RICE DISEASES IN MALAYSIA: A REVIEW ON CONTAINMENT AND CONTROL STRATEGIES

NAZARUDDIN BIN OMAR

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

JULY 2016

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.

It is entirely my own work and has not been submitted to any other University or higher education institution, or for any other academic award in this University. Where use has been made of the work of other people it has been fully acknowledged and fully referenced.

I hereby assign all and every rights in the copyright to this Work to the Universiti Teknologi MARA ("UiTM"), which henceforth shall be the owner of copyright in this Work and that, any reproduction or use in any form or by any means whatsoever is prohibited without a written consent of UiTM.

Candidate's signature	0	
-----------------------	---	--

Date:

Name:

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.

Signature:	
Name of Supervisor:	
Position:	
Date:	

ACKNOWLEDGEMENT

Bissmillahirrahmanirrahim,

Alhamdulillah, first of all, thank to Allah because of his grace, was complete this final year project (Final Year Project: FPA 690) with the titled 'Rice Diseases in Malaysia: A Review on Containment and Control Strategies'. Besides, this final year project prepared according to the partial fulfilment of the requirements for the Bachelor of Science (Hons.) Plantation Technology and Management in the Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA. First of all, I would glad to appreciate of my supervisor, Dr Hamzah Bin Abdul Aziz, thanks on his cooperation helping me in guidance, suggestions, advises, and give valuable information during preparation and completing the final year project and not forget special thanks to all lectures for the guidance and giving moral support. Finally, thanks also to my family and friends that giving cooperation, helping and supporting from beginning and until the end during completing my final year project progress.

NAZARUDDIN BIN OMAR

TABLE OF CONTENTS

ACK	NOWLE	EDGEMENTS	Page ii
TABLE OF CONTENTS			 iii
	r of fig		iv
	OF TA		V
		BREVIATIONS	vi
	TRACT		vii
	TRAK		viii
СНА	PTER		
1	······	RODUCTION	
	1.1	Introduction	1
	1.2	Problem statement	4
	1.3	Significance of study	6
	1.4	Objective of study	7
	1.5	Research question	7
2	SCE	NARIO OF RICE DISEASE IN MALAYSIA	
2	2.1	Introduction	8
	2.1	Variety use in Malaysia	10
	<i>L</i> • <i>L</i>	variety use in ivialaysia	10
3	BOD	Y OF CONTENT	
	3.1	Introduction	12
	3.2	Rice Tungro Disease (RTD)	14
		3.2.1 Symptoms	15
		3.2.2 Control strategies	16
	3.3	Bacterial blight disease	19
		3.3.1 Symptoms	19
		3.3.2 Control strategies	20
	3.4	Blast disease	21
		3.4.1 Control strategies	21
	3.5	Rice sheath blight	23
		3.5.1 Control strategies	23
4	DISC	CUSSION AND CONCLUSION	
	4.1	Conclusion	25
	4.2	Recommendation	26
BIBLIOGRAPHY			28
CURRICULUM VITAE		33	

ABSTRACT

The purpose of this study is to review on rice diseases in Malaysia in term of its containment and control strategies applied among the paddy farmers. Besides that, the major rice diseases reported in Malaysia there are rice tungro disease (RTD) or known as 'penyakit merah' caused by tungro virus, blast disease caused by fungal pathogen Magnaporthe oryzae, bacterial Xanthomonas oryzae is the causal pathogen of the blight disease and rice sheath blight caused by *Rhizoctonia solani*. Paddy or rice is important sources of food that cover a population of 30 Million citizens in Malaysia. Nowadays, the problems situation among farmers in Malaysia that most depend on the use of the chemical substance to control and prevent the disease that develops high cost and also effects the environment. Based on the study can expose to the farmer on how to control the major diseases damaged the paddy field in Malaysia that do not affect the environment and save cost to manage the diseases. Besides that, use of the cultural method, biological method, and resistance planting material can be applied to overcome the problems and decrease use of chemical substances. Moreover, the farmers in Malaysia preferred to use of inputs such as fertilizers and pesticides that including insecticides, herbicides, and fungicides in their crop plantation areas through farming community of the county in the previous decades. However, based on this study also gave information of method that proposed by the government organization in Malaysia there are Malaysian Agricultural Research and Development Institute (MARDI), Muda Agricultural Development Authority (MADA), Ministry of Agriculture and Agro-Based Industry Malaysia (MOA) and Integrated Agricultural Development Area (IADA) that provide updated information about how to control and manage the diseases among farmers in Malavsia.