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## Improving seed yield and yield related traits of *Black Gram (Vigna mungo* L. Hepper) - Selection of potential F<sub>2</sub>s for superior segregants in F<sub>3</sub> generation

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**B**lackgram (*Vigna mungo* L. Hepper) is one of the most highly prized pulses and an important source of protein. It is cultivated as short duration rainfed crop in semiarid areas of South Asian countries where drought is a major production constraint due to low and erratic rainfall. To meet the food and nutritional requirement with water scarcity, climate change, population pressure and environmental degradation, the improvement in crop productivity along with tolerance to abiotic stresses is the need of the hour. In this direction, an attempt was made to develop high yielding and stable genotype/s of blackgram by using a line x tester analysis with 14 lines collected from different agro-climatic zones and three nationally released varieties as testers. The resulting 42  $F_1$  and  $F_2$  hybrids along with parents were grown during kharif and rabi 2013 respectively and based on their number of pods/plant and grain yield, 15 crosses were selected. Five  $F_2$  crosses in each of the three tester groups- PU-19, LBG-20 and T-9 resulting in a total of 15  $F_2$ s were selected for advancing them to  $F_3$  generation. The range of pods/plant and grain yield of crosses with tester PU-19 was 14.4 to 12.0 and 3.01g to 2.57g; with tester LBG-20 was 12.3 to 9.9 and 2.65g to 2.04g; with tester T-9 was 14.7 to 13.1 and 3.31g to 2.89g respectively. The following segegants from  $F_3$  generation of these 15 crosses were assumed that will provide wide variation helping in tagging superior segregants both for high grain yield for plant, along with high pod number per plant useful for developing high yielding varieties in future.

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