

Inter-relationships among Yield Contributing Characters in Sugarcane (*Saccharum spp.*)

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ABSTRACT

Plant height at 240 DAP, length of millable cane, single cane weight, number of millable canes, cane yield and per cent sucrose had significant and positive correlations with sugar yield both at phenotypic level. Associations among plant height with length of millable cane, single cane weight and cane yield, shoot population at 120 DAP with stalk population at 240 DAP and number of millable canes; stalk population at 240 DAP with number of millable canes; length of millable canes with single cane weight and number of millable canes and single cane weight with diameter of cane were positive and significant. Per cent juice sucrose showed non significant correlations with all the yield components. The association of number of millable canes with diameter of cane and cane weight was negative but non significant. Single cane weight and shoot population at 120 DAP had negative direct effect on sugar yield. Cane-yield followed by per cent sucrose, plant height and diameter of cane had higher positive direct effects on sugar yield. Plant height at 240 DAP via length of millable cane, single cane weight and number of millable canes showed higher positive indirect effects on sugar yield. Cane yield followed by per cent sucrose, plant height at 240 DAP, length of millable cane, diameter of cane, single cane weight and number of millable canes are the major contributing component traits of sugar yield in sugarcane.

Key words : Correlations, Path Analysis, Sugarcane.