

Assessment of genetic variability, correlation for yield and its components characters in dill (*Anethum graveolens* L.)

■ SIDDHARTH KUMAR SOLANKI AND N.S. DODIYA

SUMMARY

Genetic variability, heritability and correlation were estimated among 24 genotypes for 11 characters in dill. Analysis of variance revealed significant differences among the genotypes for days to 50% flowering, plant height, pedicel length, number of primary branches per plant, number of secondary branches per plant, number of umbels per plant, number of umbelletes per umbel, seed yield per plant, harvest index and oil content characters suggesting sufficient amount of variability in the experimental material under study. The estimated of GCV and PCV indicated the existence of fairly high degree of variability for oil content, harvest index, seed yield per plant, number of umbels per plant, number of secondary branches per plant and pedicel length. Lower values of GCV and PCV was recorded in number of umbelletes per umbel, plant height and days to 50% flowering indicating the important role of environment in the expression of the characters. These results indicating the presence of variability for seed yield and related traits in dill. In corollary to high heritability, estimates of genetic advance as per cent of mean was also observed for oil content, harvest index, pedicel length and number of umbels per plant. Similarly high heritability associated with moderate genetic advance was recorded in traits like seed yield per plant and number of secondary branches per plant indicating predominance of additive gene effects for these traits. The association study among characters revealed that seed yield was positively and significantly correlated with harvest index and number of umbelletes per plant and negative and significantly correlated with number of secondary branches per plant.

Key Words : Dill, Genetic variability, Character association, Correlation

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