

Variability and Heritability studies in Groundnut (*Arachis hypogaea* L.)

Krishnaveni Thirlangi, A Appalaswamy, K Madhu Kumar and G Ramesh
Department of Genetics and Plant Breeding, Agricultural College, Naira - 532 185

ABSTRACT

The experiment was conducted with an objective to know the variability, heritability and genetic advance of fifty Groundnut genotypes for fifteen quantitative characters. Analysis of variance revealed significant amount of variability for all the characters studied. Moderate to high variability and high heritability coupled with high genetic advance as per cent of mean was observed for number of primary branches per plant, number of secondary branches per plant, number of mature pods per plant, pod yield per plant, kernel yield per plant, 100 kernel weight, total dry matter per plant and harvest index, indicating the predominance of additive gene action and hence, direct phenotypic selection may be useful with respect to these traits. High heritability coupled with low genetic advance as per cent of mean was observed for the characters, oil content and protein content indicating that these characters were more influenced by environment and governed by non-additive gene action which may be exploited through breeding methods involving hybridization programme.

Key words: Genetic advance, Groundnut (*Arachis hypogaea* L.), Heritability, Variability.