



Programme and Abstracts

PIMES

**PLANTATION MANAGEMENT
EXHIBITION & 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 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.

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DIVERSITY OF INSECT AT PADDY FIELD IN

PEKAN KANDANG, MELAKA.

Khairul Anwar, Ismail Rakibe

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

Corresponding Author:

ismailrakibe@melaka.uitm.edu.my

ABSTRACT

Rice is a staple food in Malaysia and contributes 8.9% of the national gross domestic product in 2015. The presence of insect pest at paddy field has become a huge problem nowadays since it may lead to a plenty number of negative impacts to farmers and environment. The presence of insect pest increases the probability and possibility of rice damage and paddy disease incident. Diversity and abundance of insect vary in ecosystem of paddy because of the difference growing stages of paddy as well as its abiotic and biotic factors. Insect diversity studies were conducted in paddy plots planted organically under variety CL220 at Pekan Kandang Melaka. Eight sampling with interval of five days visits were made from late July 2018 to early August 2018. Two sampling method were used which is yellow sticky trap and yellow pan trap. A total of 25 families and 9 orders of insect were recorded comprising Hemiptera, Coleoptera, Orthoptera, Homoptera, Lepidoptera, Hymenoptera, Odonata, Diptera and Araneae. For the total sampling period, the Shannon-Wiener diversity index (H') is 0.36 for both yellow sticky trap and yellow pan trap. The most abundance insect order for yellow sticky trap were Hemiptera (43%) the lowest was Odonata (1.8%). For the yellow pan trap, the most abundance insect also from order Hemiptera (41%) and the lowest was Lepidoptera (3%). Several species from order Hemiptera which is *Nilaparvata lugens* and *Nephotettix virescens* are known as serious pest of paddy in this area and has highest population caught during the study by both method of traps. The pesticide usage by farmers also cause the adverse effect toward beneficial insect population such as *Agriocnemis pygmaea* (Odonata). These shows that the abundance of insect bring impact to paddy growth.

Keywords: diversity, insect, yellow sticky trap, yellow pan trap