

**THE EFFECT OF EMPTY FRUIT BUNCHES (EFB) MULCHING
ON OIL PALM PLANTATION PERFORMANCES**

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ABSTRACT

EFFECT OF THE EMPTY FRUIT BUNCH (EFB) MULCHING ON THE OIL PALM PLANTATION'S PERFORMANCE

Oil palm is the most important product from Malaysia that has helped to change the scenario of it's agriculture and economy. The fundamental principles of waste management are to minimize and recycle the waste, recover the energy and finally dispose the waste. In total, about 90 million mt of renewable biomass (trunks, fronds, shells, palm press fiber and the empty fruit bunches) are produced each year. The empty fruit bunches (EFB) represent about 9% of this total. EFB is a suitable raw material for recycling because it is produced in large quantities in localized areas. As the industries keep growing, the disposal of the biomass waste still does not have much option of right solution. It has become common situation faced by the oil palm plantation management sector. Mostly the management of the oil palm plantation will only depend on a few solution. There is not many oil palm plantation that practices the use of EFB as mulching. This study were carried to identify the effect of practising EFB as mulching to the oil palm yield. Also to identified the effect of mulching on the amount of fertilizer used before and after applying the EFB. The study were conducted in Ketengah Perwira Holding's Plantation located at Cukai, Kemamam. To identify the effect of applying the EFB, data of the oil palm yield in the plantation are taken and compared to each other. The data yield on the oil palm trees at age 10 year are recorded. To identify the effect, the oil palm yield data before and after replanting will be compared to see the difference. The reason data of the oil palm yield before and after were taken is because to show that the oil palm plantation have taken the data of yield before and after applying the mulching. The same method were used to identify the amount of fertilizer effected before and after apply the EFB. This case study had identified the effect of using EFB as mulching between the two time period which represent before and after.

CHAPTER ONE

INTRODUCTION

1.1 Oil Palm Industry in Malaysia

The Sime Darby and Boustead are the first British plantations that were established and mostly operated in Malaysia. Before this it is under the list in London until the 'Malaysianisation' were engineered by Malaysian Government throughout the 1960s and 1970s. On 1 July 1956, with main aim to eradicate the poverty the Land Development Act has formed Federal Land Development Authority (FELDA) as the main force. FELDA has become the world's biggest oil palm planter with the planted area about to close 900,000 hectares in Malaysia and Indonesia. 10 acres of land (about 4 hectares) were given to the settler who lives in Malaysia to be planted with oil palm and to pay off the debt for the land they were given 20 years.

FELDA then manage to achieve success which lead to the establishment of other development schemes to support the establishment of small farmer in oil palm cultivation. The main objective for this organization is to provide assistance in the development of the rural communities and to reduce problem of poverty through the process of the cultivation high yielding crops such as palm oil.

The government highly focused on the value added from the rubber planting industry, exports and decreasing the poverty problem though land schemes after Malaysia achieved independence in 1957.