

14th Annual Conference on
CROP SCIENCE AND AGRICULTURE
November 29-30, 2018 Bali, Indonesia

Influence of integrated nutrient management practices on growth and yield of aerobic Rice (*Oryza sativa* L.)

C J Sridhara

University of Agricultural and Horticultural Sciences, India

A field investigation carried out at agricultural and horticultural research station, Bhavikere, UAHS, Shivamogga during Kharif 2017, to study the influence of integrated nutrient management practices on growth and yield of aerobic rice. The texture of soil was sandy loam having acidic pH with organic carbon of 0.40 g kg⁻¹, available nitrogen 220.80 kg ha⁻¹, phosphorous 33.90 kg ha⁻¹ and potassium 163.60 kg ha⁻¹. The variety used was MAS 946⁻¹ (Sharada). The experiment was laid out in a randomized complete block design with ten treatments replicated thrice. The treatments comprised of 100% RDF and 75% RDF with different levels of FYM and vermin compost. Among different treatment combinations application of 100% RDF+100% vermin compost (N Equivalent)+PGPR recorded significantly higher growth parameters like number of tillers (34.2), leaf area (1396.9 cm²), dry matter production (89.04 g), yield attributes like number of productive tillers per hill (16.32), panicle length (23.52 cm), panicle weight (2.68 g), number of filled grains (87.0), grain yield (3868.0 kg ha⁻¹) straw yield (4225.72 kg ha⁻¹) and total nutrient uptake of nitrogen (93.13 kg ha⁻¹), phosphorus (25.05 kg ha⁻¹) and potassium (92.63 kg ha⁻¹). The yield increment was 27% over the control. Higher gross returns and net returns were registered with 100% RDF+100% vermi compost (N Equivalent)+PGPR (Rs. 81,228, Rs. 45,175) whereas, higher benefit cost ratio (2.87) was obtained with application of 75% RDF+25% vermin compost (N Equivalent)+PGPR.

Biography

C J Sridhara has completed his Masters and PhD in Agronomy from University of Agricultural Sciences, Bangalore. He is specialized in water management and irrigation aspects by involving himself in teaching, research and extension activities related to water management. He is currently working as a Professor and Controller of Examination at University of Agricultural and Horticultural Sciences, Shimoga, Karnataka, India. He has published about 25 international, 20 national level research papers in various journals, published a book on aerobic rice cultivation and participated in various conferences. He served as a Reviewer for various national and international journals and serving as academic Council Member at UAHS, Shimoga.

cjsridhara1966@gmail.com

Notes: