

Foreword

Welcome to the **Second Issue 2018** of the Journal of Tropical Agricultural Science (JTAS)!

JTAS 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 and run on a non-profit basis for the benefit of the world-wide science community.

This issue contains **31 articles**, out of which **four** are review papers, **one** is a short communication and **26** are regular papers. The authors of these articles come from different countries, namely **Malaysia, Thailand, the Philippines, Germany, Nigeria, Bangladesh, India, Iran and Indonesia.**

The first review paper aims to briefly cover the toxicity effects of fish histopathology on copper accumulation (*Siti Nadzirah Padrilah, Mohd Khalizan Sabullah, Mohd Yunus Abd Shukor, Nur Adeela Yasid, Nor Aripin Shamaan and Siti Aqlima Ahmad*). The second review paper focusses on mammary gland tumours in dogs, as spontaneous tumour models of comparative value in treating human breast cancer (*Kabiru Sahabi, Sujey Kumar Rajendren, Jia Ning Foong and Gayathri Thevi Selvarajah*), while the third examines the changes in rice physiology and soil conditions in the low-water-input rice production system (*Jahan, M. S.*). The last review article in this issue reports on phytochemical constituents and pharmacological activities of *Adenium obesum* (*Mohamed Shafiq, S., Ling, A. P. K., Lim, C. L., Chye, S. M. and Koh, R. Y.*). Z. Zanon, N. Najihah, J. Abu and A. R. Mariatulqabtiah in their short communication discuss the prevalence of avian polyomavirus in psittacine birds in the Klang Valley.

The 26 regular papers cover a wide range of topics. In the first research paper, gram-positive bacteria with commercial potential from the gastrointestines of *Holothuria (mertensiothuria) leucospilota* (timun laut) and *Stichopus horrens* (gamat) from Malaysian waters are studied (*Kamarul Rahim Kamarudin and Maryam Mohamed Rehan*). The next paper discusses the analysis of arbutin in Mao (*Antidesma thwaitesianum* Muell. arg.) extracts (*Thongjuta Suwanprasert*). The other papers are studies on: rice ratooning using the salibu system and the rice intensification method influenced by physiological traits (*Pinta Omas Pasaribu, Triadiati and Iswandi Anas*); the effect of foliar fertiliser

on banana (Noor Asma' Mohd Anuar Mushoddad, Nurul Syaza Abdul Latif and Suhaimi Othman@Osman); the effect of conventional and superheated steam roasting on the total phenolic content, total flavonoid content and DPPH radical scavenging activities of black cumin (Liang, L. C., Zzaman, W., Yang, T. A. and Easa, A. M.); the effect of antimicrobial activities on the various solvent extracts of leaves of *Scurrula ferruginea* (Jack) danser (Iorantheaceae) (Vanielie Terrence Justine, Muskhazli Mustafa and Rusea Go); the effect of various composting methods on the concentration and viability of *Ascaris suum* eggs in organic fertilisers (Arianne L. Andes and Vachel Gay V. Paller); the use of bio-chemical surfactant producing endophytic bacteria isolated from rice root for heavy metal bioremediation (Arun Karnwal); the effect of naphthalene acetic acid (NAA) on oil content and quality of the mustard plant (Hamid Ghaffari, Abdollatif Gholizadeh, Abbas Biabani, Alireza Fallah and Mohammad Mohammadian); the effects of non-medicated and medicated urea molasses multi-nutrient blocks on dry matter intake, growth performance, body condition score and feed conversion ratio of Saanen lactating in conventional diets (Mira, P., Wan Zahari, M., Rusli, N. D. and Mat, K.); deficit irrigation for improving the postharvest quality of lowland tomato fruits (Mohammed, H. N., Mahmud, T. M. M. and Puteri Edaroyati, M. W.); natural products from stem bark of *Calophyllum andersonii* (Keng Hong Tee, Gwendoline Cheng Lian Ee, Ka Woong Wong, Thiruventhan Karunakaran, Vivien Yi Mian Jong and Soek Sin Teh); influence of maternal dietary energy and protein on the embryonic development of FUNAAB-Alpha chickens (B. Saleh, S. T. Mbap, D. J. U. Kalla and U. D. Doma); investigative baseline reference on the status of pork pH, shear force, colour, drip and cooking loss in RYR1 mutation free, commercial three-way crosses in Malaysia (Michelle-Fong, W. C., Ooi, P. T., Awis, Q. S. and Goh, Y. M.); development and validation of an unsaturated soil water flow model for oil palm (Teh, C. B. S.); anther dehiscence, pollen viability and stigma receptivity on cultivars of black pepper (*Piper nigrum* L.) (Chen, Y. S., Dayod, M. and Tawan, C. S.); gene action mechanism for drought tolerance in extra-early yellow maize inbreds (Shaibu, A. S.); assessment of soybean resistance to whitefly (*Bemisia tabaci* Genn.) infestation (Kurnia Paramita Sari and Apri Sulisty); balance of nitrogen in plant-soil system with the presence of compost + charcoal (Erry Purnomo, Franky Sinaga, Indri P Amanda and Riverina DP Putra); technology assessment of growing superior mungbean (*Vigna radiata* L.) varieties on a dryland in north Lombok (I Komang Damar Jaya, Sudirman, Aris Budianto, Abdurachman Hanafi and I Nyoman Soemeinaboedhy); the effect of cytokinins on i- vitro growth of hypocotyls and cotyledon of tomato (*Lycopersicon esculentum*) (Wina Dian Savitri, Popy Hartatie Hardjo, Leonardo Tejo Gunawan Putra Hardianto

and *Steven Sutanto*); the effect of phytase enzyme on growth, nutrient digestibility and survival rate of catfish (*Pangasius hypothalamus*) fingerlings (*Diana Rachmawati* and *Istiyanto Samidjan*); preserving blue swimming crab (*Portunus pelagicus*) using trap modifications in Betahwalang, Demak (*Herry Boesono, Dhian Meita Hapsari, Aristi Dian Purnama Fitri* and *Kukuh Eko Prihantoko*); the growth pattern of barb (*Barbodes balleroides*) at the period of inundation in Jatigede Reservoir, Sumedang Regency, West Java (*Titin Herawati, Atikah Nurhayati* and *Sona Yudha Diliiana*); the effect of proteolytic plant-derived enzyme on gourami (*Osphronemus goramy* Lac.) growth rate (*Yuli Andriani, Yeni Mulyani, Irfan Zidn, Muhammad Yusra Sadri* and *Putra Nur Wicaksono*); and bioinsecticide entomopathogenic nematodes as biological control agents for sustainable agriculture (*Didik Sulistyanto, Ralf-Udo Ehlers* and *Bachtiar H. Simamora*).

I 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.

I would also like to express my gratitude to all the contributors, namely the authors, reviewers and editors, who have made this issue possible. Last but not least, the editorial assistance of the journal division staff is fully appreciated.

JTAS 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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