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**BEHAVIOUR OF MINERAL NITROGEN AND MINERAL  
PHOSPHORUS IN SANDY REGOSOLS**

174

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## ABSTRACT

Sandy regosol is one of major soil types in Batticaloa. Low fertility and high infiltration are the undesirable characteristics of this soil in terms of agricultural productivity of a land, which is an unenthusiastic point for agriculture in Batticaloa. Any research geared to assist the sandy soil activity will play a pivotal role in examining the sandy soil activity. In this concern, a research to study the nitrate and phosphate leachate in sandy soil was conducted. Finding the behavior of mineral nitrogen and mineral phosphorus in sandy regosol will facilitate the understanding of the fertility management and fertility recommendation without the use of excess application of fertilizer and reduce the risk of ground water pollution. For this study, mineral nitrogen and mineral phosphorus were analyzed by minerals in leachate and soil. The concentration of minerals was measured in spectrophotometer. In the study, sandy regosol adsorbed more  $169.28 \text{ mg kg}^{-1}$ , and leached more  $128.96 \text{ mg kg}^{-1}$  of nitrate nitrogen in urea treated soil. And adsorbed more  $1112.53 \text{ mg kg}^{-1}$  in cow-dung treated soil and desorbed more  $48.95 \text{ mg kg}^{-1}$  in TSP treated soil. That is the behaviour of sandy regosol of capacity for retain and leached or desorbed the mineral nitrogen and mineral phosphorus.

**Key words;** Leaching, Adsorption, Desorption, Sandy regosol.

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