Title: Analysis and improve the quality of soil in King Mongkut's University of Technology Thonburi Bangkhuntien Campus

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Abstract

In studying of soils in the area of King Mongkut's University of Technology, Bangkhuntian Campus, located near the mangrove forest, and it was organized into 7 zones. The survey shows that in one of the zones, the plants can't grow and salt flakes was found on the soil surface in this area. The area that has these problems was the 3rd zone. In the analysis of the soil's quality from samples of the 3rd zone soil, the soil moisture content was 4.5%, pH 7.79, specific conductivity 7.8 ds / m, soil organic matter 0.42%, Phosphorus 0.89 PPM and Nitrogen 2.44 PPT. That parameters were very lower than Land develop department's standard (2010) parameters. So, the purpose of the project is to investigate and improve problematic soils. The soils must be repaired for plants to grow properly. This experiment uses the fertilizers to repair the soil, which is divided into four types chicken manure, chemical fertilizer formula 20-11-11, chicken manure mixed with chemical fertilizer, and organic fertilizer from the industrial waste sludge (Biosoil) mixed with the samples of soil. Because the selection of plant is Morning Glory, the experiment was controlled the amount nitrogen content of each fertilizer mixed with the soil. After the soil quality has been improved, the parameters analyzed again. And the resulted soil will use for growing Morning Glory and comparing the growth rate in the future.

Keyword : Soil quality, Fertilizer, Morning Glory