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Research Note

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Effect of nitrogen and phosphorus levels on uptake by cowpea (*Vigna unguiculata* (L.) Walp) and residual N, P and K content in soil

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Summary

A field experiment was conducted during summer season of 2012 on medium black soil to the study of effect of nitrogen and phosphorus levels on uptake by cowpea (*Vigna unguiculata* (L.) Walp) and residual N, P and K content in soil. The experiment consisted of four treatments of nitrogen levels (control, 20, 30 and 40 kg/ha) and four treatments of phosphorus levels (control, 40 60 and 80 kg P_2O_5 /ha) thereby making sixteen treatment combinations tested in Factorial Randomized Block Design with three replications. The results indicated that the application of nitrogen @ 40 kg/ha gave the maximum and significantly higher the N, P and K uptake and residual content in soil and remained at par with 20 and 30 kg N/ha over control. Results further indicated that the application of phosphorus @ 80 kg/ha gave the maximum and significantly higher the N, P and K uptake and residual content in soil and remained at par with 40 and 60 kg P_2O_5 /ha over control.

Key words : Cowpea, Nitrogen, Phosphorus, Potassium, Uptake

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