UNIVERSITI TEKNOLOGI MARA

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

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 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

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.

PLANTATION MANAGEMENT EXHIBITION AND SEMINAR 2018 (PiMES)
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STUDY OF BASAL STEM ROT DISEASE IN BUKIT LANCHANG, MELAKA

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ABSTRACT

Basal Stem Rot (BSR) disease is known to be as incurable disease since there is no known cure that can treat this problem effectively. A study about Basal Stem Rot disease has been done in Bukit Lanchang, Melaka. This study has been conducted in August 2018. Aim of this study is to determine the incidence and level of severity in the plantation area. It also focuses on soil factor that contributes to the disease incidence. Sample of the data had been taken in three different study areas. The physical appearance of fruiting body was examined by using Disease Index, MPOB while the data regarding soil was obtained from Kompleks Pertanian Melaka. The soil types were determined by using Soil Textural Triangle. The data has been analysed by using SPSS Statistics ver. 22. The result has shown that Plot C had the lowest severity level which is 20.80%. Plot A and B disease severity's level are 29.2% and 26.6% respectively. As for disease incidence, the Plot A had the highest incidence rate which was 25%, followed by Plot B at 15% and Plot C at 3%. The mean values were compared in order to study the significant difference between plot. There was significant difference between the incidence and level of severity in the plantation area because the significance value (0.000) is less than P value ($P<0.01$). From this study, Plot C had the lowest incidence and severity rate. This is due to high soil moisture in Plot C which affects the survival of the bacteria on the plantation area. This supported by previous study that has been done in laboratory to determine rate of bacterial survivability on different soil moisture. Plot C had high soil moisture that help in lowering the survival rate of bacterial since the area is prone to flood due to the location of the plot near to the river.

Keywords: Oil palm, Basal Stem Rot disease, severity rate, incidence rate, soil series