RESEARCH ARTICLE

ASSESSMENT OF CORRELATION AND PATH COEFFICIENT ANALYSIS FOR SEED YIELD AND IT'S CONTRIBUTING TRAITS IN GROUNDNUT (*ARACHIS HYPOGAEA* L.)

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Abstract: Present investigation was carried out to examine the correlation and path analysis for seed yield and its contributing traits in 112 bunch genotypes along with 4 checks of groundnut. The result of character association revealed that dry pod yield per plant was positively and significantly correlated at both genotypic as well as phenotypic level with number of branches per plant (r_g =0.19*, r_p =0.19*), 100-kernel weight (r_g =0.19*, r_p =0.19**), harvesting index (r_g =0.80**, r_p =0.78**) and oil content (r_g =0.20*, r_p=0.20*) proving that grain yield could be enhanced by selecting genotypes containing higher values for these attributes. Path coefficient analysis for dry pod yield per plant was carried out at genotypic level using thirteen characters. Out of these thirteen characters Initiation of pegging, number of branches per plant, 100-kernel weight, harvesting index and oil content exhibited positive significant association with dry pod yield per plant. These characters also exhibited prominent role as indirect effects of most component traits on seed yield per plant hence these traits should be considered as an essential selection criteria toward optimizing crop yield.

Keywords: Groundnut, Correlation, Path Coefficient

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