

SECTION B : AGRICULTURAL SCIENCES AND FORESTRY

VARIABILITY OF QUANTITATIVE CHARACTERS IN BUNCH GROUNDNUTS

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Thirteen quantitatively inherited agronomic characters were evaluated in twelve bunch groundnut (*Arachis hypogaea* L. Ssp. *fastigiata*) cultivars for five consecutive seasons since Maha 79/80. A single plant progeny from each cultivar was multiplied and used for the estimation of variability parameters and heritability.

Significant differences among cultivars were found for shelling percentage, number of seeds per pod, number of seeds and pods per plant, seed weight and pod weight per plant and the number of primary branches. Modificational variability of the identical character fluctuated within a narrow range in contrasting cultivars and seasons, recording low values (CV_m 8-12%) for the number of seeds per pod, 100 pod weight and 100 seed weight, medium values (CV_m 12-20%) for the yield index, plant height and the number of nodes on the main stem. All the other characters including pod and seed yield of plant recorded high modificational variability ($CV_m > 20\%$). Highly correlated characters such as seed weight, pod weight, number of seeds and number of pods per plant showed similar tendencies in modificational variability and heritability.

Some characters with identical heritability values recorded significant differences in the magnitude of modificational variability. In such cases the identification of genotypic differences under field conditions will be easier for characters with lower modificational variability.

Therefore, the degree of modificational variability should also be considered in predicting selection response of characters by their heritability values.