Short Staple Variety Demonstration, Maricopa Agricultural Center, 1989

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ABSTRACT

A short staple variety trial was conducted on the demonstration farm, at the Maricopa Agricultural Center in 1989. Twenty varieties, received from various seed companies, were entered into the test. Results from the analysis showed significant differences among varieties with no observable performance trend in terms of maturity types (long or short season). The lint yields in this test ranged from 4679 to 3353 lbs. acre^{-1} for DPL90, and S55 respectively.

INTRODUCTION

Cotton variety demonstrations usually consist of varietal entries that have a history of performance that is within the range of competitive yields, for that specific experimental area. However, in this experiment varieties were accepted from commercial seed companies and distributors regardless of past performance, and a limit of 20 total entries was set.

MATERIALS AND METHODS

This study was conducted on the demonstration farm, at the University of Arizona, Maricopa Agricultural Center. The field was planted on 6 April, 1989. This study was conducted according to a randomized complete block design with one main factor (varieties), and 4 blocks. Plots consisted of six, 40 inch rows, on 850 ft. runs. The first irrigation was on 4 May and the last irrigation was on 29 August. The test was harvested on 3 November. The four middle rows, of each six row plot, were picked, and weights were recorded by use of under-wheel trailer scales. Treatment means were made by use of a Fisher's LSD.

RESULTS AND DISCUSSION

Results of the statistical analysis show significant differences, in yield, among varieties (Table 1). Yields in this test ranged from 4679, to 3353 lbs. seedcotton acre^{-1}, for DPL90 and S55 respectively. No distinguishable yield trends were observed with respect to varietal maturity types. In Table 1, for example, we can see that there were no significant differences among the first eleven varieties. Included in this first group are DPL90, DPL50, and HS46, which are late, medium, and early maturing varieties respectively.

Table 1. Mean seedcotton yield values from the full season variety test, University of Arizona, Maricopa Agricultural Center, 1989.

Variety	Yield -- lbs seedcotton $acre^{-1}$ --
DPL 90	4679 A*
DPL 51	4502 A
DPL 50	4565 A
C 40	4515 AB
S 1001	4515 AB
NK 311	4459 ABC
DPX 28116B	4459 ABC
STV 453	4447 ABC
DES 119	4421 ABC
STV BR-110	4324 ABCD
HS 46	4265 ABCDE
S 35	4094 BCDEF
DPL 77	4073 CDEF
STV 907	4053 CDEF
COKER 130	3932 DEFG
STV BR-115	3871 EFG
COKER 139	3709 FGH
S 89	3603 GH
GC 369	3544 GH
S 55	3353 H
$LSD_{0.05}$	144
CV	7.2%

* Means followed by the same letter within a column are not significantly different ($P \leq 0.05$) according to pairwise comparisons using a Fisher's LSD.