

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

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Your sincerely,

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TABLE OF CONTENTS

	<u>Page</u>
DECLARATION	ii
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF PLATES	viii
LIST OF ABBREVIATIONS	ix
ABSTRACT	xi
ABSTRAK	xii
<u>CHAPTER</u>	
1 INTRODUCTION	
1.1 Research Background	1
1.2 Problem Statement	3
1.3 Objectives	4
1.4 Significance of Study	4
1.5 Scope of Study	5
1.6 Hypotheses	5
1.7 Limitation of Study	6
2 LITERATURE REVIEW	
2.1 Rice	7
2.1.1 Morphology of Paddy	9
2.1.2 Growth Phase	10
2.2 Aerobic Rice	13
2.3 Microorganism	15
2.3.1 Effective Microorganism	17
2.3.2 Benefit of Effective Microorganism	19
3 RESEARCH METHODOLOGY	21
3.1 Preparation Site	22
3.2 Analysis of Soil pH	23
3.3 Pot Preparation	23
3.4 Seed Sowing	24
3.5 Transplanting	25
3.6 Preparation of Effective Microorganism	26
3.6.1 Stock solution of EM-2 being formulated	27
3.6.2 Stock solution of EM-4 being formulated	28
3.7 Treatment	30
3.8 Fertilizer and EM Application	31
3.9 Experimental Design	32

3.10	Water Supply	33
3.11	Weed Control	33
3.12	Data Collection	34
3.12.1	Plant biomass	34
3.12.2	SPAD value	35
3.12.3	Numbers of tiller and panicle	35
3.12.4	Fill seed weight	36
3.13	Statistical Analysis	36
4	RESULTS	37
4.1	Shoot Dry Weight	38
4.2	Root Dry Weight	39
4.3	Number of Tiller	40
4.4	SPAD Value	41
4.5	Number of Panicle	42
4.6	Fill Seed Per Pot	43
5	DISCUSSION	44
6	CONCLUSIONS AND RECOMMENDATIONS	50
	REFERENCES	52
	APPENDICES	58
	CURRICULUM VITAE	92

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.