

**DP 388 and DP 675, DELTAPINE SEED'S
NEW CONVENTIONAL VARIETIES**

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Abstract

Deltapine Seed Company is introducing two new conventional varieties adapted to the short season and full season picker cotton areas. DP 388 is a very early picker variety, adapted to the northern and central cotton growing areas of the Midsouth and Southeast. DP 388 has a moderately determinant plant habit and is noted for its earliness, high and consistent yield, and excellent micronaire. DP 675 is a full season variety adapted to Arizona and the full season growing areas of the Midsouth and Southeast. DP 675 represents a positive development for the cotton industry because it combines high yield, wide adaptation, improved strength and good micronaire.

DP 388, Very Early Picker Variety

DP 388 was developed by the Deltapine Seed Midsouth Cotton Research program in Scott, MS and was derived from the cross DES 119 x DP 5409. DP 388 is a very early, conventional variety adapted to the northern and central cotton growing areas of the Midsouth and Southeast. Excellent yielding ability, combined with very early maturity, is characteristic of this variety.

Yield performance has been excellent with DP 388 yielding similar to ST 474 in Agronomic Services strip trials in 1998 (Table 1). Estimated crop value for DP 388 was 3% better than for ST 474. DP 388 has the particular advantages of having lower micronaire and higher fiber strength.

Genotype by environment analysis was conducted across three years in the central and northern Midsouth. It indicated that DP 388 has a predictable yield response to better environments similar to that of SG 125, yet at a higher level of yield.

DP 388 has a moderately determinant plant height and has a very early maturity, similar to DP 5111. DP 388 has excellent storm resistance and has light pubescence on the leaves.

DP 388 has shown particular adaptation to the central and northern areas of the Midsouth where earliness and determinacy are critical to maximized production.

DP 675, Full Season Picker Variety

DP 675 was developed by the Deltapine Seed Western Division Cotton Research program and was derived from the cross of DP5415 X Acala 1517-77BR. DP 675 is a full season, semi-cluster, smooth leaf conventional cotton variety. DP 675 was widely tested over five years and has proven to be adapted to Alabama, central Arizona, Georgia, Louisiana, south Mississippi, North Carolina and South Carolina, where indeterminate cotton varieties are grown.

The yield of DP 675 is superior to the most widely grown, delta type, full season, conventional cottons available to the cotton growers today (Table 1). The maturity of DP 675 is similar to DP 5415 with seedling vigor similar to DP 5690 and Deltapine Acala 90.

Replicated test data indicate that when grown even in short season areas, that DP 675 outperformed other full season varieties. Growers in short season areas, desiring to plant a wide range of maturity cottons, will find DP 675 a superior choice.

DP 675 has very excellent fiber quality, being similar to DP 5690 and Deltapine Acala 90 (Table 2). The micronaire is 0.2 lower and the strength is 1.3 gr./tex higher than DP 5415.

DP 675 represents a positive development for the cotton industry because it combines, in a full season variety, high yield, wide adaptation, improved strength and good micronaire.

Table 1. Performance of DP 388 in 1998 Agronomic Services Tests.

Variety	Lint Yield	Lint %	Mic	Staple	Strength	Crop Value
DP 388	944	35.3	4.5	34.5	27.7	\$604
ST 474	935	36.5	4.8	34.5	26.9	\$586
DP 5111	867	32.7	4.9	34.7	29.0	\$535
DP 51	849	34.3	4.7	34.9	25.8	\$543

Crop Value = Yield x (Base price \$0.65/lb - grade/quality discounts)

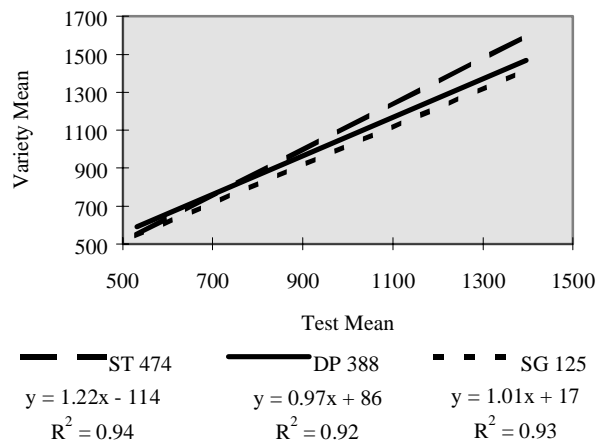


Figure 1. Yield Response of DP 388 in 20 replicated tests across the Midsouth 1996-1998.

Reprinted from the *Proceedings of the Beltwide Cotton Conference*
Volume 1:63-63 (1999)
National Cotton Council, Memphis TN

Table 2. DP 675 yield compared to DP 5415, DP 5690 and DP 90.

Region	% Yield Advantage over: (no. of tests compared)		
	DP 5415	DP 5690	DP 90
Arizona	105 (30)	112 (8)	106 (6)
Midsouth	105 (9)	108 (5)	111 (5)
Southeast	105 (17)	106 (8)	104 (2)

Number in parenthesis is the number of tests used in the variety comparison.

Table 3. DP 675 fiber traits compared to DP 5415, DP 5690 and DP 90.

Reference Variety	Difference of DP 675 from Reference Variety					
	Lint %	Mic	2.5% Len	UI	T1	E1
DP 5415	+1	-0.2	-	+0.8	+1.3	+0.4
DP 5690	+1	-0.2	-	+0.9	+0.9	+0.7
DP 90	-1	+0.1	-0.01	+0.6	+0.5	+0.4