



Research Article

Effect of integrated nutrient management and planting geometry on root parameter and nutrient uptake of aerobic rice

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SUMMARY : A field experiment was conducted with three integrated nutrient management practices and three spacings were laid out in Factorial Randomized Complete Block Design replicated thrice during *Kharif* 2009 at College of Agriculture, Shimoga. The integrated nutrient management practices included 50% RDN through chemical fertilizers and 50% RDN through organic sources like farm yard manure, poultry manure and vermicompost with three spacing *viz.*, 30 x 30 cm, 20 x 20 cm and 20 x 10 cm. Among integrated nutrient management practices (M₃) 50% RDN through chemical fertilizers + 50% RDN through vermicompost recorded significantly higher root length (22.01 cm hill⁻¹), root weight (6.00 g hill⁻¹), root volume (56.82 cc hill⁻¹), nitrogen uptake (59.57 kg ha⁻¹), phosphorus uptake (16.76 kg ha⁻¹) and potassium uptake (26.78 kg ha⁻¹). Among different planting geometry wider spacing of 30 x 30 cm (S₃) recorded significantly higher root length (23.14 cm hill⁻¹), root weight (6.27 g hill⁻¹), root volume (58.22 cc hill⁻¹), nitrogen uptake (58.55 kg ha⁻¹), phosphorus uptake (16.33 kg ha⁻¹) and potassium uptake (24.84 kg ha⁻¹).

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