

# **Nature of Gene Action for Yield and Yield Components in Sugarcane (*Saccharum spp.*)**

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## **ABSTRACT**

Moderate to high estimates of phenotypic and genotypic coefficients of variation (PCV and GCV) were recorded for shoot population at 120 DAP, stalk population at 240 DAP, plant height at 240 DAP, number of millable canes, cane yield, sugar yield while the estimates of PCV and GCV were low for single cane weight, per cent juice sucrose and diameter of cane. Estimates of heritability and genetic advance over mean were moderate to high for plant height at 240 DAP, shoot population at 120 DAP, stalk population at 240 DAP, single cane weight, number of millable canes, cane yield and sugar yield suggested the importance of additive gene action for the inheritance of the characters. Moderate to high heritability and low to moderate estimates of genetic advance over mean for length of millable cane per cent juice sucrose and diameter of cane indicated the operation of non-additive gene action for length of millable cane, diameter of cane and per cent juice sucrose.

**Key words :** Gene Action, Sugarcane Genetic Parameters.