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Impact of Crop Residue Management on nutrient balance in rice-wheat cropping system in an Aquic hapludoll

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Abstract

An experiment conducted on rice-wheat cropping system under the Mollisol order of Pantnagar to study the effect of crop residue management practices on nutrient balance during 2005-2006. Three crop residue management practices; crop residue incorporation, crop residue remove and crop residue burnt and two levels of nitrogen (100 kg/ha, 150 kg/ha) and three levels of potassium (0 kg/ha, 30 kg/ha, 60 kg/ha) was applied. The results revealed that NPK uptake were highest in crop residue incorporation as compare to crop residue remove and burnt. Nitrogen balance was negative in all the treatments, and potassium balance also fallows same as nitrogen except potassium application with crop residue incorporation. Rice—wheat yield and nutrient uptake were significantly higher in case of crop residue incorporation with nitrogen and potassium application.