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2007 Cotton Variety Selection

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Table 1 is a summary of cotton yields from the testing of 24 different varieties over four years in the Sacramento Valley. In the far right of the table, average cotton lint yields over years are compared to DeltaPine (DP) 444 BG/RR in the upper part of the table, or to DP 388 in the lower part of the table. This over years average may not include all of the trials in each row for a particular variety because DP 444 BG/RR and DP 388 were not included in every trial over the years.

This is the third year several San Joaquin Valley Acala cotton varieties have yielded very close or higher than the two comparison varieties, DP 444 BG/RR and DP 388. **PHY 710R** has been tested in three trials over three years averaging 101 % of DP 444 BG/RR, but when including an estimate of the influence of the 2004 Butte trial yield of 112% of DP388, it is closer to 106% of DP444 BG/RR over the three trials.

This year we tested three pima cottons and one pima/upland hybrid cotton. The pimas only yielded 65 to 76 % of DP 388, but the hybrid cotton, **HA 175**, yielded 108 % of DP 388 with near pima quality. However, roller ginning, which is not available in the Sacramento Valley, is necessary for high quality cotton. The trial for this short season variety was planted on May 6, 2006.

ST 4554 B2RF was grown extensively for seed production in 2006 and did well in many fields as it did in one trial at 102 % of DP 444 BG/RR. The seed premium for other varieties being grown for seed production may make them more desirable even though they are lower yielding.

Varieties are changing so quickly that 60 % of the varieties in Table 1 have been only tested in one trial. Further testing could greatly change the results for varieties only tested once.

Tables 2, 3, and 4 show the quality results. Fiber length, fiber strength, and micronaire are typically the three fiber quality characteristics of most importance when comparing varieties being grown in the Sacramento Valley.

All of the yield and quality results reported are from large scale grower strip trials (4 to 6 rows by 1200 feet) with 3 to 4 replications. These trials would not be possible with the generous support of the growers and seed companies involved.

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Table 1: 2003 to 2006 Sacramento Valley Cotton Variety Trial Yield Results

(Yields in pounds lint per acre & as a % of DP 444 BG/RR or DP 388 for each location)

Variety	2003 Colusa		2003 Butte		2004 Butte		2004 Colusa		2005 Colusa 1		2005 Colusa 2		2006 Colusa 1		2006 Colusa 2		2003-06 Average	2003-06 Average	# of trials	# of years
	(lb/A)	DP 388 (%)	(lb/A)	DP 388 (%)	(lb/A)	DP 388 (%)	(lb/A)	DP 388 (%)	(lb/A)	DP 388 (%)	(lb/A)	DP 444 BG/RR (%)	(lb/A)	DP 388 (%)	(lb/A)	DP 444 BG/RR (%)	% DP 444 BG/RR	% DP 388		
ST 4686 R											1600	103					103		1	1
DP 117 B2RF															1733	102	102		1	1
ST 4554 B2RF															1730	102	102		1	1
DP 432 R							1699	102			1590	102			1729	102	102		3	3
PHY 710 R					1885	112					1723	111			1560	92	101		3	3
DP 444 BG/RR	1430	104			1556	92	1580	94			1557	100			1692	100	100		5	4
ST 4575 BR					1753	104					1560	100					100		2	2
ST 5242 BR			1167	85											1694	100	100		2	2
DP 110 RF															1691	100	100		1	1
PHY 725 RF															1607	95	95		1	1
STX 0504 B2RF															1586	94	94		1	1
DP 434 R							1616	97			1416	91					91		2	2
CPCSD Riata RR					1765	105									1521	90	90		2	2
ST 6611 B2RF															1481	88	88		1	1

In the 2003-06 average columns (3rd & 4th columns from right edge), varieties above are a % of DP 444 BG/RR and below are a % of DP 388

HA 175 (hybrid)																		108		1	1
STX 0503 RF																		107		1	1
DP 393					1770	105	1711	102	1444	104								104		3	2
DP 388	1374	100	1367	100	1685	100	1672	100	1384	100					1687	100	104	100	6	4	
CPCSD Sierra RR			1317	96	1700	101					1429	92						99		3	3
CPCSD Summit			1366	100	1639	97												98		2	2
FiberMax 958 LL									1299	94								94		1	1
PHY 629 (pima)															1276	76		76		1	1
DP 340 (pima)															1257	75		75		1	1
DP HTO (pima)															1090	65		65		1	1

Trial results are available for 102 other cotton varieties tested in the Sacramento Valley.

Table 4: 2003 to 2006 Sacramento Valley Cotton Variety Trials Micronaire Results.

Micronaire	2003 Colusa	2003 Butte	2004 Colusa	2004 Butte	2005 Colusa 1	2005 Colusa 2	2006 Colusa 1	2006 Colusa 2
DP 444 BG/RR	3.0		4.8	3.6		3.3		4.0
DP 388	3.1	3.3	4.8	4.0	4.1		4.1	
CPCSD Sierra RR		3.2		3.6		3.3		
ST 4575 BR				3.8		3.3		
PHY 710 R				4.0		3.7		4.4
DP 393			4.9	4.0	4.2			
DP 432 R			4.6			3.3		4.5
DP 434 R			5.0			3.0		
CPCSD Summit				4.1				
CPCSD Riata RR				3.9				4.1
ST 4686 R						3.4		
FiberMax 958 LL					4.1			
STX 0503 RF							4.1	
HA 175 (hybrid)							3.8	
DP 340 (pima)							3.7	
DP HTO (pima)							3.8	
PHY 629 (pima)							3.7	
PHY 725 RF								4.1
DP 110 RF								4.4
DP 117 B2RF								4.1
ST 5242 BR		3.3						4.0
ST 4554 B2RF								4.1
ST 6611 B2RF								4.1
STX 0504 B2RF								3.8