

Spatial distribution of pH and electrical conductivity of soil in critical zone

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This study was conducted to evaluate of distribution of pH and electrical conductivity of soil in critical zone. Soil samples were collected at 83 sites in agricultural area. pH and electrical conductivity were measured in solution mixing 5 g of soil and 20 mL of deionized water. pH ranged from 4.0 to 5.8. Background value of pH was approximately 4.5. Electrical conductivity ranged from 11.9 to 1,093 $\mu\text{S}/\text{cm}$. Background value of electrical conductivity was approximately 58.8 $\mu\text{S}/\text{cm}$. pH and electrical conductivity showed wide range because the amount of fertilizer and pesticide used in each agricultural field was different. In addition, the kind of crops were not significantly influenced to pH and electrical conductivity of soil. In the future, the study regarding factors controlling adsorption and migration of components in soil will be performed. This study was supported by the Korea Research Foundation Grant funded by the Korean Government (2014R1A1A1008322).