

Foreword

Welcome to the fourth issue of 2023 for the *Pertanika Journal of Tropical Agricultural Science (PTAS)*!

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 21 articles; one review article; two short communications; and the rest are regular articles. The authors of these articles come from different countries namely Bangladesh, Brazil, Brunei Darussalam, Indonesia, Kazakhstan, Malaysia, Nigeria, Philippines and Thailand.

Dayang Safinah Nayan and Suhaila Fouzi from Malaysia Agriculture Research and Development Institute evaluated the effects of individual zinc (Zn) and iron (Fe) foliar applications on growth, dry matter, and nutrient uptake by lettuce (*Lactuca sativa*). The application of Zn and Fe in the form of sulfate salt showed a lower toxicity effect in terms of growth and dry matter of plants than Fe and Zn in the form of ethylenediaminetetraacetic acid (EDTA). It was found that there was a significant difference observed compared to the control, especially when 3 kg/ha Zn was applied, regardless of whether it was in the form of sulfate or EDTA. Furthermore, there was an increase in Fe uptake observed with increased Zn application. In contrast, the Fe application showed no difference in Fe intake compared to the control. It was found that there is a decrease in Zn uptake observed with increasing application of Fe rate. It is believed that sufficient Fe content is already available in the soil, and plants only take up what is needed for growth. The detailed information of this article is available on page 1111.

A regular article entitled “Effects of Paracetamol on the Development of Zebrafish (*Danio rerio*)” investigated the impact of paracetamol on the development of zebrafish embryos. The results showed that paracetamol negatively affects the hatching and survival rates of zebrafish. In addition, spinal abnormalities, pericardial edema, hypopigmentation, reduced heart rate, and spontaneous movement were also appeared in zebrafish larvae. The developmental abnormalities in zebrafish were more significant with higher concentrations and longer exposure times. The further details of this study are found on page 1173.

A selected article entitled “Antioxidant Capacity, Alpha Amylase Inhibition, and Calorie Value of Dark Chocolate Substituted with Honey Powder” evaluated the effect of substituting sugar with 70% honey powder on the antioxidant, alpha-amylase inhibition, and calorie value of dark chocolate. The results proved that the antioxidant activity and alpha-amylase inhibition were increased, indicating that the phenolic content of the honey powder was preserved. Among the samples, dark chocolate containing honey/maltodextrin (H/M) exhibited the highest antioxidant

and alpha-amylase inhibition, demonstrating the effective preservation of phenolic content by maltodextrin. Therefore, chocolate containing H/M could be formulated as a functional food that may help decrease the risk of diabetes. Full information of this study is presented on page 1205.

In the last 12 months, of all the manuscripts peer-reviewed, 40% were accepted. This seems to be the trend in PJTAS.

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.

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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