

Influence of Site-Specific Nutrient Management on Productivity, Nutrient Use Efficiency and Economics in Rice-Rice Cropping System

M. Ray, P. Haldar, N.B. Choudhuri¹, C. Majumder, P.K. Mani¹, S. Chatterjee², M. Pramanick and S.K. Mukhopadyay

Department of Agronomy, ¹Department of Agricultural Chemistry and Soil Science ²Department of Agricultural Economics, BCKV, Mohanpur, Nadia-741 252, India E-mail: manabbckv@gmail.com

Abstract: The maximum *kharif* rice yield (5498.40 kg ha⁻¹) was obtained with the application of $N_{150}P_{60}K_{80}S_{20}Zn_{8}$, which was 44% and 46% higher as compared to state recommendation and farmers' practice, respectively. Similarly maximum yield of *boro* rice was found with the application of $N_{150}P_{60}K_{80}$ nutrients (6355.56 kg ha⁻¹), which was at par with $N_{150}P_{60}K_{80}$. Highest system net return of Rs. 43,645 ha⁻¹ was recorded in $N_{150}P_{60}K_{80}S_{20}Zn_{8}$ followed by $N_{150}P_{60}K_{80}S_{20}Zn_{8}$. Balanced nutrient application resulted higher partial factor productivity as well as agronomic efficiency of applied N, P and K.

Key Words: Agronomic efficiency, Partial factor productivity, Rice-rice cropping system, Site specific nutrient management