

Research Article

Integrated effect of organic manures and inorganic fertilizers on N, P and K fractions at harvest in maize-spinach cropping sequence

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Summary

A field experiment was conducted on a sandy loam soil during *Rabi* (maize) and summer (spinach) seasons of 2009-2010 with a view to study the effect of organic manures, inorganic fertilizers and their integration on N, P and K fractions in maize-spinach cropping system. Among the different combinations application of 100% through vermicompost recorded significantly highest N ($\text{NH}_4^+\text{-N}$ and $\text{NO}_3\text{-N}$), P (saloid-P, Al-P, Fe-P and Ca-P) and K (water soluble K, exchangeable K and fixed K) fractions at harvest but, was at par with 100% through poultry manure and 100% through FYM. The spinach crop was grown during summer responded favourably to the residual and cumulative treatments and the highest N, P and K fractions were recorded in cumulative treatments than residual treatments.

Key words : Cropping system, Fertilizers, Nitrogen, Phosphorus, Potassium, Maize, Spinach, Organic Manures, Fractions

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