

Research Article

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Influence of drip fertigation on nutrient uptake and nutrient use efficiency of aerobic paddy

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Summary

A field experiment was conducted during *Kharif* 2014 to study the influence of drip fertigation on nutrient uptake and nutrient use efficiency of aerobic rice at Zonal Agricultural Research Station, V.C. Farm, Mandya. Significantly higher total nitrogen, phosphorus and potassium uptake was recorded with irrigation @ 150 per cent CPE + DF 125 per cent RDF (105.77, 42.66 and 92.02 kg ha⁻¹, respectively), as compared to irrigation @ 100 per cent CPE + DF 75 per cent RDF (45.9, 16.85 and 26.51 kg ha⁻¹, respectively). Similarly significantly higher total calcium, magnesium and sulphur uptake was registered with irrigation @ 150 per cent CPE + DF 125 per cent (62.34, 41.33 and 23.03 kg ha⁻¹, respectively). Significantly higher total manganese, iron, zinc, copper and boron uptake was registered with irrigation @ 150 per cent CPE + DF 125 per cent (91.13, 425.06, 124.46, 45.36 and 33.49 g ha⁻¹, respectively) and further it was followed by irrigation @ 125 per cent CPE + DF 125 per cent RDF (84.93, 397.63, 12.03, 42.6 and 33.49 g ha⁻¹, respectively) and lowest uptake was noticed with irrigation @ 100 per cent CPE + DF 75 per cent RDF. Irrigation @ 150 per cent CPE and 75 per cent RDF through drip fertigation recorded non significantly higher N, P and K use efficiency (58.11, 116.54 and 116.5 kg kg⁻¹, of NPK, respectively) and further followed by irrigation @ 125 per cent CPE + DF 75 per cent RDF (48.69, 97.13 and 97.13 kg kg⁻¹, of NPK, respectively).

Key words : Drip, Fertigation, Cumulative pan evaporation, Soil moisture

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