



Programme and Abstracts

PIMES

**PLANTATION MANAGEMENT
EXHIBITION & SEMINAR**

15th December 2018

Faculty of Plantation and Agrotechnology
Universiti Teknologi MARA
Melaka Branch, Jasin Campus
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PLANTATION MANAGEMENT EXHIBITION AND SEMINAR 2018 (PiMES)

Melaka, Malaysia

December 15, 2018

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DEAN PREFACE



Assalamualaikum Warahmatullahi 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

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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 agribusiness, 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.

**ECONOMIC ANALYSIS OF OIL PALM SMALLHOLDER IN FELCRA
SERI MENDAPAT, MERLIMAU MELAKA**

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ABSTRACT

Economic analysis refers to the opportunity costs of resources employed and attempts to measure in monetary term the private and social costs and benefits of a project to the economy. The Malaysian Oil Palm Industry is facing rising production cost which is partly due to stagnation in productivity and this affect business profitability. The purpose of this study is to examine the economic cost and benefit of oil palm smallholder as well as to determine the relationship of mutual influences between all the factors of land size, labour, production capital, plant age and identify the most significant factor affecting the profitability. Data were analyzed using Statistical Package for Social Sciences (SPSS) version 25 and Microsoft Excel 2016. The data obtained were then analyzed using the benefit-cost ratio, descriptive statistic, correlation and multiple regressions. The results revealed during this study indicate that for the organized smallholder, the total cost is higher than independent smallholder (RM 1328.78 compared to RM 1279.60). For the profitability, independent smallholder gets high profit than organized smallholder (RM 1399.03 compared to RM 1080.54). The result of the study also revealed that all the four factors have positive relationship with the profit for organized smallholder and for independent smallholder it indicates three factors have positive relationship while another one factor (plant age) has negative relationship with profit. The multiple regression analysis indicated that for the organized smallholder, production capital and land size were the most salient determinant of profit while for independent smallholder, labour was the most salient determinant of profit. As such, it is hoped that this study will give a preliminary insight and understanding to organized and independent smallholder in order to achieve high yield and profit.

Keywords: economic analysis, benefit-cost ratio, organized smallholder, independent smallholder, profit