

The effect of integrated use of vermicompost, biofertilizer (*Azotobacter chroococcum*) and inorganic fertilizers (N, P, K and Zn) on yield and nutrient content and their uptake by wheat

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ABSTRACT

A pot culture experiment was conducted in the pot house of the department of Agricultural Chemistry and Soil Science A.S. (P. G) college, Lakhaoti, Bulandshahr, U.P. to study the effect of integrated use of Vermicompost, Azotobacter and inorganic fertilizers on yield and nutrient content and their uptake by wheat. Conjunctive use of Vermicompost, Azotobacter and Zinc in collaboration with 100% recommended fertilizer dose produced significantly higher grain and straw yield of wheat. However, these results remained at par with those recorded with 75% recommended fertilizer dose plus Zn, Vermicompost (Vc) and Azotobacter. 100% NPK + VC + Zn + Azotobacter treatment appeared to be best. Significant improvement owing to appropriate combination of NPK, VC, Zn and Azotobacter was observed for the nutrient content and their uptake by the crop and the maximum nutrient content and their uptake was noticed due to 100% RFD of NPK + VC + Zn and Azotobacter and minimum with control.

Key words : Wheat, Vermicompost, *Azotobacter chroococcum*, Yield, Nutrient content and uptake