

**REPLICATED AGRONOMIC COTTON  
EVALUATION (RACE)  
ROLLING PLAINS OF TEXAS, 2013**



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**ROLLING PLAINS OF TEXAS, 2013**

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<sup>1</sup>Vernon, <sup>2</sup>Quanah, <sup>3</sup>Wellington, <sup>4</sup>Knox City, <sup>5</sup>Wheeler, <sup>6</sup>Childress, <sup>7</sup>Seymour, Texas

## ACKNOWLEDGMENTS

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. We would like to extend our appreciation to Cotton Incorporated through the Texas State Support Committee for their partial funding of these trials.

## 2013 HIGHLIGHTS

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.

From the latest data available, transgenic varieties accounted for 99% of the states acreage in 2013. According to the USDA-Agricultural Marketing Service “Cotton Varieties Planted 2013 Crop” survey, the estimated percentage of upland cotton planted to specific Brands in Texas are as follows, Alltex had 2.5%, Americot/NexGen had 20%, Bayer CropScience – FiberMax had 39%, Bayer CropScience – Stoneville had 2.5%, Croplan Genetics had 0.5%, Delta Pine had 16%, Dyna-Grow had 1.4%, and PhytoGen had 7%.

To assist Texas cotton producers in remaining competitive in the Rolling Plains of Texas, the Texas A&M AgriLife Extension Service Agronomy program has been conducting, large plot, on-farm, replicated variety trials (Fig. 2). This approach provides a good foundation of information that can be utilized to assist the variety selection process. We have also been evaluating the use of TopGuard® for Cotton Root Rot Control for the past three years to help farmers control cotton root rot. This last year we began evaluating soil fertility and conservation tillage management strategies to maximize producers’ profitability.

Ten Replicated Agronomic Cotton Evaluation (RACE) Trials were planted in 2013. Only eight out of the ten trials were harvested due to the drought and are listed in Table 1. Two cotton root rot trials were initiated to determine the efficacy and phytotoxicity of TopGuard® for managing cotton root rot in the Rolling Plains of Texas. We also initiated two nitrogen fertilizer rate trials, a center pivot irrigated location and a dryland location in Knox county.

All the cotton seed companies with RoundupFlex® or Glytol® and Bt2® or Widestrike® technology had the opportunity to include at least one variety in the RACE trial at each

location. All varieties were treated with either Aeris or Avicta Complete Pak seed treatment. Included in this publication are the cotton variety descriptions provided by the company. See descriptions on page 7-8 these trials were initiated on producers' farms and are replicated trials.

The cotton root rot trials were initiated on producer's fields and were large plot replicated trials also. TopGuard® was applied in a 5 inch "T band" at planting following the double disk openers on the planter, but before the closing wheels closed the seed furrow. A second method included this year at one site was the "Y split" in furrow application method. TopGuard® was applied at three rates, 1.0 pint, 1.5 pints, 2.0 pints, and an untreated plot. TopGuard® was applied at with a carrier volume of 6.0 gallons per acre through 8002EVS nozzles at a speed of 4.7 miles per hour. The target plant population was 5 seeds/ft.

Table 1 provides a list of planting and harvest dates, row spacing and plot area for each location. Tables 2 and 3 shows numerical rankings based upon lint yield for the variety trials across all locations. Variety trials were planted at Vernon (Table 4), Quanah (Table 5), Wellington (Table 6 and Table 7), Knox City (Table 8), Wheeler (Table 9), Childress (Table 10), and Seymour (Table 11). Tables 12 and 13 include the results from both Knox City Root Rot Replicated Trials. Tables 4 to 11 include the cotton variety yield data, fiber quality, loan value, and gross lint value for each individual location. Tables 12 and 13 shows treatment yield data, and fiber analysis for the root rot locations. All locations were ginned at Lubbock with the research gin with one lint cleaner. Additionally, all data were standardized to a color grade and leaf of 41-4.

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. Trials with a small LSD (least significant difference) indicate more consistency within the trial and higher likelihood of identifying differences among varieties. A trial location with a large LSD and large CV indicates a higher degree of variability at the trial location. Non-significance is represented as "NS" and indicates no differences among the varieties within the data column at a 5% significance level.



## ***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**

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#### **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 (>1.08 inches)
- ❖ High strength – 28 to 29
- ❖ Premium micronaire – 3.8 to 4.8
- ❖ High uniformity Index – 82
- ❖ Smooth leaf with plant confirmation 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 minimize 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



## Variety Characteristics/Highlights

Below are the cotton variety characteristics and highlights that were included in the 2013 Uniform Variety Trials and other common varieties planted in the Rolling Plains. These cotton variety descriptions were provided by individual seed company representatives or publicly available information.

### Americot 1550 B2RF

- Early-Medium Maturity
- Excellent Seeding Vigor
- Semi-Smooth leaf
- Medium plant height

### DeltaPine 1044 B2RF

- Mid-full maturity
- Semi-smooth leaf
- Excellent fit on dryland and limited irrigation
- Very good Verticillium and Bacterial Blight resistance

### DeltaPine 1219 B2RF

- Medium-tall plant height
- Early maturity variety
- Semi-smooth leaf
- Broadly adapted across Texas
- Good combination of yield and fiber quality

### DeltaPine 1359 B2RF

- Full Season variety
- Semi-smooth leaf
- Tall plant height

### NexGen 4111 RF

- Medium maturity variety
- Performs well on both irrigated and dryland acres
- Proven Verticillium Wilt Tolerance
- Well-adapted to the South Plains and Rolling Plains of Texas

### FiberMax 1944 GLB2

- GlyTol® + LibertyLink® and Bollgard II® technology
- Early-medium maturity more towards medium maturity
- Widely adapted across entire Cotton Belt – irrigated or dryland
- Well suited for limited irrigation

### Fibermax 9180 B2F

- Early Maturing
- It has uniform compact plant type
- Excellent fiber properties

### NexGen 1511 B2RF

- 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

### Phytogen 367 WRF

- Indeterminate,
- Semi-smooth leaf
- Medium-tall plant height
- Excellent seedling vigor
- Root Knot Nematode resistance

### Phytogen 499 WRF

- Mid-maturity variety with exceptional yield potential and very high turnout
- Aggressive growth, greater than PHY 375 WRF
- 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.

### Phytogen 339 WRF

- Indeterminate, very early maturing
- Semi-smooth leaf
- Medium-tall plant height
- Excellent seedling vigor

### Phytogen 375 WRF

- Early maturing
- Semi-smooth leaf
- Medium-tall plant height
- Excellent early season vigor

### Stoneville 4946 GLB2

- Early-mid maturity
- Dual tolerance to Liberty® and glyphosate herbicides
- Root-knot nematode tolerant
- Moderately-aggressive growth habits
- Broadly adapted across all cotton growing regions

**Table 1. Trial, cooperators, planting date, harvest date, row spacing, plot dimensions and area of 2013 Texas A&M AgriLife Extension RACE Trials harvested.**

<b>Cooperator:</b>	<b>Location</b>	<b>Planting Date</b>	<b>Harvest Date</b>	<b>Row Spacing (inches)</b>	<b>Plot Dimensions</b>	<b>Irrigated</b>	<b>Area harvested/plot</b>
Layne Chapman	Vernon	May 9	Oct 11	40	8 rows x 730 feet	Furrow Irrigated	0.44
Jason Poole	Quanah	May 20	Nov 8	30	8 rows x 1166 feet	Furrow Irrigated	0.53
Jerry Louis	Wellington	May 15	Nov 11	40	6 rows x 1180 feet	Drip Irrigated	0.54
Barry Long	Wellington	Jun 10	Nov 18	40	8 rows x 1250 feet	Dryland	0.76
Jimmy Tankersley	Knox City	Jun 11	Nov 7	40	4 rows x 1030 feet	Pivot Irrigated	0.315
Marcus Hardcastle	Wheeler	May 28	Dec 2	40	6 rows x 480 feet	Pivot Irrigated	.22
Steve Andrews	Childress	Jun 4	Dec 17	40	8 rows x 1389 feet	Dryland	.85
Cris Orsack	Seymour	May 24	Nov 4	40	4 rows x 720 feet	Furrow Irrigated	.22

**Table 2. Variety ranking based on lint value/acre, Rolling Plains, 2013.**

Variety	Irrigated Trial locations					
	Wellington	Knox City	Quanah	Vernon	Seymour	Wheeler
PHY 367WRF	5	5	3	6	3	2
DP 1219B2F	6	3	7	2	5	8
NG 1511B2RF	1	1	1	7	7	1
FM 1944GLB2	4	6	5	5	6	3
PHY 499WRF	3	2	4	1	8	7
AM 1550B2RF	7	7	6	4	4	6
ST 4946GLB2	2	4	2	3	1	4
DP 1359B2RF	-	-	-	-	2	-
PHY 375WRF	-	-	-	-	-	5
FM 9180B2F	-	-	8	-	-	-

All trials were irrigated. These are off of our seven varieties chosen by seed representatives. Some locations have more than seven. These extra varieties were chosen by the farmer to evaluate.

**Table 3. Variety ranking based on lint yield, Rolling Plains, 2013.**

Variety	Irrigated Trial locations					
	Wellington	Knox City	Quanah	Vernon	Seymour	Wheeler
PHY 367WRF	5	5	6	6	3	3
DP 1219B2F	6	3	7	2	5	8
NG 1511B2RF	1	1	1	7	7	1
FM 1944GLB2	4	6	4	5	6	6
PHY 499WRF	3	2	3	1	8	7
AM 1550B2RF	7	7	5	3	4	5
ST 4946GLB2	2	4	2	4	1	2
DP 1359B2RF	-	-	-	-	2	-
PHY 375WRF	-	-	-	-	-	4
FM 9180B2F	-	-	8	-	-	-

All trials were irrigated. These are off of our seven varieties chosen by seed representatives. Some locations have more than seven. These extra varieties were chosen by the farmer to evaluate.

**Table 4. Uniform Stacked-Gene Cotton Variety Trials, 2013**  
**Wilbarger Co., Vernon TX<sup>1</sup>**  
**Cooperator: Layne Chapman Langdon Reagan, County Extension Agent**  
**Jonathan Ramirez, Extension Assistant**  
**Dr. Gaylon Morgan, Extension Cotton Agronomist**

Variety	Lint (lbs/acre)		Turnout (%)		Micronaire		Length (inches)		Strength (g/tex)		Uniformity (%)		Loan Value (¢/lb)		Lint Value (\$/acre) <sup>2</sup>	
Phytogen 499WRF	1674	a	34.0	a	4.10	a	1.11	bc	33.30	a	81.33	a	52.35	a	875.30	a
Deltapine 1219B2RF	1483	a	32.0	a	3.53	a	1.17	a	35.10	a	81.23	a	52.63	a	783.00	a
Americot 1550B2RF	1467	a	36.0	a	4.33	a	1.11	bc	29.83	b	80.83	a	53.35	a	782.70	a
Stoneville 4946GLB2	1455	a	33.0	a	4.47	a	1.14	ab	35.63	a	82.83	a	53.82	a	783.00	a
Fibermax 1944GLB2	1349	a	32.0	a	3.83	a	1.18	a	33.17	a	81.37	a	53.82	a	725.70	a
Phytogen 367WRF	1309	a	32.0	a	3.97	a	1.14	ab	33.17	a	81.07	a	53.75	a	703.30	a
NexGen 1511B2RF	1263	a	32.0	a	4.60	a	1.07	c	32.80	a	80.90	a	51.98	a	658.70	a
<b>Mean</b>	<b>1429</b>		<b>33.00</b>		<b>4.12</b>		<b>1.13</b>		<b>33.29</b>		<b>81.37</b>		<b>53.10</b>		<b>758.81</b>	
P>F	0.0632		0.4421		0.0503		0.0033		0.0099		0.0881		0.3193		0.1492	
LSD (P=0.05)	255		0.041		0.669		0.0456		2.623		1.336		2.0592		153.92	
STD DEV	143.30		0.02		0.38		0.03		1.47		0.75		1.16		86.51	
CV%	10.03		7.01		9.13		2.26		4.43		0.92		2.18		11.40	

<sup>1</sup> Indicates the location was irrigated

<sup>2</sup> Lint values were calculated using the 2013 Upland Cotton Loan Valuation Model from Cotton Incorporated.

**Table 5. Uniform Stacked-Gene Cotton Variety Trials, 2013  
Hardeman County, Quanah TX<sup>1</sup>  
Cooperator: Jason Poole  
Steven Sparkman, County Extension Agent  
Jonathan Ramirez, Extension Assistant  
Dr. Gaylon Morgan, Extension Cotton  
Dr. Jason Woodward Plant Pathologist Agronomist**

Variety	Lint (lbs/acre)		Turnout (%)		Micronaire		Length (inches)		Strength (g/tex)		Uniformity (%)		Loan Value (¢/lb)		Lint Value (\$/acre) <sup>2</sup>	
NexGen 1511B2RF	1723	a	43.38	a	3.87	a	1.09	b	32.47	a	80.30	a	53.15	a	926.50	a
Stoneville 4946GLB2	1287	b	32.77	b	3.53	bc	1.10	b	33.73	a	79.87	a	53.05	a	682.70	b
Phytogen 499WRF	1215	bc	34.30	b	3.67	abc	1.07	c	32.67	a	81.33	a	52.02	a	631.30	bc
Fibermax 1944GLB2	1197	bcd	35.30	b	3.53	bc	1.13	a	32.2	a	80.10	a	52.33	a	629.00	bc
Americot 1550B2RF	1180	bcd	33.78	b	3.68	ab	1.06	c	28.96	a	79.72	a	52.51	a	621.40	bcd
Phytogen 367WRF	1162	bcd	32.46	b	3.48	bc	1.10	b	32.71	a	80.67	a	51.84	a	604.00	bcd
Deltapine 1219B2RF	1053	cd	30.52	b	3.58	bc	1.10	b	31.72	a	78.78	a	51.47	a	543.80	cd
Fibermax 9180B2F	1000	d	27.97	b	3.43	c	1.13	a	32.97	a	80.00	a	51.73	a	516.00	d
<b>Mean</b>	<b>1227</b>		<b>33.81</b>		<b>3.60</b>		<b>1.10</b>		<b>32.18</b>		<b>80.10</b>		<b>52.26</b>		<b>644.34</b>	
P>F	0.0004		0.0421		0.0382		0.0001		0.2475		0.1677		0.6684		0.0003	
LSD (P=0.05)	201.1		7.78		0.237		0.0208		3.562		1.685		2.2711		109.79	
STD DEV	110.5		4.28		0.13		0.01		1.98		0.94		1.26		60.35	
CV%	9.01		12.65		3.67		1.05		6.16		1.17		2.42		9.37	

<sup>1</sup> Indicates the location was irrigated

<sup>2</sup> Lint values were calculated using the 2013 Upland Cotton Loan Valuation Model from Cotton Incorporated.

**Table 6. Uniform Stacked-Gene Cotton Variety Trials, 2013  
Collingsworth, Wellington TX<sup>1</sup>  
Cooperator: Jerry Louis  
Katie White, County Extension Agent  
Jonathan Ramirez, Extension Assistant  
Dr. Gaylon Morgan, Extension Cotton Agronomist  
Dr. Jason Woodward, Plant Pathologist**

Variety	Lint (lbs/acre)		Turnout (%)		Micronaire		Length (inches)		Strength (g/tex)		Uniformity (%)		Loan Value (¢/lb)		Lint Value (\$/acre) <sup>2</sup>	
NexGen 1511B2RF	1702	a	35.70	ab	4.40	a	1.13	ab	32.37	a	81.77	a	53.68	a	913.30	a
Stoneville 4946GLB2	1662	a	32.70	abc	4.17	b	1.13	ab	32.23	ab	81.83	a	53.80	a	894.30	a
Phytogen 499WRF	1655	a	37.00	a	4.20	ab	1.11	bc	30.13	c	80.97	ab	53.45	a	884.30	a
Fibermax 1944GLB2	1575	a	32.00	bc	4.10	b	1.17	a	30.43	bc	79.80	b	53.53	a	843.00	a
Phytogen 367WRF	1488	ab	31.70	bc	4.03	b	1.12	b	30.43	bc	79.83	b	53.28	a	792.70	ab
Deltapine 1219B2RF	1468	ab	32.70	abc	4.00	b	1.13	ab	33.27	a	80.27	b	53.53	a	786.30	ab
Americot 1550 B2RF	1287	b	29.70	c	4.03	b	1.07	c	27.33	d	79.87	b	52.30	b	673.30	b
<b>Mean</b>	<b>1548</b>		<b>33.0</b>		<b>4.13</b>		<b>1.12</b>		<b>30.88</b>		<b>80.62</b>		<b>53.37</b>		<b>826.74</b>	
P>F	<b>0.0357</b>		<b>0.0437</b>		<b>0.0244</b>		<b>0.0139</b>		<b>0.0005</b>		<b>0.0142</b>		<b>0.0133</b>		<b>0.0216</b>	
LSD (P=0.05)	245.1924		0.0433		0.221		0.0415		1.929		1.329		0.7271		130.6	
STD DEV	137.81		0.02		0.12		0.02		1.08		0.75		0.41		73.41	
CV%	8.90		7.37		3.00		2.07		3.51		0.93		0.77		8.88	

<sup>1</sup> Indicates the location was irrigated

<sup>2</sup> Lint values were calculated using the 2013 Upland Cotton Loan Valuation Model from Cotton Incorporated.

**Table 7. Uniform Stacked-Gene Cotton Variety Trials, 2013  
Collingsworth County, Wellington TX<sup>1</sup>  
Cooperator: Barry Long  
Katie White, County Extension Agent  
Jonathan Ramirez, Extension Assistant  
Dr. Gaylon Morgan, Extension Cotton Agronomist  
Dr. Jason Woodward, Plant Pathologist**

Variety	Lint (lbs/acre)		Turnout %	
NexGen 1511B2RF	609.19	a	37.30	a
Stoneville 4946GLB2	582.66	a	35.30	a
Phytogen 339WRF	563.44	a	34.00	a
Deltapine 1044B2RF	557.847	ab	35.00	a
Phytogen 499WRF	537.483	ab	36.00	a
Fibermax 1944GLB2	462.19	b	30.70	a
NexGen 4111RF	461.397	b	33.70	a
<b>Mean</b>	<b>471.90</b>		<b>34.57</b>	
LSD (P=0.05)	98.0233		0.064	
STD DEV	55.10		0.03	
CV%	10.22		10.40	

<sup>1</sup> Indicates the location was dryland

**Table 8. Uniform Stacked-Gene Cotton Variety Trials, 2013**  
**Knox County, Knox City TX<sup>1</sup>**  
**Cooperator: Jimmy Tankersley**  
**Jerry Copeland, County Extension Agent**  
**Jonathan Ramirez, Extension Assistant**  
**Dr. Gaylon Morgan, Extension Cotton Agronomist**  
**Dr. Jason Woodward Plant Pathologist**

Variety	Lint (lbs/acre)		Turnout (%)		Micronaire		Length (inches)		Strength (g/tex)		Uniformity (%)		Loan Value (¢/lb)		Lint Value (\$/acre) <sup>2</sup>	
NexGen 1511B2RF	987	a	36.30	a	4.33	b	1.08	c	33.77	b	81.30	a	52.88	a	522.70	a
Phytogen 499WRF	874	a	35.00	a	4.70	a	1.09	c	34.40	b	81.67	a	53.20	a	465.00	a
Deltapine 1219B2RF	853	a	35.00	a	4.30	b	1.13	b	34.37	b	81.33	a	53.72	a	458.00	a
Stoneville 4946GLB2	847	a	33.30	a	4.23	b	1.12	b	36.57	a	82.10	a	53.68	a	454.30	a
Phytogen 367WRF	820	a	32.30	a	4.00	c	1.12	b	33.63	b	81.27	a	53.62	a	439.70	a
Fibermax 1944GLB2	789	a	34.30	a	4.53	a	1.16	a	31.83	c	81.10	a	53.75	a	424.00	a
Americot 1550 B2RF	748	a	35.30	a	4.30	b	1.05	d	29.03	d	80.20	a	51.28	b	385.30	a
<b>Mean</b>	<b>845</b>		<b>34.50</b>		<b>4.34</b>		<b>1.11</b>		<b>33.37</b>		<b>81.28</b>		<b>53.16</b>		<b>449.86</b>	
P>F	0.4083		0.3647		0.0001		0.0001		0.0001		0.0548		0.0018		0.3736	
LSD (P=0.05)	220.76		0.0373		0.184		0.0202		1.53		1.048		1.0121		118.41	
STD DEV	124.08		0.02		0.10		0.01		0.86		0.59		0.57		66.55	
CV%	14.68		6.07		2.38		1.03		2.58		0.72		1.07		14.79	

<sup>1</sup> Indicates the location was irrigated

<sup>2</sup> Lint values were calculated using the 2013 Upland Cotton Loan Valuation Model from Cotton Incorporated.

**Table 9. Uniform Stacked-Gene Cotton Variety Trials, 2013<sup>1</sup>**  
**Wheeler County, Wheeler TX<sup>2</sup>**  
**Cooperator: Marcus Hardcastle**  
**Dale Dunlap, County Extension Agent**  
**Jonathan Ramirez, Extension Assistant**  
**Dr. Gaylon Morgan, Extension Cotton Agronomist**  
**Dr. Jason Woodward, Plant Pathologist**

Variety	Lint (lbs/acre)		Turnout (%)		Micronaire (units)		Length (inches)		Strength (g/tex)		Uniformity (%)		Loan Value (¢/lb)		Lint Value (\$/acre) <sup>3</sup>	
NexGen 1511B2RF	1583	a	29.00	a	2.80	ab	1.13	cd	30.03	a	79.87	a	46.98	ab	746.70	a
Stoneville 4946GLB2	1433	ab	27.30	ab	2.70	ab	1.15	bc	30.20	a	79.40	a	46.15	abc	661.00	ab
Phytogen 367WRF	1429	ab	27.30	ab	2.73	ab	1.15	bc	29.90	a	79.47	a	46.13	abc	662.30	ab
Phytogen 375WRF	1398	ab	28.00	ab	2.50	bc	1.14	bcd	28.33	a	80.23	a	45.05	bcd	630.30	ab
Americot 1550 B2RF	1393	ab	28.00	ab	2.47	bc	1.12	d	27.57	a	79.03	a	43.82	cd	610.30	b
Fibermax 1944GLB2	1387	ab	26.70	bc	2.90	a	1.20	a	31.57	a	80.27	a	47.95	a	667.70	ab
Phytogen 499WRF	1226	b	26.70	bc	2.60	ab	1.16	b	30.40	a	79.50	a	45.23	bcd	554.70	b
Deltapine 1219B2RF	946	c	25.00	c	2.20	c	1.17	b	30.27	a	77.13	b	43.42	d	411.00	c
<b>Mean</b>	<b>1349</b>		<b>27.30</b>		<b>2.62</b>		<b>1.15</b>		<b>29.88</b>		<b>79.43</b>		<b>45.66</b>		<b>624.63</b>	
P>F	0.0009		0.0451		0.014		0.0005		0.0861		0.0049		0.032		0.0013	
LSD (P=0.05)	214.1327		0.0214		0.339		0.0267		2.507		1.342		2.6143		116.77	
STD DEV	122.26		0.01		0.19		0.02		1.43		0.77		1.49		66.67	
CV%	9.06		4.49		7.40		1.32		4.81		0.97		3.27		10.79	

<sup>1</sup> Early Freeze was a yield limiting factor.

<sup>2</sup> Indicates the location was irrigated

<sup>3</sup> Lint values were calculated using the 2013 Upland Cotton Loan Valuation Model from Cotton Incorporated.

**Table 10. Uniform Stacked-Gene Cotton Variety Trials, 2013**  
**Childress County, Childress TX<sup>1</sup>**  
**Cooperator: Steve Andrews**  
**Lonnie Jenschke, County Extension Agent**  
**Jonathan Ramirez Extension Assistant**  
**Dr. Gaylon Morgan, Extension Cotton Agronomist**  
**Dr. Jason Woodward Plant Pathologist**

Variety	Lint (lbs/acre)		Turnout (%)		Micronaire		Length (inches)		Strength (g/tex)		Uniformity (%)		Loan Value (¢/lb)		Lint Value (\$/acre) <sup>2</sup>	
Phytogen 339WRF	292	a	31.00	a	3.00	a	1.05	a	29.57	a	76.97	a	45.52	a	133.30	a
Phytogen 499WRF	288	a	33.70	a	3.73	a	1.02	a	30.27	a	78.90	a	48.07	a	138.00	a
NexGen 1511B2RF	278	a	34.00	a	3.30	a	1.03	a	30.70	a	78.13	a	47.13	a	131.70	a
Stoneville 4946GLB2	253	a	28.30	a	3.27	a	1.02	a	30.93	a	78.97	a	46.27	a	117.00	a
NexGen 4111RF	246	a	31.30	a	3.30	a	1.05	a	30.80	a	78.73	a	48.73	a	120.30	a
Deltapine 1044B2RF	238	a	27.70	a	3.37	a	1.04	a	30.27	a	77.23	a	48.65	a	116.70	a
Fibermax 1944GLB2	233	a	27.30	a	3.27	a	1.04	a	27.03	a	76.80	a	46.67	a	108.70	a
<b>Mean</b>	<b>261</b>		<b>30.00</b>		<b>3.32</b>		<b>1.03</b>		<b>29.94</b>		<b>77.96</b>		<b>47.29</b>		<b>123.67</b>	
P>F	0.3456		0.2075		0.1994		0.1734		0.1617		0.1603		0.7028		0.5846	
LSD (P=0.05)	67.2207		0.0657		0.509		0.0302		3.04		2.112		4.7838		36.89	
STD DEV	37.78		0.04		0.29		0.02		1.71		1.19		2.69		20.73	
CV%	14.47		12.11		8.62		1.64		5.71		1.52		5.69		16.76	

<sup>1</sup> Indicates the location was dryland

<sup>2</sup> Lint values were calculated using the 2013 Upland Cotton Loan Valuation Model from Cotton Incorporated.

**Table 11. Uniform Stacked-Gene Cotton Variety Trials, 2013**  
**Baylor County, Seymour TX<sup>1</sup>**  
**Cooperator: Cris Orsack**  
**Martin Shaw, County Extension Agent**  
**Jonathan Ramirez Extension Assistant**  
**Dr. Gaylon Morgan, Extension Cotton Agronomist**  
**Dr. Jason Woodward Plant Pathologist**

Variety	Lint (lbs/acre)		Turnout (%)		Micronaire		Length (inches)		Strength (g/tex)		Uniformity (%)		Loan Value (¢/lb)		Lint Value (\$/acre) <sup>2</sup>	
Stoneville 4946GLB2	1189	a	30.00	a	4.07	b	1.14	b	35.33	ab	81.77	a	53.80	ab	639.30	a
Deltapine 1359B2RF	1172	a	31.00	a	4.10	b	1.17	a	34.90	ab	81.30	a	53.85	a	631.30	a
Phytogen 367WRF	995	a	29.00	a	4.10	b	1.12	c	33.80	b	81.80	a	53.78	ab	535.00	a
Americot 1550B2RF	972	a	29.30	a	4.07	b	1.11	cd	30.90	c	81.83	a	53.43	c	519.00	a
Deltapine 1219B2RF	925	a	29.70	a	3.97	b	1.17	a	37.03	a	81.80	a	53.87	a	498.30	a
Fibermax 1944GLB2	867	a	27.00	a	3.97	b	1.16	a	34.40	b	81.83	a	53.87	a	467.30	a
NexGen 1511B2RF	858	a	29.30	a	4.47	a	1.09	d	33.77	b	80.93	a	52.98	d	454.30	a
Phytogen 499WRF	808	a	30.70	a	4.43	a	1.11	cd	34.93	ab	82.93	a	53.58	bc	432.70	a
<b>Mean</b>	<b>973</b>		<b>29.50</b>		<b>4.15</b>		<b>1.13</b>		<b>34.38</b>		<b>81.77</b>		<b>53.65</b>		<b>522.15</b>	
P>F	0.5225		0.1209		0.0118		0.0001		0.003		0.1056		0.0001		0.4956	
LSD (P=.05)	449.424		0.0259		0.292		0.019		2.232		1.181		0.2527		239.99	
STD DEV	256.61		0.01		0.17		0.01		1.27		0.67		0.14		137.03	
CV%	26.37		5.02		4.02		0.96		3.71		0.82		0.27		26.24	

<sup>1</sup> Indicates the location was irrigated

<sup>2</sup> Lint values were calculated using the 2013 Upland Cotton Loan Valuation Model from Cotton Incorporated.

**Table 12. Evaluation of TopGuard® for Cotton Root Rot Control, 2013<sup>1</sup>**

**Knox County, Knox City TX<sup>2</sup>**

**Cooperator: Jimmy Tankersley**

**Jonathan Ramirez Extension Assistant**

**Dr. Jason Woodward Plant Pathologist**

**Dr. Gaylon Morgan, Extension Cotton Agronomist**

**Ira Yates Technician, Bobby Rodriguez Technician**

Treatments	Lint (lbs/acre)		Turnout (%)		Micronaire		Length (inches)		Strength (g/tex)		Uniformity (%)		Loan Value (¢/lb)		Lint Value (\$/acre) <sup>3</sup>	
1.0 Pint/acre	863	a	34.80	a	4.26	a	1.06	a	31.62	a	80.66	a	52.07	a	457.80	a
1.5 Pints/acre	836	a	33.80	a	4.15	a	1.05	a	31.88	a	80.53	a	51.29	a	430.00	a
2.0 Pints/acre	834	a	33.80	a	3.98	a	1.04	a	31.68	a	80.18	a	50.15	a	418.80	a
Non-treated	797	a	32.80	a	3.53	a	1.05	a	31.40	a	79.75	a	48.73	a	390.30	a
<b>Mean</b>	<b>832</b>		<b>33.80</b>		<b>3.98</b>		<b>1.05</b>		<b>31.65</b>		<b>80.28</b>		<b>50.56</b>		<b>424.23</b>	
P>F	0.7273		0.4755		0.2641		0.6072		0.9362		0.1952		0.1749		0.3954	
LSD (P=0.05)	129.54		0.0274		0.835		0.0321		1.73		0.946		3.2474		85.97	
STD DEV	80.99		0.0172		0.512		0.0197		1.061		0.58		1.9915		52.72	
CV%	9.73		5.08		12.88		1.87		3.35		0.72		3.94		12.43	

<sup>1</sup>Method used for applying the TopGuard® was 5 inch T Band application. Variety used was Deltapine 0912B2RF

<sup>2</sup>Indicates the location was irrigated.

<sup>3</sup>Lint values were calculated using the 2013 Upland Cotton Loan Valuation Model from Cotton Incorporated.

**Table 12. Evaluation of TopGuard® for Cotton Root Rot Control, 2013<sup>1</sup>**

**Knox County, Knox City TX<sup>2</sup>**

**Cooperator: Gilbert Casillas**

**Jonathan Ramirez Extension Assistant**

**Dr. Jason Woodward Plant Pathologist**

**Dr. Gaylon Morgan, Extension Cotton Agronomist**

**Ira Yates Technician, Bobby Rodriguez Technician**

Treatments/ Per Acre	Lint (lbs/acre)		Turnout (%)		Micronaire		Length (inches)		Strength (g/tex)		Uniformity (%)		Loan Value (¢/lb)		Lint Value (\$/acre) <sup>3</sup>	
1.0 Pint T Band	1455	a	35.00	a	3.56	a	1.17	a	34.40	a	80.30	a	52.71	a	767.00	a
2.0 Pints T Band	1434	a	36.50	a	3.53	a	1.17	a	33.45	a	79.80	a	52.19	a	746.80	a
1.5 Pints T Band	1217	a	35.30	a	3.50	a	1.16	a	33.33	a	80.13	a	52.76	a	640.80	a
1.5 Pints Y Split	1216	a	36.00	a	3.77	a	1.15	a	33.40	a	79.83	a	53.63	a	652.00	a
2.0 Pints Y Split	1141	a	34.80	a	3.53	a	1.14	a	33.20	a	79.53	a	52.20	a	594.80	a
1.0 Pint Y Split	1138	a	34.60	a	3.50	a	1.17	a	32.75	a	79.85	a	52.30	a	594.90	a
Non-treated	930	a	34.20	a	3.07	b	1.15	a	35.02	a	79.72	a	49.22	b	459.20	a
<b>Mean</b>	<b>1219</b>		<b>35.20</b>		<b>3.49</b>		<b>1.16</b>		<b>33.65</b>		<b>79.88</b>		<b>52.14</b>		<b>636.50</b>	
P>F	0.1826		0.5528		0.0144		0.3203		0.0747		0.8885		0.0097		0.112	
LSD (P=0.05)	416.9146		0.0263		0.3189		0.0296		1.507		1.258		2.0178		214.83	
STD DEV	278.12		0.02		0.21		0.02		1.01		0.84		1.35		143.31	
CV%	22.82		4.99		6.09		1.71		2.99		1.05		2.58		22.52	

<sup>1</sup> Method used for applying the TopGuard® was 5 inch T Band application and Y Split in furrow application. T denotes T band and Y denotes Y split application method. Variety used was Deltapine 1359B2RF.

<sup>2</sup> Indicates the location was irrigated.

<sup>3</sup> Lint values were calculated using the 2013 Upland Cotton Loan Valuation Model from Cotton Incorporated.



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