



RESEARCH ARTICLE :

Impact of different sources of organic manures in comparison with RDF and INM on important growth and yield parameters of rice variety CO(R) 48 with derived correlation and regression equations under site-specific organic farming condition

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SUMMARY : Objective: Field experiments were carried out at Tamil Nadu Agricultural University, Coimbatore, India during *Samba* 2012 (August-December) and *Samba* 2013 to study the impact of different sources of organic manures in comparison with RDF and INM on important growth and yield parameters of rice variety CO(R)48 with derived correlation and regression equations under site-specific organic farming condition. **Methodology:** 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, the same layout was maintained for next year *Samba* rice season. The important growth parameters like plant height at harvest, leaf area index at panicle initiation and flowering stage, dry matter production at flowering and harvest stages were recorded, Similarly, the important yield attributes like number of productive tillers m⁻², panicle length, panicle weight, total number of grains panicle⁻¹, filled grains panicle⁻¹, percentage of filled grains, thousand grain weight and grain yield were recorded during *Samba* season of rice during 2012 and 2013. The uptake of NPK by the crop at harvest was also recorded. **Findings:** All the important growth and yield parameters were subjected to correlation and regression analysis and the separate correlation and regression equations were derived for grain yield of rice for both the years of study under site-specific organic farming condition. The important growth and yield parameters and the uptake of NPK at harvest of rice, was higher recorded with INM practice followed by RDF treatment, whereas among the organic treatments, 100% RDN through green manure followed, by 25% RDN through each organic manures combination recorded more uptake of major nutrients in both the years of experimentation. **Novelty/Improvement:** Different sources of organic manures on various combinations were compared with RDF and INM practices on growth and yield of medium duration rice variety CO(R)48 with detailed correlation and regression equations under organic farming condition.

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