

RESEARCH ARTICLE

Genetic variability, heritability and genetic advance of yield and quality traits in linseed (*Linum usitatissimum* L.)

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SUMMARY

The present studies were carried out with a set of eight varieties of linseed and their twenty eight F_1 's obtained through diallel crossing excluding reciprocals. The eight parents and their 28 F_1 s were grown in a randomised block design during *Rabi* season of 2012 and studied for fifteen quantitative and qualitative characters. The analysis of variance showed highly significant differences among the genotypes for all the characters studied except days to maturity in F_1 s. The genetic co-efficient of variance was high in number of capsules per plant, linolenic acid content in F_1 s. The highest value of heritability was observed in linoleic acid content among parents whereas among crosses it was the highest in case of linolenic acid. Highest genetic advance was exhibited by number of capsules per plant in case of both parents and crosses. Genetic advance expressed as per cent of mean was the highest in steric acid per cent for parent and seed yield per plant for crosses in F_1 s. The traits with high heritability and high genetic advance may be subjected to mass or progeny or family selection or any selection scheme, aimed at exploiting additive (fixable) genetic variance, a widely adapted genotype can be developed, possessing good quality and high productivity.

Key Words : Linseed, Genetic variability, Heritability

How to cite this article : Shalini, Shipra, Ram, Sohan, Bhushan, Shanti and Ahmad, Ekhlauque (2016). Genetic variability, heritability and genetic advance of yield and quality traits in linseed (*Linum usitatissimum* L.). *Internat. J. Plant Sci.*, **11** (2): 270-274, DOI: 10.15740/HAS/IJPS/11.2/270-274.

Article chronicle : Received : 08.02.2016; Revised : 01.05.2016; Accepted : 08.06.2016

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