

Research Article

Influence of long term use of organic and inorganic manures on soil fertility and sustainable productivity of wheat in Vertisols of Madhya Pradesh

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Received : 24.09.2012; Revised : 11.05.2014; Accepted : 22.05.2014

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Summary

Long term integrated nutrient management trails in wheat on Vertisols conducted for 33 years at J. N. Krishi Vishwa Vidyalaya, Research Farm, Jabalpur revealed that highest sustainability yield index (SYI) was observed in 100 per cent NPK+FYM, while lowest was observed in 100 per cent N treatment. However, the mean grain yield was not significantly influenced by different nutrient management practices except in case of control (no manure and fertilizers) and 100 per cent N alone treatments. The continuous application of recommended dose of phosphorus fertilizer to wheat (80 kg ha^{-1}) crop every year resulted in substantial built up of available phosphorus up to $39 \text{ kg P}_2\text{O}_5 \text{ ha}^{-1}$ from initial level initial of $7.6 \text{ P}_2\text{O}_5 \text{ ha}^{-1}$.

Key words : Wheat, Vertisols, Long-term fertilizer experiment, Sustainability yield index (SYI), Nutrient availability

How to cite this article : Chauhan, S.S. and Bhatnagar, R.K. (2014). Influence of long term use of organic and inorganic manures on soil fertility and sustainable productivity of wheat in Vertisols of Madhya Pradesh. *Asian J. Soil Sci.*, 9(1): 113-116.