

Comparison of System of Rice Intensification (SRI) and conventional method of rice planting under Nagarjuna Sagar project left canal command area of Andhra Pradesh, India

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ABSTRACT

On farm field trial was conducted to compare the System of Rice Intensification (SRI) method over to Conventional method of planting for two consecutive years during *kharif* 2005 and 2006 under A.P. Water Management Project funded by FAO at pilot area Ganapavaram of Nalgonda district of Nagarjuna Sagar Project (NSP) left canal command. The trial was carried with the farmers participatory mode to study the impact of SRI with conventional planting method on grain yield, nutrient content, uptake and water use efficiency. Two treatments were applied in large size plots (1000 m²) with two organic sources as green manuring (sunhemp seed rate @ 25 kg/ha) and FYM @ 5 t/ha in addition to recommended dose of fertilizers *i.e.* 100-60-40 NPK kg/ha. The results revealed that highest grain yield of 6735 and 6125 kg/ha and water use efficiency of 6.75 and 6.25 kg/ha-mm was recorded with green manuring and FYM under SRI method of planting compared to conventional method (6467 and 6053 kg/ha-mm and 4.50 and 4.25 kg/ha-mm) during both the years. Between two sources of organic manures in both the methods of planting low grain yield and less water use efficiency was observed with the application of FYM than green manuring. Similar trend was continued in case of nutrient uptake by grain, however the nutrient content was *at par*. The organic carbon content and available major nutrient status of soil was slightly more over initial values, in general, with SRI than Conventional method and in particular with the application of *in situ* green manuring over to FYM in both years.