UNIVERSITI TEKNOLOGI MARA

KNOWLEDGE AND PRACTICES OF SMALLHOLDERS IN MANAGING RHINOCEROS BEETLE, *Oryctes rhinoceros* DAMAGE ON YIELD OF OIL PALM AT FELDA CHALOK BARAT, SETIU, TERENGGANU

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

Faculty of Plantation and Agrotechnology

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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 of qualification.

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ABSTRACT

Oil palm is main crop in Malaysia as it has large scale of hectares. The oil palm cultivation covers about 5 million hectares on 2011. Malaysia is one of main producers and also as exporters of oil palm at international level. However, major pest of oil palm as well as rhinoceros beetle become serious problem in oil palm sector because the population has capability to damage the yield of oil palm production. The smallholders were suffered on losses of yield. Apparently, the insufficient of knowledge leads to the ineffectiveness of practices by smallholders in control of rhinoceros beetle in oil palm areas. Therefore, the purpose of this study is to determine which factors between knowledge and practices of smallholders influence in managing of rhinoceros beetle damage on oil palm yield in FELDA Chalok Barat, Setiu, Terengganu. This location of study was rationally selected because rhinoceros beetle was the major pest problem in the oil palm areas. The different level of knowledge of smallholders in managing of rhinoceros damage would influence the production of yield of oil palm. These data for this research study were gathered from among smallholders in the research area by distributed questionnaires. The data was accumulated from 150 respondents. This research study was used of random sampling techniques. The questionnaires were distributed only once to the respondent to avoid bias. The data was analyses by using of Statistical Package for Social Science (SPSS) software. The result of this study show that "practices of the smallholders" has the strongest influence in managing of rhinoceros beetle damage on oil palm yield (Beta=0.653). The "knowledge of smallholders" is the second factor that influence in managing of rhinoceros beetle damage on oil palm yield (Beta=0.348). In addition, there is positive effect on productivity of oil palm yield when the knowledge and practices of smallholders is positive. However, the practices of managing of rhinoceros beetle damage were the most effect on oil palm yield compared to level of knowledge amongst smallholders. The practices and level of knowledge of smallholders plays important role in managing of rhinoceros beetle damage on oil palm in order to increase the productivity of yield.

Keywords: Oil palm, pest, rhinoceros beetle, damage, knowledge, practices, yield

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