

GENETIC ARCHITECTURE OF YIELD AND ITS COMPONENTS IN MUNG BEAN (*VIGNA RADIATA* L.) WILCZEK

Prabha Shankar Shukla, Vidhan Chandra Chaturvedi and Daya Shankar Tiwari

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ABSTRACT : A line x tester analysis involving 20 females (lines) and 3 males (testers) of twice genetic base was conducted for yield and its component characters in mung bean. Significant sca variances for both males and females were observed for days to flower, plant height, days to maturity, number of clusters/plant, 100-seed weight and grain yield/plant. Variances of sca were significant for plant height, number of clusters/plant and grain yield/plant in both F_1 and F_2 generations, for days to maturity and number of seeds in F_1 for days to flower and number of primary branches in F_2 . ML56 was the best general combiner for grain yield, number of primary branches and number of clusters/plant. The estimates indicated a predominant role of additive generation for 100-seed weight. The crosses $S_4 \times K851$ in F_1 and $K18 \times K851$ in F_2 were found the best, an account of performance and significant s.c.a. effect for grain yield/plant. Parents ML56, Pusa Baishakhi S4 provide for potential breeding materials.

Key Words: Combining ability, g.c.a., s.c.a.