

UNIVERSITI TEKNOLOGI MARA

**DIVERSITY OF INSECT PESTS IN OIL
PALM PLANTATION**

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Final year project report submitted in partial fulfilment of the
requirements for the degree of
**Bachelor of Science (Hons.) Plantation Technology and
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CANDIDATE'S DECLARATION

I declare that the work in this Final Year Project was carried out in accordance with the regulation of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledge 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.

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ABSTRACT

DIVERSITY OF INSECT PESTS IN OIL PALM PLANTATION

A study on diversity of insect pests was conducted for two months in oil palm plantation located in Universiti Teknologi MARA, Jasin district of state Melaka, Malaysia. Conversion of forest into oil palm plantation causes the loss of diversity of insect. The significance of this study is help to provide base line data to formulate strategy in future to increase the population of beneficial insect and reduce the pests in oil palm plantation. Furthermore, the objectives of this study are to assess composition of insect pest in oil palm plantation and to determine the diversity of insect pest in oil palm plantation. Traps used in this study were malaise trap and yellow pan traps which been arranged randomly in oil palm area. The field experiment has design and layout in Completely Randomized Design. A total number of 1653 individual of insect pests successfully collected from 28 families which are Bruchidae, Coccinellidae, Muscidae, Tephritidae, Ulidiidae, Calliphoridae, Simuliidae, Coreida, Cicadellidae, Cixiidae, Lygaeidae, Gryllidae, Acrididae, Tettigoniidae, Copiphirinae, Blattellidae, Mantodae, Nymphalidae, Sphingidae, Libellulidae, Ichneumonidae, Vespidae, Formicidae, Apidae , Sphecidae , Pompilidae , Colletidae, and Tiphiidae from several order include Coleoptera, Diptera, Hemiptera, Orthoptera, Lepidoptera and Odonata. There is range from total of one to 401 individuals of insect pests trapped in oil palm plantation of UiTM Jasin from September 2014 to December 2014. All insects pest were found not significant ($p > 0.05$) different with weeks of sampling. The study showed that diversity and abundance of insect pests was higher during fifth sampling week compared to other sampling weeks. The diversity and population of insect pests recorded was high in the untreated oil palm plantation. This indicates the richness and diversity of insect pests in the study area are generally balance.