

# **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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# A REVIEW: STUDY THE EFFECT OF SEED MOISTURE ON GERMINATION OF RUBBER SEED

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### ABSTRACT

Seed is important for things for plant to produce their offspring and also important for cultivation. Since the demand for natural rubber is increase, there are some people want to open new rubber plantation. The studying about a rubber seed storage behaviour, factor contribute to emergence of rubber seed, and moisture content is needed for germination can help grower or farmer for establishment of their field. Rubber seed is categorized into recalcitrant seed behaviour which is are desiccation tolerant. Rubber seed is seasonal that only produce a fruit twice a year. Produce a fruits in February until March and August to September. Rubber seed usually use as a rootstock for new planting material. High quality seed is important use for rootstock to develop seedling because it will affect the yield, growth and for disease tolerant. Studying seed dispersal and the associated processes of germination, seedling establishment and survival are important for understanding plant regeneration dynamics and dispersal ability, especially for introduced plant species. For germination of rubber seed, it need a favourable condition to germinate. The optimum temperature for rubber seed to germinate is 28°C or the relative humidity is 35%. Study about rubber seed germination also important for the storage of rubber seed to avoid the seed are deteriorate. Rubber seed cannot withstand when exposed to the sunlight because it can decrease the moisture content of seed and it also sensitive to chilling injury. Storage of seed is important because it can help farmer to keep the viability of seed to use for further purpose.

Keyword: rubber seed. germination. seed behaviour, moisture