# EFFECTS OF RICE HUSK BIOCHAR ON GROWTH PERFORMANCE OF MRIA 1 AND NUTRIENT CONTENT IN SOIL AT SEEDLING STAGE

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## DECLARATION

This Final Year Project is a partial fulfilment of the requirements for a degree of Bachelor of Science (Hons.) Plantation Technology and Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.

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I hereby declare that I have checked this project and in my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Science (Hons.) Plantation Technology and Management, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA.

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ZULFATIHAH BINTI ZULKIPLI

## TABLE OF CONTENTS

## ABSTRACT

### EFFECTS OF RICE HUSK BIOCHAR ON GROWTH PERFORMANCE AND NUTRIENT CONTENT OF AEROBIC PADDY AT SEEDLING STAGE

This research was conducted to study the effects of rice husk (RH) biochar on growth performance and nutrient content of aerobic paddy at seedling stage. Biochar was defined simply as charcoal that used for agriculture purpose as soil amendments. Sources of biochar used are RH which was collected at Kuala Kurau, Perak. Biochar was produced using pyrolysis process, where there is less to no oxygen available to ensure the partial of biomass. Five different rates of rice husk biochar were used in this study which were control; soil without biochar application (T1), 2.5 $tan^{-ha}$ (T2), 5.0 $tan^{-ha}$ (T3), 10 $tan^{-ha}$ (T4), 20 $tan^{-ha}$ (T5), to determine the most efficient rate on seedling growth performance. This study was conducted at unit 3 glasshouse for 6 weeks and the plant height was measured by weekly basis. The soil chemical properties such as pH and nutrient analysis were observed and tested in soil science laboratory 4 in UiTM (Melaka) Jasin Campus. Nutrients analysis have been carried out to measure the nutrient content which were phosphorus (P), potassium (K), calcium (Ca) and magnesium (Mg) in the in soil. From the results obtain, it shows that the pH value on soil properties and the plants height was significantly increased with the increasing rate of rice husk biochar.