UNIVERSITI
TEKNOLOGI
MARA

Programme and Abstracts

PIMES
PLANTATION MANAGEMENT
EXHIBITION & SEMINAR

15th December 2018

Faculty of Plantation and Agrotechnology
Universiti Teknologi MARA
Melaka **Branch**, Jasin Campus
77300 **Merl**imau, Melaka, Malaysia

NO	CONTENTS	PAGES
1.	The Dean, Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA	1
2.	Introduction PiMES	3
3.	Committees	4
4.	Schedule of PiMES	5
5.	Room Distribution For Poster Presentation	7
6.	Distribution For Poster Presentation	8
7.	Abstracts	29
8.	List Of Panels Industries	241

DEAN PREFACE

Assalamualaikum Warahmatulllahi Wabarakatuh

My heartiest congratulations go to the Committees for successfully organized PIMES September 2018. PiMES September 2018 enables lecturers and panels from strong industrial background to reflect and share significant ideas, experiences and research findings in the workplace and in partnerships. It is also hoped to encourage collaboration among the lecturers and enhance the quality and performance of the faculty. The research findings derived from this substantial event shall indicate the commitment of lecturers not only in teaching, but also in striving to unfold new knowledge and processes that will benefit the nation. The efforts of our lecturers need to be further extended to a wider audience so that the nation will benefit from the research findings. It is also hoped that, the proceedings will trigger serious thought and more robust research in the field of education as well as plantation and technology so as to help Malaysia achieve Vision 2020.

As we know, agriculture production has increased tremendously today because of the demand from various sectors in the world. To meet the challenges of increasing food demand, techniques and ways should be created to improve productivity, profitability and sustainability of the agricultural system. Industrial agricultural system has led to irretrievably changes in the landscape diversity, soil quality, environment integrity, and natural resource base. This has resulted major questions and curiosity worldwide in relation to the sustainability of agricultural production system. The most significant damage to natural ecosystems and the environment was caused by habitat conversion and corresponding climate change, loss of biodiversity and ecosystem functions, soil erosion and degradation, and pollution from fertilizers and pesticides. Concepts in plant protection have changed in past decades from exclusion or destruction of pest to pest management. Serious problems with pesticides, rapid development of pest resistance, environmental effects of pesticides, and high costs led to development of new approaches and techniques in pest management based on improved knowledge of pest dynamics and their natural enemies, and the interaction between the pest and the crop.

It remains only for me to thank all those who have helped to make this events such a great and wonderful success. Much appreciation is due to the board editor, and reviewers of all papers submitted as well as to all authors whose ideas and contributions ensured rich and lively discussion during the various sessions.

DEAN,
Assoc Prof Dr Asmah Awal

INTRODUCTION

The PiMES committee and UiTM (Melaka), Jasin Campus residents are very pleased to welcome all participants in the Plantation and Management Seminar (PIMES) which is organized by Faculty and Agrotechnology.

PiMES aims to give an exposure to the students about the procedure to make a poster by extracting information from their final year project. This seminar will sharpen their communication skill as well as they can exchange and share their research result, projects, experiences and new ideas related to all aspects of studies in plantation management and agribussiness, plant sciences, soil sciences, plant protection, plant biotechnology and agricultural engineering. We sincerely hope that you will enjoy and return home with plenty of inspiration to improve agro-industry plantation practices and research activities.

THE USAGE OF EMPTY FRUIT BUNCHES (EFB) AMONG SMALLHOLDERS IN OIL PALM PLANTATION

Samarobitah Abdullah, Nuraziera Ruslan*

Faculty of Plantation and Agrotechnology, UiTM (Malacca) Jasin Campus, 77300, Malacca.

Corresponding Author:
nuraziera@melaka.uitm.edu.my

ABSTRACT

The oil palm industry has been growing exponentially over the past years that lead to increasing amounts of waste products especially EFB from the oil palm tree. The past study showed that smallholders facing several barriers to use EFB as material in oil palm plantation. The study was carried out to identify the usage of EFB in oil palm plantation. To achieve the objective, a set of data was collected through the questionnaires related to the variables (environment, price, cost, knowledge) in the study. A survey of 137 smallholders was carried out at Felda Lepar Hilir 3, Pahang. The gathered data was analyzed using descriptive, correlation and regression analysis. From correlation analysis, it was identified environment, cost, price and knowledge have positive linear relationship with usage of EFB in oil palm plantation. The relationship between knowledge toward usage of EFB was indicated strong correlation. The environment, price and cost factor was indicated moderate correlation. From regression analysis, 70.5% of variation in usage of EFB was explained by independent variables (price, cost, knowledge) and another 20.5% was explained by other factors. The most influence independent variable towards the usage of EFB in oil palm plantation was cost factor with the highest value ($\beta= 0.431$) followed by knowledge ($\beta= 0.353$) and price ($\beta= 0.225$). As a conclusion, smallholders should use the EFB as a mulching material to conserve water and nutrients in soil that give benefits towards oil palm growth and environmental condition. Government agencies should responsible to instruct smallholders in implementing EFB in oil palm plantation.

Keywords: empty fruit bunches, smallholders, environment, price, cost, knowledge