

Effect of phosphorus and zinc on growth and yield of rabi maize (*Zea mays* L.)

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ABSTRACT : A field experiment was conducted at Agricultural Research Farm of S.D.J. Post-Graduate College, Chandesar, Azamgarh during rabi seasons of 2004-05 and 2005-06 to find out the effect of Phosphorus and Zinc on growth and yield of rabi maize (*Zea mays* L.). The experiment was conducted in Factorial Randomized Block Design (4 Replications) with 16 treatment combinations comprised of four phosphorus levels (0, 30, 60 and 90 kg P₂O₅/ha) and four levels of ZnSO₄ (0, 15, 30 and 5 kg ZnSO₄ with Urea as foliar spray/ha). The application of 90 kg P₂O₅/ha and 30 kg ZnSO₄/ha is necessary for obtaining higher grain as well as stover yield of Rabi maize in Rice based cropping system under Agro-ecological region of Azamgarh. The Rabi maize fertilized with 90 kg P₂O₅/ha and 30 kg ZnSO₄/ha was recorded highest NPK and protein content in grains and straw over other treatments. The highest net return and benefit cost ratio were observed with 90 kg P₂O₅/ha and 30 kg ZnSO₄/ha.

Key Words : Phosphorus, zinc, maize (*Zea mays* L.), growth yield..