

# **Programme and Abstracts**

# PINAL SEMINAR

15th December 2018

Faculty of Plantation and Agrotechnology Universiti Teknologi MARA Melaka Branch, Jasin Campus 77300 Merlimau, Melaka, Malaysia

# PLANTATION MANAGEMENT EXHIBITION AND SEMINAR 2018 (PIMES) Melaka, Malaysia December 15, 2018

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#### 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 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 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.

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# RISK ANALYSIS ON DIFFERENT METHOD OF FFB EVACUATION: MECHANICAL & CONVENTIONAL METHOD AT JASIN LALANG ESTATE

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#### ABSTRACT

FFB evacuation process one of the important activity in oil palm plantation, but some plantation still choosing and using conventional method for loading even mechanical method are more efficient. Therefore, there are important for oil palm management and workers to know what the risk that might be occur during evacuation pocess. The risk during loding process can affect the productivity of oil palm. This research want to identify which method contribute the risk and method that suitable to be implement in their company. This study was conduct to compare the risk between the mechanical and conventional loading system used in FFB evacuation after the process of harvesting in oil palm plantation. The research was conducted at Jasin Lalang Estate with the total respondent is 30 sample. The data were analysed by descriptive, multiple regression and T-test by using the Statistical Package for Science Social (SPSS) version 25. The result was showed that mechanical method contribute more risk than conventional method in term of quality of bunch and costing, while ergonomic problem contribute high risk to the conventional method. In conclusion, evacuation by using mechanical tractor grabber (MTG) contribute high risk during the loading process.

Keyword: Oil palm, FFB Evacuation, Mechanical, Conventional, Risk, Costing, Ergonomic Problem