



ASIA'S PREMIER CLIMATE AND AGRICULTURE CONFERENCE

THE INTERNATIONAL CONFERENCE ON CLIMATE CHANGE AND AGRICULTURE IN TROPICAL LATITUDES

*"Fine-Tuning the Biology and Environment to Achieve
Global Food and Nutrient Security"*

5th, 6th MAY 2025 || COLOMBO, SRI LANKA



MAGAZINE

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WELCOME TO THE INTERNATIONAL CONFERENCE ON CLIMATE CHANGE AND AGRICULTURE IN TROPICAL LATITUDES (CCATL) 2025!

The International Conference on Climate Change and Agriculture in Tropical Latitudes (CCATL) 2025, set to take place on May 05-06, 2025, in the dynamic city of Colombo, Sri Lanka with academics, industry professionals, and policy makers to engage with the theme

"Fine-Tuning the biology and Environment to Achieve Global Food and Nutrient Security"

This premier conference brings together experts from around the world to explore and unites experts from tropical, subtropical, and temperate regions to tackle the pressing challenges and seize the opportunities in agriculture today. With tropical areas often underrepresented in scientific research, CCATL 2025 aims to bridge this critical data gap. With a focus on role of climate change and agriculture and communication in shaping societies, the conference encourages insightful discussions, interdisciplinary collaborations, and knowledge-sharing opportunities, ultimately contributing to a more informed and connected global community.

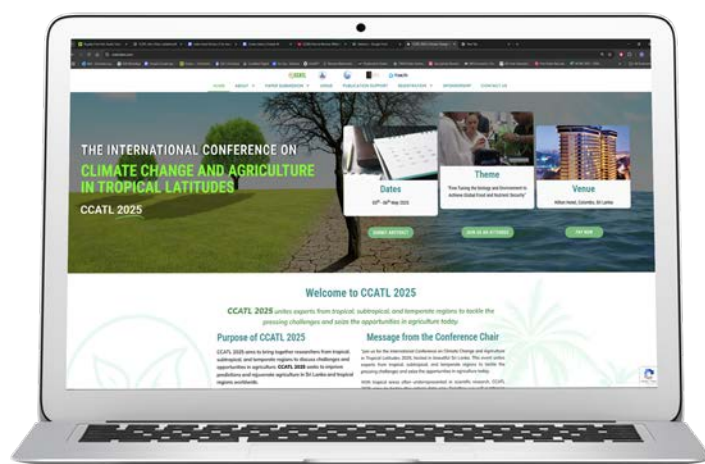
This year we are happy to host over 100+ participants physically representing over 25+ countries.

(Australia, Bahrain, Canada, China, France, Ghana, India, Indonesia, Israel, Italy, Jordan, Korea, Kuwait, Malaysia, Nepal, Nigeria, Philippines, Portugal, Qatar, Russian Federation, South Africa, Sri Lanka, UAE, United States, Vietnam, Bangladesh, Tanzania, Germany, Mauritius)



We wish all the participants a very productive and meaningful conference!

Please note that the time in the program is in Sri Lankan Time Zone



CONFERENCE PROGRAM

CCATL CONFERENCE PROGRAM - DAY 01 - 05th May 2025 Grand Ballroom	
07:30 – 08:30	Conference Registration
08:30 – 08:50	Conference Opening
08:50 – 09:20	Welcome Address and Keynote by the Conference Chair Prof. Saman Seneweera (Chairman, National Science Foundation, Sri Lanka, Chair Professor of Agricultural Engineering, Environmental Technology, Faculty of Agriculture, University of Ruhuna) Title: <i>The Future of Food Security: Genetics and Environmental Interaction In The Changing Climate</i>
09:20 – 09:30	Welcome Address by the Conference Convener. Mr. Isanka P Gamage Co-Founder & Managing Director – The International Institute of Knowledge Management (TIKM), Sri Lanka
09:30 – 09:40	Welcome Address by the Conference Co - Chair Prof. Dilantha Fernando (Dean of the St. Paul's College and Professor, Department of Plant Science, Faculty of Agricultural and Food Sciences University of Manitoba, Canada)
09:40 – 09:45	Welcome Address by the Conference Co - Chair Prof. Changsheng Zhang (Director of China - Sri Lanka Joint Center for Education and Research, Chinese Academy of Sciences, China)
09:45 – 09:50	Welcome Address by the Conference Co – Chair Prof. Ranil Coorey (Director of Learning and Teaching School of Molecular and Life Sciences Curtin University, Western Australia)
09:50 – 09:55	Chief Guest Speech by Hon. Minister Chrisantha Abeyesena (Ministry of Science and Technology)
09:55 – 10:05	Conference Group Photograph
10:05 – 10:40	Networking Coffee Break
10:40 – 11:15	Keynote Speech by Prof. Robert Henry (Professor of Innovation in Agriculture, Queensland Alliance for Agriculture and Food Innovation, The University of Queensland, Australia) Title: <i>"Application of Genomics to Climate Change in Agriculture"</i>
11:15 – 11:50	Keynote Speech by Prof. Dilantha Fernando (Dean of the St. Paul's College and Professor, Department of Plant Science, Faculty of Agricultural and Food Sciences University of Manitoba, Canada) Title: <i>"Silent Epidemic: Climate Change and Crop Pests - A Global Threat to Food Security and Sustainability"</i>
12:00 – 13:00	Networking Lunch

13:00 – 13:35	Keynote Speech by Dr. Bruce Kimball (Soil Scientist, The Greenleaf Group & Retired Collaborator, Arid Land Agricultural Research Center, Arizona, USA) Title: <i>"Climate Change, Crop Productivity, and Possible Adaptations"</i>
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CONFERENCE PROGRAM

	Climate Adaptation Technologies and Their Role in Building Livelihood Resilience	Pest and Disease Management	Soil Nutrient Management
	Grand Ballroom	Ruby Hall	Moonstone & Amethyst Hall
	Session Chair: Prof. Saman	Session Chair: Trebicki P	Session Chair: Prof. Gamini Seneviratne
	TECHNICAL SESSION 01	TECHNICAL SESSION 02	TECHNICAL SESSION 03
13:35 – 13:50	A1 - Adaptation and Feedback of Soil Microbiome to Climate Change Ge Y* And Li Y, (<i>University of Chinese Academy of Sciences, China</i>)	Plenary Speech by Trebicki P (Macquarie University, Australia) Title: "Climate Change and Its Dual Threat to Agriculture and Global Food Security: Impacts of Pests and Diseases" Plenary Speech by Prof. Gamini Seneviratne (Head, Microbial Biotechnology Unit, National Institute of Fundamental Studies, Sri Lanka) Title: "Soil Fertility Management to Break Crop Yield Barrier: A Novel Approach".	
13:50 – 14:05	A2 - The Impact of Citizen Voice and Action (CVA) Model in Empowering Youth for Sustainable Climate Actions in Tanzania Mnyone C*, Mwabulambo, A And Jackson H (<i>World Vision, Tanzania</i>)		
14:05 – 14:20	A3 - The Adaptation Triangle: A Multivariate Analysis of Vulnerability, Resilience, and Livelihood Strategies in Semi-Arid Regions of India Mannepalli B.K1*, Gawhare, A.A1., Kemboi E.K1., Yadav A1., Deep P1., Kamalvanshi V1., Kushwaha S1., Parida P2., Pandey S3 (<i>1Banaras Hindu University, 2Jawaharlal Nehru University, India 3Routgers University, USA</i>)	B1 - PlantDRAW: A Web Tool for Fast Image-Based Phenomics Recognition and Analysis Of Disease In Plant Science Xue Wua, Zhihao Yuan, Xiaoyang Wan, Xinyu Dong1, Qi Wang*, Gefei Hao (<i>Guizhou University, China</i>)	C1 - An Innovative approach to Ameliorate Acid sulphate soils of Nilwala Basin Senanayake N1, Perera M.T.M.D.R. 2and Weragoda A1 (<i>1Department of Agriculture Sri Lanka, 2 State Ministry of Agriculture, Sri Lanka</i>)
14:20 – 14:35	A4 - Enabling Digital Public Goods for Climate-Resilient Agricultural System Tiwari Allina1, Pratap Sharma Vikram2 (<i>Microsave Consulting</i>)	B2 - Developing Future Crops Using The "Faststack" Platform and Speed Breeding" Dilani Jambuthenne1, Dan Liu1, Jingyang Tong1, Samir Alahmad1, Tara Garrard2, Hari Dadu3, Lisle Snyman4, Sambasivam Periyannan5, Lee Hickey1, Ben Hayes1, Kai P. Voss-Fells1, Eric Dinglasan1* (<i>1The University of Queensland, 2South Australian Research and Development Institute (SARDI), 3Environment and Climate Action (DEECA), 4Queensland Department of Primary Industries (QDPI), 5 University of Southern Queensland, Australia</i>)	C2 - Agroecological Approaches for Enhancing Resilience and Sustainability in Rural Agri-Food Systems: Lessons from Kilimo Tija Kigoma Tanzania Charles Mnyone, Andulile Mwabulambo, Henry Jackson, Gerald Shabani, Aquiline Wamba (<i>World Vision Tanzania, United Republic Of</i>)
14:35 – 14:50	A5 - Sedimentary Carbon Sequestration Potential in Mangroves of Oriental Mindoro, Philippines: Quantifying Soil Carbon Stocks Madrid, D. E. T.1*, Bombio, F. C. A.2, Angeles, R. A. F.3, Ferreras, M. A. E.1, Jumawan, J. H.4, Raganas, A. F. M.5, Medina, S. M.6, Johnson, B.7, Kumar, P. 7, Dasgupta, R. 7, and Macandog, D. B. M.8 (<i>1Rice Watch Action Network, Inc., 2Nasdaq Philippines, Philippines, 3UP University of the Philippines Diliman, 4Caraga State University, 5University of the Philippines Mindanao, 6University of the Philippines Los Baños, 7Institute for Global Environmental Strategies, Japan, 8University of the Philippines Los Baños, Philippines</i>)	B3 - Morphological and Symptomatic Identification of Two Emerging Pests in Rice: Hydrellia griseola (Rice Leaf Miner) and Hysteroneura Setariae (Rusty Plum Aphid) in Sri Lanka Sarathchandra S.R.1,2*, Dilanka L.B.T.2, Jayaweera M.P.H.K.2, Sandadevani K.S.2, Senarath S.A.T.P.2, and Dissanayaka D.M.P.S.2 (<i>1University of Peradeniya, 2Rice Research and Development Institute, Sri Lanka</i>)	C3 - Factors Influencing the Soil Physicochemical Properties under different Land Use of Jhilmil Jheel Wetland Conservation Reserve, Haridwar – Uttarakhand, India Salim MOHD1* and Baqir MOHD1 (<i>Kargil Campus- University of Ladakh, India</i>)

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14:50 – 15:05	<p>A6 - Smallholder Farmers Resilience and Adaptation to Climate Change: Implication for Change Agents in Buffelspruit, South Africa</p> <p>Agholor Al (<i>University Of Mpumalanga, South Africa</i>)</p>	<p>B4 - Effect of Different Crop Establishment Methods on Pest Abundance and Crop Damage in Rice</p> <p>Jayaweera, M.P.H.K.1,2*, Sarathchandra, S.R.1, Hemachandra, K.S.2, Sandadevani, K.S.1, and Dilanka, L.B.T.1 (1<i>Rice Research and Development Institute, 2University of Peradeniya, Sri Lanka</i>)</p>	<p>C4 - Symbiosis for Surviving Environmental Stresses</p> <p>Chen B D*, Zhang X, Wu S L, Fu W, Zhu Y G (<i>University of Chinese Academy of Sciences, China</i>)</p>
15:05 – 15:20	<p>A7 - Climate Change, Food and Nutrition Security: Strategies for Adaptation</p> <p>Islam, M. Nazrul1*, Wahiduzzaman, A.K.M.2, Ferdous, Rownak-E-1 (1<i>Jahangirnagar University, Bangladesh, 2National University, Bangladesh</i>)</p>	<p>B5 - Morphological and Symptomatic Identification of Two Emerging Pests in Rice: <i>Hydrellia griseola</i> (Rice Leaf Miner) and <i>Hysteroneura setariae</i> (Rusty Plum Aphid) in Sri Lanka</p> <p>Sarathchandra S.R.1,2*, Dilanka L.B.T.2, Jayaweera M.P.H.K.2, Sandadevani K.S.2, Senarath S.A.T.P.2, and Dissanayaka D.M.P.S.2 (1<i>University of Peradeniya, Peradeniya, 2Rice Research and Development Institute, Batalagoda, Sri Lanka</i>)</p>	<p>C5 - Drought Resistant Crops and Food Stability: A Case of Kitui County, Kenya.</p> <p>James Sankale. Esther Mutanu Kyungu, John Kiama Ngari (<i>Catholic University of Eastern Africa, Kenya</i>)</p>
15.20 – 15.35		<p>Invited Speech by Dr. Dushani L. Palliyaguru (HealthSurveil LC. USA)</p> <p>Title: Novel Approaches to Safeguarding Human Health in Agricultural Settings</p>	<p>C6 - Production of Urea Intercalated Biochar from Agricultural Waste and Evaluation of Its Potential Benefits.</p> <p>Murugesapillai A*1, Kajeewan K And Gnanavelrajah N (<i>University of Jaffna, Sri Lanka</i>)</p>

15:35 – 16:10	Keynote Speech by Dr. B. Mario Pinto (<i>Vice President Research & International, University of Manitoba Member, Governing Circle of the National Centre for Truth and Reconciliation, Canada</i>)
16:10 – 16:35	Networking Coffee Break
16:35 – 17:10	<p>Keynote Speech by Prof. Buddhi Marambe (<i>Senior Professor, President – Weed Science Society of Sri Lanka (WSSSL) Chairman, National Invasive Species Specialist Group (NISSG), Ministry of Environment Member. National Experts Committee on Climate Change Adaptation (NECCCA), Ministry of Environment Sri Lanka</i>)</p> <p>Title: "Building Climate Resilience in the Agriculture Sector"</p>
17:10– 18:30	<p>Industry Session on "Research to Commercialization: Opportunities to Develop Mega Industries"</p> <p>Moderator Dr. Chandra Embuldeniya (Founder Vice Chancellor, Uva Wellasa University (Retired)</p> <p>Panelists</p> <ul style="list-style-type: none"> • Prof. Dilantha Fernando (University of Manitoba, Canada) • Mr. Waruna Madawanarachchi (Managing Director, CIC Agri Cluster, CIC Holdings) • Mr. Rushanth Chandrabose (Managing Director, Waste to Value (pvt) Ltd) • Mr. B.J.R. Kumara (Project Manager, Livestock, Power Hands Plantation (PVT) LTD) • Mr. Dillip K. Fernando (Group CEO, Avon Pharmo Chem Pvt Ltd / Managing Editor, The Sri Lankan Scientist Magazine)
18:30	Day - 01 Conclusion

CONFERENCE PROGRAM

CCATL CONFERENCE PROGRAM - DAY 02 - 06th May 2025			
	Climate Change, Food and Nutrient Security	Farming Systems Approach to Climate Adaptation	Native Food Crops in Tackling Food Security
	Grand Ballroom Hall	Ruby Hall	Moonstone & Amethyst Hall
	Session Chair: Prof. Robert Henry	Session Chair: Dr. Garry	Session Chair: Prof. Ranil Coorey
	TECHNICAL SESSION 04	TECHNICAL SESSION 05	TECHNICAL SESSION 06
08:00 – 08:15	<p>Invited Speech by Dr. Dushan Kumarathunge (Faculty of Agriculture, University of Ruhuna, Sri Lanka)</p> <p><i>Title: Recent Advances in Thermal Biology Of Plant Metabolism: Insight In To Crop Production In Tropical Latitudes</i></p>	<p>E1 - Microplastics Pollution in The Bay of Bengal - A Call for Regional Policy Frameworks and Transboundary Collaboration</p> <p>Rashid HARUNUR¹ (1Bangladesh Agricultural University, Bangladesh)</p>	<p>Invited Speech by Dr. Pathmasiri Ranasinghe (Industrial Technology Institute, Sri Lanka)</p> <p>Title - Invention in Under Utilized Crops and Medicinal plants – Critical Features for Commercialization</p>
08:15 – 08:30	<p>D1 - Semi-Transparent Solar Canopy for Greenhouses</p> <p>Siriwardena S.J, Nemindara W.S.N1, Dissanayake D, Samaranyake B.G.L.T and Ekanayake J.B* (University of Peradeniya, Sri Lanka)</p>	<p>E2 - Revitalizing the Milpa System in Northern Veracruz, Mexico: A Strategy to Combat Climate Change and Ensure Food Security</p> <p>A. Lammel¹, F. Cruz Aldana^{2*}, M. Jimenez Lopez ^{3*} (1Paris 8 University, France 2, 3 Consejo Totonaco de Organizaciones y Comunidades, Mexico)</p>	<p>F1 - Drought Resistance in "Niyan Wee" – A Local Rice Landrace</p> <p>Fernando KIH* and Ariyaratna HACK (University of Peradeniya, Sri Lanka)</p>
08:30 – 08:45	<p>D2 - Remote Sensing and Computer Vision for Tea Agrovoltac Optimization</p> <p>B.A.B. Epakanda , Navarathne J.M.T.R.B, Samarasekera T.D, Ekanayake J.B*, Herath V.R, Godaliyadda G.M.R.I, Ekanayake M.P.B (University of Peradeniya, Sri Lanka)</p>	<p>E3 - Funding Tree Planting in Lagos to Improve Greenery and Provide Nature-based Solutions to Natural Disasters Through the Land use Charge System</p> <p>Adewunmi A A (Ministry of Agriculture and Food Systems, Nigeria)</p>	<p>F2 - Physiological and Metabolomic Responses of Foxtail Millet (Setaria Italica) To Elevated CO2 Concentrations</p> <p>Wang J, Hao XY and Li P * (College Of Agriculture, Shanxi Agricultural University, China)</p>
08:45 – 09:00	<p>D3 - crop millets hold with great promise for food security and nutrition under elevated CO2 concentration</p> <p>Gong ZH1, Dong LB1, Wang J1, Lam SK2, Shi XR1, Zhang DS1, Zong YZ1, Hao XY1 and Li P 1* (1Shanxi Agricultural University, China 2The University of Melbourne, Australia)</p>	<p>E4 - Assessment of Soil Rehabilitation Performance and Soil Carbon Stock Estimation in Tree Integrated System in Upcountry, Sri Lanka</p> <p>Lakmal W.A.S1*, Perera P.W.D.N1, Aberathna W.S.S.L2, Senanayake F.R2., De Zoysa D2 and Weerakkody W. J. S. K (1Wayamba University of Sri Lanka, 2Earth Restoration (Pvt). Ltd, Belipola Arboretum and Research Centre)</p>	<p>F3 - Mitigation of GHGs and Ammonia Emissions in Rice Paddy in Floodplain Soils</p> <p>Jahangir M.M.R.1*, M. Jahiruddin (Bangladesh Agricultural University, Bangladesh)</p>
09:00 – 09:15	<p>D4 - Impacts of climate variation on yields and prices of selected food crops in small islands: the case of Mauritius</p> <p>Dowlut A1, Brizmohun R1* and Ruggoo A1 (1University of Mauritius, Mauritius)</p>	<p>E5 - Integrating Remote Sensing and Machine Learning for Urban Carbon Footprint Estimation in Colombo District</p> <p>Fonseka H.P.U1*, Marasinghe B.S1 and Mohamed Rila A.R1 (Arthur C Clarke Institute for Modern Technologies, Moratuwa)</p>	<p>F4 - Effect of Different Planting Methods on Growth and Yield Performance of Rice Variety BG 366</p> <p>Saththiyavahini K1, Pradheeban L 1* and Senthilkumaran S2 (1University of Jaffna, 2Department of Agriculture, Sri Lanka)</p>
09:15 – 09:30	<p>D5 - Strategies for Climate Change Adaptation among Tea Growers in the Uva Region of Sri Lanka: An</p>	<p>E6 - Carbon Sequestration in Sand Dune Habitats of Spinifex Littoreus and</p>	<p>F5 - Application of AI-based solutions for climate-smart agriculture to enhance the climate change resilience</p>

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	Assessment of Knowledge, Perceptions, and Resilience Kumari K.M.N.R.N1, Amarathunga M.K.S.L.D1*, Shyamali H.W2, Kumarasingha K.A.D.P1, Thibiha G1 (Uva Wellasa University, Passara Road, Badulla, 2Tea Research Institute, Sri Lanka)	Ipomoea Pes-Caprae in the Eastern Coast of Sri Lanka Wathsala KAV1, Ukwattage NL1* and Udagedara S2 (1University of Colombo, Sri Lanka, 2Blue Resources Trust, Sri Lanka)	capacity of paddy farmers in the dry zone. H.M.B.S. Hearath1*, Nayanajith, J.2 (University of Sri Jayewardenepura, Sri Lanka)
09:30 – 09:45	D6 - Quantification of Post-Harvest Losses and Dietary Fiber Contents of Fruit and Vegetable Wastes Generated in Dambulla and Thambuththegama Economic Centers in Sri Lanka Dharmaprema G.A.D.B.S., Senevirathne K.M.D.A., Shanuke D.S., Buddhika D.P.R.N, Silva E.S.M., Fathayee F.M., Rathnayake H.A., Bandara M.D.*, Jayasundara Y.M.J., Illippangama I.P.A.U.N.K., and Gunathilaka U.G.S.A. (Rajarata University of Sri Lanka, Sri Lanka)	E8 - Investigating the Role of Neeramulliya (Hygrophila Auriculata) in Phytoextraction: A Study on Copper Remediation in Contaminated Soil Dhanusha R*, De Silva HCC and Rajawatta KMW (University of Ruhuna, Sri Lanka)	F7 - Utilization of Banana (Musa Acuminata × Balbisiana) Peels for Fermented Native Swine Feed: A Case Study on Material Recycling Efficiency and Economic Benefits in Markaduke R and D Center, Marinduque, Philippines Mascarenas D.R.1,2*, Dulay H.A.2, Paez, A.R.,2 Robles, C. R.M.2, and Mayores, M.A.2 (Marinduque State University, Philippines)
09:45 – 10:00	D7 - Assessing the impact of the Indian Ocean Dipole (IOD) on Sri Lanka's rainfall patterns and agriculture: A GIS and RS based approach Thilakarathne R.W.N.N*(University of Ruhuna, Sri Lanka)		F8 - Exploring the CIS Regulatory Element Diversity in Abiotic Stress Response-Related Genes of Rice K.M.L.B Kulasekara ^{1,2*} , H.M.V.G Herath ¹ (¹ University of Peradeniya, ² Rajarata University of Sri Lanka)
10:00 – 10:35	Keynote Speech by Dr. Garry J O'Leary (Senior Research Scientist, Honorary School of Agriculture, Food and Ecosystem Sciences, The University of Melbourne) Title: "The Need For Better Process-Based Crop Models And Targeted Field Experiments To Adapt To Our Changing Climate"		
10:35 – 11:00	Networking Coffee Break		
11:00 – 11:35	Keynote Speech by Prof. Ranil Coorey (Director of Learning and Teaching, School of Molecular and Life Sciences, Curtin University, Western Australia) Title: "Native Food Crops in Tackling Food Security - A Case for Ancient Grains and Native Plants"		
11:35 – 12:05	Keynote Speech by Dr. Rohana Subasinghe (Past President of the World Aquaculture Society – Asia Pacific Chapter (WAS-APC). Retired Chief of FAO Aquaculture Service Co-founder and Director, FUTUREFISH Co. Ltd., UK) Title: "Feeding the 9 Billion: Putting Fish Back on the Menu."		
12:05 – 12:40	Keynote Speech by Prof. Yan DU (Director of LTO, South China Sea Institute of Oceanology, CAS, China) Title: "Drivers and Characteristics of the Indo-Western Pacific Ocean Capacitor (IPOC)"		
12:40 – 13:40	Networking Lunch		
13:40 – 14.10	Plenary Speech by Prof. Chandrika Perera (Head/Department of Agricultural Biology, Faculty of Agriculture, University of Peradeniya) Title: "Plant breeding and Environmental Stress: Addressing Crop Vulnerability and Enhancing Genetic Potential for Climate Resilient Agriculture"		
14.10 – 14:40	Plenary Speech by Dr. Nirmala Liyanage (Teaching Fellow, University of Sydney, Australia)		
14:40 – 15:10	Plenary Speech by Dr. Wolfgang Dittus (Chairman, Association for the Conservation of Primate Diversity, Sri Lanka) Title: "Primate Diversity and Agriculture In Sri Lanka: Path To Co-Existence"		

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15:15 – 17:00	Poster Session & Coffee Break
	P1 - Analysis of Sustainability Impact Assessment Criteria for Organic Food Supply Chains in Sri Lanka Marasinghe MMTS1*, Mahakalanda I1 and Navaratne N2 (University of Moratuwa, Sri Lanka)
	P2 - Optimizing Spectral Bands and Vegetative Indices for Early Detection of Banana Fusarium Wilt: A Systematic Review P. A. N. P. Pandipperuma1 *, M. C. Karunadasa2., M. D. S. Samaraweera3, Thilanka Ariyawansa4, P. Mendis5., G.Y. Jayasinghe2 (1Post Graduate Institute of Agriculture, University of Peradeniya, 2Department of Agricultural Engineering, University of Ruhuna, 3Horizon Campus, Malabe, 4Faculty of Technology, University of Colombo, 5Department of Infrastructure Engineering, The University of Melbourne)
	P3 - Silicon alleviates salt stress in rice (Oryza sativa) through the modifications of physiological and biochemical attributes. Rupasinghe M G N ^{1,2} , Hanafi M M ¹ , Yusop M R ¹ , Ismail R1, Azizi P ¹ , Liyanage L R M C1, Mayakaduwa A P ¹ (¹ Universiti Putra Malaysia, Malaysia. ² Department of Agriculture, Sri Lanka)
	P4 - Aphids (Aphididae) in The Garden of University of Peradeniya: Diversity, Distribution and Host Specificity Dilanka L.B.T.*, Jayasinghe W.H. (University of Peradeniya, Sri Lanka)
	P5 - Effect of Different Crop Establishment Methods on Pest Abundance and Crop Damage in Rice Jayaweera, M.P.H.K.1,2*, Sarathchandra, S.R.1, Hemachandra, K.S.2, Sandadevani, K.S.1, and Dilanka, L.B.T.1 (1Rice Research and Development Institute, 2University of Peradeniya, Sri Lanka)
	P6 - Evaluating the Potential of Underutilized Parts Produced in The Processing of Cinnamomum Zeylanicum Blume Cultivated in Sri Lanka Ranaweera R.P.D.D.1*, Weeratunge H.D.2 (1University of Sri Jayewardenepura, 2Industrial Technological Institute, Sri Lanka)
	P7 - Elevated atmospheric CO2 concentration enhances drought resistance of maize (Zea mays L.) by regulating cell membrane structure and phenylpropanoid metabolism Dong LB1, Li P1 and Hao XY1* (Shanxi Agricultural University, China)
	P8 - Unpacking the Determinants of Food Insecurity Among Households in Kabokweni, South Africa Mgwenya L.I*, Ludidi N.N, And Agholor A.I (University of Mpumalanga, South Africa)
	P9 - The Impact of Economic Crisis on Food Security Among Urban Poor Households in Colombo District: A Multi-Indicator Assessment Karunaratne MDH1*, Koralagama DN1, Harshana PVS2 (1University of Ruhuna, Sri Lanka, 2Griffith University, Australia)
	P10 - New Insights into The Decline of Grain Protein of Rice and Wheat Under Elevated CO2 Levels Using Meta-Analysis. Thennakoon U.P.T.1*, Liyanage N. D. L.2, Lam S.K.3, Bandara A.1 and Senaweera S.1 (1Department of Agriculture Engineering and Environment Technology, University of Ruhuna, Sri Lanka, 2University of Sydney, Australia, 3University of Melbourne, Australia)
	P11 - Evaluate the Effect of Gamma Irradiation Induced Mutation in M2 Generation of Vigna Mungo (Var. Mi- 1) Aththanayake A.M.A.S*, Begum M.M.S.F.T and Sutharsan S (Eastern university, Sri Lanka)
	P12 - ISOLATION AND IDENTIFICATION OF NOVEL FUNGAL STRAINS WITH POTENTIAL APPLICATION IN THE FOOD INDUSTRY FROM SINHARAJA FOREST RESERVE OF SRI LANKA Wickramasinghe D1, Divisekera DMWD2*, Madage SSK.2, Perera GMDA2, Jayawardena TMDA2, Perumpuli PABN 1 (1University of Ruhuna, Kamburupitiya, Sri Lanka, 2Industrial Technology Institut, Sri Lanka)
	P13 - Identification of Sensitive Parameters in Simulating Sugarcane Biomass Yield At Different Growth Stages Using Gaussian Process Emulation H.N. Kulavithanage 1*, W.B.M.A.C. Bandara 1, C.P. Rupasinghe 1 (University of Ruhuna, Sri Lanka)
	P14 - Synthesis of Organic Hydrogels and Their Effects on Soil Properties and Seed Germination Kirushnarajah V*, Kajeewan K and Gnanavelrajah N (University of Jaffna, Sri Lanka)
	P15 - The Effect of Low Dosage Gamma Irradiation on The Growth and Yield Of Vigna Mungo (Var. Mi-01) Lalanjana, B.H.A.* and Sutharsan, S. (Eastern university, Sri Lanka)
	P16 - Identification of White Leaf Disease on Sugarcane (Saccharum Officinarum L.) Using Drone-Based Multispectral Images Gunawardhana S.W.R.V.*, Kumara J.B.D.A.P., Piyasena N.M.P.M., Vithanage P.A.D.V., Lekamge A.L.K.D., Karunathilaka K.A.I.K., Kulathilaka W.D.P.D. (Sabaragamuwa University of Sri Lanka, Sri Lanka)
	P17 - Farmer Perception of Climate Change in Relation to Adaptation in Anuradhapura District Dilshani, H.K.T1, and de Silva, T. 2 (1SLYCAN Trust, Sri Lanka, 2 University of Moratuwa, Sri Lanka)

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	<p>P18 - Insecticidal Activities of Selected Botanical Extracts Against Larvae of Rice Leaf Folder <i>Cnaphalocrocis medinalis</i></p> <p>Jahan A.S.S1*, Sujarajini, V2. and Haroon, M.H 3. (<i>South Eastern University of Sri Lanka</i>)</p>
	<p>P19 - Garvicin Q-producing <i>Lactococcus garvieae</i> LG3092: Its Role in Mitigating Dysbiosis and Hp-Associated Gastritis</p> <p>Ying LI, Jumei ZHANG and Qingping WU (<i>Guangdong Academy of Sciences, China</i>)</p>
	<p>P20 - Probiotic <i>Levilactobacillus brevis</i> SR52-2 as a Novel Therapeutic Agent Against HPV Infection: Mechanistic Insights and Therapeutic Efficacy</p> <p>Youxiong ZHANG, Zhenjie LIU and Ying LI* (<i>Institute of Microbiology, Guangdong Academy of Sciences, China</i>)</p>
	<p>P21 - Assessing the Relationship Between Participatory Learning and Action (PLA) Approach on Climate Smart Agriculture (CSA) Adoption in Dry Zone of Sri Lanka</p> <p>Dilrukshi M. W. K. K1* And Gamage K.C.2 (<i>University Of Ruhuna, Sri Lanka</i>)</p>
	<p>P22 - Assess the Suitability in Application of Easily Accessible Organic Amendments as A Nursery Soil Pre-Treatment Under Anaerobic Soil Disinfestation According to Their Carbon Releasing Efficiency in Upcountry Wet Zone Tea Ecosystem Sri Lanka</p> <p>Gamage K. C.1* and Amarasinghe S. R. 1 (<i>University of Ruhuna, Sri Lanka</i>)</p>
	<p>P23 - Comparative analysis of the antioxidant mechanisms in lycopene isomers: DFT study</p> <p>Gunawardhana T.K1, Gajasinghe G.M.S.T2, Wanniarachchi J.D2, Jayakody R.S2, Govender K.K3, Karunaratna B.S.W1* (1Eastern University Sri Lanka, Sri Lanka, 2University of Sri Jayewardenepura, Sri Lanka, 3University of Johannesburg, South Africa)</p>
17:00 - 17:30	<p>Plenary Speech by Prof. Disna Ratnasekera (<i>Senior Professor & Chair, Department of Agricultural Biology, Faculty of Agriculture, University of Ruhuna, Co-Director/ CSL-CER, China</i>)</p> <p><i>Title: Employing Wild Rice Germplasm Resources for Climate-Resilient Rice Production: Perceptions and Advances</i></p>
17:30 – 18:00	<p>Keynote Speech by Prof. Gefei Hao (<i>Director of the Belt and Road Joint Laboratory, Guizhou University, China, Recipient of the National Science Foundation of China</i>)</p> <p><i>Title: AI and pesticide discovery</i></p>
18:00	<p>Closing Ceremony</p>

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- **Conference Convener**

Mr. Isanka P. Gamage

The International Institute of Knowledge Management (TIKM)

Kandy Field Visit – 07/05/2025

06:00 AM – Departure from Hilton Colombo

Early morning departure from Hilton Colombo. Begin the scenic journey towards Kandy.

07:30 AM – Breakfast at Awanhala Restaurant, Ambepussa

Enjoy a traditional Sri Lankan breakfast at the well-known Awanhala Restaurant.

10:00 AM – Session at the University of Peradeniya

Participate in an insightful discussion at the University of Peradeniya. -----(include some details about the program)

02:00 PM – Peradeniya Botanical Garden

Stroll through the stunning Royal Botanical Gardens in Peradeniya, home to over 4,000 species of plants including orchids, spices, and medicinal plants.

03:00 PM – Visit to Temple of the Tooth Relic

Pay a visit to the sacred Temple of the Tooth, a UNESCO World Heritage Site and one of the most revered Buddhist temples in Sri Lanka.

04:30 PM – Gem Museum and Cultural Show

Explore Sri Lanka's world-famous gems at a local museum, followed by an engaging cultural performance showcasing traditional dance and music.

05:30 PM – Departure from Kandy

Begin the return journey to Colombo.

09:00 PM – Arrival at Hilton Colombo

Tour concludes with a late-night arrival back at Hilton Colombo.



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CLIMATE CHANGE AND AGRICULTURE IN TROPICAL
LATITUDES**

CCATL 2025

