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DIPLOMA IN PLANTING INDUSTRY MANAGEMENT

INDUSTRIAL TRAINING (FPA310) REPORT
FELCRA BERHAD BINTANGOR BUNUT

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TABLE OF CONTENTS

CONTENTS	PAGE
Acknowledgement	2
Table of content	3
1.0 ORGANISATION BACKGROUND	
1.1 FELCRA Berhad Organization Structure	4
1.2 Organization Chart of FELCRA Berhad Bintangor Bunut	5
2.0 INTRODUCTION OF OIL PALM	
2.1 What is Oil Palm	6
2.2 Black Bunches Census	6
2.3 Pest Management	7-13
2.4 Herbicides Management	14-17
3.0 MAINTENANCE WORKERS QUARTER	
3.1 Wiring Housing Areas	18-19
3.2 Designing the Shower and Bathroom Place	20
4.0 MANAGEMENT OF WORKER	
4.1 Proposal of Organizing "Hari Pekerja"	21
Opinion and Suggestion	22
Conclusion	23
References	24

1.0 ORGANIZATION BACKGROUND

1.1. FELCRA Berhad

FELCRA stands for Federal Land Consolidation and Rehabilitation Authorities had been established in 1996. Its objectives is to develop rural areas sector by helping it peoples to join activities in development sector in plantation and living standards.

Starting from 1 September 1997, FELCRA have been transformed from statutory firm to a government company. This changing in entity make FELCRA Berhad go along in business that align with national development aspiration.

FELCRA Berhad have many variation in its participants to join industries sector and services plus business course that on the hit.

Vision

Sustain as social enterprise powerhouse entity in plantation sector.

Mission

Work out social obligation through plantation development and business activities.

2.0 INTRODUCTION OF OIL PALM

2.1 What is Oil Palm?

Based on history, the oil palm tree (*Elaeis guineensis* jacq.) originates from West Africa where it grows in the wild and later was developed into an agricultural crop. It was introduced to Malaysia, then Malaya, by the British in early 1870's as an ornamental plant. In 1917, the first commercial planting took place in Tennamaran Estate in Selangor, laying the foundations for the vast oil palm plantations and the palm oil industry in Malaysia. The cultivation of oil palm increased at a fast pace in early 1960s under the government's agricultural diversification programme, which was introduced to reduce the country's economic dependence on rubber and tin. Later in the 1960s, the government introduced land settlement schemes for planting oil palm as a means to eradicate poverty for the landless farmers and smallholders. The oil palm plantations in Malaysia are largely based on the estate management system and smallholder scheme.

Oil palm is a monoecious crop as it bears both male and female flowers on the same tree. Each tree produces compact bunches weighing between 10 and 25 kilograms with 1000 to 3000 fruitlets per bunch. Each fruitlet is almost spherical or elongated in shape. Generally, the fruitlet is dark purple, almost black and the colour turns to orange red when ripe. Each fruitlet consists of a hard kernel (seed) enclosed in a shell (endocarp) which is surrounded by a fleshy mesocarp.

Palm trees may grow up to sixty feet and more in height. The trunks of young and mature trees are wrapped fronds which gave them a rather rough appearance. The older trees have smoother trunks apart from the scars left by the fronds which have withered and fallen off.

2.2 Black Bunch Census

Oil palm census is crucial for estimating probability of crops yield per 4 months. It is important to perform black bunch census to estimate our profit or loss, and for many others various purposes. It is also important for determine harvesting interval.

2.3 Pest Management

In agriculture, pests are organisms that damage crops by their feeding or burrowing activities and diseases involve microorganisms like fungi, bacteria and virus. It damages the crops by disrupting the plant's physiology, metabolism or direct cellular and tissue damage and the crop ability to optimize production.

The major pests of oil palm in Malaysia are rats, bag-worms, nettle caterpillars, rhinoceros beetle, bunch moth and termite whilst the most important disease is *Ganoderma* basal stem rot and, to a lesser extent, *Marasmius* bunch rot.

Insecticides will remain the main weapon against insect pests, but integrated control involving regular monitoring, good agronomic practices, conservation, supplementation and utilization of natural control agent, and the judicious use of chemicals, will become increasingly more important. Chemicals with broad-spectrum of activity, long and persistent residues, and high mammalian toxicity will continue to be replaced by safer and more target specific products that are also safer to the environment.

INTEGRATED PESTS MANAGEMENT (IPM) IN FELCRA

Integrated Pest Management (IPM) is the use of holistic and compatible methods of pest and disease control to reduce economic injury to the crop. IPM removes the over dependence on pesticides, making the process more sustainable.

FELCRA chooses the discipline of Integrated Pests Management in controlling the pests and disease outbreak through:

Planting of beneficial plants such as *Cassia cobanensis*, *Turnera subulata* and *Antigonon leptopus* to provide shelter and supplementary food such as nectar and encouraging the population of predators and parasites.



Turnera Subulata



Antigonon leptopus



Casia Cobanensis

Biological control such as pheromone trap also being use beside than the Rhinoceros Beetle breeding site being sprayed with *Metarhizium Anisopliae*.