



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.

**ASSESSMENT OF SEED QUALITY OF INDICA RICE (CV. MR297)
UNDER ACCELERATED AGEING TEST.**

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ABSTRACT

The accelerated ageing (AA) test was made in paddy or rice (*Oryza sativa*) to know the seed longevity during the storage. The seed longevity by using AA test can estimate the storage potential of seed paddy. The objective is to know the moisture content (MC) in seed after harvest and assessment the seed longevity of MR297 under AA test. The experiment start with obtain the seed variety MR297 from KADA Mulong, Kelantan after two weeks harvest. The conduct experiment for MC, by using the 400 seeds with 4 replications and placed in oven for 15°C for 24 hour (Marques, 2014). Before conduct the AA test, the MC of seed must be maintain 15% \pm 0.5 with divided into 4 replication by use 2000 seeds and the water level is 1000 ml with temperature room 25°C. The AA tests conduct by using 500 seed with 2 replications for each day (0-20 days) and place into incubator with 40°C. The 0 day replications it must directly put into growth chamber with temperature 32°C on day and 16°C at night and it was followed by 5, 10, 15 and 20 days. The results are recorded every 5 days after being placed in growth chamber. The result of MC after two weeks harvesting is show 12.54% and this show the seed still can be viable and storage because the optimum MC for prevent from loss of viability is 10-18% (IRR1). The average of MC 14.84-15.27% is show the result for maintain the MC 15% \pm 0.5. AA test of seed longevity resulted in significant decline with the ability to germinate normally (0 day= 94%, 5 day= 94%, 10, 15 and 20 days = 0%). The P_{50} result showed the longevity of MR297 it about 4 days in 20-25°C storage.

Keywords: Paddy, Seed Longevity, Accelerated Ageing Test, Moisture Content