UNIVERSITI TEKNOLOGI MARA

GPS MAPPING OF RHINOCEROS BEETLE INFESTATION AT REPLANTING OIL PALM FIELD. (A CASE STUDY AT LADANG PEMBANGUNAN PERTANIAN MELAKA, SRI MENDAPAT, MELAKA)

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

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APPROVAL SHEET

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CANDIDATE'S DECLARATION

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I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Bachelor, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Within oil palm replanting ecosystem, the study of population and infestation of rhinoceros beetle are fundamentally important in order to understand its relationship with environment and how to control it. Without the right knowledge, control technique rendered less effective, hence increasing the overall management cost. This study conducted to identify which region within replanting oil palm field area has high infestation rate according symptom caused. 9 random plot consist of 50 oil palm seedling per plot are made and stand for 3 different topographies with 3 replication. The topographies border under study are bordering to another replanting sites, border to matured palm and border to main road. This study conducted based on the scope of work which is the total area of replanting sites, replanting area that has high infestation rate, the average number of oil palm seedling infected per plot and symptom caused by rhinoceros beetle infestation. The total area of replanting sites measured by GPSMAP and the result stated 22.6 hectares is the area of replanting sites under study. After the factors have been analyse, border to another replanting sites show the highest infestation rates which is 33.67 oil palm seedling infected by rhinoceros beetle outbreak while border to matured palm and border to main road show only slightly different which is only by 0.67. The average number of oil palm seedling infected per plot are 28.33 and the symptom significantly associated with rhinoceros beetle infestation are falling spear and "V" shaped cutting mark on leaves derived from feeding activities.

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