Foreword

Welcome to the 4th issue of 2021 for the Pertanika Journal of Tropical Agricultural Science (PJTAS)!

PJTAS is an open-access journal for studies in Tropical Agricultural Science published by Universiti Putra Malaysia Press. It is independently owned and managed by the university for the benefit of the world-wide science community.

This issue contains 10 articles; three review articles and the rest are regular articles. The authors of these articles come from different countries namely Algeria, Indonesia, and Malaysia, Nigeria and Korea.

Azimah Abd Rahman and her teammates from Universiti Sains Malaysia combined the data on the species diversity and firefly distribution in Southeast Asian countries published in 2015-2021. Based on the investigation, Malaysian and Thailand researchers are among the forerunners in the study related to fireflies in the Southeast Asian region. A total of 145 different species of fireflies were successfully identified. In addition, at least 34 tree species and one unidentified species (Poaceae family) of display trees or habitat by fireflies in Malaysia and Thailand were managed to be found as well. Further details of this study are found on page 713.

A regular article entitled "Effect of Various Immersion Time and Water Temperature on Seed Germination of *Clitoria ternatea* and *Momordica charantia*" revealed that the seed germination of *Clitoria ternatea* and *Momordica charantia* is improved through peeling the coat and soaking the seeds in water for various temperatures and periods. Seven pre-sowing treatments were practiced. From this study, it proves that pre-sowing treatments of seeds would prove its potential in the practical fields. Full information of this study is presented on page 745.

A selected article entitled "Phytochemical Analysis and Antibacterial Activities of Sidr Leaf Extract (*Ziziphus spina-christi*) against Pathogenic Bacteria in Aquaculture" studied the phytochemical components and analyze the effect of Sidr leaf extract on the growth of aquaculture-based pathogenic bacteria. The Sidr leaf extract contains phytochemicals, namely, flavonoids, alkaloids, saponins, tannins, and steroids, with antibacterial properties. Besides that, it also demonstrated moderate-to-strong inhibition to aquaculture pathogenic bacteria, except for *Vibrio vulnificus*. These results indicate that the Sidr leaf extract can be used as a natural herb to control bacterial pathogens in fish cultivation. The detailed information of this article is available on page 845.

We anticipate that you will find the evidence presented in this issue to be intriguing, thought-provoking and useful in reaching new milestones in your own research. Please recommend the journal to your colleagues and students to make this endeavour meaningful.

All the papers published in this edition underwent Pertanika's stringent peer-review process involving a minimum of two reviewers comprising internal as well as external referees. This was to ensure that the quality of the papers justified the high ranking of the journal, which is renowned as a heavily-cited journal not only by authors and researchers in Malaysia but by those in other countries around the world as well.

In the last 12 months, of all the manuscripts processed, 32% were accepted. This seems to be the trend in PJTAS.

We would also like to express our gratitude to all the contributors, namely the authors, reviewers, Editor-in-Chief and Editorial Board Members of PJTAS, who have made this issue possible. PJTAS is currently accepting manuscripts for upcoming issues based on original qualitative or quantitative research that opens new areas of inquiry and investigation.

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