A back-crossing program to get rid of the bracts started several years ago and involved the crossing between commercial cultivars with 52 chromosomes and 78 chromosome caducous bract hexaploid cottons developed to initiate this transfer of caducous bract character. The caducous bract trait was found in G. armourianum, a wild lintless diploid cotton with only 26 chromosomes, half the number of chromosomes (52) found in all commercial cultivars. The hexaploids were developed by crossing G. hirsutum X G. armourianum and doubling the chromosomes of the hybrid carrying the caducous bract trait. The 78 chromosome hexploids were crossed with commercial cultivars to form a pentaploid hybrid with 65 chromosomes. These hybrids were allowed to self pollinate, and seeds were planted in 1981. From this population of progenies, three caducous bract aneuploids were selected - two with 58 chromosomes, and one with 60 chromosomes.

To increase the number of caducous bract plants for the second cycle of back-cross breeding, cuttings were made from these plants. The clones from the caducous bract aneuploids were crossed with several commercial cultivars as the recurrent parents. Seeds from these crosses were planted in the field in 1982 and the hybrids allowed to self-pollinate. Self-pollinated seeds from these crosses were planted in 1983, and from this population of progenies, three caducous bract plants were selected. Chromosome counts showed that these plants were trisomics with 53 chromosomes. A few seeds from these trisomic plants are being grown in the greenhouse and the rest will be planted for field evaluation in 1984. These progenies should have chromosome numbers near our goal of 52 chromosomes and the caducous bract trait.

COMPARISON OF MAJOR UPLAND VARIETIES

C. R. Farr, Extension Agricultural Specialist

In 1983 Upland Variety DPL 90 occupied the largest acreage in Maricopa County with 38 % of the total and was compared with major variety DPL 120 by two growers. In each trial neither variety yielded significantly more than the other.

In the Coker test DPL 90 quality was better with 100 per cent 1 1/8 inch staple length and 33% premium micronaire. In the J. T. Ranches trial 100% of DPL 90 grades were Middling compared to 33 % Middlings with DPL 120. All of DPL 120 cotton was premium micronaire but 67 per cent of DPL 90 cotton was 1 1/8 inch staple length.

Coker Bros, Buckeye

Variety	Seed Cotton Lbs 1	2	3	4	5	Lbs Lint Per Acre 1/
DPL 90	1385	1460	1485	1395	1420	1497 a
DPL 120	1440	1295	1420	1395	1435	1475 a

1/ Values followed by the same letter are not signifcantly different at p=0.05 by Duncan's Multiple Range Test.

GRADES

Variety	Grade	Staple	Micronaire
DPL 90	16.6% Middling 83.3% SLM	100% 1 1/8"	100% group 6
DPL 120	100% SLM	83.3% 1 3/32 16.7% 1 1/8	33.3% group 5 66.6% group 6

J. T. Ranches, Waddell

Variety	Seed Cotton, Lbs. 1	2	3	Turnout, Percent	Lbs Lint Per Acre 1/
DPL 120	9740	9440	8900	34.20	1601 a
DPL 90	9220	9160	9079	34.05	1558 a

1/ Values followed by the same letter are not significantly different at p=0.05 by Duncan's Multiple Range Test.

GRADES

Variety	Grade	Staple	Micronaire
DPL 120	66.7% Middling 33.37 SLM	100% 1 3/32"	100% group 5
DPL 90	100% Middling	33.3% 1 3/32" 66.7% 1 1/8"	66.7% group 5 33.3% group 6