Abstract

The study of Phosphorus adsorption capability in organic paddy soil of Roi Et and Kula Ronghai series consisted 6 treatments. The soil samples were collected at 0-15 cm. for each treatment. The study on adsorption capability of Phosphorus the result showed that Roi Et soil series gives higher than in Kula Ronghai series. First period (Before cultivation) in treatment 1 (the formal cultivation of organic farming which contain cow dung cowpea/jack bean liquid manure and rice straw) phosphorus capacity of adsorption (a) of 3.66 $x10^{-5}$ and constant of balancing absorption (b) of 0.796 which has the lowest organic matter with 0.2% of pH 4.27. Growing period in treatment 1 phosphorus capacity of adsorption (a) of 3.58 $x10^{-5}$ and constant of balancing absorption (b) of 0.795 which has the lowest organic matter with 0.7% of pH 4.80. Harvest petiod in treatment 4 (the formal cultivation of organic farming and *Sesbania rostrata*. LDD4 and liquidmanure) has highest phosphorus capacity of adsorption (a) of 3.58 $x10^{-5}$ and constant of balancing absorption (b) of 0.797 which has the hightest organic matter with 2.2% of pH 5.33. Treatment 4 should promoted to be used by the farmer for the next organic rice cultivation.