

Genetic variability and heritability studies in advanced breeding lines of mungbean

■ HEMANT SAHU, R.K. PANWAR, A.S. JEENA AND JAIRAM AMADABADE

SUMMARY

A study conducted with 35 mungbean [*Vigna radiata* (L.) Wilezek] genotypes to estimate for genetic variability, heritability and genetic advance for 19 quantitative characters over two seasons. Significant variations among the genotypes were observed for all the characters. The estimated values of PCV were higher than GCV for all the characters studied. During 2011 highest estimated heritability (broad sense) value was obtained for plant height followed by nodule volume pod per plant, nodule dry weight, pod length, straw protein %, primary branches and yield per plot whereas for 2012, nodule volume followed by straw protein, nitrogen fixation per plant, number of nodule, pod length, seed protein and nodule dry weight had highest estimates of heritability. While estimates for heritability was lowest for maturity and plant yield in both the season. The highest genetic advance was obtained for yield per plot followed by number of nodules in both the season, whereas nodule dry weight showed lowest genetic advance followed by nitrogen fixation in both the season. High heritability (broad) along with high genetic advance in per cent of mean was observed for yield per plot, plant height and nodule number, suggesting the preponderance of additive gene effect and selection may be effective for these characters.

Key Words : Mungbean, *Vigna radiata*, Variability, Heritability, Nitrogen fixation, Yield components

How to cite this article : Sahu, Hemant, Panwar, R.K., Jeena, A.S. and Amadabade, Jairam (2014). Genetic variability and heritability studies in advanced breeding lines of mungbean. *Internat. J. Plant Sci.*, 9 (1): 205-208.

Article chronicle : Received : 29.10.2013; Revised : 12.11.2013; Accepted : 22.11.2013

MEMBERS OF THE RESEARCH FORUM

Author to be contacted :

HEMANT SAHU, Department of Genetics and Plant Breeding, G.B. Pant University of Agriculture and Technology, PANTNAGAR (UTTARAKHAND) INDIA

Address of the Co-authors:

P.K. PANWAR, A.S. JEENA AND JAIRAM AMADABADE, Department of Genetics and Plant Breeding, G.B. Pant University of Agriculture and Technology, PANTNAGAR (UTTARAKHAND) INDIA
