



**RESEARCH ARTICLE :**

## Developing better organic nutrient management package for the rice variety Co(R)48 under site specific organic farming condition in comparison with RDF and INM practices

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■ S. ALAGAPPAN, R. VENKITASWAMY AND G. MARIAPPAN

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Growth parameters,  
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**SUMMARY :** Field experiments were carried out at Tamil Nadu Agricultural University, Coimbatore, India during *Samba* (August-December) season of 2012 and 2013 to develop better organic nutrient management package for the rice variety CO(R)48 under site specific organic farming condition in comparison with RDF and INM. The field experiment consisted of fourteen treatments which were laid out in Randomized Block Design, replicated thrice and square planting (25 x 25 cm) was adopted during both the years. Among fourteen treatments, four treatments with different organic manures at 100% RDN on equi-nutrient basis [farm yard manure, vermicompost, poultry manure and (Dhaincha) green manure] another six treatments consisted of 50 % combination of each manure, one treatment with 1/4<sup>th</sup> combination of all the manures and one absolute control (without organic or inorganic). These treatments were compared with the Recommended Dose of Fertilizer (RDF) and Integrated Nutrient Management (INM) practice (RDF + Dhaincha). The nutrient content(N, P and K) of the different organic manures used in the experiment was given. The important growth parameters like tillers per square meter, number of panicle per square meter, total grains per panicle, thousand grain weight and grain yield of rice were recorded. The root length, root dry weight, root volume, and N, P and K uptake of rice at harvest was recorded. The rice quality parameters like milling percentage, hulling percentage, head rice recovery, length breadth ratio, volume expansion ratio, amylose and protein content in percentage were recorded. The INM imposed treatment recorded better growth parameters and yield attributes of rice and N, P and K uptake of rice at harvest, whereas, among the organic treatments, 100% RDN through green manure followed, by 25% RDN through each organic manures combination recorded more growth and yield attributes and important quality parameters and N, P and K uptake of rice at harvest in both the years of experimentation.

**Author for correspondence :**

**S. ALAGAPPAN**

Department of  
Agronomy, Tamil Nadu  
Agricultural University,  
COIMBATORE (T.N.) INDIA  
Email:alga.s@rediffmail.com

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authors' affiliations