



## Result Demonstration Report

**2016 Fort Bend County Cotton Variety Trial**  
**Texas A&M AgriLife Extension Service**  
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### Summary

In 2016, cotton regained the top spot in acres under production in Fort Bend County at 27,700 acres, up from 25,600 in 2015. With a reduced boll weevil eradication assessment on a per-bale basis and weaker grain prices, cotton acres are expected to increase again in 2017. As such, it is important to evaluate available varieties and other best management practices to provide producers with up-to-date information to make important production decisions.

### Objective

The objective of this demonstration plot was to evaluate twelve cotton varieties for yield, quality, and value, and to provide unbiased data that local producers can reference when selecting cotton varieties for Fort Bend County and surrounding areas.

### Materials and Methods

Twelve cotton varieties (Phytogen 312 WRF, Stoneville 4848 GLT, NexGen 5007 B2XF, DeltaPine 1646 B2XF, Phytogen 333 WRF, DeltaPine 1553 B2RF, Croplan 3885 B2XF, Dyna-Gro 3526 B2XF, Fibermax 2007 GLT, and Stoneville 6182GLT) were planted on April 5, 2016. The experiment was arranged in a randomized complete block design with 12 rows (36" spacing) per treatment and three replications. Because of rainfall throughout the growing season, the plot was only irrigated once in July. The plots were managed uniformly for insect and weed pressure and were harvested on October 5, 2016. Each plot was weighed in the field and samples were taken to evaluate percent turnout, micronaire, length, strength, and uniformity and loan value was calculated based on these fiber quality characteristics. An analysis of variance (ANOVA) was performed for each and means were separated using Fisher's protected LSD.

### Results

There was no statistical difference in yield, micronaire, strength, uniformity, loan value, or lint value, among the ten varieties. There were differences in percent turnout, and length ( $p = 0.0011$  and  $p = 0.0034$ , respectively) among the ten varieties tested. Yield, quality, and other attributes can be found in Table 1.

**Table 1. Yield, quality, and economic data for Fort Bend County cotton variety trial, 2016<sup>1</sup>**

Variety	Yield (lbs/acre)	Turnout %	Micronaire	Length (inches)	Strength (g/tex)	Uniformity	Loan Value (¢/lbs)	Lint Value (\$/Ac) <sup>2</sup>
NG 5007B2XF	1000 a	46.5 cd	5.1 a	1.11 bcd	27.3 a	81.9 a	51.35 a	514 a
DP 1646B2XF	997 a	47.6 bc	5.2 a	1.21 a	29.0 a	82.9 a	52.13 a	520 a
PHY 312WRF	992 a	48.3 bc	5.1 a	1.11 bcd	29.6 a	83.8 a	52.00 a	515 a
PHY 333WRF	983 a	48.9 b	5.2 a	1.14 bc	29.2 a	83.0 a	51.98 a	511 a
ST 6182GLT	969 a	51.2 a	5.0 a	1.11 bcd	27.6 a	81.9 a	52.98 a	512 a
DP 1553B2XF	963 a	47.1 bc	5.1 a	1.15 b	28.6 a	82.8 a	53.15 a	512 a
CL 3885B2XF	961 a	47.2 bc	5.2 a	1.09 d	27.9 a	83.1 a	50.23 a	483 a
ST 4848GLT	942 a	51.3 a	5.3 a	1.08 d	27.8 a	81.4 a	50.13 a	472 a
DG 3526B2XF	903 a	48.8 b	5.4 a	1.10 cd	27.1 a	81.9 a	50.05 a	451 a
FM 2007GLT	814 a	44.8 d	4.5 a	1.11 bcd	26.8 a	80.3 a	53.73 a	437 a
<b>Mean</b>	<b>968</b>	<b>48.2</b>	<b>5.08</b>	<b>1.12</b>	<b>28.1</b>	<b>82.3</b>	<b>51.77</b>	<b>492</b>
P>(F)	0.9153	0.0011	0.064	0.0034	0.1012	0.0734	0.3655	0.336
LSD (P=.05)	---	2.061	---	0.0432	---	---	---	---
STD DEV	72.75	0.91	0.19	0.02	0.86	0.87	1.66	36.79
CV %	7.52	1.89	3.81	1.71	3.05	1.05	3.20	7.47

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

<sup>2</sup> Lint values were calculated using the 2016 Upland Cotton Loan Valuation Model from Cotton Incorporated. CL= Croplan Genetics, DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

### **Summary and Conclusions**

The objective of this result demonstration was met and it will provide an unbiased analysis of the ten varieties of cotton for production in Fort Bend County. While there was some variability in yield, there were no statistical differences among the ten varieties. This result demonstration will provide producers with valuable information to help them select cotton varieties for Fort Bend County. Due to the continued interest in growing cotton, this result demonstration will be continued next year.

**For additional information and results from other locations, please visit:**

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

and

<http://cotton.tamu.edu>

### **Acknowledgements**

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