RESEARCH ARTICLE

PATH ANALYSIS OF YIELD DETERMINANTS IN CHILLI (*CAPSCIUM ANNUUM* L.)

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Abstract: The experiment was conducted at research farm of IGKV, Raipur with sixteen genotypes of chilli during the rabi season of 2016-17. In the present investigation, path coefficient analysis was carried out taking fruit yield per hectare as dependent variable and rest of the sixteen characters as independent variables. The highest positive direct effect which contributed towards fruit yield per hectare was observed via fresh weight of fruits (0.891), followed by fruit yield per plant (0.856), number of primary branches (0.251), number of fruits per plant (0.200), plant height (0.150), number of seeds per fruit (0.105), dry matter % of fruits (0.104), number of pickings (0.061) and stem girth (0.017). Negative direct effects on fruit yield per ha was exhibited by fruit length (-0.479), days to first picking (-0.391), fruit girth (-0.267), days to 50 % flowering (-0.157), days to first flowering (-0.113), dry weight of fruits (-0.101) and stalk length (-0.056). The results suggested that due emphasis should be on to the genotypes that are having maximum high positive direct effect on fruit yield per hectare.

Keywords: *Capscium annuum*, Direct effect, Indirect effect, Path analysis, Yield component

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