

**GENETIC VARIABILITY STUDIES FOR YIELD AND SURROGATE TRAITS
RELATED TO WATER USE EFFICIENCY IN THE RECOMBINANT INBRED LINE
(RIL) POPULATION DERIVED FROM NRCG 12568×NRCG 12326 OF
GROUNDNUT(*ARACHIS HYPOGAEA* L.)**

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ABSTRACT

Variability studies was carried out in 230 F7RILs of groundnut derived from the cross NRCG 12568 × NRCG 12326 during kharif 2014. High variability was witnessed except for days to 50 % flowering among the RIL's as indicated by analysis of variance, PCV and GCV estimates. High heritability coupled with high genetic advance as % of mean was reported for most of the desired characters under study which can be attributed to the preponderance of additive gene action and hence considering these traits for selection. High heritability coupled with low genetic advance as % of mean was observed for days to 50 % flowering in F7 RIL population studied indicating the preponderance of non-additive gene action in the inheritance of these characters. Moderate heritability coupled with moderate genetic advance as % of mean was observed for shelling percentage and moderate heritability coupled with low genetic advance was witnessed for pods per plant. Moderate heritability indicates that still there is scope to exploit additive gene action through selection but the low genetic advance indicates the preponderance of non-additive gene action and hence selection may not be rewarding for character with low genetic advance.

KEYWORDS: *Groundnut, Genetic Variability, Heritability, Genetic Advance, Soil Plant Analysis Development (SPAD) Chlorophyll Meter Reading and Specific Leaf Area (SLA)*

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