RESPONSE OF HYBRID RICE (*ORYZA SATIVA* L.) TO INTEGRATED NUTRIENT MANAGEMENT (INM) IN PARTIALLY RECLAIMED SODIC SOIL

A.K.S. Parihar, Suresh Kumar and Adesh Kumar

Department of Soil Science and Agricultural Chemistry, Narendra Deva University of Agriculture and Technology Kumarganj, Faizabad-224 229 U.P. INDIA

Abstract : The field experiment was carried out at Instructional Farm of Narendra Deva University of Agriculture and Technology, Kumarganj, Faizabad (U.P.) during *Kharif* season of 2010 and 2011 to study the response of hybrid rice to Integrated Nutrient Management on grain yield, nutrient uptake and economics of various treatments and their effect on physico-chemical properties of soil after harvest of the crop. The experiment was carried out on silt loam soil having pH 8.9, EC 0.4 dSm^{-1} organic carbon 3.6mg kg^{-1}, Available N 194.00, P_2O_5 14.46and K_2O 246.80 kg $ha^{-1.}$ The Seven treatments of integrated nutrient management practices (T_1 -100% NPK, T_2 -75% NPK T_3 .50% NPK, T_4 -75%NPK +25%FYM-N, T_5 -50%NPK +50%FYM-N T_6 -25%NPK+75%FYM-N and T_7 -100%FYM-N) were tested in randomized block design, replicated thrice. The maximum grain yield (69.26 qha^{-1}), straw yield (83.22qha^{-1}), nutrient uptake of N (155.32 kg ha^{-1}), P (44.15 $kgha^{-1}$), K (158.23$kgha^{-1}$) were recorded with the application of 75%NPK +25%FYM-N (T_4) which were significantly superior over 75%NPK and 50% NPK + 50 % FYM-N, minimum was recorded with 100 % N through FYM. The maximum gross income Rs. 70489.0 ha^{-1} was recorded with 75%NPK +25%FYM-N (T_4) followed by 100%NPK (T_1).

Keywords : INM, hybrid rice, sodic soil

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