

# Evaluation of Some Local and Promising Germplasms of Coriander in the Gangetic Alluvial Region

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**Abstract**—Twelve coriander (*Coriandrum sativum* L.) genotypes were evaluated to estimate the correlation coefficient, path analysis and genetic divergence in Randomized Complete Block Design with three replications at HRS, Mandouri, Bidhan Chandra Krishi Viswavidyalaya, Nadia, West Bengal. On the basis of mean performance of 12 genotypes, four genotypes namely, Pant Haritma, NRCS A.Cr-1., West Bengal collection-2 and Arka Isha are most promising for seed yield per plant, essential oil and oleoresin. Among the characters studied, seed yield per plant, number of seeds per umbel, number of basal leaves, primary branch, secondary branch and plant height were characterised by high PCV, GCV, heritability and genetic advance indicating prevalence of additive gene action which offer good scope for further improvement. Out of eleven characters studied, days to flowering, days to maturity, plant height, number of basal leaves, primary branches, secondary branches, umbels per plant, umbellets per umbel, number of seeds per umbel show significant positive correlation co-efficient with seed yield per plant; days to maturity, plant height, primary branches, secondary branches, umbels per plant and number of seeds per umbel showed highly positive direct effect on seed yield per plant. The germplasms could meaningfully be grouped into 5 clusters. The maximum cluster mean was observed in cluster 5 for days to maturity and plant height followed cluster 3 on same character. Seed yield per plant (83.33%) show maximum genetic divergence followed by test weight (6.06%), days to maturity (4.54%) and number of basal leaves (3.03%) showing the possibility for selection of these characters.

**Keywords:** Coriander, germplasms, characterization, evaluation.