

Divergence Studies in Blackgram [*Vigna mungo* (L.) Hepper] Genotypes under Rice Fallow Situation

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ABSTRACT

Forty five genotypes of blackgram were studied for genetic divergence employing Mahalanobis' D^2 statistics for yield and yield contributing characters. These genotypes were grouped into seven clusters. Out of seven clusters, cluster III was largest comprising of seventeen genotypes followed by cluster II with sixteen genotypes, cluster I with eight and cluster IV, V, VI, VII with one genotype. Maximum intra cluster distance was observed in cluster III (28.69) followed by cluster II (15.81) and cluster I (10.15), indicating that divergence existed among genotypes of the above clusters. The maximum inter cluster distance (210.34) was observed between cluster IV and VII followed by cluster VI and VII (140.66), cluster III and VI (110.51), cluster II and VII (107.97), cluster IV and V (104.4) and cluster I and VII (93.53). The genotypes of these clusters may therefore be used as parents in the crossing programme to generate the breeding material with high diversity. The maximum contribution towards genetic divergence was by 100 seed weight (33.74%) followed by days to 50% flowering (18.59), days to maturity (16.46) and number of branches per plant (7.37).

Key words: *Black gram, yield and yield component characters, Divergence, Mahalanobis D^2 analysis and Tocher's method*