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## Effect of Different Levels of N, P, K and Vermicompost on Growth and Yield of Maize (*Zea mays* L.)

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**Abstract** A field experiment was conducted on effect of different levels of N, P, K and vermicompost on growth and yield of maize (*Zea mays* L.) during *kharif* season 2012. The experiment was laid out in randomized block design with three replications, with  $3 \times 3$  factorial RBD, consisted nine treatment it was observed that the best findings were reported for maize growth and yield in treatment  $T_8 I_2 V_2 (N_{120} P_{60} K_{40} \text{ kg ha}^{-1}$  and vermicompost  $8 \text{ t ha}^{-1})$ , maximum plant height 132.47 (cm), maximum number of leaves 10.67, maximum stem diameter 2.18 (cm), maximum dry weight 1060 (g), maximum length of cob 19.41 (cm), maximum

test weight 227.05 (g), maximum grain yield 55.90 ( $\text{q ha}^{-1}$ ) respectively, plant height, stem diameter, length of cob, grain yield were found to be significant and number of leaves, dry weight, test weight were found to be non-significant, and treatment  $T_6 I_2 V_0 (N_{120} P_{60} K_{40} \text{ kg ha}^{-1}$  and vermicompost  $0 \text{ t ha}^{-1})$  the maximum cost benefit ratio was recorded as 1 : 2 : 42, was at par than any other treatment combination, followed by in  $T_3 I_1 V_0 (N_{60} P_{30} K_{20} \text{ kg ha}^{-1}$  and vermicompost  $0 \text{ t ha}^{-1})$ . Adequate plant nutrient supply holds the key for improving the food grain production and sustaining soil fertility.

**Keywords** Growth, Maize, NPK, Vermicompost, Yield.