



Research Article

Effect of different sources of nutrients on yield, quality and nutrient status in Vertisol

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Summary

A field experiment was carried out during during *Rabi* 2007 at Marathwada Agricultural University, Parbhani. This experiment was laid out on Vertisol with nine treatment combinations replicated thrice in Randomized Block Design consisting the application of farm yard manure, vermicompost, vermiwash spray, cowdung urine slurry and biofertilizers (*Azotobacter* + PSB) with or without inorganic fertilizers. The experiment indicated that T_8 (Full RDF + vermicompost @ 5 Mg ha⁻¹ + vermiwash spray + *Azotobacter* + PSB + CDUS at critical growth stage) was found most superior treatment for increasing grain as well as dry matter yield. This treatment was also found superior for increasing and sustaining the availability of nutrients (N, P₂O₅, K₂O and S) in soil and safflower quality (oil content, protein content and test weight) followed by T_7 (½ RDF + vermiwash spray + *Azotobacter* + PSB + CDUS at critical growth stage) and T_6 (Vermicompost @ 2.5 Mg ha⁻¹ + vermiwash + *Azotobacter* + PSB + CDUS at critical growth stage).

Key words : Nitrogen, Safflower, Uptake, Inorganic, Organic fraction

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