UNIVERSITI TEKNOLOGI MARA

DIVERSITY OF INSECT PESTS IN SEGAMA'S OIL PALM NURSERY

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

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# TABLE OF CONTENTS

ACKNOWLEDGEMENTS iii

TABLE OF CONTENTS iv

LIST OF TABLES vii

LIST OF FIGURES viii

ABSTRACT x

ABSTRAK xi

Chapter One INTRODUCTION 1

1.1 Background 1  
1.2 Problem statement 3  
1.3 Significant of study 3  
1.4 Research question 3  
1.5 Hypothesis 4  
1.6 Objectives of study 4  

Chapter Two LITERATURE REVIEW 5  

2.1 Insect pests and its importance in oil palm 5  
  2.1.1 Insect pests 5  
  2.1.2 Diversity of insect pests 7  
  2.1.3 Economic importance 9  
  2.1.4 Control methods 9  
2.2 Description of oil palm 12
ABSTRACT

DIVERSITY OF INSECT PESTS IN SEGAMA'S OIL PALM NURSERY

It is important to provide the vigorous and healthy plant material during nursery stage as initial step to get high profitability and to obtain high yield in oil palm plantation. However, like the others crop, oil palm industry also faced pest and disease attack. Thus, this study was carried out to indicate biodiversity of insect pests and to assess abundance of insect pests in oil palm nursery. This study was conducted in oil palm nursery in Segama Estate of Tamaco Plantation Lahad Datu, Sabah. Pitfall traps, yellow sticky traps, hanging sticky trap, insects bait and light trap were installed randomly in the main nursery plot. By using CRD, the insect collection was taken for 6 sampling date by weekly basis. The insect number were calculated and analyzed using one way ANOVA, t-test, correlation test, Shannon index, Margalef's index and Pielou's Evenness index. This study obtained 570 individuals of insects collected. There were 7 orders and 22 family were recorded. There is no significant difference of insects' abundance between all insects' family and sampling week. The abundance of the insect in week 3 recorded as the highest number. Some insects have significant difference abundance of insect between day and night. Scarabaeidae was the dominant family and followed by Gryllidae, Vespidae and Tettigonidae. The findings of this study also demonstrated that family of Scarabaeidae and Vespidae has no significant relationship.