RESEARCH ARTICLE

ASSESSMENT OF DIRECT AND INDIRECT RELATIONSHIPS AMONG FRUIT YIELD AND YIELD COMPONENTS IN OKRA (*ABELMOSCHUS ESCULENTUS* L. MOENCH)

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Abstract: Path analysis was studied using 31 diverse okra genotypes along with two checks *i.e,* Pusa Sawani and Pusa A-4. The experiment was laid out in Randomized Complete Block Design (RCBD) and observations were recorded on thirteen quantitative morphological traits on yield per plant in okra during Rainy season, 2017-2018. Among the characters studied, days to 50% flowering, number of fruits per plant and average fruit weight has direct positive effect on fruit yield per plant at both phenotypic as well as genotypic level. At phenotypic level, number of fruits per plant (0.792) exhibited maximum positive direct effect on fruit yield per plant followed by average weight of fruit (0.375), days to 50% flowering (0.275) and number of nodes (0.173). Whereas, at genotypic level number of fruits per plant (0.678) followed by number of primary branches (0.259), days to 50% flowering (0.102) and plant height (0.013) exhibited maximum positive direct effect on fruit yield per plant. However, the negative direct effect was found for percent disease incidence of YVMV at both phenotypic and genotypic levels. Some characters like Plant height, number of nodes and number of fruits per plant showed positive indirect effect on fruit yield per plant via days to first flowering at phenotypic level, whereas, at genotypic level plant height, number of primary branches, number of nodes and fruit length showed positive indirect effect on fruit yield via number of fruits per plant.

Keywords: Okra, Path analysis, Phenotypic level, Genotypic level, Yield

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