

**KNOWLEDGE AND APPLICATION OF BIOLOGICAL CONTROL IN
OIL PALM PLANTATIONS**

(Survey in Merlimau and Jasin, Melaka)

NURFARIHA IMAN BINTI TAHA

**BACHELOR OF SCIENCE (HONS.)
PLANTATION TECHNOLOGY AND MANAGEMENT
IN THE 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 :  Date: 03/7/2016

Name: NURFARIHA IMAN BINJI TAHA

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:

ACKNOWLEDGEMENTS

It is my pleasure to finish up this final year project of the topic “Knowledge and Application of Biological Control in Oil Palm Plantations”. I would like to express my gratitude towards all of the members that being kind to me and willing to help everything that I need especially all my friends under the same supervisor and same field. The most sincerely women, a very thankful to Madam Noer Hartini binti Dol Haji, my supervisor that is very helpful and always guide me in doing this final year project. I adore her so much that she willing to help and give an information according to my research.

Finally I would like to express my gratitude towards Faculty of Agrotechnology and Plantation of University Teknologi Mara, Jasin Campus for willing and agreed to give me this kind of topic as my research program for the final year project. I will finish this thing up and able to come out with a good survey and result to the university. Not to forget special thanks to my beloved friends who never give up and always support me in writing this paper. I also would like to thanks to all the managers and the smallholders in Merlimau and Jasin for willing help me by give a good information during research was conducted.

Thank you.

NURFARIHA IMAN BINTI TAHA

TABLE OF CONTENTS

	<u>Pages</u>
ACKNOWLEDGEMENTS	III
TABLE OF CONTENT	IV-V
LIST OF FIGURES	VI
LIST OF TABLES	VI
ABSTRACT	VII
ABSTRAK	VIII
 <u>CHAPTER</u>	
1 INTRODUCTION	
1.1 Background	1
1.2 Problem statement	3
1.3 Objectives	4
1.4 Significant of Study	4
2 LITERATURE REVIEW	
2.1 Oil Palm	
2.1.1 History of Oil Palm	5
2.1.2 Major Pest and Disease	6
2.2 Biological Control	
2.2.1 Types and Applications	6
2.2.2 Benefits	8
3 MATERIAL AND METHODS	
3.1 Introduction	9
3.2 Test Material	11
3.3 Location of Study	11
3.4 Experimental Procedure	11
3.5 Statistical Analysis	12
3.6 Sample of Respondents	13
3.7 Data Analysis	14

ABSTRACT

KNOWLEDGE AND APPLICATION OF BIOLOGICAL CONTROL IN OIL PALM PLANTATIONS (Survey in Merlimau and Jasin, Melaka)

Oil Palm are widely grown in tropical countries especially in Malaysia. The widespread use of this pesticide and insecticide chemical is causing the new bad effect to the environment and human health such as secondary pest outbreaks, resistance and hazards. They started using natural materials such using a biological control application to control the pest populations in the plantations. Biological control is the natural way that is aimed to pests and diseases. Biological control agent is the form of predators, parasitoids and pathogen.

By doing this survey study, the existing knowledge of biological control among the managers and small holders of the oil palm plantation will be investigate. Furthermore, this survey indirectly help the managers and smallholders know the pro and cons of biological application compares to the using of chemical in their field. Besides, there have a different between the plantations which apply and without applying the biological control to reduce the pests and diseases.