Combining Ability Analysis for Yield and Yield Components in Urdbean (*Vigna mungo* (L.) Hepper

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ABSTRACT

A diallel analysis of 8 x 8 was studied in Urdbean (*Vigna mungo*) with a view to understand the combining ability, nature of gene action and potential for the exploitation of heterosis for twelve quantitative characters in eight parents and their 28 crosses. The parent LBG 770 recorded relatively high mean performance for seed yield along with plant height and number of clusters per plant. Among the crosses, LBG 17 x LBG 770, LBG 17 x LBG 749 and PBG 107 x LBG 749 were found to have high mean performance for seed yield per plant. LBG 17 and LBG 770 were found to be good general combiners for number of pods per plant and seed yield per plant. The SCA variance was greater than GCA variance for all the traits except plant height, pod length and number of seeds per pod thus indicating the predominance of non-additive gene action for the traits. The best two crosses identified for most of the characters were LBG 17 x LBG 770 and LBG 20 x PBG 107 and involved three good general combiners viz., LBG 17, LBG 770 and LBG 20. These parents can be used in the crossing programme for yield improvement in urdbean.

Key words : Combining ability, GCA, Mean performance, SCA, Urdbean.

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