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2005 Cotton Variety Selection

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A summary of the yield results from the testing of 30 different cotton varieties over five years in the Sacramento Valley is shown in Table 1. All of these yields are from large scale strip trials of six rows by a quarter mile and were replicated three or four times. In the far right of the table, average cotton lint yields over years are compared to DeltaPine(DP) 388.

DP 388 is a high yielding moderate quality cotton variety. It has been planted on the majority of the acreage since 2000. DP 388 has been such a consistent performer in the Sacramento Valley that several years of trial results should be used to find better varieties to replace it. A variety with Roundup resistance, higher yields than DP 388 and acceptable quality is the ideal variety.

Several high quality Acala varieties (CPCSD Hammer, PHY 710 R, CPCSD Riata, & CPCSD Sierra RR) were included in the 2004 trials and yielded much higher than previous Acalas tested. Since previously tested Acalas have produced 25 percent less yield than DP 388 it will be important to look at another year of testing in the Sacramento Valley before planting them on a large scale.

Table 2 gives the quality results for the better varieties from 2000 through 2004. 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.

Table 1: 1999 to 2004 Sacramento Valley Cotton Variety Trial Yield Results

(Yields in pounds of lint per acre & as a % of DP 388 for each location)

Variety	1999 3 Location Avg		2000 Colusa		2000 Butte		2001 Butte		2002 Colusa		2003 Colusa		2003 Butte		2004 Butte		2004 Colusa		1999-04 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 388 (%)	(lb/A)	DP 388 (%)	(lb/A)	DP 388 (%)	(lb/A)	DP 388 (%)	% DP 388			
	CPCSD Hammer															1967	117			117		
PHY 710 R															1885	112			112	1	1	
SG 521 R									1545	106	1483	108							107	2	2	
SG 215 BG/RR									1608	110	1379	100							105	2	2	
CPCSD Riata RR															1765	105			105	1	1	
ST 4575 BR															1753	104			104	1	1	
DP 393															1770	105	1711	102	104	2	1	
SG 105									1549	106	1346	98							102	2	2	
DP 432 R																	1699	102	102	1	1	
DP 388	1506	100	1530	100	995	100	1526	100	1461	100	1374	100	1367	100	1685	100	1672	100	100	10	6	
ST 5303 R											1364	99							99	1	1	
CPCSD Sierra RR													1317	96	1700	101			99	2	2	
ST 457									1495	102	1302	95							99	2	2	
CPCSD Summit													1366	100	1639	97			98	2	2	
ST 5599 BR												1349	98						98	1	1	
ST 4793 R					872	88			1522	104							1629	97	97	3	3	
DP 434 R																	1616	97	97	1	1	
SG 125 R	1261	96																	96	2	2	
FiberMax 958			1187	78					1668	114									95	2	2	
DP 444 BG/RR											1430	104			1556	92	1580	94	95	3	2	
S 102	1395	92			1077	108	1077	71					1243	91	1712	102			92	5	5	
DP 5111	1254	90	1269	83	1032	104	1426	93											91	11	6	
DP 451 BR									1322	90									90	1	1	
NOB															1469	87			87	1	1	
DP 424 BGII/RR													1158	85			1470	88	86	2	2	
ST BXN 47	1209	80	1268	83					1463	100									86	5	4	
S 81	1270	84			857	86	871	57					1292	95	1642	97			86	5	4	
ST 5242 BR													1167	85					85	1	1	
ST 4646 B2R													1110	81					81	1	1	
ST X3990 BR													1094	80					80	1	1	

Trial results are also available for the following 78 varieties: A 10, AP 6101, B 25507, B 3153, B 32799, B 33043, B 33055, B A4429, CPCSD 141, CPCSD GTO Maxxa, CPCSD M515, CPCSD M611, CPCSD M657, CPCSD M658, CPCSD Maxxa, CPCSD NC4, CPCSD NC5, CPCSD Royale, DP 20, DP 2379, DP 32B, DP 50, DP 5305, DP 5409, DP 5415, DP 5415 R, DP 5690, DP 5690 R, DP 90, DP 90 R, DP 9050, DP 9057, DP X99MO3, DP XDES607, Drima, FiberMax 832, FiberMax 963, FiberMax 989, GC 120, GC 204, GC 251, GC 271, GC 303, IF 1005, McNair 220, MSR 1, NuCOTN 33B, NuCotn 35B, PHY 33, PM 1215, PM 1215 R, PM 1220, PM 1220 BG/R, PM 1220 R, PM 1330, PM 1330 R, PM 1560 BG, PSC 355, PSC 413, PSC 569, SG 125, SG 125 BG/R, SG 150 R, SG 404, SG 501, SG 585 R, SG 747, SG 821, SJ 2, ST 132, ST 373, ST 474, ST M002, ST X6MO45, ST X9903RR, W 10, & Zoi

Table 2: 2000 to 2004 Sacramento Valley UCCE Cotton Variety Trial Quality Results

Length	2000 Colusa	2000 Butte	2001 Butte	2002 Colusa	2003 Colusa	2003 Butte	2004 Colusa	2004 Butte	2000-04 Average %DP 388
DP 434 R							35.0		104
PHY 710 R								37.7	104
DP 393							35.1	37.3	103
CPCSD Summit								37.5	103
CPCSD Riata								37.3	102
DP 432 R							34.3		102
ST BXN 47	37.1			36.0					102
CPCSD Sierra RR						37.0		37.0	101
S 102			35.2			37.8		36.2	100
DP 388	36.2	37.4	35.5	35.7	37.0	36.7	33.7	36.4	100
ST 4575 BR								36.3	100
ST 457				37.0	35.3				99
CPCSD Hammer								35.9	99
DP 444 BG/RR					36.7		33.1	35.7	99
ST 4793 R				35.0			32.5		97
SG 521 R				34.7	35.7				97
SG 215 BG/RR				34.3	35.0				95

Strength

S 102			34.0			35.1		36.0	118
CPCSD Sierra RR						32.4		33.5	108
PHY 710 R								33.9	107
CPCSD Summit								33.9	107
CPCSD Riata								33.4	106
CPCSD Hammer								33.0	104
ST 457				31.9	28.1				103
DP 393							30.9	32.0	101
DP 388	29.7	29.9	28.1	30.5	27.9	29.3	30.5	31.6	100
ST BXN 47	30.7			29.5					100
DP 432 R							30.4		100
ST 4575 BR								30.9	98
ST 4793 R				30.5			28.9		97
DP 444 BG/RR					28.4		27.8	30.0	96
SG 215 BG/RR				28.3	27.4				95
SG 521 R				29.1	26.4				95
DP 434 R							28.2		92

Micronaire

ST 4793 R				4.4			5.4		109
CPCSD Hammer								4.3	108
DP 434 R							5.0		104
SG 521 R				4.4	3.2				104
S 102			4.8			3.5		4.1	103
CPCSD Summit								4.1	103
DP 393							4.9	4.0	101
SG 215 BG/RR				4.2	3.1				100
DP 388	4.4	2.6	4.7	4.2	3.1	3.3	4.8	4.0	100
PHY 710 R								4.0	100
ST BXN 47	4.1			4.3					98
CPCSD Riata								3.9	98
ST 457				4.0	3.1				97
DP 432 R							4.6		96
DP 444 BG/RR					3.0		4.8	3.6	96
ST 4575 BR								3.8	95
CPCSD Sierra RR						3.2		3.6	93

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