

Foreword

Welcome to the sixth issue of 2025 of 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 25 articles: three review articles; and the rest are regular articles. The authors of these articles come from different countries namely Bangladesh, China, Colombia, Czech Republic, Indonesia, Malaysia, Philippines, Sri Lanka, Tanzania, and Thailand.

A selected article Salmah Yaakop and team entitled “Species Composition of Bee and Non-bee Hymenoptera as Effective and Less Effective Pollinators in the Tengku Hassanal Wildlife Reserve Forest, Pahang, Malaysia, with New Insights from DNA Barcoding”, investigated Hymenoptera diversity and pollination roles using a combined morphological and molecular approach. Specimens were collected, DNA from 56 specimens was successfully extracted, and COI gene sequences were analysed using a Neighbour-Joining tree to examine species relatedness. The study identified 34 species from 33 genera across 11 families. Eight families—including Apidae, Halictidae, and Vespidae—were recognised as effective floral visitors responsible for meaningful pollination activity, while three families—Braconidae, Evaniidae, and Ichneumonidae—were categorised as less effective or incidental pollinators, often functioning as parasitoids. The study not only establishes vital baseline data for pollinator conservation but also underscores the ecological significance of maintaining both bee and non-bee hymenopteran populations for forest ecosystem stability. Full information on this study is presented on page 2007.

A study entitled “Exploring Venom-derived Peptides from *Calloselasma rhodostoma* Snake as Promising Cholinesterase Inhibitors for Alzheimer’s Disease Therapy” examined the therapeutic potential of venom proteins and peptides as natural cholinesterase inhibitors for neurodegenerative disease management. The study focussed on butyrylcholinesterase (BChE), an enzyme increasingly linked to the formation of neurotoxic amyloid plaques and disease progression in Alzheimer’s patients. Venom from *C. rhodostoma* was extracted and fractionated, followed by biochemical and proteomic characterisation using ultrafiltration, SDS-PAGE, and LC-HRMS to identify peptide constituents. *In vitro* assays were conducted to evaluate inhibitory activity, while molecular docking analyses assessed peptide–enzyme binding behavior. Several peptides showed strong inhibitory potential and these promising bioactive peptides highlight the potential of Southeast Asian pit viper venom as a novel source of therapeutic lead compounds for Alzheimer’s disease. The detailed information of this article is available on page 2087.

A regular article entitled “Antagonistic Potential and Plant Growth Enhancement by Endophytic *Bacillus* Isolated from Citrus Plants”. This study aimed to isolate endophytic *Bacillus* from citrus plants as plant growth-promoting bacteria. Endophytic bacteria were initially isolated from citrus leaf tissue, followed by morphological characterisation and KOH tests and the detection of growth-encoding (*ipdC*, *acdS*, *pqqE*, and *nifH*), antibacterial (*aiiA* and *sfp*), and antifungal (*fenD*, *bamC*, and *ituA*) genes with specific primers. Thereafter, antagonistic tests against *Colletotrichum* sp. were performed, and the *Bacillus* isolates were applied to citrus seedlings. Detection of the plant-beneficial traits encoding genes showed that the isolate BYL-4 had all the genes encoding for growth, antibacterial, and antifungal properties. Antagonist testing revealed that the SH-1, SH-2, SH-3, BYL-1, BYL-2, BYL-3, B2B, M2, and P4 isolates were able to inhibit the growth of *Colletotrichum* sp. The detail of the study is presented on page 2153.

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, 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.

Editor-in-Chief

Mohamed Thariq Hameed Sultan