

Genetic Variability, Correlation and Path Coefficient Analysis in Paprika Chilli (*Capsicum annuum* L.)

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ABSTRACT

Forty paprika chilli genotypes were evaluated for genetic variability and obviously significant differences were observed among the genotypes for days to 50% flowering, days to maturity, plant height (cm), plant spread (cm), fruit length (cm), fruit girth (cm), number of fruits per plant, number of seeds per fruit, number of branches per plant, 100-dry fruit weight (g), 1000-seed weight (g), oleoresin (%), capsanthin (EOA colour value), capsaicin (%) and dry fruit yield per plant (g). High heritability coupled with high genetic advance as per cent of mean was observed for most of the characters. Number of fruits per plant and plant spread had positive significant correlation with yield. Negatively significant correlation with yield was exhibited by capsanthin content and fruit length. Path analysis revealed high positive direct effect towards yield by number of fruits per plant and 100-dry fruit weight (g) followed by plant spread (cm), days to maturity, number of seeds per pod, capsaicin and 1000-seed weight.

Key words :Cluster Analysis, Paprika chilli, Principal Component Analysis and Ward's Minimum Variance