THE EFFECTS OF COMPOST APPLICATION ON GROWTH PERFORMANCE OF AEROBIC RICE GROWN IN SANDY SOIL

UMMI FARHANI AZREEN BINTI AZIZ

Final Year Project Report Submitted in
Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science (Hons.) Plantation Management and Technology
in the Faculty of Plantation and Agrotechnology
University Technology MARA

DECLARATION

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

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Candidate's signature:

Name: UMMI FARHANI AZREEN BINTI AZIZ

I hereby declare that I have checked this project and in ny 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.

Date: 21 JULY 2016

Date: 21 JULY 2016

Supervisor's signature: .

Name of Supervisor: NURUL WAHIDA BINTI HANI

Position: LECTURER OF FACULTY OF PLANTATION

AND AGROTECHNOLOGY

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ABSTRACT

THE EFFECTS OF COMPOST APPLICATION ON GROWTH PERFORMANCE OF AEROBIC RICE GROWN IN SANDY SOIL

Aerobic rice cultivation is a new concept of growing rice with supplemental irrigation without the necessity for standing water in the field. Soil compost application is a common soil management practice used to improve the characteristics and fertility of sandy soil in order to increasing of water holding capacity (WHC), cation exchange capacity (CEC), nutrient retention and microorganisms activity. A set of experiment was conducted to determine the effectiveness of compost materials used as a treatment. Aim of the study is to identify the effects of compost on growth performance of aerobic rice grown in sandy soils. This study was conducted with five rate of compost treatments each with three replication arranged by Complete Randomized Design (CRD). The responses of aerobic rice on compost were measure based on plant height, number of leaves, number of tiller and number of panicle of growth through out 60 days of growing periods. At the end of the experiment, it determines that the different rate of compost were give a significant effects towards growth parameters and yield measurement of paddy based on plant height, number of leaves, number of tillers and number of panicles and dry weight grain production. Overall of this study, the recommended rate for compost treatment is 10g per 1kg soil which is equal to 5000kg per hectare of compost material apply at actual paddy field area.

Keyword: Aerobic rice, Compost material, Sandy soil, Growth performance