



Research Article

Effect of organic manure and phosphorus fertilizers on growth, yield and economics of lentil in sandy loam soil

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Summary

A field experiment was conducted during the *Rabi* season of 2011 at central research farm, Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad to study the response of lentil (*Lens esculenta* Moench) to different organic and inorganic phosphorus sources on growth and yield. The experiment was laid out in simple Complete Randomized Block Design with ten treatments and replicated thrice. Integrated phosphorus management practices including 100 per cent, 75 per cent, 50 per cent, 25 per cent RDP (Recommended dose of phosphorus) through chemical fertilizers and 50 per cent, 25 per cent RDP through organic sources like bone meal, fish meal and poultry manure. Application of recommended dose of fertilizers (20:30:20kg N: P:K ha⁻¹) along with 1.66 q of fish meal ha⁻¹ recorded significantly higher plant height, number of branches, dry weight, grain, straw yield and maximum net return compared to control (100% RDP through inorganic). The growth and yield of lentil varied with different phosphorus management practices.

Key words : Organic manure, Phosphorus, Fertilizer, Growth yield, Sandy loam soil

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