

Applied Research Report

2018 Replicated Agronomic Cotton Evaluation Trials, Comanche County

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Summary

Cotton production in Comanche County has grown to nearly 8000 acres in 2018. With this increase in acres cotton has become a very important crop in the county. There has been little to no variety testing done to aid producers in their cotton variety selections. Variety selection is the most important decision made during the year. 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. This year we participated in the large replicated plot State RACE trials. We hope these trials will aid producers when making variety selections.

Objective

To test cotton varieties to provide producers and local agriculture businesses data on performance of various varieties in Comanche County.

Materials and Methods

The Comanche trials were planted on May 15th, due to extremely wet field conditions harvest had to be delayed until November 17. Trials were planted on 6 rows 3260' in length and replicated 3 times at a plant population of 42,000/acre. Total area harvested per plot was 1.23 acres. Irrigation was provided by a pivot as required. Cotton was harvested with a stripper/baler and was ginned at a commercial gin. All sample information for the Comanche trials came from the commercial gin.



Results and Discussion

Variety	Yield (lbs/acre)	Turnout %	Micronaire	Length (inches)	Strength (g/tex)	Uniformity	Loan Value (¢/lbs)	Lint Value (\$/Ac) ¹
DP 1845B3XF	2129 a	46.8	3.8 d	1.21 a	30.0 a	79.5 c	53.45 a	1138 a
NG 5711B3XF	2100 a	44.5	4.1 b	1.15 bc	29.1 a	80.3 bc	54.00 a	1134 a
ST 4848GLT	2057 ab	43.8	4.1 b	1.15 bc	29.1 a	80.3 bc	54.00 a	1111 ab
ST 5471GLTP	2054 ab	40.5	4.1 b	1.14 cd	28.8 a	80.2 bc	53.63 a	1102 ab
CL 9608B3XF	1935 abc	45.3	4.0 bc	1.15 bc	29.3 a	79.6 c	53.72 a	1039 abc
DP 1646B2XF	1858 bc	46.2	4.1 b	1.15 bc	29.1 a	80.3 bc	54.00 a	1003 bc
FM 2498GLT	1793 c	40.5	4.5 a	1.14 bcd	29.4 a	79.9 bc	53.72 a	963 c
PHY 330 W3FE	1765 c	41.9	4.1 b	1.16 b	30.3 a	80.7 ab	54.13 a	955 c
DG 3385B2XF	1488 d	41.7	4.1 b	1.13 d	29.0 a	80.3 bc	53.57 a	797 d
PHY 480 W3FE	1428 d	39.4	3.9 cd	1.15 bc	30.0 a	81.6 a	54.17 a	773 d
Mean	1861	43.1	4.07	1.15	29.4	80.3	53.84	1002
P>F	0.0001	--	0.0004	0.0009	0.5663	0.034	0.1008	0.0001
LSD (P=.10)	206.3	--	0.176	0.0217	1.327	0.901	0.4362	111.07
STD DEV	145.70	--	0.13	0.02	0.94	0.64	0.31	78.45
CV%	7.83	--	3.06	1.33	3.19	0.79	0.57	7.83

¹ Lint values were calculated using the 2018 Upland Cotton Loan Valuation Model from Cotton Incorporated. CL=Croplan, DG= Dyna-Gro, DP=DeltaPine, FM=FiberMax, NG=NexGen, PHY=Phytogen, ST= Stoneville.

Conclusions

Due to the late summer and fall historic rainfall amounts and rain delays there is no doubt quality and lint quality were reduced in the Comanche Trials. 2018 was an odd year, however the data is still valuable to producers. Multi-year test will provide more reliable data for producers.

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