ECONOMICAL EFFECTIVENESS ON HARVESTING SYSTEM INFLUENCING THE OIL EXTRACTION RATE OF PALM OIL: CASE STUDY IN TWO OIL PALM PLANTATION

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ABSTRACT

ECONOMICAL EFFECTIVENESS ON HARVESTING SYSTEM INFLUENCING THE OIL EXTRACTION RATE OF PALM OIL: CASE STUDY IN TWO OIL PALM PLANTATION

It has been widely known that Oil Extraction Rates (OER) are the most important aspect of industrial palm oil in Malaysia. This research is focusing on studying the economic effectiveness on harvesting system influencing the oil extraction rate (OER) of palm oil in two oil palm plantations. Harvesting is the one major process in maintaining the production of oil palm and there are several factor that influencing the oil extraction rate which consist of the factors labor usage, machinery specification and fruit grading before processing in mill. But, there is still lack of information regarding to harvesting practice to the harvester that can affected the productivity and mostly manager only want the higher profit without focusing on maximize the oil extraction rate for palm oil. The objectives of this research is to assess the best harvesting practices, also to investigate and compare the different harvesting system between two different plantations. The location of this study was conducted at different areas which is TDM Jerangau estate, Terengganu and FELCRA Lekir, Perak. The method of data collection used are interview and collected secondary data from the companies. Both company were tested by using four analysis which are descriptive, correlation, benefit cost ratio and statistical t-test. Besides that, the Statistical Package for Science Computer Software (SPSS) was used to analyze the result and interpret the data for both companies. The results from this study showed that FELCRA Lekir in Perak is more effective and efficient for harvesting system that affected to higher oil extraction rate (OER) compared to TDM Jerangau in Terengganu based on factor studied. This is because TDM Jerangau has problem with the variable factor that contribute to the negative result. As recommendation, the manager or harvester need to improve their harvesting practices in the field based on this result which can increase the production meanwhile improve the quality of palm oil for the future.

Keyword: Oil Extraction Rate (OER), Harvesting system, Labor, Oil Palm Plantation.