RESEARCH ARTICLE :

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

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SUMMARY : 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 quality parameters of rice variety CO(R)48 with yield and derived correlation and regression equations under site-specific organic farming condition. 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 quality parameters such as milling percentage, hulling percentage, head rice percentage, co-efficient of shelling, volume expansion ratio, water absorption ratio, elongation ratio, amylose content and protein content under organic farming were recorded higher during both the years of experimentation. Similarly, the grain yield of rice was also recorded during both the years of experimentation. All the important milling characteristics of paddy and the important quality parameters of rice 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 milling characteristics of paddy and the important quality parameters of rice were recorded with 100 % RDN through green manure (Dhaincha) *Sesbania aculeata* applied treatment, followed by 25% RDN through each organic manures combination recorded better results than other organic, RDF and INM treatments in both the years of experimentation. The performance of INM imposed treatment followed by RDF recorded more rice grain yield than the organic treatments, whereas the quality parameters wise, the organic treatments such as 100% RDN through green manure followed by 25% RDN through each organic manures combination recorded better results under organic farming than RDF and INM imposed treatments during both the years of investigation.

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