Texas Cooperative EXTENSION
The Texas A&M University System

Result Demonstration/Applied Research Report

STACKED COTTON VARIETY DEMONSTRATION

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SUMMARY

Fourteen cotton varieties were compared in replicated plots under similar field conditions. Deltapine 454 BR, Stoneville 5599 BR and Deltapine 445 BR were the highest yielding varieties. Phytogen 480 WR had the highest loan value of 58.05 cents per pound.

PROBLEMS

Area cotton producers are continually searching for a cotton variety that will increase net profits through increased yield and fiber qualities. Higher strength and longer staple are the primary characteristics they are looking for.

OBJECTIVE

To find a cotton variety that will increase net profit with an increase in yield and fiber qualities. These varieties must also fit the limited irrigation of the St. Lawrence cotton growing region.

MATERIALS AND METHODS

The field used for this test was drip irrigated and received 2 inches of pre-irrigation. The varieties were planted in 6 row plots replicated 3 times to a 2X1 pattern on 32" spacing on May 23rd. The field had RoundupOriginal Max® applied for weed control. The plots received 4 inches of summer irrigation. The plots were fertilized with 90 units of Nitrogen and 8 lbs of Miller Solugro® per acre during the season. No insecticide was applied during the season. The plots were defoliated with Prep® (1.5 pt) + Def® (1.5 pt) and desiccated with Boa® (25 oz). They were stripper harvested on November 3rd and weighed in a boll buggy. Samples were ginned and fiber samples were sent off for classing.

RESULTS, DISCUSSION AND ECONOMIC ANALYSIS

As seen in Table 1, the yields in this plot ranged from 1632 lb/acre to 1940 lb/acre. The higher yielding varieties were Deltapine 454 BR, Stoneville 5599 BR and Deltapine 445 BR. Loan values ranged from 53.75 cents to 58.05 cents per pound with Phytogen 480 WR being the highest.

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TABLE 1: YIELD QUALITY AND ECONOMIC DATA FOR STANDARD VARIETY TEST, BILLY EGGEMEYER FARM 2005.

Planted 5-23-05
Harvested 11-3-05

VARIETY	YIELD	% LINT	GRADE	LEAF	STAPLE	MIC	STRENGTH	UNIFORMITY	LOAN VALUE	VALUE/ ACRE
Deltapine 454BR	1940	34.5	31	1	35	3.2	28.2	81.8	52.50	1018.50
Stoneville ST5599BR	1862	32.0	31	2	36	3.5	28.6	80.4	56.90	1059.48
Deltapine 445BR	1858	34.5	31	2	37	3.6	31.1	82.0	57.55	1069.28
Deltapine 455BR	1833	34.2	31	1	37	3.5	29.9	81.7	57.35	1051.23
Deltapine X04Y170BR	1814	33.3	31	2	36	3.5	29.2	80.7	56.90	1032.17
FiberMax 960B2R	1800	31.8	31	1	37	3.2	30.2	81.1	53.75	967.50
Deltapine 449BR	1770	31.8	31	1	36	3.5	31.6	82.3	57.35	1015.10
FiberMax 800B2R	1755	30.8	31	1	38	3.2	31.9	82.1	53.95	946.82
Deltapine 488BR	1705	30.8	31	1	36	3.3	30.7	80.9	55.45	945.42
Phytogen 470WR	1697	29.8	31	2	37	3.4	30.4	82.3	55.45	940.99
Deltapine X05X648DR	1699	33.7	31	1	36	3.4	27.8	80.4	55.00	917.95
Phytogen 480WR	1655	29.7	31	1	37	3.7	31.8	82.9	58.05	960.73
Deltapine 555BR	1638	33.4	31	1	35	3.3	27.7	80.1	54.20	887.80
Deltapine 543DR	1632	30.8	31	2	37	3.4	28.9	81.0	55.20	900.86