

TO STUDY THE EFFECT OF ZN, FE AND FYM ON YIELD, ECONOMICS AND NUTRIENT UPTAKE OF DIFFERENT RICE (*ORYZA SATIVA* L.) VARIETIES

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Received-11.09.2018, Revised-26.09.2018

Abstract: A field experiment was carried out at research farm Institute of Agricultural sciences, BHU, Varanasi for two consecutive years during kharif seasons of 2006-07 and 2007-08. Testing variables consisting of two varieties i.e. NDR-359 and HUBR 2-1, two sources of fertilizer application i.e. 100% RFD of NPK through inorganic source and 75% RFD through inorganic and rest 25% through FYM. Two micronutrients, Zn and Fe through Zn-EDTA and Fe-EDTA were tested in different combinations either on soil or as foliar application or both @ 0.5 and 1.0 kg ha⁻¹. Amongst varieties, var. NDR-359 recorded significantly higher yield, economics and NPK uptake of rice than HUBR 2-1, while Zn and Fe uptake were significantly increased in HUBR 2-1. Fertilizer source as application of 75% RFD through inorganic and rest through FYM recorded significantly higher yield, economics and N, P, K, Zn and Fe uptake of rice than 100% RFD through inorganic source. Among the different micronutrient treatments, soil application of Zn-EDTA @ 1 kg ha⁻¹ recorded significantly higher Zn uptake in rice whereas application of Fe-EDTA @ 0.5 kg ha⁻¹ recorded significantly higher Fe uptake by rice as compared to other micronutrient treatments.

Keywords: RFD, FYM, Varieties, Yield attributes, Economics, N, P, K, Zn, Fe uptake

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