

EFFECT OF INTEGRATED NUTRIENT MANAGEMENT PRACTICES ON QUALITY OF RICE VARIETIES UNDER NORTH HILL ZONE OF CHHATTISGARH

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Abstract: The experiment was conducted during *kharif* 2018 at Research-cum-instructional farm of Raj Mohini Devi College of Agriculture and Research Station, Ajirma, Ambikapur, Chhattisgarh to study the “Response of quality rice varieties to integrated nutrient management practices under North Hill Zone of Chhattisgarh”. The experiment was conducted in split plot design with three replications. The study comprised 05 rice varieties (V₁: Trombay CG dubraj mutant-1, V₂: Tarunbhog mutant-1, V₃: Safri 17-48-2, V₄: Trombay Raipur rice and V₅: Zinco rice) as main plot and 05 management practices {P₁: 20×10 cm spacing + 100% RDF (80:50:30 kg NPK ha⁻¹) through inorganic (standard check), P₂: 20×10 cm spacing + 100% RDF through inorganic and organic {Topdressing of (Vermicompost @ 2q/ha + DAP @ 25 kg/ha) at 25-30 DAT and remaining NPK through inorganic}, P₃: 20×10 cm spacing + 150% RDF through inorganic and organic {Topdressing of (Vermicompost @ 2q/ha + DAP @ 25 kg/ha) at 25-30 DAT and remaining NPK through inorganic}, P₄: 15×10 cm spacing + 150% RDF through inorganic and organic {Topdressing of (Vermicompost @ 2q/ha + DAP @ 25 kg/ha) at 25-30 DAT and remaining NPK through inorganic} and P₅: 20×10 cm spacing + 150% RDF through inorganic}. The results revealed that variety Safri 17-48-2 recorded higher value in paddy length (9.39 mm), L:B ratio (3.72), kernel length (7.49 mm before cooking and 12.69 mm after cooking), hulling (72.99) and milling percentage (68.14) but in case of kernel breadth recorded highest in variety Zinco rice before cooking and Tarunbhog mutant-1 after cooking. Among the different management practices 20×10 cm spacing + 150% RDF through inorganic + organic {Topdressing of (Vermicompost @ 2q/ha + DAP @ 25 kg/ha) at 25-30 DAT and remaining NPK through inorganic} resulted higher hulling (71.52), milling (66.27) and head rice recovery (50.90) percentage followed by treatment of 20×10 cm spacing + 150% RDF through inorganic and rest of the quality parameters not affected significantly.

Keywords: Aromatic rice, Chhattisgarh, Nutrient, Zinc

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