

Short Staple Variety Demonstration, Yuma County, 1989

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ABSTRACT

The standard variety DPL 6l yielded higher in this trial. M-5, a California acala type was tested for the first time.

MATERIALS, METHODS AND DATA

This trial was grown using cooperators' normal cropping procedures. Their equipment was used except for the trailer scales. Yield data were obtained by weighing individual plots from each rep, using trailer scales. Samples were taken from each variety to determine percent turnout.

Crop History

Location: Roll, Arizona

Soil Type: Ripley Silt Loam

Elevation: 240'

Previous Crop: Fall Lettuce 1988, Spring Wheat 1988

Tillage Equipment and Soil Prep Order: Rip 2xs, Disk 2xs, Laser, Fertilize, List, Irrigate, Mulch-lilliston, plant with max emerge planters

Planting Date: 3/17

Planting Rate: 11 lbs/seed/acre

Replications: 4

Herbicide: None

Fertilizer:	Preplant	11-52-0	200 lbs/acre	<u>N</u>	<u>P₂O₅</u>
	Preplant	45-0-0	135 lbs/acre	22	104
	4/14	UN 32	10 gals/acre	60	-
	4/14	10-34-0	10 gals/acre	35	-
	5/31	10-34-0	10 gals/acre	11	37
	6/22	UN 32	10 gals/acre	11	37
				<u>35</u>	
			Total	174 lbs/Acre	178 lbs/Acre
Irrigation:	Pre 2/18	.90 Acre ft./Acre			
	Post 4/14	.50 Acre ft./Acre			
	5/31	.45 Acre ft./Acre			
	6/22	.50 Acre ft./Acre			
	7/24	.50 Acre ft./Acre			
	8/14	<u>.45 Acre ft./Acre</u>			
	Total	3.30 Acre ft./Acre			

Insecticide: Lock On 7/6; Karate + L B Urea 7/17; Lock On 7/24; Karate 8/1, 8/8, 8/15; Cymbush 8/23

PIX: 6/8 - 1/2 pint/Acre

Powergizer (Foliar): 1 quart/Acre 6/8, 1 quart 6/18

Plot Size: 4 - 40" rows x 600 feet

Defoliation: 9/18 - Def, Accelerate, Penox

RESULTS AND DISCUSSION

Table 1. Seed Cotton Yield, % Turnout, Plant Height and Plant Populations
Sharp Farm, Roll, Arizona, Yuma County, 1989

<u>Variety</u>	<u>Lbs. Seed Cotton/Acre^{2/}</u>	<u>% Turnout</u>	<u>Av. Ht. Inches^{3/}</u>	<u>Plants Per Acre^{3/}</u>
DPL 61	3850 a	30.8	42	21,500
BR 110	3740 a	30.9	41	32,000
DPL 50	3520 a	29.0	43	29,000
DES 119	3273 a	34.5	44	35,500
DPL 77	3176 a	35.0	40	30,500
M-5 ^{4/}	2998 a	28.9	46	22,000
DPL 90	2860 a	32.3	48	32,500
Stoneville 453 ^{1/}	3548	31.4	41	32,500
HS 46 ^{1/}	3108	31.7	42	24,000
BR 115 ^{1/}	2915	29.6	39	27,500

^{1/} These varieties planted in 2 reps. only not included in statistical analysis.

^{2/} Values not significantly different at 5% level using Student-Newman-Keuls test.

^{3/} Measurements and counts made at harvest.

^{4/} Acala type variety from California.

This test was planted under a cap. Soon after cap was removed rainfall crusted over the seed row. Light tillage after this made it possible to salvage the test. The number of plants per acre varied considerably as a result. Total production for the field included 78% from 1st pick, 12% from 2nd pick, and 14% from ground cotton. Total per acre yield averaged 2.32 bales/acre.