cd	52.75	ab	753	a
Stoneville ST 4554 B2F	1413	a	41.4	a	4.93	b-e	1.13	bc	30.73	a	83.3	bcd	53.28	a	752	a
Stoneville ST 5458 B2F	1474	a	41.3	a	5.33	a	1.17	b	30.07	a	82.23	d	50.93	c	751	a
FiberMax FM 840 B2F	1375	a	39.5	a	4.70	de	1.26	a	32.13	a	84.97	a	54.25	a	746	a
FiberMax FM 9160 B2F	1357	a	41.9	a	4.77	cde	1.18	b	30.43	a	82.9	cd	53.07	ab	719	a
Mean	**1452**		**42.5**		**4.93**		**1.16**		**30.07**		**83.44**		**52.87**		**767**	
P>(F)	0.3758		0.3477		0.0028		0.0009		0.0637		0.0052		0.0218		0.6464	
LSD (P=.05)	175.86		4.679		0.27		0.049		2.017		1.074		1.656		99.7	
STD DEV	102.5		2.78		0.16		0.03		1.18		0.63		0.97		58.1	
CV %	7.06		6.41		3.19		2.48		3.91		0.75		1.83		7.58	

Table 13.
Burleson County - 2009
Cooperator: John Mallazzo
Dusty Tittle, County Extension Agent

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)[1]		Lint Value ($/acre)	
DeltaPine DP 0935 B2RF	882	a	41.4	a	4.10	a	1.13	a	28.00	b	81.70	a	53.55	a	473	a
Stoneville ST 4554 B2F	880	a	44.2	a	4.45	a	1.14	a	28.55	ab	81.65	a	53.33	a	469	a
DeltaPine DP 0920 B2F	874	a	42.7	a	4.70	a	1.15	a	28.55	ab	83.25	a	53.65	a	469	a
Phytogen PHY 375 WRF	864	a	42.2	a	4.35	a	1.13	a	28.50	ab	81.95	a	53.48	a	462	a
DynaGrow DG 2570 B2F	819	a	42.6	a	4.60	a	1.14	a	29.80	ab	82.45	a	53.73	a	440	a
Croplan Genetics CG 3220 B2F	816	a	40.3	a	4.25	a	1.17	a	29.60	ab	81.50	a	53.60	a	438	a
FiberMax FM 9160 B2F	795	a	40.4	a	4.10	a	1.17	a	30.55	ab	83.05	a	53.98	a	430	a
Stoneville ST 5458 B2F	797	a	39.7	a	4.55	a	1.14	a	30.90	ab	80.60	a	53.58	a	427	a
FiberMax FM 840 B2F	759	a	37.9	a	4.25	a	1.24	a	32.55	a	82.95	a	54.13	a	411	a
Phytogen PHY 485 WRF	761	a	39.2	a	4.75	a	1.15	a	29.15	ab	83.70	a	53.78	a	409	a
Mean	**805**		**41.0**		**4.41**		**1.16**		**29.62**		**82.28**		**53.68**		**443**	
P>(F)	0.8217		0.2911		0.042		0.1275		0.0475		0.0915		0.2417		0.6844	
LSD (P=.05)	266.69		5.049		0.412		0.068		2.48		1.932		0.594		91	
STD DEV	117.9		2.232		0.182		0.03		1.096		0.854		0.263		40.2	
CV %	14.65		5.44		4.13		2.62		3.7		1.04		0.49		9.09	

[1]Significant weathering occurred prior to harvest

Table 14.
Williamson County - 2009
Cooperator: Herber Raesz
Bob Whitney, County Extension Agent
Jared Ripple – Extension Agent - IPM

Variety	Yield (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lbs)		Lint Value ($/acre)	
DynaGrow DG 2570 B2F	720	a	43.8	ab	4.53	abc	1.01	a	27.00	ab	82.27	a	49.77	a	359	a
Stoneville ST 5327 B2F	710	ab	43.8	ab	4.37	bc	1.01	a	28.10	a	81.53	a	49.38	a	351	ab
DeltaPine DP 0920 B2F	699	abc	44.4	a	4.67	ab	1.02	a	25.50	abc	81.40	a	49.70	a	347	ab
DeltaPine DP 0935 B2F	702	abc	43.7	ab	4.40	abc	1.01	a	26.27	abc	80.70	a	48.90	a	344	ab
Phytogen PHY 375 WRF	682	a-d	44.1	ab	4.40	abc	1.08	a	27.47	ab	81.27	a	50.18	a	342	ab
Croplan Genetics CG 3220 B2F	683	abc	42.8	abc	4.77	a	1.03	a	26.20	abc	81.97	a	49.37	a	337	ab
Stoneville ST 5288 B2F	693	abc	44.1	ab	4.67	ab	0.98	a	23.87	c	80.97	a	47.37	a	328	abc
AllTex APEX	653	bcd	42.6	bcd	4.23	cd	1.03	a	24.83	bc	80.67	a	49.40	a	323	abc
Phytogen PHY 485 WRF	644	cd	43.1	abc	4.63	ab	1.01	a	28.10	a	83.07	a	49.58	a	319	bc
FiberMax FM 1740B2F	623	d	41.7	cd	4.23	cd	0.97	a	24.20	c	81.47	a	47.63	a	297	c
FiberMax FM 9160 B2F	557	e	41.0	d	3.93	d	1.06	a	26.10	abc	80.87	a	52.15	a	290	c
Mean	**670**		**43.2**		**4.44**		**1.02**		**26.15**		**81.47**		**49.40**		**331**	
P>(F)	0.0006		0.0084		0.0063		0.4279		0.0411		0.2901		0.2561		0.0251	
LSD (P=.05)	59.72		1.703		0.379		0.088		2.738		1.878		3.165		38.8	
STD DEV	35.06		1.0		0.222		0.051		1.608		1.103		1.858		22.8	
CV %	5.24		2.31		5.01		5.04		6.15		1.35		3.76		6.89	

Issued in furtherance of Cooperative Extension Work in Agriculture and Home Economics, Acts of Congress of May 8, 1914, as amended, and June 30, 1914, in cooperation with the United States Department of Agriculture. Edward G. Smith, Director, Texas AgriLife Extension Service, The Texas A&M University System.