

**APPLICATION OF RICE HUSK BIOCHAR (*Oryza Sativa sp.*) ON
ACIDIC SOIL**

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**Final Year Project Report Submitted in
Partial Fulfilment of the Requirements for the
Degree of Bachelor of Science (Hons.) Chemistry
in the Faculty of Applied Sciences
University Teknologi MARA**

JULY 2017

ABSTRACT

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This study evaluated the effect of application of rice husk biochar (RHB) on acidic soil from palm oil plantation in Taman Desa Jaya 2, Jengka. Rice husk from paddy plant (*Oryza Sativa sp.*) was collected at Bernas factory in Besut for biochar manufacturing. RHB was produced by pyrolysis proses at 450 °C for two hours in slightly alkaline (pH 7.76). Fourier-transform infrared (FTIR) was used to determine the chemical composition in rice husk biochar. Three different portion of RHB (0.5, 1.0 and 1.5 g) were added into 10 g of acidic soil and control soil. The control soil was neutral condition (pH 7.16). The soil pH mixed with RHB was measured after 1 week. Inductively coupled plasma optical emission spectrometry (ICP-OES) was used to observe the trend of the sodium (Na) and potassium (K) before and after addition of RHB. The results indicated that application of RHB has increased the soil pH and nutrient in the soil such as K but not really influence the amount of Na in acidic soil. It also not significantly affect the pH value of soil in neutral condition. The highest increment of soil pH was achieved when 1.5 g RHB added. The study suggests application of RHB on acidic soil has benefit to both soil pH and plant because acidic soil condition tends to increase the amount of aluminium in the soil that toxic to the plant.

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