

APPLICATION WITH AND WITHOUT ZINC SULPHATE ($ZnSO_4$) AND NPK LEVELS ON THE GROWTH AND YIELD PERFORMANCE OF HIGH PROTEIN CORN (*ZEA MAYS L*)

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ABSTRACT

To increase production through agronomic procedures, fertilizer levels demand careful care in shifting climatic conditions that might boost a crop's value. To determine the effect of different levels of combined with or without $ZnSO_4$ and NPK levels on the growth and yield of high protein corn, an experiment was conducted using different treatments, application with and without $ZnSO_4$, and NPK levels (Fertilizer 1 100-40-20 $kg\ ha^{-1}$; Fertilizer 2 130-40-20 $kg\ ha^{-1}$; Fertilizer 3 160-40-20 $kg\ ha^{-1}$; Fertilizer 4 100-40-60 $kg\ ha^{-1}$; Fertilizer 5 130-40-60 $kg\ ha^{-1}$; Fertilizer 6 160-40-60 $kg\ ha^{-1}$). There was a significant interaction effect on plant stand at harvest, plant height at harvest, ear height, ear length, ear harvest per plot, kernel row per ear, number of kernels per ear, the weight of 1000 kernels, and estimated kernel yield, according to the results. The application of $ZnSO_4$ and NPK levels at 130-40-60 $kg\ ha^{-1}$ and 10 $kg\ ZnSO_4$ boosted the growth and yield parameters of high protein corn, according to the study's findings. The use of fertilizer combinations during crop production was found to be effective, contributing to the enhanced yield.

KEYWORDS: Growth, Crop Production, Zinc Sulphate, NPK Levels, High Protein Corn, Climate Change, Yield & Fertilizer

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