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Heterosis and inbreeding depression in linseed

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ABSTRACT : Five improved varieties of linseed namely, Meera, Shekhar, T-397, KL - 221 and JLS -9 were crossed to obtain six F_1 s and F_1 s were selfed to get F_2 s. The estimates of heterosis revealed that none of the cross exhibited significant heterosis for all the characters over mid parent, better parent and check variety. The degree and direction of heterotic response varied not only from character to character but also from cross to cross. In general, considerable amount of significant desirable heterosis over mid parent, better parent and check variety were observed for few characters under study. Inbreeding depression in F_2 generation was estimated for all the characters and it was observed positively significant for seed yield per plant, stearic acid content, oleic acid content, linolenic acid content, linoleic acid content, palmitic acid content, primary branches per plant, capsule diameter, number of capsules per plant revealed significant positive inbreeding depression indicating deterioration in their performance in next generation.

KEY WORDS : Linseed, Heterosis, Inbreeding depression

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