

EVALUATION OF FENUGREEK (*TRIGONELLA FOENUM -GRAECUM* L.) GENOTYPES UNDER NORMAL AND LIMITED MOISTURE CONDITIONS

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Received-14.03.2017, Revised-27.03.2017

Abstract: The present investigation was carried out during during *rabi* 2007-08 at Research Farm, S.K.N. College of Agriculture, Jobner with 60 genotypes of fenugreek (*Trigonella foenum-graecum* L.) in RBD with three replications to estimate the genetic variability, heritability and genetic advance for nine quantitative traits. Analysis of variance indicated significant genetic variability among the genotypes for all the characters in individuals as well as the pooled basis under both the environments. High magnitude of PCV and GCV were observed for seed yield per plant in both the environments. High estimates of PCV, GCV, heritability and genetic advance as percentage of mean were found for seed yield per plant in both the environment. Based on the present investigation it is suggested that in breeding programme major emphasis should be given to pods per plant in both the environmental conditions as it had positive correlation with seed yield per plant with high direct effect. The association analysis revealed that seed yield per plant was significantly and positively correlated with branches per plant, pods per plant and seeds per pod in both the environment. Path coefficient analysis indicated that direct selection for pods per plant in both the environments, was the important character for selection of high yielding genotype as this exerted high positive direct effect as well as showed high and positive correlation with seed yield. Based on the present investigation it is suggested that in breeding programme major emphasis should be given to pods per plant in both the environmental conditions as it had positive correlation with seed yield per plant with high direct effect. On the other hand concerted efforts on evaluation of a larger number of genotypes are likely to identify genotypes worth exploitation in breeding programme to develop limited moisture stress tolerant varieties in fenugreek.

Keyword: *Trigonella foenum-graecum* L, GCV, PCV, Heritability, Genetic advance, Character association, Path coefficient

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