Field Crops

Serving the Northern Sacramento Valley

University of California Cooperative Extension Butte, Glenn & Tehama Counties

March 19, 2003
Vol. VIII, No. 2

Douglas J. Munier
Farm Advisor

2003 Cotton Variety Selection

Doug Munier, Farm Advisor

A summary of the yield results from the testing of 93 different cotton varieties in the Sacramento Valley is shown in Table 1. There are 14 trials over seven years summarized in this table. 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 upper part of the table, **average cotton lint yields over years** are compared to DeltaPine(DP) 388 and in the lower part to Stoneville(ST) 474.

DP 388 is a high yielding and moderate quality cotton variety. It has been planted on the majority of the acreage for the past few years. In the Colusa 2002 trial, DP 388 was unusually low yielding. Be sure and notice that the five varieties which yielded higher than DP 388 were all only tested in one location for one year. A good example of needing several years results is FiberMax 958 located in the middle of the top part of Table 1. It yielded 114 percent of DP 388 in 2002, but only 78 percent of DP 388 in the 2000 Colusa County trial. Its two year over location average yield was 95 percent of DP 388. DP 388 has been such a consistent performer that several years of trial results should be used to find better varieties to replace it.

Table 2 gives the quality results for the 2002 trial. The varieties in this table are sorted by fiber length from longest to shortest. 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.

We will continue our cotton variety testing in two locations during 2003. One trial in Colusa County and one at the CSU Chico School Farm.

Table 2: 2002 Colusa Cotton Variety Trial Quality Results

Variety	Color Grade	Leaf Grade	Mike	Length	Strength	Uniformity	HVI Trash	Color Rd	Color +B
SG 105	11.0	2.0	45.0	37.0	31.5	83.7	1.0	83.0	82.0
STV 457	11.0	2.0	40.7	37.0	31.9	82.3	1.0	82.0	90.0
FM 958	11.0	1.3	45.3	36.7	33.1	82.0	1.0	84.3	75.3
DP 451 BR	11.0	1.0	43.3	36.7	29.4	82.3	1.0	83.3	81.3
DPLX 99MO3	11.0	2.0	38.0	36.0	31.7	82.3	1.3	82.0	86.0
STV BXN47	11.0	1.7	43.3	36.0	29.5	81.7	1.0	81.7	91.0
DP 388	11.0	2.0	42.0	35.7	30.5	82.3	1.0	83.0	83.3
STV 4793 R	11.0	2.0	44.3	35.0	30.5	81.7	1.3	82.3	87.3
SG 521 R	11.0	1.0	44.0	34.7	29.1	82.7	1.0	83.0	82.3
SG 215 BR	11.0	1.0	42.7	34.3	28.3	83.0	1.0	83.0	85.3
$LSD_{.05}$		0.4	2.8	0.9	1.5	1.0	NS	1.2	4.6