HIỆU QUẢ KINH TẾ VÀ TỒN DƯ CỦA THAN SINH HỌC BÓN KẾT HỢP VỚI PHÂN KHOÁNG CHO LÚA (ECONOMIC AND RESIDUE EFFECTIVENESS OF BIOCHAR COMBINATION WITH MINERAL FERTILIZERS APPLIED FOR RICE).

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TÓM TẮT:

Land use is faced to the preasure of intensive cultivation to increase the crop yield due to high food demands and security. So that, farmer practices are increasing the rates of inorganic fertilizer for crop, anyhow enevironment would be polluted and agricultural products would be hamfull for public health.

Application of biochar for crops is considered as a positive material for soil improvement and better environment. This study is carried out application of biochar with and without NPK to assess the rice yield and residue effect of biochar on the paddy rice in Thai Nguyen province, during 2012- 2013.

Result indicated that application of biochar at the rate of 2.5 tons/ha in continuous 2 seasions in 2012, then stop it and added NPK, rice yields were reduced by 9.5% in the first year, but increased by 13% in second year. Application of 0.5–2.5tons biochar/ha combined with NPK, evarage rice yield was increased by 17.6%. Economic benefit (B) from rice cultivation is estimated by 29.11- 37.05 million VND/ha/crop with net income (B-C) of 2.64- 7.26 million VND/ha/crop. Residue effectiveness of biochar from 2 privious seasions to next 2 seasons was estimated by 13% in treatmendt with 2.5 tons biochar/ha, and 14- 33% in treatments with 0.5 or 2.5 tons biochar combined with NPK. Application of 10 tons compost mixed with 5% biochar, combined with NPK, residue effect was obtained by 26.3- 34.6%, compared to NPK's application.