EFFECT OF EFFECTIVE MICROORGANISM (EM) APPLICATION AT DIFFERENT PHENOLOGY ON AEROBIC PADDY CV. MRIA 1

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

JULY 2019

ACKNOWLEDGEMENTS

Bismillahhirrahmanirrahim, praise and thanks to Allah S.W.T for his blessing who grants me the opportunity, strength, knowledge and determination to accomplish my research for Final Year Project. Final year project is the most challenging that I have ever to face during my study. I would like to give an appreciation to the people who are directly or indirectly support me while I am completing this thesis. I am never able to complete this thesis without their support especially my supervisor, my parent, family and beloved friends.

Firstly, I would hereby like to express my appreciation specifically to my supervisor **Dr Siti Maslizah Abdul Rahman** and my co-supervisor **Dr. Munira Bt. Shahbuddin** for their commitment, guidance, motivation and providing me a good atmosphere along completing my research until the end. I really appreciate their patience, knowledge sharing, and suggestion because help me a lot in conducting this project.

Secondly, I would like to give my gratitude to my parents **Che Hamid Bin Jahaya** and **Siti Amrah Binti Yahaya** who are always there for me when I am having a hard time and who are support me for the financial, love and prayers. Special thanks to my colleagues and friends for their continuous support and helping me during completing this project.

Finally, thanks a lot to all the lectures and Faculty of Plantation and Agrotechnology who involved directly or indirectly in finishing my project and thesis with successfully. Alhamdulillah.

Your sincerely,

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ABSTRACT

EFFECT OF EFFECTIVE MICROORGANISM (EM) APPLICATION AT DIFFERENT PHENOLOGY ON AEROBIC PADDY CV. MRIA 1

This research was conducted to evaluate the effect of EM application at different phenology of aerobic rice cv. MRIA 1. The objective of this research was to determine the effect of EM application at different phenology on growth and yield component on MRIA 1. This experiment was carried out by using CRD experimental design consisted of three treatments with two replications. Aerobic seed variety of MRIA 1 was obtained from MARDI used as planting materials and has been applied by three different treatments of EM during different phenology. The first treatment (T1) as a control, applied with recommended chemical fertilizer (normal practices) with 1.8g NPK + 0.9g Urea with no additional of EM was applied on seedling stage (17 DAS). Second treatment (T2) consisted of 1.8g NPK + 0.9g Urea + 200 ml EM solution applied on vegetative stage (30 DAS) and third treatment (T3) was treated with 0.9 g NPK + 0.9g Urea + 200 ml EM solution applied on reproductive stage (50 DAS). Plant growth parameters were collected at five series of harvesting at 40, 60, 74, 88, 102 DAS. Result shown that there were no significant differences between treatments for parameters studied (shoot and dry weight, SPAD value and number of tiller and panicle). The result shown that the patterns are more rapid on T1. Application of T1 showed that the highest increment of shoot dry weight (4.3335 g), root dry weight (1.878 g), numbers of panicle (22.5/pot) and numbers of tiller (6.1/pot). However, T2 obtained the highest value in mean SPAD for 5 series harvesting (H1:38.62, H2:40.19, H3:36.23, H4:48.49 and H5:38.85 nmol). But there were significant different on between each of treatment on fill seed/pot (g). Where the T1 have the higher value (1.6125 g). As a conclusion, application of EM on different phenology growth was not improved plant growth parameter and yield component of aerobic rice cultivation.

Keywords: effective microorganism, aerobic paddy, different phenology, yield component.