UNIVERSITI TEKNOLOGI MARA

PSEUDO MAPPING OF TERMITES DISTRIBUTION IN OIL PALM PLANTATION

MOHAMAD SYAHRUL BIN MISHAM

Final year project report submitted in partial fulfillment of the requirement for the degree of
Bachelor of Science (Hons.) Plantation Technology and Management

Faculty of Plantation and Agrotechnology

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APPROVAL SHEET

This Final Year Project Report entitled "**Pseudo Mapping of Termites Distribution in Oil Palm Plantation**" was submitted by **Mohamad Syahrul Bin Misham**, in partial fulfilment of the requirements for the Degree of Bachelor of Science (Hons.) Plantation Technology and Management, in the Faculty of Plantation and Agrotechnology, and was approved by

_____

DR MOHD RASDI BIN ZAINI
Supervisor
Faculty of Plantation and Agrotechnology
Universiti Teknologi MARA
Jasin, Melaka

_____

WAN NATASYA BINTI WAN AHMED
Project Coordinator
BSc. (Hons.) Plantation
Technology and Management
Faculty of Plantation and
Agrotechnology
Universiti Teknologi MARA
Jasin, Melaka

_____

NORDIANA BINTI IBRAHIM
Head of Study Center
BSc. (Hons.) Plantation
Technology and Management
Faculty of Plantation and
Agrotechnology
Universiti Teknologi MARA
Jasin, Melaka

Date:_____

CANDIDATE'S DECLARATION

I declare that the work in this Final Year project was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. The Final Year project report has not been submitted to any other academic institution or non-academic institution for any other degree or qualification.

In the event that my Final Year Project is found to violate the conditions mention above, I voluntarily waive the right of conferment of my bachelor degree and agree to be subjected to the disciplinary rules and regulations of Universiti Teknologi MARA.

Name of Candidate	:	**MOHAMAD SYAHRUL BIN MISHAM**
Candidate's ID	:	2012296974
Programme	:	Bachelor of Science (Hons.) Plantation Technology and Management
Faculty	:	Plantation and Agrotechnology
Title	:	Pseudo Mapping of Termites Distribution in Oil Palm Plantation
Signature of Candidate	:	_____
Date	:	06 March 2015

ABSTRACT

The objectives of the study are to evaluate of termites incidence also to record and develop termite distributions followed by the creation of a precise termites hazard maps for oil palm plantation. Termite is one of insects that have rapid reproduction. Besides, termite can be hyperactive in finding places for habitat as well as in search the food sources. This behavior leads to high population of termites in particular area. The study will be conducted in oil palm plantation at Asam Bubok, Parit Raja, Batu Pahat (103.08198N, and 1.94918E) each rows by rows in this crop plots. The survey had been accompanied for 3 months, beginning from 23rd August 2014 finished in 25th 0ctober 2014. The method of the study will be divided into two phases. The point sample number of infestation by termites will be determined using systematic random sampling method. The first phase is the process by using Global Positioning System (GPS) model Garmin to setting coordinates point of sampling and number of termite nests and number of damp wood (decomposed fronds) was found will be physically carried out and calculations had been made on the right side only and vice versa in the next rows in the areas and nearby with a sampling point of oil palm tree. At the same time, all collection data will be recorded in a manually form. The second phase of the study is integrating the information collected from GPS device to construct a termites hazard maps using ArcGIS 10 software. From this survey, incidence maps were constructed and these maps had been categorized high because the range of percentage around 65% until 72%. In this study the hazards maps were classified into 5 stages, that is High (>40%), Moderate (30% - 40%), Low moderate (20% - 30%), low (10% -20%) and very low (<10%) according to Cookson and Trajtsman, 2002.

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