ABSTRACT

ESTIMATION OF DIVERSITY AND HERITABILITY IN CROSSES OF YARDLONG BEANS (*Vigna sinensis* L.)

By

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The effectiveness of selection can be seen by knowing the variability and heritability. Selection will be effectively carried out if the genetic variability and heritability are in high value. This study aimed to: (1) Estimate the diversity of yardlong beans derived from crosses between genotypes of Lu x Cs, Cs x Lu, Cs x Hi and parent genotype of Lu, Cs, Hi; (2) Estimate the value of heritability of long beans derived from crosses between genotypes of Lu x Cs, Cs x Lu, Cs x Hi and parent genotype of Lu, Cs, Hi. The study was conducted at the Integrated experimental Field, Agriculture Faculty, University of Lampung Bandar Lampung, in September-December 2014, using the F_1 seeds derived from crosses between genotypes of Lu x Cs, Cs x Lu, Cs x Hi and parent genotype of Lu, Cs, Hi. This research was applied in a completely randomized design with three replications. Results indicated that: (1) genetic variability was included in the narrow criteria and phenotype variability was included in the broad criteria for all characters that were observed except number of pods which have narrow criteria; (2) The value of heritability prediction generally have a low value for all characters but in the character of sweetness of pods have a moderate heritability.

Keywords: Heritability, variability, yard longbean.