National Symposium on **Agriculture & Life Sciences**

NSALS '24

" SHAPING THE FUTURE WITH RESEARCH AND INNOVATION "

PROGRAMME BOOK

05th Jan 2024



Faculty of Animal Science and Export Agriculture
Uva Wellassa University

Electronic Media Partner







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NSALS'24

Uva Wellassa University (UWU) stands as a pioneering institution that has reshaped the educational landscape, emerging as a guiding light in the evolution of the concept of an Entrepreneurial and Technopreneurial University within the nation. UWU's educational philosophy is dynamic and prosperous, serving as a driving force that moulds individuals into graduates equipped with knowledge and a priceless array of skills and values. These graduates are not merely employable; they are poised to assume technocratic roles and embark on entrepreneurial journeys, actively contributing to the growth and advancement of the entire nation.

As the "Center of Excellence for Value Addition" to the national resource pool, UWU has been steadfast in its research endeavours since its inception. Within this exceptional academic milieu, the Faculty of Animal Science and Export Agriculture (FASEA) proudly introduces a groundbreaking event: the inaugural "National Symposium on Agriculture and Life Sciences (NSALS'24), the Undergraduate Research Symposium of the FASEA-UWU." The excitement surrounding this symposium is palpable, as it promises to serve as a convergence point for brilliant minds from academia, researchers, scientists, industry experts, and enthusiastic students.

Under the overarching theme of "Shaping the Future with Research and Innovation", NSALS '24 is poised to kindle in-depth discussions, foster collaborative endeavours, and spark fresh ideas that will resonate far beyond its immediate confines. This event signifies an exciting opportunity and underscores UWU's unwavering dedication to advancing knowledge, nurturing innovation, and crafting a future with brilliance and boundless promise. The conference encompasses eight tracks as follows, each focusing on specific areas of interest and expertise.

- 1. Agricultural Economics, Agribusiness Management, Extension and Entrepreneurship
- 2. Agricultural Engineering and Process Technology
- 3. Agricultural Microbiology and Biotechnology
- 4. Animal Production and Technology
- 5. Aquatic Sciences
- 6. Crop Production Technology
- 7. Environmental Science and Climate Change
- 8. Food Science and Technology

Following a comprehensive peer-review process, undergraduate students will present 100 selected research papers as oral presentations under the eight theme areas. The abstracts presented at NSALS '24 are archived in a hybrid form of the symposium. This event stands as a testament to UWU's commitment to fostering cutting-edge research and innovation in the field of agriculture and life sciences.



KEYNOTE SPEAKER



Professor R.U. Halwathura
Department of Civil Engineering
Faculty of Engineering
University of Moratuwa
Moratuwa 10400, Sri Lanka

□: rangika@uom.lk

Professor Rangika U. Halwathura, is a renowned academic and researcher affiliated with the Department of Civil Engineering at the University of Moratuwa, Sri Lanka. His expertise, knowledge, and experience span various domains, including sustainable materials and design, green technology, construction management, structural design, project planning and monitoring, computer-aided server-based project planning and monitoring, forensic engineering, and Building Information Modeling (BIM).

From April 2019 to August 2021, Professor Halwathura served as the Commissioner of the Sri Lanka Inventors Commission, demonstrating his unwavering commitment to innovation and advancement. His visionary contributions in this role have left an indelible mark on the landscape of invention and creativity.

Across international boundaries, Professor Halwathura broadens his impact by serving as a Visiting Professor at the prestigious St. Petersburg Polytechnic University in Russia. His global reach and collaborations have fostered international cooperation and the exchange of cutting-edge knowledge.

Furthermore, Professor Halwathura's eminence is highlighted through his role as Chairman of the Advisory Committee to the Urban Settlement and Development Authority under the Ministry of Urban Development and Housing.

His remarkable collection of accomplishments encompasses 56 peer-reviewed journal publications, two books, one book chapter, and 125 abstracts and extended abstracts in conference proceedings.



Professor Halwathura's contributions to the fields of innovation and intellectual property are nothing short of remarkable. To date, he holds 15 national and international patents and three industrial designs. Additionally, he has achieved the prestigious Patent Cooperation Treaty (PCT) patent.

Professor Halwathura has been invited to participate in significant events and conferences in various capacities, including keynote speaker, guest speaker, and resource person. Furthermore, he has provided exemplary mentorship and guidance to a substantial number of aspiring scholars, evidencing his dedication to academic leadership through the supervision of nearly 80 master's and Ph.D. students.



PROGRAMME AT A GLANCE

Date: 05th January 2024

Venue: Main Auditorium, Faculty of Technological Studies, Uva Wellassa University

INAUGURAL SESSION

08:30	Desk Registration
09:00	Lighting the Oil Lamp, National and University Anthems
09:10	Welcome Speech by the Symposium Coordinator – Dr. M.K. Meegahakumbura
09:15	Address by Dean/Faculty of Animal Science and Export Agriculture
	– Prof. H.M.S.K. Herath
09:25	Address by the Chief Guest – Prof. K.B. Wijesekara (Vice Chancellor, UWU)
09:35	Launching of Proceedings – NSALS '24
09:40	Keynote Speech by Prof. R.U. Halwathura (University of Moratuwa, Sri Lanka)
10:10	Address by Guest of Honour – Mr. Anurudda Gamage (General Manager/
	Head HR & Cooperate Sustainability, Kelani Valley Plantations PLC, Sri Lanka)
10:30	Vote of Thanks by the Symposium Secretary – Ms. A.P. Abeygunawardana
10:35	Refreshment

3MT COMPETITION '24

11:00 – 13:00 3MT Presentations

13:00 – 13:30 Awarding Ceremony



TECHNICAL SESSIONS

11:00 – 13:00	Technical Sessions (8 Parallel Tracks)
13:00 – 13:45	Session Break
13:45 – 15:45	Technical Sessions (8 Parallel Tracks)
15:45 – 16:15	End of Sessions/Refreshments

CLOSING CEREMONY

16:15 – 16:30	Invited Speech by Dr. G.G.N. Thushari (Senior Lecturer-Gr II, Department
	of Animal Science, Faculty of Animal Science and Export Agriculture)
16:30 – 16:45	Invited Speech by Dr. A.N.R. Weerawansha (Senior Lecturer-Gr II,
	Department of Export Agriculture, Faculty of Animal Science and Export
	Agriculture)

16:45 – 16:55	Discussion
16:55 – 17:05	3MT Finalists' Presentations
17:05 – 17:15	Awarding Ceremony
17:15 – 17:20	Concluding Remark

SYMPOSIUM DINNER

18:30 – 22:30 Symposium Dinner at Riverside Hotel, Badulla



SYMPOSIUM TRACKS

- 01. Agricultural Economics, Agribusiness Management, Extension and Entrepreneurship
- 02. Agricultural Engineering and Process Technology
- 03. Agricultural Microbiology and Biotechnology
- 04. Animal Production and Technology
- 05. Aquatic Sciences
- 06. Crop Production Technology
- 07. Environmental Science and Climate Change
- 08. Food Science and Technology



3MT COMPETITION '24

The inaugural 3MT competition took place at UQ in 2008, featuring 160 Higher Degree by Research students. Subsequent to its success, the 3MT competition expanded beyond UQ's boundaries in 2009 and 2010, reaching other Australian and New Zealand universities. The widespread acceptance of the concept led to the development of a multinational event, culminating in the Inaugural Trans-Tasman 3MT competition at UQ in 2010. The competition's popularity has grown significantly since 2011, and it is now a global phenomenon, being hosted in over 900 universities across more than 80 countries. In 2016, the Trans-Tasman 3MT competition extended its reach to universities in South-East Asia and North-East Asia.

The 3MT competition, initially intended for Doctor of Philosophy (PhD) candidates to deliver a concise and engaging three-minute speech about their thesis and its importance, has undergone development and expansion over time. It is no longer exclusive to PhD theses but welcomes participation from researchers and students engaged in higher studies.

The Faculty of Animal Science and Export Agriculture (FASEA) at Uva Wellassa University conducted its inaugural 3MT competition in 2021. Final year undergraduate students from FASEA held the opportunity to present their research findings in this innovative format. Following the success of the first competition, the second 3MT event was held in 2022, and we are thrilled to announce the final round of 3rd 3MT competition scheduled for January 5, 2024. Fourteen students, selected through two rigorous screenings, will showcase their research in this exciting and challenging platform.



AGENDA (3MT COMPETITION '24)

Venue: Main Auditorium, Faculty of Technological Studies, Uva Wellassa University

11:00	Opening Remarks
11:05	Welcome Address by Dr. M.K.S.L.D. Amarathunga (Head/Department of Export Agriculture)
11:10	Remarks by Prof. K.B. Wijesekara (Vice Chancellor, UWU)
11:20	Introduction and Guidelines for 3MT Competition by Dr. N.M. Wijesundara
11:25	Introduction of the Panel of Judges by Dr. R.M.H. Tharangani
11:30	3MT Presentation Evaluations
12:40	Comments from the Panel of Judges
12:50	Address by Prof. H.M.S.K. Herath (Dean, Faculty of Animal Science and Export Agriculture)
13:00	Awarding Ceremony
13:20	Vote of Thanks by Dr. N.W. Gunasekara
13:25	Closing Remarks



Finalists of 3MT Competition

- 1. Ms. B.G.W.M.A. Aishcharya
- 2. Ms. E.B.M.R.K.W.H.N.K. Ekanayake
- 3. Ms. E.R.M.S. Ekanayake
- 4. Ms. H.M. Madushani
- 5. Mr. J. Inthujen
- 6. Ms. J. Navabalakumaran
- 7. Ms. M. Yesna
- 8. Ms. M.A.P.M. Kumaradasa
- 9. Ms. M.H. Navodya
- 10. Ms. M.I.N. Azra
- 11. Ms. M.M.S. Madigasekara
- 12. Ms. M.P. Piyasena
- 13. Ms. N.M. Alahakoon
- 14. Ms. O.L. Kokuhannadi



Technical Sessions



AGRICULTURAL ECONOMICS, AGRIBUSINESS MANAGEMENT, EXTENSION & ENTREPRENEURSHIP

05th January 2024 (11:00-14:15)

Panel Members: Dr. S.N. Dissanayake (Rajarata University of Sri Lanka) - Chairperson

Dr. E.A.C. Priyankara (Eastern University of Sri Lanka)

Mr. I.C. Hettiarachchi (Sabaragamuwa University of Sri Lanka)

Paper ID Time	Title of Abstract Names of Authors
002 11:00-11:15	7Ps marketing mix and customer readiness to visit tea centers in low country region <u>K.M.M.D. Kapilarathne</u> , M.G.P.P. Mahindarathne and B.C.H. Maduwanthi
022 11:15-11:30	Impact of remittances on household expenditure patterns: A gender perspective from Sri Lanka <u>A.M.S.N. Adhikari</u> and R.A.P.I.S. Dharmadasa
031 11:30-11:45	Determinants of export performance of coconut poonac in Sri Lanka: A time-series analysis N.N.L. Perera, R.A.P.I.S. Dharmadasa and P.V.S.CWickramaratna
066 11:45-12:00	The impact of pension receipt on the expenditure patterns of elderly households in Sri Lanka: A Working Leser Model approach M. Tharsalan and R.A.P.I.S. Dharmadasa
072 12:00-12:15	Factors affecting consumer preferences level for cold brew tea products P.S. Vitharana, R.A.P.I.S. Dharmadasa, A.M.C. Amarakoon and K. Perera
096 12:15-12:30	Potentials and challenges of developing plant tissue culture as an agrotourism product; Farmers' and visitors' perspective L.A.M.M. Liyanaarachchi, J.P.R.C. Ranasinghe and U.G.O. Sammani
103 12:30-12:45	Factors affecting on the loyalty engagement of tea smallholders on bought leaf supply base of Tea Smallholder Factories PLC D.L.T.G.H.N. Ariyawansha, M.K.S.L.D Amarathunga, A.M.C. Amarakoon and S. Dissanayake



109	Appraisal of the small-scale dairy farming in Kurunegala District of Sri Lanka
12:45-13:00	V.R. Thanthrige, C.S. Wijetunga, H.M.S.J.M. Hitihamu and B.C.H. Maduwanthi
13:00-13:45	SESSION BREAK
112 13:45-14:00	Maize farmers' willingness to pay for seeders: A case study of Moneragala District
13.45-14.00	M.P. Panditharathna, C.S. Wijetunga, B.C.H. Maduwanthi and S. Bandara
115	Coconut industry in Sri Lanka: The present status and future challenges for
14:00-14:15	development M.N.F. Begam, C.S. Wijetunga and A.M.C. Amarakoon
14:15	END OF SESSION



AGRICULTURAL ENGINEERING & PROCESS TECHNOLOGY

05th January 2024 (11:00-15:45)

Panel Members: Prof. Y.N.S. Wijewardana (Uva Wellassa University of Sri Lanka)- Chairperson

Dr. (Eng.) G.W.R. Keerthiwansa (Uva Wellassa University of Sri Lanka)

Dr. S.S.K. Chandrasekara (University of Peradeniya)

Paper ID Time	Title of Abstract Names of Authors
007 11:00-11:15	Effect of precipitated silica as a filler to stabilize the dimensional changes of cured foam blocks made of natural rubber R.R.A. Jayawickrama, B.A.D.U.P. Bulathsinhala, T.A.R.W.M.M.C.G. Bandara and A.M.W.K. Senevirathna
015 11:15-11:30	Improvement of indoor environmental quality; combining vertical greenery systems (VGS) with air-conditioning in tropical environment M.C. Karunadasa, K.G.N.H. Weerasinghe, R.U. Halwatura and G.Y. Jayasinghe
016 11:30-11:45	Effect of dioctyl phthalate and soybean oil as plasticizers on the bonding strength of PVC shoe sole N.D.W. Ranasinghe, A.J.M. Vithanachchi, T.A.R.W.M.M.C.G. Bandara and A.M.W.K. Senevirathna
021 11:45-12:00	Influence of different parboiling process on milling yield of <i>Addakari</i> paddy variety S. Mayoorika, V. Vijitha, M. Prabhaharan and P. Alvapillai
025 12:00-12:15	A novel approach for separation of dissolved matters presence in waste generated at the crepe rubber processing plants using a solar-powered drum system <u>E.H.D. Prasanga</u> , S. Siriwardena, N.S. Withanage and T.A.R.W.M.M.C.G. Bandara
037 12:15-12:30	Effect of origin and rolling method on physical and chemical properties of black tea – A meta-analysis J. Inthujan and G. Abhiram



045 12:30-12:45	Evaluation of effluent quality parameters of a modified coconut husk retting method <u>W.A.M.D.C. Herath</u> , G. Abhiram, A. Gunasena, N.W. Gunasekara, and M.K. Meegahakumbura
057 12:45-13:00	Hypsometric and tea land use analysis of Uma Oya sub-basin of Mahaweli river basin, Sri Lanka Y.B.M.L. Ravisanka, N.S. Withanage, G.D.J.M. Abeysekara, R.A.D. Madhushan, E.R.M.S. Ekanayake, H.T. Amadoru, M.A.H. Kusalasiri, and S.B. Adhikari
13:00-13:45	SESSION BREAK
062 13:45-14:00	The effect of a biological treatment method on the reduction of total dissolved solids levels and chloride in activated carbon washing effluent R.A.M.P. Ranasinghe, A. Munasinghe, N.W. Gunasekara and G.R.V.S. Gamlath
077 14:00-14:15	Impact of varied zinc concentration levels on natural rubber latex film properties W.K. Amarasekara, A.P. Attanayake, T.A.N.T. Perera and A.M.W.K. Senevirathna
080 14:15-14:30	Identification of an alternative natural bleaching agent for the chemical used in crepe rubber manufacturing R.M.V.S. Rathnayake, A.P. Attanayake, G.R.V.S. Gamlath and A.M.W.K. Senevirathna
081 14:30-14:45	Determination of the compatibility of waste polyvinyl chloride and acrylonitrile butadiene rubber M.B.J.M. Fernando, G.R.V.S. Gamlath, W.A.P.A. Weerasingha, E.H.D. Prasanga, M.M.S.K. Madigasekara and H. Srikanthan
091 14:45-15:00	Effect of savinase enzyme on deproteinizing skim crepe rubber <u>W.M.T.M. Wickramasinghe</u> , I.H.K. Samarasinghe, G.R.V.S. Gamlath and A.M.W.K. Senevirathna
092 15:00-15:15	Determination of cure and physico-mechanical properties of natural rubber-based green composites developed using corn husk fiber / corn husk powder W.Y.S. De Silva, D.G. Edirisinghe, M.P. Charithangi and A.M.W.K. Senevirathna
093 15:15-15:30	Increasing phosphorus solubility of Eppawala rock phosphate using sintering process R.M.I.B. Rathnayake, G. Abhiram, H.M.S.K. Herath and R. Sanjayan



117 Preparation of epoxidized natural rubber using centrifuged natural rubber

15:30-15:45 latex at room temperature

S.H. Kelaniyagama, A. Gannoruwa and A.H.L.R. Nilmini

15:45 END OF SESSION



AGRICULTURAL MICROBIOLOGY & BIOTECHNOLOGY

05th January 2024 (11:00-15:00)

Panel Members: Prof. S.A.C.N. Perera (University of Peradeniya) - Chairperson

Dr. J.D.M. Senevirathne (Uva Wellassa University of Sri Lanka)
Dr. K.H.I.K. Hewavitharana (Uva Wellassa University of Sri Lanka)

Paper ID Time	Title of Abstract Names of Authors
038 11:00-11:15	Shooting ability of cardamom (<i>Elettaria cardamomum</i>) with fly ash as a supplement in <i>in-vitro</i> nutrient medium <u>A.J. Aysha</u> and P.G.A.L. Kumara
039 11:15-11:30	Selection of promising genotypes from 2017 hand pollination progeny to reduce the breeding cycle in <i>Hevea</i> <u>G.M. Kahawatte</u> , S.P. Withanage, T.T.D. Dharmarathna and M.K. Meegahakumbura
047 11:30-11:45	Optimization of suitable solvent mixture and swallowing time for the development of liposomes with thin film hydration technique <i>F.M. Fathayee, M.L.M.Y. Arafath, D.S. Shanuke, M.S. Kandanpitiye and P. Ranasinghe</i>
049 11:45-12:00	A comparison of the antimicrobial activity of various parts of <i>Syzygium cumini</i> (L.) Skeels in Jaffna District, Sri Lanka <u>K. Vethanayakan</u> , G. Rajkumar and V. Sanmugarajah
056 12:00-12:15	Investigation of <i>in-vitro</i> propagation protocol for Gerbera (<i>Gerbera jamesonii</i>) using shoot cuttings <u>E.M.Y.U.K. Ekanayaka</u> , P.E. Kaliyadasa and T.T.D. Dharmarathna
059 12:15-12:30	Ecologically sustainable synthesis of silver nanoparticles from various <i>Mandevilla</i> varieties: Unraveling antioxidant, photocatalytic, and antimicrobial properties W.S.S. Fernando, O. Perera and M. Kandiah
064 12:30-12:45	Study on effect of different light qualities and durations on growth and development of <i>in-vitro</i> plants of <i>Cocos nucifera</i> L. M.B.A. Waidyarathna, M.T.N. Indrachapa, V.R.M. Vidhanaarachchi, S.P.N.C. Jayarathna and P.E. Kaliyadasa



070 Evaluation of morphological and molecular variation of an out-crossing progeny of Moorock Tall coconut cultivar 12:45-13:00 L.N. Edirisinghe, H.D.M.A.C. Dissanayaka, M.K. Meegahakubura, B.M.A.U. Amarathunga, M.M. Hettiarachchi and T.T.D. Dharmarathna 13:00-13:45 **SESSION BREAK** 098 Development of in-vitro shooting and rooting protocol for Carnation (Dianthus chinensis) 13:45-14:00 P.V.G.D.N. Vihanga and P.E. Kaliyadasa 105 Viability of microencapsulated Streptococcus thermophilus STI-15 in stressed conditions with ultrasound treated soy protein isolate as wall 14.00-14.15 material K.G.B.B.H. Balasooriya, D.M.K.S. Dissanayake, D.C. Mudannayake and A.M.N.L. Abesinghe 113 Effect of plant growth-promoting Rhizobacteria isolates on growth and yield of rice (Oryza sativa L.) 14:15-14:30 S.P.I. Udara, D.M.J.B. Senanayake, K.R.D. Gunapala, D.M.A.S. Senevirathne, R.M.U.S. Bandara, C.H. Piyasiri and N.M.C. Nayanakantha 114 Morphological and molecular characterization of biotypes of the rice brown planthopper (Nilarpavata lugens Stål) collected from different 14:30-14:45 locations in Sri Lanka D.M.S. Nisansala, D.M.J.B. Senanayake, W.A.R. Dhammika, S.R. Sarathchandra, M.R.A.B. Madduma, D.M.O.K.B. Dissanayake and N.M.C. Nayanakantha Precise selection of superior Hevea Genotype(s) from 2014 hand-061 14:45-15:00 pollinated progeny M.M.S.K. Madigasekara, S.P. Withanage, T.T.D. Dharmarathna and M.K. Meegahakumbura

15:00

END OF SESSION



ANIMAL PRODUCTION & TECHNOLOGY

05th January 2024 (11:00-15:00)

Dr. R.M.A.S. Bandara (Sabaragamuwa University of Sri Lanka) - Chairperson Panel Members:

> Dr. A.M.N.L. Abesinghe (Uva Wellassa University of Sri Lanka) Dr. D.D. Wickramanayake (Sabaragamuwa University of Sri Lanka)

Paper ID Time	Title of Abstract Names of Authors
005 11:00-11:15	Evaluation of protein and lipid oxidation of <i>Oreochromis niloticus</i> stored under frozen storage <u>Y.M.D.M. Yapa</u> , K.C. Nam and E.D.N.S. Abeyrathne
009 11:15-11:30	Mixed-cropping of <i>Brachiaria brizantha</i> (Bread grass) with selected fodder grasses for improved forage production A.R.W.M.B.W.T.L. Bandara, M.M. Mahusoon, M.F.V. Nisath, V. Liyinthan and S.T.D. De Silva
043 11:30-11:45	Impact of inflationary shocks on dairy products consumption in Ampara district, Sri Lanka M.T.F. Nifla and S.N.S.L.H.P. Neelawala
071 11:45-12:00	Consumer attitudes on fresh and processed meat quality: A case study from school children in Akuressa Divisional Secretariat, Matara district <u>W.P.W. Kumara</u> , K.M.N.T.K. Bandara, K.G.W.K. Katukurunda, D.K.D.D. Jayasena and S.N.S.L.H.P. Neelawala
073 12:00-12:15	Antimicrobial Resistance and Multi Drug Resistance of <i>Escherichia coli</i> and <i>Salmonella</i> in Beef Production Chain and its Associated Environment in Kandy District, Sri Lanka <u>T.M.T. Chathumini</u> , A.B.S. Pabasara, R.P.V.J. Rajapakse, D.S. Thilakarathne, K.S.A. Kottawatte and T.S.R. Fernando
076 12:15-12:30	Asparagus (Asparagus falcatus L) inulin as a fat replacer in chicken nuggets

W.K.M.H.S. Pemarathna, K.M.N.T.K. Bandara, K.G.W.K. Katukurunda,

D.C. Mudannayake and D.K.D.D. Jayasena



079 12:30-12:45	Effect of organic manure on improving soil conditions and yield of CO3 grass in Boralanda farmland		
	W.M.D. Dilrukshi, H.M.S.K. Herath, R.M.H. Tharangani and D.B.O. Malaweera		
083 12:45-13:00	An assessment of performances, constraints, and potential to increase the production in small-scale dairy farms; A case study in Kotmale area of Nuwara Eliya District, Sri Lanka		
	<u>W.W.A.P.M.I. Weerarathna</u> , W.M.K.T. Wickramasinghe, P. Handaragamage, R.Y.B. Agalawatte, and K.L.D.B.P. Liyanage		
13:00-13:45	SESSION BREAK		
086 13:45-14:00	Effect of different fruit peel powders on meat quality traits of marinated spent hen meat		
	B.G.W.M.A. Aishcharya, K.M.N.T.K. Bandara, I.P.A.U.N.K. Illippangama, E.A.C.N. Perera, K.G.W.K. Katukurunda and D.K.D.D. Jayasena		
089 14:00-14:15	Evaluation of meat quality and sensory properties of wild boar meat as a potential substitute for pork during the food crisis in Sri Lanka R.C. Wijesinghe, D.K.C. Colonne, D.K.D.D. Jayasena and C.J. Gajaweera		
097 14:15-14:30	Effect of refrigerated temperature on the shelf life of eggs collected from chicken reared in battery cage systems		
	K.M.R. Sandakelum, R.M.T.B. Ramanayaka, J. Zaffar and E.D.N.S. Abeyrathne		
102	Development of a novel meat spread incorporated with chicken liver		
14:30-14:45	M.A.P.M. Kumaradasa, K.M.N.T.K. Bandara, K.G.W.K. Katukurunda, M. Seneviratne and D.K.D.D. Jayasena		
116 14:45-15:00	Assessing the synergy between effective microorganisms and vermitea technology in reducing chemical fertilizer on fodder cultivation		
	R.M. Rupasinghe, R.M.S Gunathilaka, R.M.C.L. Rajapaksha and G.W.A.S. Lakmini		
15:00	END OF SESSION		



AQUATIC SCIENCES

05th January 2024 (11:00-14:30)

Panel Members: Prof. C.N. Walpita (Sabaragamuwa University of Sri Lanka) – Chairperson

Dr. P. Weththasinghe (University of Peradeniya)

Dr. A.P. Henagamage (Uva Wellassa University of Sri Lanka)

Paper ID Time	Title of Abstract Names of Authors	
001 11:00-11:15	Evaluation of protein and lipid oxidation in yellowfin tuna loin (<i>Thunnus albacares</i>) stored under frozen temperature (-20°C) M.G.A.S. Abeyrathna, W. Wimalarathne, K.C. Nam and E.D.N.S. Abeyrathne	
029 11:15-11:30	Seafood consumption patterns of pregnant and breast-feeding women in Negombo area, Sri Lanka S.G.V.H.P. Gunasekara and A.S. Mahaliyana	
032 11:30-11:45	Freshwater fish consumption patterns of the child population in Rambewa Divisional Secretariat of Anuradhapura District, North Central Province, Sri Lanka K.I.H. Kumari and A.S. Mahaliyana	
051 11:45-12:00	How Spirulina (<i>Arthrospira platensis</i>) powder effects on the growth performance, color enhancement, and retention in <i>Aulonocara baenschi</i> <u>C.R.G.I.P. Dewmini</u> , A.R. Mudalige, E.S.R. Fernando and A.C.W.W.M.C.L.K. Coswatte and N.P.P. Liyanage	
054 12:00-12:15	Assessing the impact of aqueous extracts of <i>Ulva fasciata</i> and <i>Gracilaria corticata</i> on seed germination and seedling growth of bean (<i>Phaseolus vulgaris</i> L.) and chilli (<i>Capsicum annum</i> L.) R.M.R.D.M. Rathnayaka, B.V.A.S.M. Bambaranda, R.A.I.S. Ariyarathna and A.M.W.W. Aththanayake	
063 12:15-12:30	Implications of COVID-19 and measures for adaptation in the aquaculture industry: Empirical evidence from Badulla District, Sri Lanka M.U.S. Maldeniya, B.V.A.S.M. Bambaranda, R.M.S.D. Rathnayake, H.M.S.K. Herath and D.M.C.P. Dissanayake	



067 12:30-12:45	Impact of economic crisis towards the performance of ornamental fish industry in Sri Lanka A.V.S.N. Sirisena, S.M.M.S. Samarasingha, A.C.W.W.M.C.L.K. Coswatte, and N.P.P. Liyanage and T.G.A.H.C. Amarawansha
078 12:45-13:00	Evaluation of the effect of hybridized liquid fertilizer produced from fisheries sector by-products on growth performance of <i>Anubias nana</i> A.N. Wirinduge, D.S. Senadeera, N.P.P.Liyanage, W.A.R.K. Senaarachchi and B.V.A.S.M. Bambaranda
13:00-13:45	SESSION BREAK
082 13:45-14:00	The status of kite surfing: A case study in Kalpitiya, Sri Lanka A.R. Asra, P.C.B. Dias, E.P.D.N. Thilakarathne and O.G.Y. Hemachandra
090 14:00-14:15	Current status and future trends in utilization of seaweeds in Sri Lanka <u>H.G.C.S. Divyanjalee</u> , P.P.W. Anuruddhi , D.S. Senadeera, A.M.W.W. Aththanayake, W.A.H.P. Guruge and B.V.A.S.M. Bambaranda
104 14:15-14:30	Effect of extraction methods on the yield and quality of Carrageenan from Kappaphycus alvarezii M. Yesna, B.V.A.S.M. Bambaranda, D.C. Mudannayake, C.S. Hamit and P.P.W. Anuruddhi
14:30	END OF SESSION



CROP PRODUCTION TECHNOLOGY

05th January 2024 (11:00-15:00)

Panel Members: Prof. K.W.L.K. Weerasinghe (University of Peradeniya) - Chairperson

Dr. S.R.W.M.C.J.K. Ranawana (Uva Wellassa University of Sri Lanka)

Dr. P. Liyanage (Uva Wellassa University of Sri Lanka)

Paper ID Time	Title of Abstract Names of Authors	
010 11:00-11:15	Determination of curcumin content of turmeric (<i>Curcuma longa</i>) accessions grown in Low Country Intermediate Zone, under coconut <u>T.M.D.N. Naranwala.</u> M.S.S. Munasinghe, M.P.M. Arachchige, U.G.A.T. Premathilake and S.L.C. Silva	
017 11:15-11:30	Impact of different ratios of fish tonic and albert's solution on growth and yield performance of lettuce (<i>Lactuca sativa</i> L.) <u>G. Elankeeran</u> , L. Pradheeban and K. Thanusan	
019 11:30-11:45	An analysis of five picked therapeutic herbs' toxicity profiles against rice weevil S. Tharsika and M.H. Haroon	
023 11:45-12:00	Effect of pre-harvest fruit bagging on yield and quality of pomegranate fruits A.R. Rusdha, <u>G.P.A.N. Weerasuriya</u> , S.B.A. Weerawarna, M.H.H.M. Ikram, U.G.A.T. Premathilake and P.W. Jeewanthi	
026 12:00-12:15	Investigating the effect of different coco-peat media and electrical conductivity levels on growth and flowering of potted marigold (Tagetes sp.) <u>G.P.G.I. Thakshila</u> and K.H.G. Madhuranga	
035 12:15-12:30	Study on parasitic fauna of vegetable leaf miner (<i>Liriomyza sativae</i>) in central region of Sri Lanka R.M.S. Nisansala, K.M.D.W.P. Nishantha, K. Varnika and S.W.G.A.N. Kumari	



036 12:30-12:45	Comparison of major nutrient release pattern of pelleted organic fertilizer with inorganic fertilizer and compost in coconut growing soils		
	S.H. Sooriyaarachchi, H.M.S.K. Herath, A.M.G.N. Rathnayake and M.K.F. Nadheesha		
048 12:45-13:00	Determination of optimal fertigation level for chilli grown in coir-pith medium A.M.K.L Attanayake, U. Perera, G. Abhiram, P. Charithangi, V. Edirisinghe and M.		
	Kalpage		
13:00-13:45	SESSION BREAK		
052 13:45-14:00	Development of a compost using green manure incorporated with byproduct of charcoal and broiler ash in the activated carbon industry		
	W.A.P.A. Weerasinghe, A. Munasinghe, H.M.S.K. Herath and G. Abhiram		
058 14:00-14:15	Evaluation of properties of compost made of various plant materials and animal waste available in Badulla district		
	W.A. Jaliya, K.G. Premathilake and U.G.A.T. Premathilake		
075 14:15-14:30	Evaluation of tuber qualities in different exotic potato varieties (Solanum tuberosum L.) in the Up-Country Intermediate Zone of Sri Lanka <u>H.A.S. Nimasha, G.G.S.U. Gamage, U.G.A.T. Premathilake, M.A.L.N. Mallawa Arachchi and H.M.Y.L. Herath</u>		
108 14:30-14:45	Evaluation of the above and below ground biomass accumulation of selected Tea (<i>Camellia sinensis</i> L.) cultivars grown on conventional and coco-pith-based nursery media		
	M.V.T. Tharuka, G. Abhiram, R.K.R.M.A. Gunasena and M.K. Meegahakumbura		
110 14:45-15:00	Development of propagation protocol: Syzygium zeylanicum, a potential landscape plant		
	J.M.W.A. Jayaweera, G.Y.A.D.D. Perera and P.E. Kaliyadasa		
15:00	END OF SESSION		



ENVIRONMENTAL SCIENCE & CLIMATE CHANGE

05th January 2024 (11:00-13:15)

Panel Members: Prof. E.P.S.K. Ediriweera (Uva Wellassa University of Sri Lanka)- Chairperson

Dr. I.D. Singhalage (Uva Wellassa University of Sri Lanka) Dr. G.G.N. Thushari (Uva Wellassa University of Sri Lanka)

Paper ID Time	Title of Abstract Names of Authors		
006 11:00-11:15	Design of flexible green anti-radiation shielding material by <i>Dracaen trifasciata</i> for mobile phone radiation		
	T.G.H.S. Dharmawardhana and T.G.N.D. Karunarathne		
008 11:15-11:30	Analysis of drought adaptation strategies: A case study in Polpithigama DS Division, Kurunegala		
	K.A.L.C. Kuruppu Arachchi		
020 11:30-11:45	Removal of heavy metals from wastewater using mycofilter with activated carbon		
	B.K.R.S. Wanshanatha, M.M.S.N. Premetilake and J.T. Cooray		
030 11:45-12:00	A preliminary analysis of environmental quality in selected locations in the Southern coast of Sri Lanka using marine polychaetes and the AZTI's marine biotic Index		
	B.G.H.J. Kumari, R.G.D.R. Jayawickrama, M. Skarsvåg, N.P.P. Liyanage, J.A. Athula and P.C.B. Dias		
033	Floral diversity of coastal vegetation in Matara, Sri Lanka		
12:00-12:15	L.S.P. Malalanayake and E.A.K.K. Amarasekara		
087 12:15-12:30	The impact of marine heatwaves on surface productivity and upwelling rates of the Somali upwelling current in the Indian Ocean		
	G.A.Y.M. Wimalarathne, K.P.G.K.P. Guruge, P.B.T.P Kumara and M.H. Elawady		
095 12:30-12:45	Spatial variation of macroinvertebrates diversity in the upper catchment of Kumbukkan Oya, Sri Lanka		
	R.M.P.P. Rathnayaka and R.M.G.N. Rajapaksha		



099 12:45-13:00	Investigation of sea surface temperature fluctuation over shallow coral reef ecosystems in Oman, CRW Muscat site, for the period of 1998-2022	
	<u>T.D.T. De Silva</u> and E.P.D.N. Thilakarathne	
111 13:00-13:15	Spatial and temporal variation on night light pollution in the turtle nesting sites in the Southern coastal area, Sri Lanka	
	H.M.S.A. Wijerathne, A.P. Abeygunawardana and Y.G.A.Y. Yatagama	
13:15	END OF SESSION	



FOOD SCIENCE & TECHNOLOGY

05th January 2024 (11:00-15:30)

Panel Members: Dr. T.C. Kananke (Sabaragamuwa University of Sri Lanka) - Chairperson

Dr. K.M.G.M.M. Kariyawasam (Uva Wellassa University of Sri Lanka)

Dr. C.M. Peries (Uva Wellassa University of Sri Lanka)

Paper ID Time	Title of Abstract Names of Authors		
003 11:00-11:15	Development of milk-grain food supplement and determination of the trypsin inhibitory factor and texture profile analysis W.W. Anupama, H.M.T. Herath, D.U. Rajawardana and J.M.J.K. Jayasinghe		
012 11:15-11:30	A comparative study on quality parameters of milk; Based on selected milk collection centers in Uva Province of Sri Lanka R.L.D. Jananika, R.M.S. Gunathilaka, K.N. Wijayasekara and D.N. Kannangara		
024 11:30-11:45	Quality evaluation and storage studies of protein-enriched cake incorporated with button mushroom (<i>Agaricus bisporus</i>) powder <u>E. Gunaliney</u> and T. Mahendran		
027 11:45-12:00	Consumer preference of defatted coconut flour incorporated sandwich bread: A case study in North Western and Western Province of Sri Lanka K.L.A.N. Dayawansha, H.P.D.T. Hewa Pathirana, B.G.R.R. Bandara, L.L.W.C. Yalegama, G.A.A.R. Perera and M. Sivaji		
028 12:00-12:15	Effect of the brine concentration on quality characteristics of Sauerkraut <u>D. Shashikala</u> and R. Nirmala		
040 12:15-12:30	Development of value-added spicy butter through the addition of hot pepper (<i>Capsicum chinense</i>) powder J.M.U.G. Jayasinghe, U.G.A.M.A.R.K. Athapaththu, K.W.D.M.J.C. Wickremasinghe and D.C. Mudannayake		
041 12:30-12:45	Effect of vacuum packaging and storage conditions on physicochemical properties of selected Sri Lankan rice varieties H.G.S. Chathuranga, T. Mahendran, M.R. Roshana and B.M.K. Senarathna		



042 12:45-13:00	Development of probiotic ice cream; Viability of probiotic bacteria (Lactobacillus acidophilus, Bifidobacterium spp. and Streptococcus thermophilus) during frozen storage K.H.L. Keshani, A.M.N.L. Abesinghe and D.C. Mudannayake	
13:00-13:45	SESSION BREAK	
046 13:45-14:00	Formulation of a cookie incorporating pumpkin (<i>Cucurbita maxima</i>) seeds and flour H.M.A.K.B. Herath, K.N. Wijayasekara and C. Ranasinghe	
055 14:00-14:15	Development of fruit wine incorporated with black tea extract and evaluation of its quality parameters J.W.M. Bhagya, G.A.A.R. Perera and A.M.G. Rathnayake	
084 14:15-14:30	Formulation of coconut milk based frozen dessert with desirable physicochemical and sensory properties N.A.I. Lakshika, T.G.T. Udayanga and A.M.N.L. Abesinghe	
085 14:30-14:45	Effect of Kathurumurunga (Sesbania grandiflora) as a natural antioxidant on meat quality traits of marinated chicken meat during refrigerated storage B.N. Jayasundara, K.M.N.T.K. Bandara, L.W.R. De Alwis and D.K.D.D. Jayasena	
050 14:45-15:00	Development of freeze-dried watermelon (<i>Citrullus lanatus</i>) powder and evaluation of its quality parameters O.L. Kokuhannadi and M.P.M. Arachchige	
068 15:00-15:15	Evaluation of physicochemical and functional properties of guava (<i>Psidium guajava</i> L.) peel powder as a potential food ingredient <u>M.P. Piyasena</u> and W.A.J.P. Wijesinghe	
069 15:15-15:30	Development of a yoghurt drink incorporated with soursop (Annona muricata) and evaluation of its properties G.A.K. Widurani, R.M.S. Gunathilaka and K.N. Wijayasekara	
15:30	END OF SESSION	



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Uva Wellassa University of Sri Lanka

The Uva Wellassa University of Sri Lanka is situated amidst the misty mountains of Badulla in the Uva Province. Its distinctiveness lies not only in its scenic surroundings and cool climate but also in being Sri Lanka's inaugural entrepreneurial university. Positioned as one of the nation's youngest academic institutions, Uva Wellassa University, guided by its motto "Value Addition to the National Resource Base," aims to craft graduates who are well-rounded and possess entrepreneurial acumen to address industry needs for sustained national development.



Established in 2005 as the 14th national university in Sri Lanka, Uva Wellassa University currently comprises five faculties: Animal Science and Export Agriculture, Applied Sciences, Management, Technological Studies, and Medicine. These faculties offer degree programs designed to enhance various facets of Sri Lanka's diverse resource base. The programs cover areas such as Aquatic Resources, Animal Production and Food Technology, Export Agriculture, Tea, Palm & Latex Technology, Mineral Resources, Science and Technology, Computer Science, Information Technology, Hospitality, Tourism & Events Management, Human Resources, English and Linguistics, Entrepreneurship, Biosystems and Engineering Technology and Medicine. Since its inception, Uva Wellassa University has successfully produced techsavvy graduates specializing in their respective fields, equipped with positive attitudes and essential soft skills including communication, creativity, rational thinking, and a proactive mindset. The university's holistic approach to teaching, learning, and research underscores the importance of addressing gaps and exploring possibilities in adding value to the national resources of the country.



The university benefits from a dynamic and youthful team of exceptionally skilled lecturers, who contribute their diverse expertise and experiences to enhance the overall teaching and learning environment. Uva Wellassa University provides students with a solid foundation for scientific research across different disciplines under the mentorship of experienced scholars. Scientific research

endeavors within the university align closely with the overarching vision of adding value to the country's resource base, emphasizing their effective utilization and optimization.



The annual International Research Conference (IRCUWU) serves as a prominent platform for Uva Wellassa University students to showcase their research, garner valuable insights, and engage in meaningful interactions with both industry professionals and scholarly experts. This event plays a crucial role in fostering a culture of research and knowledge exchange within the university community.

The university experiences an annual increase in student enrollment, currently hosting over 4500 undergraduate and postgraduate students. Uva Wellassa University's student body actively participates in a variety of extra-curricular activities that not only benefit the local community and the university but also contribute to the personal development of the students.

In line with its role as a knowledge hub, Uva Wellassa University engages in activities aimed at sharing knowledge, experience, and resources with the local community. Initiatives such as the University Business Linkage Cell, Faculty Technology Transfer Cells, and other service centers



play a crucial role in bridging the gap between the university system and society, facilitating the dissemination of relevant resources. The university organizes programs that address societal needs as they arise. Uva Wellassa University places strong emphasis on sustainable development and actively promotes environmentally friendly practices and alternatives.

The university provides its undergraduates with a stimulating environment that fosters innovation. Uva Wellassa University's alumni serve as testament to the institution's ability to produce well-rounded, employable, technologically adept, and entrepreneurial graduates. The university remains committed to its vision of adding value to Sri Lanka's resource base, ultimately contributing to the country's socio-economic advancement.

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කෙටි කාලීන ආයෝජන අවස්ථා

බබේ රක්ෂණ කාල සීමාව කුමක් වුවත් ඔබ ආයෝජනය කළ යුත්තේ වසර 3ක් හෝ 5 ක් සඳහා පමණ එනමුත් රැකවරණ පුතිලාත වසර 10 සිට 40ක් දක්වාම අභිණ්ඩව කියාත්මකයි.

ආකර්ෂණීය ආයෝජන ඉපයිම්

සෑම රක්ෂණ වසරක් සඳහා සහයික කළ ලාකාංග අනුපාත හමුන් ඒ ඒ වසරේ පැවැද ලාකාංශ අනුපාතය, ඒ වසරේ සහයික කළ ලාකාංශ අනුපාකයට වඩා වැඩි වේ නම් ඔබේ අරමුදල සැවැ ලාකාංශ අනුපාකය අනුව වර්ධකය වේ.

<u>ජීවිත රක්ෂණ පුතිලාභය</u>

අවාසනාවකට මැවේ මරණයන් සිදු වුවනෙන් ඔමේ ආදරණීයයන්ට පවතින ආයෝජන අරමුදලේ වටිනාකම තෝ ඔම හෙවා ඇති මුළු වාරික අතය යන දෙකෙන් වැඩි අතය ගෙවන අතර එයට අමතරව ඔබ තෝරා තෙන ඇති වීවිත රක්ෂණ පුතිලානද . ඔවුන්ට හිමි වනු ඇත.

රක්ෂණ පටවත්සර තුළ ඔබේ ජීවිත සහ සොබන රක්ෂණ ආවරණ ඉහළ නැංවීමට අවස්ථා.

නිදර්ශනය

35 හැවිරදී මබ, වසර 20 ක රන්සණ කාල සිමාවන් සමග හැලපුමකට, වසර 3ක්, රු.100,000 බැඟින් ආයෝජනය කලේ යැයි සියමු (වසර) ලබ පදහා පම්පූර්ණ ආයෝජනය රුපියල් ලන්න 3හි) මෙම හැලපුමේ පුම්ලාන පතක පරිද විය හැක.





ජනශක්ති රක්ෂණ සමාගම (ලයිෆ්) බදල්ල ශාඛාව 076 716 84 78076 761 65 32

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