

**THE OUTBREAKS OF TERMITES (*COPTOTERMES
CURVIGNATHUS*) ON RUBBER TREES (*HEVEA BRASILIENSIS*)
AT RUBBER RESEARCH INSTITUTE MALAYSIA (RRIM) BUKIT
KUANTAN, PAHANG.**

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ABSTRACT

THE OUTBREAKS OF TERMITES (*COPTOTERMES CURVIGNATHUS*) ON RUBBER (*HEVEA BRASILIENSIS*) AT RUBBER RESEARCH INSTITUTE MALAYSIA (RRIM) BUKIT KUANTAN, PAHANG.

Rubber (*Hevea brasiliensis*) was originally a native tree from Amazon and in early 20th century, it was introduced in Africa. The termite cause significant economic damage to rubber trees which is the species of *Coptotermes curvignathus*. The main objective of the study is to estimates the termite infestation that cause damage in rubber plantation , evaluated the related factor that affect the termite infestation such as rainfalls and to determine the best or suitable time to use termiticide to control termite infestation on rubber plantation. The site selection of study at (RRIM) Bukit Kuantan which located in Kuantan Pahang with the total hectare in this research station is 860.935ha. Method that has been used is collection of secondary data for termite infestation the data was recorded by staff for two years and amounts of rainfall for 2014 and 2015 from Malaysian Meteorology Department. The comparison between two years shows that amounts of termites infestation at 2014 is higher than 2015, this is due to the factor amounts of the rainfalls. During the year of 2014 and 2015 the monthly rainfalls amount which are 3086.2mm and 1605.1mm for annual. So, there is There are also no significant difference show by ANOVA between termites infestation with the amounts of rainfalls at 2014 and 2015($P>0.05$) which are 0.176 and 0.192. During time of draught or dry period termite infestation at the highest number and during wet season they are decrease number of termite infestation .For the best time or suitable time to use termicide to control termite infestation on rubber plantations is during dry period because the activity of termite at maximum. So there is chance to kill termite queen and will save more money if using at the right time.

Keywords: Termites Infestation, Rainfalls

CHAPTER 1

INTRODUCTION

1.0 Research Background

Rubber (*Hevea brasiliensis*) is focus for its production of latex, a milky plant liquid, a upright tropical tree crop which is which serves as a basis for various rubber products (Verheye, 1999). Rubber is well-known species and also a tropical tree for the industrial production latex and also for the timber. Rubber has some similar growth requirements as oil palm, and both crops are planted in the same geographical areas (Verheye, 1999). The production of rubber will become lower if the rubber tree was affected by the disease, pest and also the others factors.

Termites are a highly devastative and polyphagous insect pest, which cause damage to buildings, furniture, plants and agricultural crops. About US\$22 billion losses annually across the globe that cause by the termites was estimated (Govorushko, 2011). In China at US\$0.3 billion, in 2004 losses attributed to termites were estimated (Junhong and Bingrong, 2004).The termite usually will damage the rubber trees at any age of the rubber and cause some harms in forestry, agriculture and also the housing. They are a collection of insects (Isoptera) consisting of more than 2500 species about 300 species are measured as pests (Fernando, Jayasinghe, and Wijeratna, 2011). The scientific name for termites is *Coptotermes curvignathus*. This insects usually rapidly breeding and life in the group. A queen of termite is able to produce 4000 eggs per day and the life day can achieve 25 years. They also usually