

Effect of Organic and Inorganic Farming on Yield, Economics and Available NPK Status of Soil of Summer Onion

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Abstract

A field investigation was carried out at the research farm of IFSRP, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola during summer season of 2012 with a view to utilize the valuable organic and inorganic resources and micronutrients. The experiment was laid out in Randomized Block Design replicated thrice with eight treatments, to study the effect of organic and inorganic farming on yield economics and fertility status of soil of summer onion. Bulb yield of onion recorded (108.78 q ha⁻¹) with the treatment of application of 100% NPK over the rest of the treatments followed by 50% recommended NPK + 50% N through *Leucaena* loppings + inorganic sources of micronutrient as per soil test. In case of economics it was found that the significantly highest GMR, NMR and B: C ratio were recorded by treatment application of 100% RDF + secondary and micronutrients based on soil test treatment that was Rs. 76146 ha⁻¹, Rs. 51339 ha⁻¹ and 3.07 respectively, which was nearly followed by treatment 50% NPK + 50% N through *Leucaena* lopping + inorganic sources of micronutrient as per soil test that was Rs. 67144 ha⁻¹, Rs. 39964 ha⁻¹ and 2.47 respectively. The maximum available N and P was observed highest in treatment T₇ i.e. 100% NPK + secondary and micro nutrients based on soil test (100:50:00) (i.e. 300 and 22.10 kg ha⁻¹ respectively) which was found at par with treatment T₁ i.e. 50% recommended NPK + 50% N through *Leucaena* loppings + inorganic sources of micronutrient as per soil test (265 and 20.85 kg ha⁻¹ respectively) and significantly superior over rests. The maximum available K was observed in treatment T₂ i.e. 1/3rd recommended N each through FYM, *Leucaena* loppings and neem cake (i.e. 525 kg ha⁻¹) The minimum available N, P and K was observed in treatment (T₈) i.e. Absolute control.
