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HortiNexus

e-Newsletter

ISBN:

Cultivating Knowledge | Showcasing Excellence | Connecting Communities



A BIENNIAL NEWSLETTER FROM

THE DEPARTMENT OF HORTICULTURE AND LANDSCAPE GARDENING
FACULTY OF AGRICULTURE AND PLANTATION MANAGEMENT
WAYAMBA UNIVERSITY OF SRI LANKA



<https://fapm.wyb.ac.lk>



horticulture@wyb.ac.lk



EDITORIAL TEAM



Editor-in-Chief



**Associate Editor
& News coordinator**



Graphic Designer



Advisor

**Dr. EMBM
Karunathilake**
*Senior Lecturer,
Department of
Horticulture and
Landscape
Gardening*

**Ms. Amanda
Bandara**
*Lecturer
Probationary,
Department of
Horticulture and
Landscape
Gardening*

**Ms. Sathya
Wedisinghe**
*Final year
Undergraduate,
20/21 batch,
Department of
Horticulture and
Landscape
Gardening*

**Dr. Surantha
Salgadoe**
*Head of the
Department/
Senior Lecturer,
Department of
Horticulture and
Landscape
Gardening*



I believe science achieves its greatest value when it benefits communities and industry through knowledge sharing, research, innovation, and practical solutions to real-world challenges. Such a commitment enriches our expertise, strengthens teaching, empowers our students, and enhances the impact of university education. Guided by this vision, the Department of Horticulture and Landscape Gardening proudly launches *HortiNexus* eNewsletter showcasing our achievements, innovations, and partnerships while expanding the Department's global visibility and fostering collaboration for a sustainable and progressive agriculture and horticulture sector. I congratulate the editorial team on the excellent effort in successfully producing the first issue of *HortiNexus*.

- Dr. Surantha Salgadoe/Head of Department -



The Cover Story



Agriculture Drone Practical Experience at WUSL - FAPM

Students of the BSc Agriculture (3rd Year, DHLG) and the 4th intake of the Diploma in Modern AgroTechnology (DMAT) successfully completed hands-on training in agricultural drone applications at the Faculty of Agriculture and Plantation Management, WUSL. The programme was facilitated by Sumathi Information Technologies (Pvt) Ltd. - SIT Drone Division.

This was followed by a real application of maize field foliar spraying at a farmer field in Melsiripura, conducted in collaboration with Hayleys Agriculture Holdings Ltd., under the coordination of undergraduate research student Ms. Sathya Wedisinghe.



Agriculture Drones Practical Session at WUSL University
(Facilitated by Sumathi IT Pvt. Ltd. Drone Team)
Department of Horticulture and Landscape Gardening
Faculty of Agriculture and Plantation Management
Wayamba University of Sri Lanka



Our students led a knowledge sharing initiative at the World Bee Day 2026 organized by Department of Agriculture (DOA) exhibition at Wariyapola, translating research output and knowledge of the Faculty led by Dr. Erandi Wijesinghe on beekeeping and pollination into practical insights for the general public.



HISF 2026

Launching of Horticulture Industries Stakeholders Forum

The Department of Horticulture and Landscape Gardening embarked on a visionary step towards connecting students, innovation, industry, and academia by launching its first Horticulture Industries Stakeholders Forum (HIS Forum) with 250 participants.



Capacity-building Workshop on R scripting for Research Students

For the fourth consecutive year, R scripting workshop was conducted for the final year undergraduate research students by the Department, on performing important statistical analyses in R and troubleshooting script errors on their own, guided by Dr. Surantha Salgadoe and academic supportive staff.



Advancing Sustainable Crop Production through Industry Collaboration

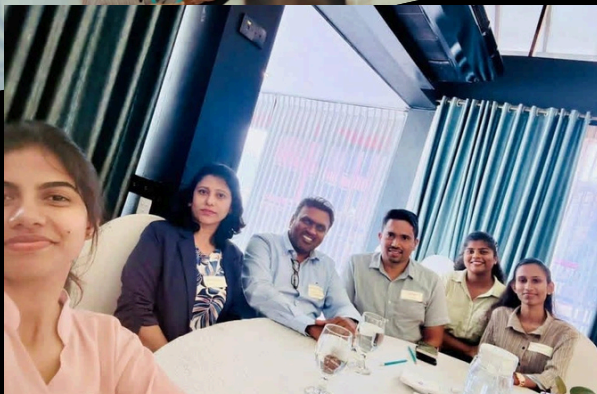
Dr. Bandula Ranaweera, senior lecturer is continuing collaborative research with Hayleys Agriculture and Asian Cuttings Pvt. Ltd., focusing on nutrient efficiency, soilless cultivation, and disease management in floriculture.

These projects promote sustainable, cost-effective agricultural practices while strengthening university-industry partnerships and undergraduate research involvement.



Undergraduate Research Presented at International Postharvest Research Symposium

With the supervision of Dr. Kamani Ratnayake, students presented highlighting innovations in postharvest technology, food product development, and quality enhancement held at Waters Edge, 20 March 2026. Invited by Good Life X, a social innovation and regenerative business organization that works with entrepreneurs and businesses, universities, NGOs, and development agencies.



Nirmani Wimalasiri



Kasuni Hansika



Dhananjana Thathsarani

Student Proposal for Circular Economy Solutions

Our final-year students with the guidance of Dr. Kamani Ratnayake, senior lecturer showcased innovations in circular economy solutions for Ceylbee International at the “Seeds for a Circular Future Day” at Waters Edge, Colombo.

Their proposals demonstrated sustainable approaches to industry challenges while fostering future collaboration opportunities.

Wayamba University Contributes to National Conservation Initiative!



Wayamba University of Sri Lanka actively participated in the Tea Research Institute's centenary conservation initiative under the guidance of Prof. Kapila Yakandawala. The programme focused on restoring *Aponogeton jacobsonii*, a critically endangered endemic species, through a collaborative effort with national partners (University of Peradeniya, Wayamba University of Sri Lanka, Wildlife and Nature Protection Society, St Coombs Estate, Members of the Friends of Horton Plains and Hill Country Environment Association of TRI), reinforcing the University's leadership in biodiversity conservation and environmental stewardship.



A research grant was awarded to Dr. Erandi Wijesinghe under University Research Grants - 2026 for the project "Assessing pollinator dynamics and crop yield response to landscape variation and temporal changes in selected cucurbit crops." She also served as a committee member of the cashew research management committee (CRMC) of the joint research on "Effects of temperature on pollen germination in cashew" in collaboration with Cashew Corporation and the FAPM.

Research grant Award - University Research Grants 2026



Expert Panel Discussion on Pollinators at UOR

Dr. Erandi Wijesinghe was invited for the World Bee Day Panel Discussion 2026 organized by University of Ruhuna on "Pollinator conservation, biodiversity, and sustainable agriculture".



National Project Coordinator RAS5102 International Atomic Energy Agency (IAEA) Technical Cooperation Project for Asia and Pacific Regions



Prof. Prasanthi Perera was appointed as the National Project Coordinator for the four-year IAEA Technical Cooperation Regional Project for the Asia-Pacific Region, RAS5102: Promoting Resilient and Sustainable Agrifood Systems through Innovative Nuclear and Related Techniques.

She coordinates Sri Lanka's participation in advancing climate-smart agriculture, food safety, climate-resilient crop development, and sustainable agrifood systems through innovative nuclear and related technologies.

Contribution for Capacity Building in Horticulture Sector by SLCARP

Dr. Surantha Salgadoe and Dr. Erandi Wijesinghe contributed to a national knowledge dissemination program on horticulture sector capacity development, organized by SLCARP in collaboration with KOICA (May 2026) at BMICH, Colombo.





Lead Keynote at ICSAFS 2026, Parul University, India

Dr. Surantha Salgadoe delivered the Lead Keynote Speech at ICSAFS 2026, Parul University, India, presenting on “Reshaping Agriculture in a Changing Climate,” highlighting regional and global research contributions.

China-Sri Lanka Agricultural Collaboration Dialogue

Dr. Wishwajith Kandegama joined a high-level discussion at the Presidential Secretariat exploring strengthening agricultural productivity through China-Sri Lanka collaboration focusing on technology transfer, environmental sustainability, wildlife conflict mitigation, and restoration initiatives, highlighting the role of international partnerships in advancing Sri Lanka’s agricultural sector.

International Recognition for Sri Lanka-China Research Collaboration



Dr. Wishwajith Kandegama, senior lecturer and International Secretary to the Green Plant Protection Joint Laboratory was recognized and appreciated for his international contributions and bilateral relationship with Sri Lanka-China collaborative research, at the 6th International Conference on “Green Plant Protection Technology Innovation”.



WAYAMBA
UNIVERSITY OF SRI LANKA

Congratulations

— TO —

Ms. Dinimi Munasinghe

on winning the
**Mr. & Mrs. MBA Jayasekera
Memorial Gold Medal**

at the
**21st GENERAL
CONVOCATION**

WAYAMBA UNIVERSITY OF SRI LANKA



Awarded to the student who obtains
the *highest final grade point average (FGPA)*
in the specialization field of
Horticulture and Landscape Gardening,
Faculty of Agriculture and Plantation Management.



Diploma Awarding Ceremony 2026

The Faculty of Agriculture and Plantation Management celebrated the completion of its 3rd diploma batch of the Diploma in Modern Agrotechnology (DMAT) on 27th June 2026 at the Diploma Awarding Ceremony-2026, at the Prof. H. P. M. Gunasena Auditorium, Wayamba University of Sri Lanka, Makandura.





Ms. Amanda Bandara secured Best Oral Presentation, Overall Best Presentation, and the PGIA Alumni Award at the 37th PGIA Annual Congress for research on “Improving lettuce’s nutritional quality through micronutrient-enriched management.”

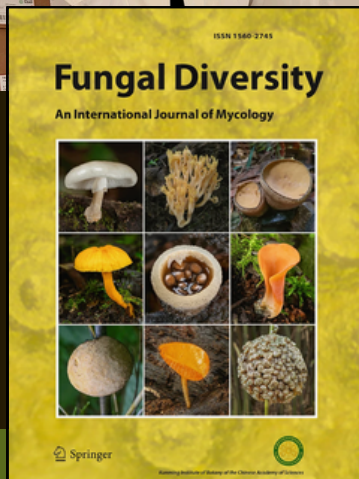
Triple Award Achievement at PGIA Congress 2025



Ms. Nirma Subashini won Runner-Up at the 2025 Three Minute Thesis (3MT) Finals for her presentation on the “Role of urban residential gardens in supporting biodiversity conservation”. The competition was jointly organised by the University of Moratuwa in collaboration with the Sri Lanka Association for the Advancement of Science (SLAAS) as part of Research Week 2025, held on 12 December 2025.

Second Place at National 3MT Competition 2025

Rising Stars of Alumni



High-Impact Publication in Fungal Diversity

Dr. N.P. Samaradiwakara co-authored a major study in *Fungal Diversity* (2025; Q1 Journal; IF 24.8) examining taxonomy, phylogeny, and host specificity of leaf litter microfungi across six host species in Thailand, advancing understanding of fungal biodiversity and ecosystem dynamics (<https://doi.org/10.1007/s13225-025-00562-1>).

She is a postdoctoral Researcher at Royal Botanic Gardens, Kew, UK and contributes as an Associate Editor in *New Zealand Journal of Botany*.

National Entrepreneurship Awards

Ms. Buddhi Kularathna, Director of Ceylbee International, won multiple national and provincial awards at the 2025 Women Entrepreneur Awards, recognizing excellence in export-oriented entrepreneurship, innovation, and business leadership.





Ms. Asitha Ranasinghe completed her MSc in Plant Protection Technology at PGIA. She also works as agronomist and customer relationship manager at SenzAgro Solutions.

M.Sc. Completion

Mr. Harsha L. Ranasinghe, a department alumnus, has commenced his Master of Philosophy at the Wayamba University of Sri Lanka, funded by a National Science Foundation (NSF) Research Scholarship.



M.Phil Student



Ms. D.M.Nisansala Sanjeewani Dasanayaka recieved an opportunity as Sales Supportive Executive at UAV Division, Sumathi Information Technologies (PVT) LTD.

Sales Supportive Executive



Ms. Yasasi Pabasara received an opportunity as Junior Executive Fresh Produce at Lassana.com (PVT) LTD.

Junior Executive

Ms. A.W.G. Chamindri Pramodya Wimalasiri received an opportunity as a Supply Chain Executive (Fresh Category) at Richard pieris & Company PLC.



Sales Chain Executive



Ms. K.A. Dinusha Sethmini received an opportunity as an Agriculture Certification Officer at Ceylon Plant Food (PVT) LTD.

Agriculture Certification Officer

Campus Life



Chamariya by 21/22 DHLG students

With Love Horti 'Chamariya' 'චමරිය' by 21/22 DHLG student batch uniting students, staff and non-academics.



Vegetable Harvest

Exclusively by students from land prep to harvesting at the Commercial Horticulture Vegetable Modern Farm by 3rd year specialization DHLG students (21/22 batch), with high quality guidance by Dr. Wishwajith Kandegama/ course coordinator and other academic staff members.



Mini Feature Articles



Ms. Amanda Bandara

Agronomic Biofortification: A Sustainable Answer to Hidden Hunger

As the global population continues to rise, the challenge is no longer limited to producing enough food but also ensuring that food is nutritious. Millions of people worldwide suffer from “hidden hunger,” a condition caused by deficiencies of essential micronutrients. Agronomic biofortification has emerged as a promising solution to this growing public health concern.

Agronomic biofortification involves increasing the nutrient content of crops through improved fertilizer and nutrient management practices. Unlike genetic approaches, this method is cost-effective, environmentally adaptable, and suitable for many crop species. Techniques such as seed nutripriming, foliar spraying, and nutrient application to the growth medium are commonly used to enrich crops with important minerals.

Recent studies on lettuce have shown that iron and zinc biofortification can also improve nutritional compounds including chlorophylls, carotenoids, antioxidants, and vitamin C. Seed nutripriming was particularly effective in enhancing pigments, while foliar zinc application increased antioxidant activity. These compounds are important for boosting immunity and protecting the body from oxidative stress.

With its practical and farmer-friendly nature, agronomic biofortification offers great potential to improve food quality, strengthen nutrition security, and support healthier communities worldwide.

Lecturer (Probationary)
Department of Horticulture & Landscape Gardening
Faculty of Agriculture & Plantation Management
Wayamba University of Sri Lanka
☎ +94 715 663 596 | ✉ amanda@wyb.ac.lk



Uncovering Hidden Microbial Life Towards Sustainable Futures



Dr. Nethmini Samaradiwakara

Biodiversity is often framed through the visible diversity of plants and animals; however, an equally complex and largely underexplored dimension exists within microbial life. Fungi represent one of the most diverse and phylogenetically complex groups of organisms, playing fundamental roles in ecosystem processes such as nutrient cycling, decomposition, and symbiotic interactions.

Investigating fungal communities across forest microhabitats including the phyllosphere, bark, leaf litter, and soil reveal substantial ecological differentiation and metabolic versatility. These niches harbour fungi capable of utilising a wide range of substrates, reflecting adaptive strategies shaped by environmental pressures and resource availability.

Targeted isolation, combined with functional screening, allows identification of strains producing industrially relevant enzymes and bioactive secondary metabolites with potential applications in antimicrobial development, agriculture, and biotechnology.

Such traits position fungi as valuable resources for drug discovery and industrial applications. Integrating classical taxonomy with modern tools such as high-throughput sequencing, comparative genomics, and gene function analysis enhances our ability to link phylogenetic diversity with functional potential.

Advancing our understanding of fungal biodiversity is therefore critical for addressing global challenges, including environmental remediation and sustainable agriculture, by harnessing microbial processes for ecosystem restoration and bio-based innovations.

Postdoctoral Researcher – Biodiversity Genomics
Royal Botanic Gardens, Kew
☎ +94 719 044 052 | ✉ nethmips@gmail.com

Greenhouse Climate Simulation: Advancing Sustainable and Climate- Resilient Agriculture



Ms. HKMRAM Kumarasinghe

This technology plays a significant role in studying crop responses to abiotic stresses including drought, salinity, and heat stress, particularly under climate change scenarios. Furthermore, controlled environment agriculture contributes to year-round crop production, improved yield stability, enhanced produce quality, and reduced dependency on chemical inputs and excessive water use.

As global food demand continues to rise alongside environmental uncertainties, greenhouse climate simulation represents a promising strategy for future agricultural development. The adoption of such climate-smart technologies will be essential in strengthening sustainable food systems, promoting scientific innovation, and ensuring long-term agricultural resilience.

The increasing impacts of climate change on agricultural productivity have emphasized the necessity for innovative

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Assistant Lecturer

Department of Horticulture & Landscape Gardening
Faculty of Agriculture & Plantation Management
Wayamba University of Sri Lanka

+94 713 396 111 | hmkumarasinghe@gmail.com

Invisible Clues: How Environmental DNA is Transforming Biodiversity Monitoring



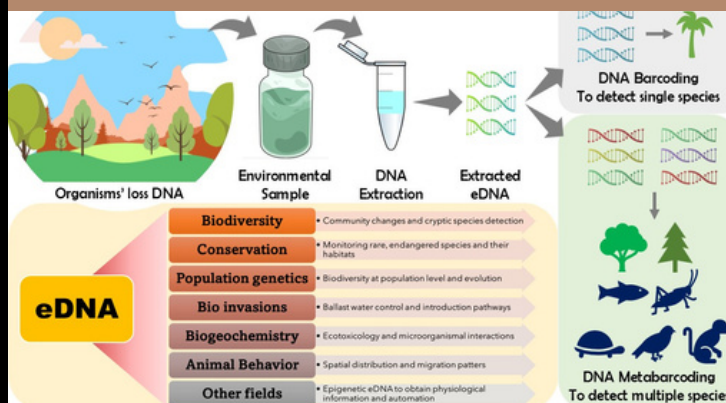
Dr. Bhagya Karunathilake

What if we could detect plants and animals without ever seeing them? Environmental DNA (eDNA) is an emerging scientific approach that makes this possible by analyzing tiny genetic traces organisms leave behind in soil, water, or air.

All living organisms continuously shed DNA through skin cells, roots, pollen, or waste. By collecting environmental samples and analyzing the DNA they contain, scientists can identify which species are present in a given area without direct observation. This method is fast, non-invasive, and highly sensitive.

eDNA has wide-ranging applications in biodiversity conservation, including monitoring rare or endangered species and detecting invasive organisms at an early stage. In agriculture and horticulture, it can support soil health assessment, pest detection, and sustainable crop management.

In a biodiversity-rich country like Sri Lanka, eDNA offers powerful opportunities for ecosystem monitoring and environmental protection. As technology advances, it could become an essential tool for managing natural resources and ensuring long-term sustainability.



Senior Lecturer

Department of Horticulture & Landscape Gardening
Faculty of Agriculture & Plantation Management

Wayamba University of Sri Lanka

+94 710 585 688 | bhagyak@wyb.ac.lk

The Ecological Importance of Bees in Sustaining Global Biodiversity and Ecosystem Services



Mr. Senol Anjana Vijayarathna

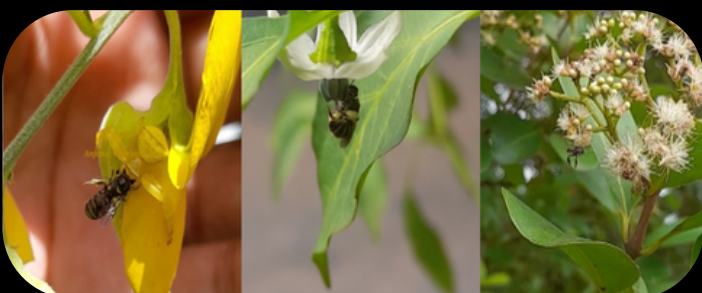
Bees are among the most important pollinators on the Earth, with over 20,000 species worldwide. They belong to the group Anthophila and display diverse lifestyles, ranging from highly social honey bees and bumblebees to solitary species such as mason and leafcutter bees.

In Sri Lanka, approximately 150 bee species have been recorded. Bees play a vital role in maintaining biodiversity and ecosystem stability through pollination. By transferring pollen between flowers, they enable plant reproduction, seeds and fruits production, and genetic diversity within plant populations. This genetic exchange strengthens plants' resistance to diseases, pests, and environmental changes. Bees also support ecological succession by pollinating pioneer plants that help restore disturbed habitats and create conditions for other species to thrive.

Many bee species have specialized relationships with rare or endemic plants, making them essential for the survival of these plants and the ecosystems they support. As key members of mutualistic networks, bees contribute to food webs, wildlife habitats, and agricultural productivity.

More than three-quarters of flowering plants and many food crops depend on animal pollinators, with bees being the most effective.

However, bee populations are declining due to habitat loss, harmful pesticide use, long-term climate change, diseases, parasites, and pollution. Their disappearance would threaten food security, biodiversity, and ecosystem health. Therefore, conserving bee populations through habitat protection, sustainable farming, and public awareness is essential for maintaining ecological balance and supporting future generations.



Research Assistant

Department of Horticulture & Landscape Gardening
Faculty of Agriculture & Plantation Management
Wayamba University of Sri Lanka

+94 761 243 200 | senoalvijayarathna@gmail.com

Appointments

DHLG Demonstrators



Ms. Parami
Pathirana



Ms. Tharika
Koswatta



Ms. Dulani
Udagedara



Ms. Kasuni
Hansika



Ms. Saranga
Adhikari



Ms. Dinimi
Supunsara



Ms. Chalani
Dharmasiri



Mr. Gayan
Senanayaka

New Leadership Appointed for HortiSoc



Senior Treasurer
Dr. Erandi Wijesinghe

WELCOME

Horticulture Society Executive Committee 2026/27



Junior Treasurer
Dinusha Karunaratna



Vice President
Kalindu Mudannayake



President
Chamod Vidushan



Secretary
Senali Mapa



Vice Secretary
Hashani Kaushalya



Editor
Subanya Dulakshi

1ST Year Committee Members



Adeepa
De Silva



Sethara
Weerakkodi

2nd Year Committee Members



Kalana
Herath



Nisansala
Sewwandi

3rd Year Committee Members



Chamoda
Hansini



Sumalya
Mansoor

4th Year Committee Members



Mahesh
Wanasinghe



Thisarani
Sathya



Horticulture Society
Department of Horticulture and Landscape Gardening
Wayamba University of Sri Lanka



Congratulations



Congratulations to Ms. E.M. Sewwandi Ayesha on her selection to the Wayamba National College of Education – Bingiriya, daughter of Mr. Wasantha Herath, our long serving non academic staff member of the Department (more than 30 years). We wish her continued success in her academic journey.

Comings



Dr. EMBM Karunathilake

(PhD (JNU, Republic of Korea), MSc (PGIS, UOP), BSc (EMF, USJ))

Joins DHLG as a Senior Lecturer Grade II



Ms. Rashmi Kumarasinghe

(B.Sc.(Agric) (RUSL))

Joins DHLG as an assistant lecturer

The Back cover Story...

Sown by students and nurtured with knowledge, these images capture a hands-on learning journey where successful cultivation and harvest embody learning in its most fruitful form and reflect practical excellence in horticulture.

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