

Drymatter and Yield of Rice - Ragi Sequence as Influenced by Nutrient Management Interventions

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ABSTRACT

A field experiment entitled “Nutrient Management Interventions in Rice- Ragi Sequence” was conducted during *kharif* and *rabi* seasons of 2017-18 and 2018-19 on sandy loam soil of the Agricultural College Farm, Bapatla. The seven treatments consisted of T₁: 100% RDF (100-60-40 kg N-P-K ha⁻¹); T₂: 100% RDF+ Soil application of ZnSO₄ @ 50 kg ha⁻¹; T₃: 125% RDF+ Soil application of ZnSO₄ @ 50 kg ha⁻¹; T₄: 75% RDF+ Poultry manure @ 0.82 t ha⁻¹ + Soil application of ZnSO₄ @ 50 kg ha⁻¹; T₅: 75% RDF+ FYM @ 5.0 t ha⁻¹ + Soil application of ZnSO₄ @ 50 kg ha⁻¹; T₆: 50% RDF+ Poultry manure @ 1.6 t ha⁻¹ + Soil application of ZnSO₄ @ 50kg ha⁻¹ and T₇: 50% RDF+ FYM @ 10 t ha⁻¹ + Soil application of ZnSO₄ @ 50 kg ha⁻¹. The experiment was laid out in Randomized Block Design with seven treatments and replicated thrice during *kharif* rice and in *rabi* each *kharif* treatment was sub divided into four sub treatments (S₁: no fertilizer, S₂: 100% RDF, S₃: 75% RDF and S₄: 50% RDF) and hence, split plot design was adopted in *rabi*. Total number of plots per replication in the *rabi* was 28 (7x4= 28). Among all the *kharif* treatments, T₇ recorded the maximum drymatter (12183, 12538 and 12360 kg ha⁻¹) and grain yield (5343, 5465 and 5404 kg ha⁻¹) in rice. While during *rabi*, the treatment S₂: 100% RDF recorded the maximum drymatter (5434, 5417 and 5425 kg ha⁻¹) and grain yield (1935, 2038 and 1986 kg ha⁻¹) of ragi during both the years of study.

Keywords: *Drymatter, Grain yield, Nutrient Management Interventions, Rice- Ragi sequence.*