

Result Demonstration Report

2010 IRRIGATION COTTON VARIETY DEMONSTRATION

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La Feria, TX, Cameron County

SUMMARY: Eight cotton varieties were evaluated for yield and fiber quality to provide local cotton producers information on their performance. It should be stressed that producers need to analyze several years of locally produced variety performance data when deciding which variety to plant in their operation. Using data from only one year is not recommended.

PROBLEM: No single cotton variety is ideal for all producers in the Rio Grande Valley. This is due to many variables such as soil types, rainfall patterns, insect pressure, irrigation availability, farmer management, risk management, etc. Private industry and publically supported breeding programs are constantly introducing new varieties. There is a need to continue to evaluate these varieties in order to insure that local producers are using the top performers available in terms of yield and quality.

OBJECTIVE: To evaluate the performance of cotton varieties grown under commercial irrigated production conditions in Cameron County.

MATERIALS AND METHODS: An irrigated field farmed by Mr. Ed Bauer was the site for this demonstration. The field located south of La Feria, on FM 506. Exact location of cotton result demonstration, ½ mile from FM 506 on Zimmerer Rd. Canal on East side of the field. The previous crop grown was sorghum. The soils in this field consist mostly of Harlingen Clay, according to the United States Department of Agriculture National Resources Conservation Services “Web Soil Survey” web site.

The cotton variety trail was planted in plot design. The field site consisted of six rows per plot with eight plots replicated 3 times in the selected field site. Row length was 1485 ft, with 40 inch spacing.

The field was planted on March 24, 2010 using a six-row John Deere Max Emerge planter. Cultural practices normally used by for commercial irrigated cotton production such as tillage, cultivation, irrigation, etc. were applied to all plots equally. The result demonstration was located in a commercial field on the Bauer Farms in Cameron County. Texas. It was managed the same as the surrounding fields for fertility, insect and disease control and irrigation. All plots were harvested on August 13, 2010.

Table 2. Uniform Stacked-Gene Cotton Variety Trials, 2010
Cameron County
Cooperator: James Bauer
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Variety	Lint (lbs/acre)		Turnout %		Micronaire		Length (inches)		Strength (g/tex)		Uniformity		Loan Value (¢/lb)		Lint Value (\$/acre)	
FM 1740 B2F	1164	a	44.0	bc	4.93	b	1.11	bcd	29.17	abc	83.73	b	52.73	bc	614.00	a
DP 0920 B2RF	1123	a	44.8	b	5.33	a	1.08	d	27.00	e	82.60	d	49.80	d	560.30	abc
PHY 367 WRF	1104	ab	43.3	cd	4.70	c	1.12	ab	29.27	ab	83.43	bc	53.45	ab	590.00	ab
CL 3220B2RF	1053	abc	43.4	cd	4.93	b	1.09	cd	27.87	cde	83.37	bc	52.23	c	550.00	bc
DP 1032 B2RF	1009	bc	46.6	a	4.70	c	1.12	b	28.17	b-e	82.93	cd	53.28	abc	537.30	bc
FM 9160 B2F	1005	bc	41.9	e	4.50	d	1.15	a	30.00	a	85.43	a	54.08	a	543.30	bc
AT Apex B2RF	981	c	42.8	d	4.70	c	1.11	bc	27.77	de	83.30	bc	53.32	abc	523.00	c
PHY 375 WRF	960	c	43.7	cd	4.67	cd	1.09	d	28.53	bcd	83.70	b	52.87	bc	507.30	c
Mean	1049.6		43.81		4.81		1.11		28.47		83.56		52.72		553.17	
P>F	0.0138		0.0001		0.0001		0.0001		0.008		0.0001		0.0001		0.0432	
LSD (P=.05)	112.1		0.896		0.182		0.0247		1.384		0.723		1.1544		62.1	
STD DEV	64.02		0.512		0.104		0.0141		0.79		0.413		0.6591		35.46	
CV%	6.1		1.17		2.16		1.27		2.78		0.49		1.25		6.41	

Planting date: 3/24/10

Harvest date: 8/13/10

Irrigated: yes

Row spacing: 40 inches

Plot sizes: 12 rows by 1485 feet.

Each variety was replicated 3 times in a RCB design.