RESEARCH ARTICLE

ASSESSMENT OF GENETIC PARAMETERS FOR VARIOUS MORPHO-PHYSIOLOGICAL AND QUALITY PARAMETERS IN INDIAN MUSTARD GENOTYPES (*BRASSICA JUNCEA* (L.) CZERN & COSS) UNDER DIFFERENT MOISTURE REGIMES

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Received-07.10.2019, Revised-26.10.2019

Abstract: The present study entitled "assessment of the extent of variability in morpho-physiological attributes of Indian mustard (*Brassica juncea* L. Czern & Coss) under different moisture regimes" was undertaken in Randomized Complete Block Design (*Rabi* 2016-17) in three replications with 20 genotypes, under four environments viz, no irrigation under Rainout Shelter (E_1), rainfed (E_2), one irrigation : 45 DAS (E_3) and two irrigations: 45 and 65 DAS (E_4) and evaluated thirty – three morpho-physio-biochemical traits, respectively along with laboratory experiment for drought related thirteen physiological traits. High amount of variability in individual (E_1, E_2, E_3, E_4) and pooled over environments reflected worth of studied genotypes for most of the characters. Overall, most promising (E_1, E_2, E_3, E_4 and Pooled over environments) Rajendra Suphlam (for 24 traits), Rohini (for 14 traits), NRCDR-2 (for 12 traits), KMR-10-2, Maya and PKRS28 for 11 and RH-8814 for 10 traits. High heritability coupled with high genetic advance under selection suggesting major role of additive genetic component noticed in all four environments (E_1, E_2, E_3 and E_4) for Height of first primary branch, Primary branches per plant, Secondary branches per plant, Specific leaf weight and Catalase activity.

Keywords*: Brassica juncea* L., Variability, Heritability, Genetic Advance, Residual moisture

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