

EFFECT OF DIFFERENT VARIETIES AND PLANTING METHODS ON GROWTH, YIELD AND QUALITY OF SUGARCANE UNDER NORTHERN HILL ZONE OF CHHATTISGARH

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Abstract: A field experiment was conducted during cropping seasons of 2015–16 and 2016-17 at Instructional cum research farm RMD CARS Ambikapur to evaluate sugarcane mid-late varieties (Co 86032, Co 62175, CoT 8201) under 12 treatment combinations related to three sugarcane varieties viz. (V₁), CoT 8201, (V₂), Co-86032, (V₃), Co 62175 in main plots and four planting methods (P₁) Flat planting at 75 cm row spacing (P₂) Flat planting at 90 cm row spacing (P₃) Trench planting at 75 cm (P₄) Pit planting in sub plot were tested in split plot design with three replication. The result on sugarcane varieties exhibited no significant variation on growth attributes viz. Germination percentage, cane height, No. of shoots, No. of nodes, length of nodes, and yield attributes viz. No. of millable cane, cane weight, and cane yield were the highest with Co 86032 (V₂). Quality parameters were non-significant due to variety. Among the planting methods, pit planting (P₄) recorded maximum cane yield (96.74 t ha⁻¹) Highest NMC was (84.54x 10⁻³ ha⁻¹) under pit planting method. The sugarcane quality parameters in terms of pol %, purity %, Brix % were no significant variations due to various planting methods and varieties. In case of economics, gross income (Rs 290090 ha⁻¹) and maximum net income (Rs 215862 ha⁻¹) in pit planting and benefit cost ratio (3.07) was registered under (P₁) Flat planting at 75 cm row spacing.

Keywords: Sugarcane, Planting method, Chhattishgarh

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