



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.

**EFFECTIVENESS OF EFFECTIVE MICROORGANISM
(LACTOBACILLUS CASEI) IN GROWTH DEVELOPMENT OF RICE
VARIETY (MR219)**

Mohammad Faiz Sabri, Siti Sarah Jumali*

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

*Corresponding Author:
faizfareast95@gmail.com*

ABSTRACT

Effective microorganism (EM) is microbial inoculants that can promote to the growth performances of plant and in other ways can enhance the soil fertility. This study was conducted to know the effectiveness of EM that contains *Lactobacillus casei* for growth performance of rice that has been planted in Greenhouse at UiTM Jasin in complete randomized design (CRD) based on 4 treatments and 4 replications. The rice variety that has been used for this study is MR 219 from MARDI which is the popular variety among farmers in Malaysia especially at the granary area. *Lactobacillus casei* is one of the probiotic bacteria that contains in Yakult. EM that has been produced should be applying at the rice between one until two weeks after made the EM. This is because EM condition that have bad odor may have poor effectiveness towards the sample that have been study. The four types of treatments used in this experiment which are; (1) treatment without EM applications or control, (2) treatment with 100ml of EM, (3) treatment with 300ml of EM and (4) treatment with 500ml of EM. It involved 16 samples of rice plants (MR219) that have been planted in the pots. This study shows that treatment with 300ml of EM (*Lactobacillus casei*) give more positive result according to three data that we collects which are, average of plant height, average of number of tillers, and average of number of grains per panicles. The results indicated that the accurate amount of EM concentration that has been applied at rice can enhance the growth performance of rice (MR219).

Keywords: Effective Microorganisms, Lactobacillus casei, rice, growth performance