



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.

**COMPARISON ON ECONOMIC AND TECHNICAL ANALYSIS FOR
FERTILIZER MECHANIZATION APPLICATION AFFECTING OIL
PALM PRODUCTION.**

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ABSTRACT

The Malaysian palm oil industry business keeps on making a noteworthy commitment to the national economy towards Gross Domestic Product (GDP) with the contribution of about 5% to 7% every year. As in 2017, the contribution toward Gross Nation Income (GNI) is approximately achieved RM 53 billion. The most important factor to have good fertilizer management system. In this research, it focusses on comparison on economic and technical analysis for fertilizer mechanization application affecting oil palm production and to investigate the effects of fertilizer mechanization application toward oil palm production. The study has been conducted at the Lembaga Kemajuan Pertanian Pahang (LKPP) at three different estates which are LKPP Penor Makmur, LKPP Sri Kruing, and LKPP Pulau manis. The methods of data collection system being used in the study is by interviewing and collecting secondary data. The data then being analyzed through benefit cost ratio, partial budgeting and independent sample t-test. The results from this study showed that, by using spreader system for fertilization, higher economic and technical benefits can be achieved by the plantation based on benefits cost ratio analysis and motion study that has been done. It has also proven by the t-test which show that there is a significant difference on the production of oil palm based on mechanization application based on p value < 0.05. As a recommendation, all the oil palm plantation and smallholders should apply spreader mechanization in order to gain higher economic and technical productivity.

Keywords: oil palm plantation, fertilizer mechanization application, economic, technical