



Genetic analysis for oil content and oil quality traits in Indian mustard [*Brassica juncea* (L.) Czern & Coss.]

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Abstract : Heterosis and combining ability was estimated for oil content and oil quality traits in Indian mustard with the help of line x tester matting design of total 34 accessions comprised of ten parental genotypes (six female and four male) and their 24 F₁ hybrids of Indian mustard at S.D.Agricultural University, Sardarkrushinagar. Eight hybrids recorded significant and positive heterobeltiosis for oil yield. The range of heterobeltiosis varied from -9.48 per cent (SKM-9033 x GM 2) to 6.96 per cent (BPR-610-50-6 x VARUNA). Parent PUSA BOLD was proved to be good donors for oil content, linolenic acid and glucosinolate. PBR-122 for oil content, oleic acid, linolenic acid, erucic acid and glucosinolate, PCR-7 good combiner for erucic acid, SKM-9033 having good gene for increasing oleic acid and linoleic acid content. Parent BPR-610-50-6 good for oil content, oleic acid, linolenic acid and glucosinolate. The hybrid SKM-9033 x VARUNA pursued by BPR-610-50-6 x VARUNA and BIO-902 x PUSA BOLD and SKM-9820 x GM 2 proved high sca effects for oil content.

Key Words : Line x tester, Combining ability, Heterosis, Oil content, Quality traits

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