

Nature of Gene Action for Cane, Ccs Yields and Their Yield Components in Sugarcane (*Saccharum Officinarum* .L)

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ABSTRACT

The clones *viz.*, 2000A 56, 2000A 240, 2001A 63, 2004A 55 and 2005A 128 were identified as the best clones among early group. 98A 163, 2000A 225, 2004A 104, 2000A 241 and 2005A 108 were registered as the superior clones among the midlate group based on higher mean values for shoot population at 120 DAP, 240 DAP, NMC at harvest, cane length, cane diameter, single cane weight, sucrose per cent, CCS per cent, cane and CCS yields. Additive gene action for NMC at harvest, cane length, single cane weight, cane volume, cane yield and CCS yield, where as germination per cent, shoot population at 90 DAP and purity per cent were under the influence of non additive gene action. Stalk population at 180 DAP and 240 DAP, cane diameter, brix per cent, sucrose per cent CCS per cent and fibre per cent indicated the importance of both additive and non additive gene action in inheritance of characters. The differential pattern of gene action for the characters could be due to environmental variation.

Key words :Gene Action, Genetic Parameters, Sugarcane.