THE POPULATION OF GREEN LEAFHOPPER AND ZIGZAG LEAFHOPPER AT PADDY CULTIVATION IN MERLIMAU, MELAKA

NURRUL SHAFIKA BT ABU BAKAR

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

JULY 2019

ACKNOWLEDGEMENTS

Bismillahhirrahmannirrahim,

Alhamdullilah and thanks to Allah S.W.T whom all the praises belong to Him alone, with his blessing and wisdom for giving me guidance to completing this long and challenging journey successfully.

First, I would like to express my sincere and deepest appreciation to my beloved supervisor Madam Nur Farhamizah Binti Askarali for his support, advice, guidance and criticism. Your interest in the project inspired me to take it on, and without your support, I would not complete my study.

My special thought and thanks for this thesis is also dedicated to my parent Mr Abu Bakar bin Abdul latif and Madam Hazilah binti Nordin who always pray for me, given me strength and inspirations during my lifetime. Special thanks to my colleagues and friends of Degree of Bachelor of Science (Hons.) Plantation Management and Technology for helping me with this project.

(NURRUL SHAFIKA BINTI ABU BAKAR)

TABLE OF CONTENTS

	Page
DECLARATION	ii
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS	v - vii
LIST OF TABLES	viii
LIST OF FIGURES	viii
LIST OF ABBREVIATIONS	ix
ABSTRACT	X
ABSTRAK	xi

TABLE OF CONTENTS

	Page
CHAPTER 1 INTRODUCTION	
1.1 Background of study	1
1.2 Problem statement	2
1.3 Significant of study	2
1.4 Objectives	2
CHAPTER 2 LITERATURE REVIEW	
2.1 Research background	3
2.2 Paddy (Oryza sativa)	3
2.2.1 Botany	3
2.2.2 Scientific classification	4
2.2.3 Morphology of paddy	5 - 9
2.2.4 Issue or challenging of paddy	9 - 10
2.3 Major insect pest in paddy	10
2.3.1 Classification of major insect pest of rice	10 - 11
2.4 Zigzag Leafhopper	11 - 12
2.4.1 Biology of zigzag leafhopper	12
2.4.2 Host plan of zigzag leafhopper	13
2.4.3 Life cycle of zigzag leafhopper	13
2.4.4 Symptoms of zigzag leafhopper	14
2.5 Green Leafhopper	14
2.5.1 Biology of green leafhopper	15
2.5.2 Host plan of green leafhopper	15

THE POPULATION OF GREEN LEAFHOPPER AND ZIGZAG LEAFHOPPER AT PADDY CULTIVATION IN MERLIMAU, MELAKA

Nurrul Shafika Binti Abu Bakar¹, Nur Farhamizah Binti Askarali^{2*}

Faculty of Plantation and Agrotechnology, Universiti Teknologi Mara Jasin, 77300,

Melaka, Malaysia

farhamizah@melaka.uitm.edu.my

ABSTRACT

Rice (Oryza sativa) are the major sources of food to all the people. Malaysia is the major rice importer while Thailand and Vietnam are the major suppliers of the rice. Pests are responsible for huge economic losses to rice yields and different strategies are being developed against them to keep them at normal level. The main objective of this study is to identify the population insect pest at paddy cultivation in Merlimau, Melaka. The method used in this study is using yellow sticky traps. The research was observed at Merlimau, Melaka around five weeks. The data were collected ten times with nine replications. The result shows that the population of *Nephotettix nigropictus* and *Recilia dorsalis* are trapped the most at level three, the lowest level of trap. The result was analysing by using SPSS software and Microsoft excel. The factor of level of height trap affect the change of population of major insect pest of paddy. The characteristic of both insect pest is one of the factors in this research. They have an ability to fly high. It is the characteristic that cause these insect trap at level three. Other than that, the factor that makes the abundance of this insect pest is fertilizer application. This study able make farmers understand what kinds of insects are offensive their paddy field and able to adopt excellent farming practices and supporting the sustainability of world paddy manufacturing.

Keywords: paddy, population, insect, yellow sticky trap