Result Demonstration/Applied Research Report

Dryland Cotton Round-Up Ready Variety Comparison

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Summary

A field demonstration was conducted to compare eight cotton varieties with the Round-Up Ready Trait in dryland production in Mitchell County. The lack of replication causes uncertainty in the data collected, thus, strong conclusions cannot be obtained from these results. However, while this trial cannot help determine which of these varieties was the best for lint production, it can be useful in assisting a grower in choosing a variety that may have better fiber characteristics.

Objective

New cotton varieties continue to be developed by seed companies and these varieties must be compared to help cotton growers determine the appropriate varieties to plant on their farms. The purpose of this trial was to evaluate and compare eight Round-Up Ready cotton varieties in a dryland production system.

Materials and Methods

Eight Round-Up ready cotton varieties were planted in a field North of Colorado City in Mitchell County, Texas (Table 1). The trial was set up as a strip test the length of the field without replications. The following is a list of the materials and methods used in this test.

Planting Date:	18 June 2003
Seeding Rate:	14 pounds per acre
Planting Pattern:	2-in-1-out on 40" centers

The plots were harvested by hand and ginned at the Lubbock Research and Extension Center. Fiber quality analysis was determined at the Texas Tech Textile Center.

Results and Discussion

The data was obtained from a single 10 foot sample from each variety (Table 1). Thus, it is difficult to obtain defined results pertaining to the lint yield of the varieties demonstrated. In addition, this data represents data from only one year and cannot be used to make recommendations.

Recommendations from this and other similar demonstrations suggest that each grower should examine a variety of interest on their own farm in limited amounts prior to investing large amounts of land in an untested variety.

Table 1. Agronomic Data from Carl Guelker's Dryland Cotton Variety Test (Mitchell County, 2003).

					Fiber Quality								
	Yield Per Acre In Pounds		% Turnout		Color-Leaf	Fiber Length (staple)	Mic	Strength (gram/tex)	Uniformity	CCC Loan Value	Lint Gross Return ($/acre)	Seed Gross Return ($/acre)	Total Gross Return ($/acre)
Variety	Lint	Seed	Lint	Seed									
DP 5690 R	834	1435	24.1	41.5	311	37	3.5	32.3	82.5	56.20	468.73	89.66	558.39
FM 989 R	738	1275	24.1	41.6	311	38	3.6	30.4	82.4	55.95	412.90	79.68	492.57
BCG 24 R	680	1260	21.4	39.7	311	35	3.6	29.7	83.1	55.55	377.50	78.74	456.24
PHY 410 R	526	968	23.0	42.4	322	38	3.5	30.7	84.4	54.10	284.50	60.52	345.02
ST 4793 R	575	1010	23.6	41.4	331	36	3.9	29.3	82.9	48.95	281.66	63.13	344.78
ST 5303 R	497	951	23.5	44.9	331	37	4.0	33.4	84.9	50.05	248.94	59.46	308.40
BCG 30 R	361	800	19.8	43.9	321	38	3.4	30.0	81.9	51.70	186.46	49.98	236.44
DP 5415 R	340	670	20.1	39.6	221	39	3.2	29.2	81.6	50.45	171.35	41.84	213.20

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