
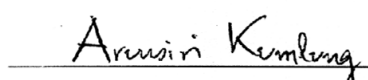


Rangraam Bhalachandra 2006: Effect of Soil and Water Conservation Practices on Paraquat Residues in Surface Runoff and Sediment at Highland Development Research Station, Samoeng District, Chiang Mai. Master of Science (Agriculture), Major Field: Soil Science, Department of Soil Science. Thesis Advisor: Assistant Professor Arunsiri Kumlung, D.Agr. 82 pages.
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Effect of soil and water conservation practices on paraquat residues in surface runoff and sediment was studied with cabbage crop at the highland development research station, Samoeng district, Chiang Mai Province. The experiments were carried on with 2 crops growing season, July to October 2003 and June to October 2004, the plot size was 15x20 m². There were 4 treatments : 1) no soil and water conservation practices 2) vetiver grass strip 3) natural grass strip 4) hillside ditch. Rainfall, surface runoff, sediment and paraquat residues in surface runoff and sediment were the data for assessment. These data were statistically analysed by using the Analysis of Variance (ANOVA). The results showed both of 2 years of crop growing season, the hillside ditch plot had the least amount of surface runoff and sediment, as well as the paraquat residue in sediment. Furthermore, comparing the cabbage growing season, the amount of surface runoff from vetiver grass strip plot was decreased 79%, the amount of sediment from natural grass strip plot was decreased 92%, and the amount of paraquat residue from hillside ditch plot was decreased 66% in the 2nd years. The results also showed that the differences of soil and water conservation practices for cabbage at the highland gave different advantages. However, this research was limited with the time of study, the finally can not be the conclusion. They only are the trend of the knowhow for the further study.


Student's signature


Thesis Advisor's signature

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