



*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.

**SUSTAINABLE MANAGEMENT OF OIL PALM WASTE: PERSPECTIVE  
OF SMALLHOLDER**

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**ABSTRACT**

Oil palm industry in Malaysia has emerged rapidly with the total estimated planted area about 5110713 which contributes fresh fruit bunch about 17.89 tan per hectare made Malaysia become world's second premium producer of oil palm with the 60% managed by private domain while others 40% managed by smallholders. Improper of oil palm waste management by smallholders due to lack of awareness about potential of oil palm waste and cooperation by the smallholders in managing oil palm waste caused few problems which abundance of oil palm waste that contributed to health and environmental problems due to estimated 90% of oil palm turn into waste products like EFB, fibres, shells and liquid effluent while 10% turn to oil. Problem arises can be solved by identifying factors affecting oil palm smallholders in practicing sustainable management of oil palm waste. Theory of Planned Behaviour which consist of attitude, subjective norms and perceived behaviour control has being used as conceptual framework for conducted survey in order to examine the perspective of smallholders toward sustainable management of oil palm waste. Felda Trolak Utara in Sungkai, Perak has been chosen to conduct the survey due to its location and condition fit the problem arises with the 250 of total population made the respondent targeted is about 152 sample based on Krejcie and Morgan table. Statistical Package for Social Science was being used for correlation and multiple regression analysis. The results for correlation analysis were significant relationship for attitude and subjective norms variables toward dependent variable while for multiple regression it was attitude variable become the most influenced factor toward sustainable management of oil palm waste among smallholders. Hence, the smallholders that have positive attitude and strong subjective norms toward oil palm waste management will practicing sustainable management of oil palm waste.

*Keywords: waste management, abundance, sustainable, Theory of Planned Behaviour, attitude.*