

# TEXAS ROLLING PLAINS REPLICATED AGRONOMIC COTTON EVALUATION (RACE) TRIALS | 2020





# TEXAS ROLLING PLAINS RACE TRIALS | 2020

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## ACKNOWLEDGEMENTS

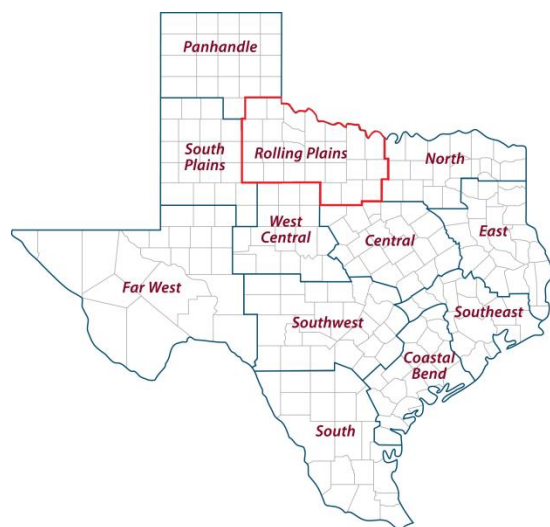
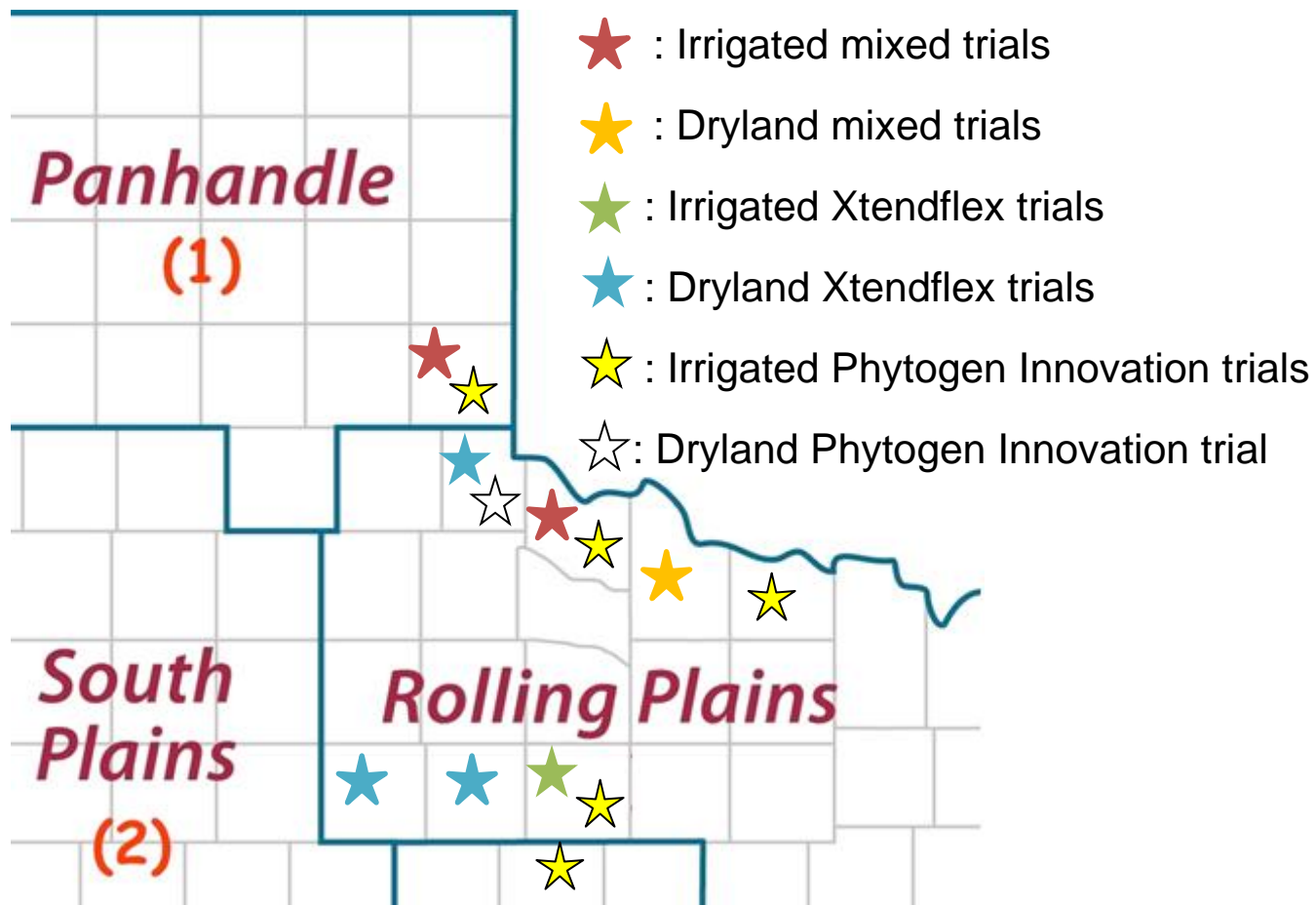
Appreciation is expressed to **the producer cooperators** who provided their land, equipment, and time to assist in preparation, planting, field management, and harvesting of the plots throughout the year. All cooperators are listed in Table 3. We would like to extend our appreciation to **Cotton Incorporated**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

## 2020 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.

Soil temperature remained lower than average, which decreased seedling vigor early in the season. In-season soil moisture was relatively dry, and several weeks of high temperatures increased heat and water stressed cotton in dryland cotton acres. Sudden temperature drops in September further stressed the cotton. We observed leaf senescing of dryland cotton in the late September. First killing frost was observed in the last week of October, which reduced yield potential of late planted cotton. Overall, the weather condition was very challenging for cotton production in the Texas Rolling Plains.

To assist Texas cotton producers in remaining competitive in the Rolling Plains, the Texas A&M AgriLife Extension Service Agronomy program has conducted, large plot, on-farm, replicated variety trials since 2012. This approach provides a reliable source of information to assist farmers with the variety selection process. Nine replicated agronomic cotton evaluation (RACE) trials and six Phytogen Innovation trials were planted in 2020. We were able to harvest five RACE trial locations and five Phytogen Innovation trial locations. Mean irrigated location yields for the 2020 cotton variety trials ranged from 1866 lb/ac for the Collingsworth trial location to 814 lb/ac for the Hardeman trial site, while mean dryland location yields ranged from 1229 lb/ac at the Childress County trial site to 562 lb/ac at the Childress County trial site.



**FIGURE 1. 2020 ROLLING PLAINS RACE TRIAL LOCATIONS**

Lint samples from all RACE trials were ginned with a 10-saw table-top gin with no lint cleaner. This table-top gin method consistently produces higher lint turnout percentages than in a commercial gin due to having no lint cleaner. Consequently, higher turnouts equate to lint yields which are generally higher than area-wide commercial yields. Additionally, all RACE trial data were standardized to color and leaf grades of 41-4, because an accurate estimate of leaf and color grades are not possible without a lint cleaner on the gin.

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. Non-statistical significance is represented as “NS” and indicates no differences among the varieties within the data column at a 90% confidence level.

### **Resources for Texas cotton production**

- General cotton production information for new cotton growers:  
<http://cotton.tamu.edu/index.html>
- Cotton variety trial results: <http://varietytesting.tamu.edu/cotton/>
- Cotton trial update in the Rolling Plains of Texas: Rolng Plains Agronomy Program Blog  
(<https://agrilife.org/txrollingplainsagronomy/>)

**Table 1. Variety characteristics/Highlights**

Below are the cotton variety characteristics and highlights that were included in the 2020 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
Deltapine 1549 B3XF	Full maturity. Tall height. Susceptible to Bacterial blight.
Deltapine 1646 B2XF	Mid to full maturity. Smooth leaf. Med tall.
Deltapine 1820 B3XF	Early mid maturity variety, Med-tall. Resistant to Bacterial blight.
Deptapine 2038 B3XF	Mid maturity, smooth leaf, and tall height. Resistant to Bacterial blight.
Deptapine 2044 B3XF	Mid maturity. Medium tall. Resistant to Bacterial blight.
FiberMax 2498 GLT	Mid maturity and med tall. Resistant to Bacterial blight.
NexGen 5711 B3XF	Medium- full-maturity. Smooth leaf. Bacterial blight resistance.
NexGen 4792 XF	Medium maturity, smooth leaf, Bacterial blight tolerance.
NexGen 4098 B3XF	Mid maturity. Med tall height. Highly tolerant to Bacterial blight.
NexGen 4936 B3XF	Mid maturity. Smooth leaf. Moderately tolerant to Bacterial blight.
Phytogen 332 W3FE	Early-mid maturity with Reniform resistance.
Phytogen 350 W3FE	Early-mid maturing variety. RKN and bacterial blight resistance.
Phytogen 394 W3FE	Early-mid maturity. Resistant to Bacterial blight and RKN.
Phytogen 400 W3FE	Mid maturity, smooth leaf. Resistant to Bacterial blight.
Phytogen 443 W3FE	Mid maturity with Reniform resistance.
Phytogen 480 W3FE	Mid maturity, resistant to Bacterial blight and RKN.
Phytogen 500 W3FE	Mid-full maturity. Resistant to Bacterial blight and RKN.
Phytogen 580 W3FE	Full season. Resistant to Bacterial blight and RKN.
Stoneville 4990 B3XF	Early mid maturity. Medium tall.
Stoneville 5707 B2XF	Mid-full season maturity. Resistant to Bacterial blight.

**Table 2. FIBER EVALUATION**

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

Source: “Classification of Upland Cotton” Adapted from Cotton Incorporated website (<https://www.cottoninc.com/wp-content/uploads/2017/02/Classification-of-Cotton.pdf>)

**TABLE 3. BACKGROUND INFORMATION**

County	Producer cooperators	County Extension Agent	Irri/dry	Planting date	Harvest date	Rows x spacing	Seeding rate	Plot size
<b>Mixed technologies</b>								
Collingsworth	Rex Henard	Kenny Patterson	Irrigated	5/15/2020	11/3/2020	6 by 40"	40000	0.5
Hardeman	TAMU	Justin Gilliam	Irrigated	6/2/2020	11/11/2020	4 by 40"	45000	0.1
Wilbarger	Donald Shoppa	Langdon Reagan	Dryland	6/3/2020	12/27/2020	8 by 40"	24100	0.9
Wilbarger	TAMU	Langdon Reagan	Irrigated	6/2/2020	Abandoned*	-	-	-
Wichita	Dwayne Pierce	David Graf	Dryland	6/4/2020	Abandoned*	-	-	-
<b>Xtendflex technology only</b>								
Haskell	Steve McGuire	Janathon Reyes	Irrigated	5/22/2020	11/22/2020	10 by 32"	45000	1.1
Childress	Cade Wyatt	Ryan Martin	Dryland	6/3/2020	11/20/2020	8 by 40"	45000	1.3
Kent	Dean Boyd	Brandon Cave	Dryland	6/6/2020	Abandoned**	6 by 40"	26200	-
Stonewall	Billy Kirk Meador	Cody Myers	Dryland	6/3/2020	Abandoned**	6 by 40"	26200	-
<b>Enlist technology only (Phytogen Innovation Trial)</b>								
Collingsworth	Jerry Dan Davis	Kenny Patterson	Irrigated	5/21/2020	11/6/2020	6 by 40"	40000	0.8
Hardeman	Tanner McLennan	Justin Gilliam	Irrigated	6/1/2020	11/13/2020	6 by 40"	-	0.6
Wichita	Dwayne Pierce	David Graf	Irrigated	6/2/2020	12/3/2020	8 by 30"	45000	0.8
Haskell	Aaron Phillips	Jonathon Reyes	Irrigated	6/3/2020	11/26/2020	6 by 40"	29000	0.9
Childress	Cade Wyatt	Ryan Martin	Dryland	6/12/2020	12/19/2020	8 by 40"	25000	0.5
Jones	Michael McIella	-	Dryland	6/5/2020	Abandoned***	-	-	-

\*Dry soil condition at planting. \*\*Freeze on October 26-27, 2020. \*\*\*Hail

**PERCENT SEEDLING EMERGENCE (FINAL STAND)**

	Dry	Dry	Dry	Irrig	Irrig	Irrig	Innov dry	Innov irrig	Innov irrig	Innov irrig	AVG
	Wilbarger	Childress	Stonewall	Collingsworth	Hardeman	Wilbarger	Childress	Collingsworth	Haskell	Wichita	
PHY332W3FE	-	-	-	-	-	-	94	90	100	87	93
FM2498GLT	95	-	-	99	84	88	-	-	-	-	92
PHY480W3FE	94	-	-	99	85	70	80	85	83	94	86
PHY400W3FE	98	-	-	100	73	69	90	75	73	88	83
DP1820B3XF	-	-	-	100	88	64	-	-	-	-	84
NG4098B3XF	95	74	89	92	89	66	-	-	-	-	84
PHY443W3FE	-	-	-	-	-	-	92	88	78	77	84
DP1549B2XF	83	75	89	-	-	-	-	-	-	-	82
ST5707B2XF	86	79	98	89	78	62	-	-	-	-	82
NG4936B3XF	89	59	82	92	90	76	-	-	-	-	81
PHY500W3FE	-	-	-	-	-	-	85	81	77	81	81
PHY394W3FE	-	-	-	-	-	-	82	77	75	85	80
PHY580W3FE	-	-	-	-	-	-	88	69	74	84	79
DP2038B3XF	-	-	-	90	78	65	-	-	-	-	78
ST4990B3XF	80	57	75	80	90	82	-	-	-	-	77
DP1646B2XF	95	63	79	95	69	53	-	-	-	-	76
NG5711B3XF	86	70	75	85	79	58	-	-	-	-	75
DP2044B3XF	80	60	86	-	-	-	-	-	-	-	75
PHY350W3FE	73	-	-	75	79	68	87	52	63	72	71
<b>Average</b>	<b>88</b>	<b>67</b>	<b>84</b>	<b>91</b>	<b>82</b>	<b>68</b>	<b>87</b>	<b>77</b>	<b>78</b>	<b>84</b>	<b>81</b>



**LINT YIELD RANKING BY COUNTY**

	Dryland trials		
	Xtend	Enlist*	Mixed
	Childress	Childress	Wilbarger
DP1549B2XF	7	-	7
DP1646B2XF	4	-	11
DP1820B3XF	-	-	-
DP2038B3XF	-	-	-
DP2044B3XF	3	-	5
FM2498GLT	-	-	1
NG4098B3XF	1	-	4
NG4936B3XF	6	-	10
NG5711B3XF	8	-	12
PHY350W3FE	-	6	8
PHY394W3FE	-	8	-
PHY400W3FE	-	4	2
PHY480W3FE	-	1	3
PHY500W3FE	-	5	-
PHY580W3FE	-	2	-
PHY332W3FE	-	3	-
PHY443W3FE	-	7	-
ST4990B3XF	5	-	9
ST5707B2XF	2	-	6

			Irrigated trials			
Mixed	Mixed	Xtend	Enlist*	Enlist*	Enlist*	Enlist*
Collingsworth	Hardeman	Haskell	Collingsworth	Haskell	Wichita	Hardeman
-	-	-	-	-	-	-
8	12	6	-	-	-	-
4	2	1	-	-	-	-
7	6	7	-	-	-	-
-	-	-	-	-	-	-
3	4	-	-	-	-	-
2	3	8	-	-	-	-
11	5	2	-	-	-	-
9	7	4	-	-	-	-
6	9	-	8	5	7	6
-	-	-	7	6	8	7
5	11	-	2	3	1	1
1	8	-	3	2	4	5
-	-	-	6	7	6	8
-	-	-	1	1	5	4
-	-	-	5	8	2	2
-	-	-	4	4	3	3
12	1	5	-	-	-	-
10	10	3	-	-	-	-

\*Phytogen Innovation Trial

### Agronomic information

County	Collingsworth			
Cooperator	Rex Henard			
Technologies	Mixed			
Irrigation	Irrigated			
Plant	5/15/2020			
Harvest	11/3/2020			
GDD	172	days		
Population	40000			
Rows	6	rows	40"	width
Plot size	0.5	ac		

### Precipitation

Month	Precip. (in)
April	0.16
May	2.43
June	1.89
July	3.35
August	0.95
September	0.63
October	0.65
November	0.68
<b>Total</b>	<b>10.74</b>

\*WestTexasMesoNet at Dozier

Variety	Lint (Lbs/ac)	Gin turnout (%)	Micronaire	Fiber Length (inch)	Strength (g/tex)	Unif	Loan Value (cents/lb)	Lint Value (\$/acre)
PHY480W3FE	2211	40	3.7	1.16	30.6	82.6	51.8	1154
NG4098B3XF	2202	43	4.0	1.20	31.7	81.7	52.5	1148
FM2498GLT	2050	42	4.4	1.18	31.2	82.7	53.3	1094
DP1820B3XF	1993	43	4.2	1.22	33.2	82.2	54.3	1081
PHY400W3FE	1981	43	4.2	1.15	31.1	82.0	53.9	1069
PHY350W3FE	1848	40	3.8	1.17	30.9	83.0	54.1	1000
DP2038B3XF	1835	46	4.0	1.12	30.2	80.7	52.9	970
DP1646B2XF	1761	42	4.0	1.20	29.9	81.9	53.9	949
ST5707B2XF	1672	39	4.0	1.18	33.2	81.5	54.2	906
NG5711B3XF	1708	42	3.8	1.14	30.0	81.4	52.1	892
NG4936B3XF	1608	40	4.2	1.19	29.3	83.2	53.9	867
ST4990B3XF	1521	40	4.1	1.16	30.3	82.3	53.9	820
<b>Mean</b>	<b>1866</b>	<b>42</b>	<b>4.0</b>	<b>1.17</b>	<b>31.0</b>	<b>82.1</b>	<b>53.4</b>	<b>996</b>
<b>CV %</b>	<b>8.1</b>	<b>2.6</b>	<b>9.7</b>	<b>2.2</b>	<b>4.3</b>	<b>1.1</b>	<b>3.2</b>	<b>9.2</b>
<b>P&gt;F</b>	<b>&lt;.0001</b>	<b>&lt;.0001</b>	<b>NS</b>	<b>0.0077</b>	<b>0.0277</b>	<b>0.0781</b>	<b>NS</b>	<b>0.0012</b>
<b>STD DEV</b>	<b>225</b>	<b>2</b>	<b>0.2</b>	<b>0.03</b>	<b>1.2</b>	<b>0.7</b>	<b>0.9</b>	<b>113</b>

#### Notes:

Highlighted values are significantly same as the highest value at P<0.1  
Turnout is higher with the table-top gin than using a conventional gin.

### Agronomic information

County	Collingsworth			
Cooperator	Jerry Dan Davis			
Technologies	Enlist			
Irrigation	Irrigated			
Plant	5/21/2020			
Harvest	11/6/2020			
GDD	169	days		
Population	40000			
Rows	6	rows	40"	width
Plot size	0.8	ac		

### Precipitation

Month	Precip. (in)
April	0.16
May	2.43
June	1.89
July	3.35
August	0.95
September	0.63
October	0.65
November	0.68
<b>Total</b>	<b>10.74</b>

Variety	Lint (Lbs/ac)	Gin turnout (%)	Micronaire	Fiber Length (inch)	Strength (g/tex)	Unif	Loan Value (cents/lb)	Lint Value* (\$/acre)
PHY580W3FE	1227	34	3.3	1.11	29.6	81.3	52.1	638
PHY400W3FE	1222	33	3.4	1.13	30.8	81.9	51.5	630
PHY443W3FE	1118	32	3.8	1.15	32.3	82.3	54.9	615
PHY332W3FE	1103	31	3.5	1.17	30.9	81.6	53.1	586
PHY480W3FE	1122	32	3.1	1.14	29.2	83.1	48.2	543
PHY500W3FE	1089	30	3.0	1.14	32.0	81.9	49.2	535
PHY350W3FE	993	30	3.3	1.15	30.3	82.3	52.2	522
PHY394W3FE	996	28	2.8	1.18	29.3	79.9	44.4	446
<b>Mean</b>	<b>1109</b>	<b>31</b>	<b>3.3</b>	<b>1.15</b>	<b>30.6</b>	<b>81.8</b>	<b>50.7</b>	<b>564</b>
<b>CV %</b>	<b>8.1</b>	<b>4.6</b>	<b>7.6</b>	<b>1.3</b>	<b>2.4</b>	<b>0.7</b>	<b>6.3</b>	<b>11.1</b>
<b>P&gt;F</b>	<b>0.0446</b>	<b>0.0011</b>	<b>0.0068</b>	<b>0.0009</b>	<b>0.0007</b>	<b>0.0010</b>	<b>0.0292</b>	<b>0.0288</b>
<b>STD DEV</b>	<b>88</b>	<b>2</b>	<b>0.3</b>	<b>0.02</b>	<b>1.2</b>	<b>0.9</b>	<b>3.3</b>	<b>65</b>

#### Notes:

Highlighted values are significantly same as the highest value at P<0.1  
 Samples were ginned by a conventional gin.



### Agronomic information

County	Childress			
Cooperator	Cade Wyatt			
Technologies	Xtendflex			
Irrigation	Dryland			
Plant	6/3/2020			
Harvest	11/20/2020			
GDD	170	days		
Population	45000			
Rows	8	rows	40"	width
Plot size	1.3	ac		

### Precipitation

Month	Precip. (in)
April	0.66
May	3.40
June	1.43
July	1.71
August	2.56
September	1.35
October	0.85
November	0.51
<b>Total</b>	<b>12.47</b>

\*WestTexasMesoNet at Childress 2NNE

Variety	Lint (Lbs/ac)	Gin TO (%)	Micronaire	Fiber Length (inch)	Strength (g/tex)	Unif	Loan Value (cents/lb)	Lint Value* (\$/acre)
NG4098B3XF	1486	43.0	4.8	1.20	29.9	80.5	52.6	782
ST5707B2XF	1331	35.5	4.4	1.16	31.3	82.9	53.3	709
DP2044B3XF	1310	39.0	4.1	1.20	30.2	80.4	53.7	703
DP1646B2XF	1226	40.4	4.3	1.19	27.9	80.1	53.5	656
ST4990B3XF	1191	38.7	4.2	1.16	29.4	81.7	53.7	640
NG4936B3XF	1183	38.2	4.2	1.14	28.1	82.0	53.7	635
DP1549B2XF	1061	38.5	4.1	1.11	29.1	80.1	52.7	559
NG5711B3XF	1044	37.6	3.8	1.14	28.5	80.3	51.0	531
<b>Mean</b>	<b>1229</b>	<b>38.9</b>	<b>4.2</b>	<b>1.16</b>	<b>29.3</b>	<b>81.0</b>	<b>53.0</b>	<b>652</b>
<b>CV %</b>	<b>5.9</b>	<b>4.2</b>	<b>5.6</b>	<b>1.68</b>	<b>5.6</b>	<b>1.4</b>	<b>3.8</b>	<b>6.9</b>
<b>P&gt;F</b>	<b>&lt;.0001</b>	<b>0.0028</b>	<b>0.0107</b>	<b>0.0006</b>	<b>NS</b>	<b>0.0518</b>	<b>NS</b>	<b>0.0002</b>
<b>STD DEV</b>	<b>146</b>	<b>2.2</b>	<b>0.3</b>	<b>0.03</b>	<b>1.2</b>	<b>1.0</b>	<b>0.9</b>	<b>81</b>

#### Notes:

Highlighted values are significantly same as the highest value at P<0.1  
Turnout is higher with the table-top gin than using a conventional gin.



### Agronomic information

County	Childress			
Cooperator	Cade Wyatt			
Technologies	Enlist			
Irrigation	Dryland			
Plant	6/12/2020			
Harvest	12/19/2020			
GDD	190	days		
Population	25000			
Rows	8	rows	40"	width
Plot size	0.51	ac		

### Precipitation

Month	Precip. (in)
April	0.66
May	3.40
June	1.43
July	1.71
August	2.56
September	1.35
October	0.85
November	0.51
<b>Total</b>	<b>12.47</b>

\*WestTexasMesoNet at Childress 2 NNE

Variety	Lint (Lbs/ac)	Gin turnout (%)	Micronaire	Fiber Length (inch)	Strength (g/tex)	Unif	Loan Value (cents/lb)	Lint Value* (\$/acre)
PHY 480 W3FE	688	31.6	4.31	1.12	29.6	82.9	50.0	344
PHY 332 W3FE	612	30.0	4.13	1.18	31.3	82.1	49.5	303
PHY 580 W3FE	615	31.9	4.26	1.09	28.8	81.8	47.6	293
PHY 400 W3FE	577	33.0	4.20	1.11	30.4	81.1	50.2	290
PHY 500 W3FE	547	29.0	3.70	1.13	31.3	83.0	51.3	279
PHY 350 W3FE	503	28.3	4.35	1.10	29.8	82.1	51.8	261
PHY 443 W3FE	490	28.1	4.38	1.10	31.0	81.7	51.3	252
PHY 394 W3FE	465	25.9	4.03	1.16	29.9	80.8	50.7	236
<b>Mean</b>	562	29.73	4.17	1.12	30.26	81.94	50.3	282.25
<b>CV %</b>	7.0	5.0	3.7	2.0	3.2	1.0	4.0	7.8
<b>P&gt;F</b>	0.0001	0.0006	0.0018	0.0025	0.0594	0.0558	0.3130	0.0010
<b>STD DEV</b>	75	2.357	0.22	0.03	0.90	0.77	1.3	34

#### Note:

Highlighted values are significantly same as the highest value at  $P < 0.1$   
 Samples were ginned by a conventional gin.

### Agronomic information

County	Hardeman			
Cooperator	Tanner McLennan			
Technologies	Enlist			
Irrigation	Irrigated			
Plant	6/1/2020			
Harvest	11/13/2020			
GDD	165	days		
Population	-			
Rows	6	rows	40	width
Plot size	0.57	ac		

### Precipitation

Month	Precip. (in)
April	0.78
May	7.52
June	1.55
July	0.08
August	2.84
September	1.55
October	3.05
November	0.48
<b>Total</b>	<b>17.85</b>

\*WestTexasMesoNet at Goodlett

Variety	Lint (Lbs/ac)	Gin turnout (%)	Micronaire	Fiber Length (inch)	Strength (g/tex)	Unif	Loan Value (cents/lb)	Lint Value* (\$/acre)
PHY400W3FE	1971	42	4.2	1.19	32.0	83.0	56.9	1122
PHY332W3FE	1833	39	4.3	1.22	32.0	83.2	57.5	1054
PHY443W3FE	1809	40	4.1	1.17	32.1	84.4	57.3	1036
PHY580W3FE	1777	40	3.6	1.19	31.0	82.9	55.5	988
PHY480W3FE	1729	39	3.6	1.19	30.9	84.6	57.1	987
PHY350W3FE	1648	38	4.1	1.19	31.4	83.7	57.4	947
PHY394W3FE	1625	37	3.4	1.23	31.7	82.1	53.5	875
PHY500W3FE	1554	38	3.3	1.17	32.7	83.5	53.1	829
<b>Mean</b>	<b>1743</b>	<b>39</b>	<b>3.8</b>	<b>1.19</b>	<b>31.7</b>	<b>83.4</b>	<b>56.0</b>	<b>980</b>
<b>CV %</b>	<b>5.2</b>	<b>2.1</b>	<b>4.8</b>	<b>1.3</b>	<b>3.1</b>	<b>0.7</b>	<b>3.3</b>	<b>7.6</b>
<b>P&gt;F</b>	<b>0.0015</b>	<b>0.0002</b>	<b>&lt;0.0001</b>	<b>0.0061</b>	<b>0.3602</b>	<b>0.0003</b>	<b>0.0432</b>	<b>0.0055</b>
<b>STD DEV</b>	<b>133</b>	<b>1</b>	<b>0.4</b>	<b>0.02</b>	<b>0.6</b>	<b>0.8</b>	<b>1.8</b>	<b>95</b>

#### Notes:

Highlighted values are significantly same as the highest value at P<0.1  
 Samples were ginned by a conventional gin.

### Agronomic information

County	Hardeman			
Cooperator	TAMU			
Technologies	Mixed			
Irrigation	Irrigated			
Plant	6/2/2020			
Harvest	11/11/2020			
GDD	162	days		
Population	45000			
Rows	4	rows	40"	width
Plot size	0.1	ac		

### Precipitation

Month	Precip. (in)
April	0.78
May	7.52
June	1.55
July	0.08
August	2.84
September	1.55
October	3.05
November	0.48
<b>Total</b>	<b>17.85</b>

\*WestTexasMesoNet at Goodlett

Variety	Lint (Lbs/ac)	Gin TO (%)	Micronaire	Fiber Length (inch)	Strength (g/tex)	Unif	Loan Value (cents/lb)	Lint Value* (\$/acre)
ST4990B3XF	949	42	4.4	1.17	31.0	80.7	53.9	512
DP1820B3XF	900	44	4.8	1.15	31.0	81.3	52.9	475
NG4098B3XF	891	41	4.6	1.13	30.4	81.5	52.5	465
FM2498GLT	853	40	4.3	1.15	31.0	83.0	53.7	458
NG5711B3XF	799	42	4.1	1.18	30.4	81.0	54.0	431
DP2038B3XF	801	43	4.8	1.11	28.9	81.1	52.1	419
NG4936B3XF	807	42	5.0	1.17	28.8	80.6	51.0	414
PHY480W3FE	781	44	4.8	1.13	30.3	81.9	52.5	411
ST5707B2XF	758	42	4.9	1.15	29.9	81.0	53.7	407
PHY350W3FE	759	41	5.0	1.11	29.1	81.3	50.9	393
PHY400W3FE	747	43	4.6	1.13	29.6	81.2	51.9	390
DP1646B2XF	724	44	4.9	1.16	30.9	80.0	51.6	374
<b>Mean</b>	<b>814</b>	<b>42</b>	<b>4.7</b>	<b>1.15</b>	<b>30.1</b>	<b>81.2</b>	<b>52.6</b>	<b>429</b>
<b>CV %</b>	<b>25.0</b>	<b>4.7</b>	<b>10.1</b>	<b>3.1</b>	<b>5.0</b>	<b>1.6</b>	<b>3.2</b>	<b>26.4</b>
<b>P&gt;F</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>	<b>NS</b>
<b>STD DEV</b>	<b>70</b>	<b>1</b>	<b>0.3</b>	<b>0.02</b>	<b>0.9</b>	<b>0.7</b>	<b>1.1</b>	<b>41</b>

#### Notes:

2,4-D symptomology was observed at the trial site

Turnout is higher with the table-top gin than using a conventional gin.

### Agronomic information

County	Haskell			
Cooperator	Steve McGuire			
Technologies	Xtendflex			
Irrigation	Irrigated			
Plant	5/22/2020			
Harvest	11/22/2020			
GDD	184	days		
Population	45000			
Rows	10	rows	32"	width
Plot size	1.1	ac		

### Precipitation

Month	Precip. (in)
April	0.78
May	7.52
June	1.55
July	0.30
August	0.65
September	9.06
October	0.96
November	2.35
<b>Total</b>	<b>23.17</b>

\*WestTexasMesoNet at Haskell

Variety	Lint (Lbs/ac)	Gin TO (%)	Micronaire	Fiber Length (inch)	Strength (g/tex)	Unif	Loan Value (cents/lb)	Lint Value* (\$/acre)
NG4936B3XF	1506	36	4.4	1.19	30.6	82.3	54.0	813
DP1820B3XF	1508	40	4.9	1.19	32.2	81.9	52.9	799
ST5707B2XF	1463	36	4.6	1.18	33.9	83.2	54.2	794
NG5711B3XF	1430	38	4.4	1.16	29.8	82.3	53.7	767
ST4990B3XF	1411	35	4.3	1.19	29.6	81.9	53.7	758
DP1646B2XF	1391	40	4.2	1.18	29.4	81.8	53.8	748
DP2038B3XF	1383	39	4.4	1.11	29.2	81.5	53.1	735
NG4098B3XF	1337	38	4.4	1.22	33.5	82.6	54.3	725
<b>Mean</b>	<b>1429</b>	<b>38</b>	<b>4.4</b>	<b>1.17</b>	<b>31.0</b>	<b>82.2</b>	<b>53.7</b>	<b>767</b>
<b>CV %</b>	-	-	-	-	-	-	-	-
<b>P&gt;F</b>	-	-	-	-	-	-	-	-
<b>STD DEV</b>	<b>61</b>	<b>2</b>	<b>0.2</b>	<b>0.03</b>	<b>1.9</b>	<b>0.5</b>	<b>0.5</b>	<b>32</b>

#### Notes:

Highlighted values are significantly same as the highest value at P<0.1

Turnout is higher with the table-top gin than using a conventional gin.

Statistical analysis for the data was not available due to only two reps were harvested.



### Agronomic information

County	Haskell			
Cooperator	Aaron Phillips			
Technologies	Enlist			
Irrigation	Irrigated	Double cropped after wheat		
Plant	6/3/2020			
Harvest	11/26/2020			
GDD	176	days		
Population	29000			
Rows	6	rows	40"	width
Plot size	0.94	ac		

### Precipitation

Month	Precip. (in)
April	0.78
May	7.52
June	1.55
July	0.30
August	0.65
September	9.06
October	0.96
November	2.35
<b>Total</b>	<b>23.17</b>

\*WestTexasMesoNet at Haskell

Variety	Lint (Lbs/ac)	Gin turnout (%)	Micronaire	Fiber Length (inch)	Strength (g/tex)	Unif	Loan Value (cents/lb)	Lint Value* (\$/acre)
PHY580W3FE	<b>1364</b>	<b>37</b>	<b>4.3</b>	1.10	31.1	82.2	55.3	<b>753</b>
PHY480W3FE	<b>1344</b>	33	3.7	1.15	31.0	<b>82.9</b>	52.2	703
PHY443W3FE	1227	33	4.1	1.14	<b>33.2</b>	<b>83.4</b>	<b>57.1</b>	700
PHY400W3FE	1235	35	3.8	1.14	32.2	81.9	54.1	671
PHY350W3FE	1173	31	3.5	1.14	30.5	82.4	53.2	624
PHY394W3FE	1163	31	3.5	<b>1.22</b>	31.4	80.7	52.6	614
PHY332W3FE	1098	31	3.4	<b>1.20</b>	<b>32.8</b>	<b>83.0</b>	54.3	598
PHY500W3FE	1119	31	3.2	1.14	<b>33.0</b>	82.0	50.6	567
<b>Mean</b>	1215	33	3.7	1.15	31.9	82.3	53.7	654
<b>CV %</b>	6.9	4.0	13.5	1.4	2.7	0.9	6.8	11.9
<b>P&gt;F</b>	0.0127	0.0004	0.2347	<0.0001	0.0117	0.0143	0.5558	0.1318
<b>STD DEV</b>	98	2	0.4	0.04	1.0	0.8	2.0	63

#### Notes:

Highlighted values are significantly same as the highest value at P<0.1  
 Samples were ginned by a conventional gin.

### Agronomic information

County	Wichita			
Cooperator	Dwayne Pierce			
Technologies	Enlist			
Irrigation	Irrigated			
Plant	6/2/2020			
Harvest	12/3/2020			
GDD	184	days		
Population	45000			
Rows	8	rows	30"	width
Plot size	0.82	ac		

### Precipitation

Month	Precip. (in)
April	0.45
May	7.00
June	2.99
July	4.11
August	4.04
September	3.56
October	4.37
November	0.45
<b>Total</b>	<b>26.97</b>

\*NOAA weather station

Variety	Lint (Lbs/ac)	Gin turnout (%)	Micronaire	Fiber Length (inch)	Strength (g/tex)	Unif	Loan Value (cents/lb)	Lint Value* (\$/acre)
PHY 443 W3FE	1648	37	3.7	1.18	31.4	83.9	53.0	873
PHY 332 W3FE	1652	36	3.6	1.24	30.4	82.6	52.7	871
PHY 400 W3FE	1677	39	3.5	1.22	31.2	82.3	48.4	808
PHY 350 W3FE	1405	35	3.6	1.23	31.5	83.8	53.8	756
PHY 480 W3FE	1510	35	3.3	1.21	30.7	83.5	47.5	716
PHY 500 W3FE	1448	36	3.1	1.19	33.2	83.1	46.9	679
PHY 580 W3FE	1501	37	3.1	1.22	30.3	82.9	42.7	641
PHY 394 W3FE	1350	35	3.2	1.27	30.6	82.2	43.4	585
<b>Mean</b>	1524	36	3.4	1.22	31.2	83.0	48.6	741
<b>CV %</b>	5.2	2.1	7.2	1.4	2.6	0.7	6.2	8.0
<b>P&gt;F</b>	0.0009	0.0002	0.0478	0.0006	0.0123	0.0224	0.0019	0.0002
<b>STD DEV</b>	123	1	0.2	0.03	0.9	0.7	4.3	105

#### Notes:

Highlighted values are significantly same as the highest value at P<0.1

Samples were ginned by a conventional gin.

### Agronomic information

County	Wilbarger			
Cooperator	Donald Shoppa			
Technologies	Mixed			
Irrigation	Dryland	Planted into wheat stubbles		
Plant	6/3/2020			
Harvest	12/27/2020			
GDD	207	days		
Population	24100			
Rows	8	rows	40"	width
Plot size	0.91	ac		

### Precipitation

Month	Precip. (in)
April	0.78
May	7.52
June	1.55
July	1.34
August	1.61
September	1.84
October	2.21
November	0.56
<b>Total</b>	<b>17.41</b>

\*WestTexasMesoNet at Odell

Variety	Lint (Lbs/ac)	Gin turnout (%)	Micronaire	Fiber Length (inch)	Strength (g/tex)	Unif	Loan Value (cents/lb)	Lint Value (\$/acre)
FM2498GLT	912	40	5.2	1.13	29.6	81.3	51.5	468
PHY400W3FE	860	43	4.3	1.11	28.3	80.7	52.9	455
PHY480W3FE	846	41	4.7	1.08	27.7	81.8	52.4	443
NG4098B3XF	815	44	5.1	1.19	30.6	80.2	51.6	421
DP2044B3XF	783	44	4.5	1.21	30.3	79.7	52.8	413
ST5707B2XF	767	38	4.9	1.14	29.3	81.6	51.6	396
ST4990B3XF	708	37	4.5	1.15	28.8	81.9	53.8	381
DP1549B2XF	728	40	4.0	1.10	27.3	79.6	52.2	380
NG4936B3XF	701	36	4.5	1.16	26.8	81.7	53.6	376
PHY350W3FE	709	39	4.3	1.12	28.2	80.9	53.0	375
DP1646B2XF	650	40	4.2	1.20	29.4	80.6	53.6	348
NG5711B3XF	599	38	3.9	1.15	28.1	80.2	53.5	320
<b>Mean</b>	<b>756</b>	<b>40</b>	<b>4.5</b>	<b>1.14</b>	<b>28.7</b>	<b>80.8</b>	<b>52.7</b>	<b>398</b>
<b>CV %</b>	<b>9.7</b>	<b>4.0</b>	<b>8.7</b>	<b>1.8</b>	<b>3.3</b>	<b>1.3</b>	<b>2.2</b>	<b>10.0</b>
<b>P&gt;F</b>	<b>0.0011</b>	<b>&lt;.0001</b>	<b>0.0105</b>	<b>&lt;.0001</b>	<b>0.001</b>	<b>NS</b>	<b>NS</b>	<b>0.0047</b>
<b>STD DEV</b>	<b>91</b>	<b>3</b>	<b>0.4</b>	<b>0.04</b>	<b>1.2</b>	<b>0.8</b>	<b>0.8</b>	<b>44</b>

#### Notes:

Highlighted values are significantly same as the highest value at P<0.1  
Turnout is higher with the table-top gin than using a conventional gin.



<http://cotton.tamu.edu/>

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