UNIVERSITI TEKNOLOGI MARA
THE EFFECT OF DIFFERENT SOIL pH LEVEL ON THE AVAILABILITY AND THE UPTAKE OF MACRO PLANT NUTRIENT BY OIL PALM (*Elaeis guineensis)* SEEDLING

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Final year project report submitted in partial fulfillment of the requirements for the degree of

Bachelor Of Science (Hons.) Plantation Technology And Management

Faculty Of Plantation And Agrotechnology

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CANDIDATE'S DECLARATION

I declare that the work in this Final Year Project was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. The final year project as not been submitted to any other academic institution or non-academic institution for any other degree or qualification.

In the event that my final year project is found to violate the conditions mentioned above, i voluntarily waive the right of conferment of my bachelor degree and agree to be subjected to the disciplinary rules and regulations of Universiti Teknologi MARA.

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ABSTRACT

The effects of different levels of soil pH on the availability and uptake of plant macronutrient by oil palm seedling (*Elaies guineensis*) was observed by planting them in the polybag that was filled with the soil of different pH. The soil pH played an important role in determining the availability of macronutrients. In this experiment, the soil's pH were adjusted from high acidity to high alkalinity. The soil's pH were adjusted by using sulphuric acid(H_2SO_4) and sodium hydroxide(NaOH) and applied to certain amount onto the soil. The availability of soil nutrients were marked by the content of the nutrient in the soil. The nutrient left in the soil was probably due to the unavailability of the nutrients to be uptake by oil palm seedlings roots. At the end of finding, it was found that the different soil pH has no significant effect to oil palm seedlings growth response which is due to the oil palm tolerance to change in soil ph.

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