TropAg Symposia Speaker Program

TROPAG INTERNATIONAL AGRICULTURE CONFERENCE

Sunday 30 October 2022

16:00–17:30	**Registration desk open**
17:00–18:30	**The Origins of Agriculture with Prof Bruce Pascoe and Assoc Prof Alison Crowther** *This pre-conference event requires a ticket for entry and spaces are limited. Conference delegates can purchase tickets when completing their registration.

Monday 31 October 2022

7:00–20:00	**Registration desk open**
08:00–10:00	**Conference official opening**
	Plenary speaker 1: Agricultural sustainability and trade – opportunities and challenges Ms Su McCluskey, Special Representative for Australian Agriculture, Department of Agriculture, Fisheries and Forestry, Australia
	Plenary speaker 2: Plant-based solutions for a healthier world Dr Haven Baker, Co-Founder and Chief Business Officer, Pairwise, USA
10:00–10:25	**Morning Tea**, sponsored by Agtech and Logistics Hub

Theme	Agribusiness, value chains, and the bioeconomy	Predictive agriculture	Sustainable agrifood systems	Healthy agriculture and food for healthy communities	AgFutures	Harlan
			Australian Government, Australian Centre for International Agricultural Research		Queensland Government	HARLANIV
Concurrent symposium session 1						
10:30–12:30	**1.1 The AgriFood and Internet of Farms Traction Program: Insights from the Netherlands and Denmark – to and beyond $100 billion**	**1.2 Application of digital technologies in agriculture: Plant-Canopy-Field-Region** GRDC gold sponsor	**1.3 Tropical beef systems: Reproductive efficiency and carbon neutrality** mla MEAT & LIVESTOCK AUSTRALIA symposium sponsor	**1.4 Emerging foods for health**	**1.5 Carbon and bio-sequestration in agricultural production systems**	**1.6 Investigating traditional food production systems in Mithaka country**
	Chairpersons: Ben van Delden and Piers Hogarth-Scott, KPMG	Chairpersons: Prof Pablo Zarco-Tejada, The University of Melbourne, School of Agriculture and Food, Faculty of Veterinary and Agricultural Sciences (FVAS) and Department of Infrastructure Engineering, Faculty of Engineering and Information Technology (FEIT) and Prof Andries Potgieter, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	Chairperson: Mr David Phelps, Tropical North Queensland Drought Resilience Adoption and Innovation Hub, Australia	Chairpersons: Dr Michael Netzel and Ms Gethmini Kodagoda, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	Chairperson: Dr Tim Smith, Department of Agriculture and Fisheries, Australia	Chairpersons: Dr Michael Westaway, The University of Queensland and Mr Joshua Gorringe, Mithaka Aboriginal Corporation, Australia
	Panel session covering the insights gathered by the Traction Tour delegates to the Netherlands and how this relates to what is happening in Australia, the Circularity and Data Exchanges amongst other things. **Panellists:** Dr Michele Allan, Food and Agribusiness Growth Centre (FIAL), Trusted Autonomous Systems Defence CRC, AgrifoodConnect and Wine Australia; Charles Sturt University; Food Agility CRC, Smart Sat CRC and Dairy Food Safety Victoria, Australia Mr Jason Strong, Managing Director, Meat & Livestock Australia Prof Neena Mitter, The University of Queensland, Centre for Horticultural Science, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia Ms Margo Andrae, CEO, Australian Pork Ltd, Australia The Hon Niall Blair, Chairman, NED - Elf Farm Supplies, White Prince Mushrooms and former NSW Minister for Primary Industries and Trade, Australia	**Trait dissection to study abiotic stress tolerance in cereals – from controlled environment to the field** Dr Bettina Berger, The University of Adelaide, School of Agriculture, Food and Wine, Faculty of Sciences, Engineering and Technology, Australia	**Practical interventions to reduce calf wastage and herd mortality in northern systems** Prof Luis Prada e Silva, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Community-based food system for traditional African vegetables in Limpopo South Africa** Prof Dharini Sivakumar, Tshwane University of Technology, South Africa	**Carbon as a catalyst to creating resilient food crops and profit** Mr Shane Quinn, Mulgowie Farming Company, Australia	**A multidisciplinary investigation of an Aboriginal 'centre' of food production** Dr Michael Westaway, The University of Queensland, Australia
		The use of multi-spectral sensing technologies from UAV to enhance mungbean productivity Ms Shanice Van Haeften, The University of Queensland, School of Agriculture and Food Sciences (SAFS) and Ms Caitlin Dudley, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Productivity, profitability, and sustainability of northern beef systems in a variable climate** Dr Dianne Mayberry, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	**Promoting indigenous leadership and ownership of the native food value chain for sustainable outcomes** Ms Sophie Ader, ARC Industrial Transformation Training Centre for Uniquely Australian Foods, The University of Queensland, Australia	**Carbon and animal production systems** Mr Sam Churchill, JBS, Australia	**The mines of the Mithaka: Aboriginal sandstone mining in Channel Country** Mr Doug Williams, Griffith University, Australia
		Deriving radiation use efficiency from hyperspectral sensing for enhanced sorghum production in Australia Dr Barbara George-Jaeggli, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Solutions for a nature positive beef industry** Ms Naomi Wilson, Environment and Sustainability, AACo, Australia	**Potential aquaculture species as emerging food** Dr Glenn Anderson, Department of Agriculture and Fisheries, Australia	**Carbon in forest certification** Mr Simon Dorries, Responsible Wood, Australia	**Reconstructing ethnobotany on Mithaka country** Dr Jennifer Silcock, The University of Queensland; Queensland Herbarium, Australia
		Spatiotemporal patterns of phenology for grain crops revealed with S2 satellite imagery Dr Yan Zhao, The University of Queensland, Australia	**Can feed additives contribute to methane mitigation in Northern herds?** Dr Sarah Meale, The University of Queensland, School of Agriculture and Food Sciences (SAFS), Australia	**Goat meat a promising source of protein for diet diversity** Prof Louwrens Hoffman, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**The centrality of organic carbon in balancing the multifunctional nature of soils** Prof Peter Kopittke, Soil Science and Plant Nutrition, The University of Queensland, School of Agriculture and Food Sciences (SAFS), Australia	**Archaeobotanical evidence for wood and seed exploitation from an Aboriginal Gunyah Site** Prof Andrew Fairbairn, The University of Queensland, and Dr Nathan Wright, University of New England, Australia
		Assessing plant functioning with plant traits using hyperspectral imagery, radiative transfer models and machine learning approaches Dr Carlos Camino, JRC – European Commission	**Nitrogen use efficiency and nitrogen loss in northern cattle systems** Dr Karen Eyre, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Ensuring the future of taro – a food staple** Dr Bradley Campbell, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Carbon opportunity decision support** Ms Teresa Fox, Australian Farm Institute, Australia	**Caring for Mithaka Country: Combining sustainable Indigenous food and carbon farming with managed grazing** Mr Josh Gorringe, Ms Shawnee Gorringe and Duncan Keenan-Jones, Mithaka Aboriginal Corporation, Australia
		Fluorescence and plant pigments quantified from hyperspectral sensors for a/biotic stress detection Prof Pablo Zarco-Tejada, The University of Melbourne, School of Agriculture and Food, Faculty of Veterinary and Agricultural Sciences (FVAS), Australia	**Environmental stress and reproductive efficiency in northern Australia** Dr John Gaughan, The University of Queensland, School of Agriculture and Food Sciences (SAFS), Australia	**Establishing a value proposition for the Bunya Nut** Ms Jaqueline Moura Nadolny, The University of Queensland, School of Chemical Engineering, Australia		**Studying animals** Prof Bruce Pascoe, The University of Melbourne, Australia
12:30–13:25	**Lunch and poster session**, sponsored by AgriFutures Australia					
Concurrent symposium session 2						
13:30–15:30	**2.1 Creating value from food waste**	**2.2 Artificial Intelligence and machine learning applications in agriculture**	**2.3 Improved soil fertility for healthier environments and reduced agricultural production risks**	**2.4 Partnerships for Food System Transformation – diverse knowledge systems, capacity and approaches driving equitable, healthy, sustainable futures**	**2.5 Growing horticultural exports**	**2.6 Tropical crop domestication**
	Chairperson: Ms Francesca Goodman-Smith, Fight Food Waste CRC, Australia	Chairperson: Prof Ben Hayes, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	Chairperson: Dr Nicole Robinson, The University of Queensland, School of Agriculture and Food Sciences (SAFS), Australia	Chairpersons: Ms Larelle McMillan, Commonwealth Scientific and Industrial Research Organisation (CSIRO) and Dr Saleha Akter, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	Chairperson: Dr Penny Measham, Department of Agriculture and Fisheries, Australia	Chairperson: Dr Sally Norton, Australian Grains Genebank Agriculture Victoria, Australia
	Frontiers research into food waste in Australia Mr Tom McCue, Hort Innovation, Australia	**The future of AI and machine learning** Prof Helen Huang, The University of Queensland, School of Information Technology and Electrical Engineering (ITEE), Australia	**Matching crop to environment - advancing nitrogen efficiency in sugarcane** Dr Nicole Robinson, The University of Queensland, School of Agriculture and Food Sciences (SAFS), Australia	**Defining and designing food systems** Prof Damian Hine, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**A history of phytosanitary market access research enabling export of Australian mangoes** Mr Peter Leach, Department of Agriculture and Fisheries, Australia	**Progress in understanding sugarcane genome architecture and origin** Dr Angelique D'Hont, CIRAD French Agricultural Research Centre for International Development, France
	The horticulture sector action plan-bringing a supply chain together to reduce food loss and waste Ms Melissa Smith, Stop Food Waste Australia, Australia	**Evolutionary computing for sustainable crop breeding programs** Ms Kira Villers, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Deep banding of P improves pod yield in Chickpea genotypes** Dr Vijaya Singh, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI)	**Whole of system improvement** Dr Ammar Abdul Aziz, The University of Queensland, School of Agriculture and Food Sciences (SAFS), Australia	**Ensuring product quality through export supply chains: A case study in citrus** Dr Andrew Macnish, Department of Agriculture and Fisheries, Australia	**Recent insights into the domestication of rice** Prof Robert Henry, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia
	Defining new markets and opportunities, the role of BSF in creating value from food waste Ms Olympia Yarger, GoTerra, Australia	**AI for accurate prediction of high value phenotypes** Dr Maciej Trzaskowski, Max Kelsen, Australia	**Simulating long-term nutrient dynamics to better assess soil fertility in subtropical cropping** Ms Bianca Das, University of Tasmania, Australia	**Efforts in Australia to build healthy and sustainable food systems** Dr Sinead Boylan, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	**Current market intelligence: Opportunities and barriers for Queensland producers in Asian markets** Ms Sarah Goswami, Department of Agriculture and Fisheries, Australia	**Fatal attraction: Why are so many crop plants toxic?** Prof Ros Gleadow, Monash University, Australia
	Opportunities for full crop utilisation in Australia Dr Pablo Juliano, Food Processing and Supply Chains, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	**Artificial Intelligence and Towards hands-free robotic crop management in protected cropping systems** Dr Chris Lehnert, Queensland University of Technology, Australia	**Maintaining soil organic matter to slow fertility decline and the reliance on fertilisers** Dr David Lawrence, Department of Agriculture and Fisheries, Australia	**Diet and nutrition across the food system** Dr Olivia Wright, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**International engagement to grow exports** Mr Peter Creaser, Plant Systems & Strategies, Department of Agriculture and Fisheries, Australia	**Phenotyping innovations to develop climate resilient taro** Dr Millicent Smith, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia
	Food waste valorisation technology assessment using real options Dr Jason West, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**AI and Machine Learning for genomic prediction in sugarcane** Mr Chensong Chen, The University of Queensland, Australia	**Enabling the circular nutrient economy** Prof Susanne Schmidt, The University of Queensland, School of Agriculture and Food Sciences (SAFS), Australia	**Transformation: Constraints and barriers to change** Dr Andy Hall, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	**Horticultural export trends** Mr George Margin, Hort Innovation, Australia	**Domestication of macadamia** Dr Craig Hardner, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia
	Understanding supply chains to improve food security in remote Queensland communities Ms Renae Earle, Health and Wellbeing Qld and Mr Adrian Doyle, Arup, Australia	**Quantifying heat sensitivity across temperature gradients accelerates selecting heat-adapted genetic resources** Dr Ya-Ping Lin, World Vegetable Center, Taiwan	**Feasibility of biochar application for vegetable production in paddy field areas of Timor-Leste** Mr Acacio Guterres, Charles Darwin University, Australia	**Co-designing a market garden to deliver better health on Mornington Island, Australia** Ms Renae Earle, Health and Wellbeing Queensland and Dr Sunny Oliver-Bennetts, Arup, Australia	**Growing horticultural exports** Speaker six	**CnSHELL gene provides insights on phylogeny and origin of coconut cultivars** Mr Charles Cadorna, University of the Philippines, Philippines

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15:30–15:55	Afternoon Tea					
Concurrent symposium session 3						
16:00–18:00	**3.1 Market-led innovation – driving agricultural entrepreneurship in Africa and Australia** d·lb demand-led breeding symposium sponsor	**3.2 ARC Centre of Excellence for Plant Success in Nature and Agriculture: Enabling a step change for predictive agriculture**	**3.3 Effective regional biosecurity for a changing world**	**3.4 Pacific food environments – transformations for better nutrition and sustainable food systems**	**3.5 Managing agricultural runoff – beyond practise change**	**3.6 Genomic signatures of animal domestication and implications for modern agriculture**
	Chairperson: Dr Vivienne Anthony, Syngenta Foundation for Sustainable Agriculture, Switzerland	Chairperson: Prof Christine Beveridge, ARC Centre of Excellence for Plant Success in Nature and Agriculture, The University of Queensland, Australia	Chairperson: Dr Anna Okello, Australian Centre for International Agricultural Research (ACIAR), Australia	Chairperson: Mrs Jessica Raneri, Australian Centre for International Agricultural Research (ACIAR); Department of Foreign Affairs and Trade, Australia	Chairperson: Mr Timothy Moravek, Department of Agriculture and Fisheries, Australia	Chairpersons: Prof Ben Hayes and Prof Andrew Fairbairn, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia
	Innovation systems in legumes in Africa Mr Jean-Claude Rubyogo, Pan Africa Bean Research Alliance (PABRA), Kenya	**Extending the breeder's equation to explore prediction opportunities** Prof Mark Cooper, The University of Queensland, Queensland Alliance for Agriculture and Food, Innovation (QAAFI), Australia	**Managing plant biosecurity in Pacific Island Countries** Prof John Thomas, The University of Queensland, Queensland Alliance for Agriculture and Food, Innovation (QAAFI), Australia	**Informal markets in the Solomon Islands – food price, availability and opportunities for improving nutrition** Ms Jillia Tutuo Wate, World Fish, Solomon Islands	**Moving beyond practice change for WQ improvements – the why** Mr Ian Layden, Department of Agriculture and Fisheries, Australia	**The origins and spread of domestic animals in Southwest Asia and Europe** Prof Keith Dobney, The University of Sydney, Australia
	Syngenta – committed to advancing innovation for a more sustainable agriculture Mr Eric Brown, Syngenta ANZ, Australia	**From model organisms to crops: Transferring prediction models** Dr Owen Powell, The University of Queensland, Queensland Alliance for Agriculture and Food, Innovation (QAAFI), Australia	**What honey bees can teach us about working as a team towards effective honey bee biosecurity in the Indo-Pacific region** Dr Cooper Schouten, Southern Cross University, Australia	**Strengthening collaboration between the health and agriculture sectors in Fiji** Dr Cathy O'Mullan, CQ University, Australia	**Stomping out sediment** Mr Paul Jones, Department of Agriculture and Fisheries, Australia	**How long have dogs been in Melanesia? New evidence from PNG** Assoc Prof Tiina Manne, The University of Queensland, Australia
	African women in agribusiness – users and creators of technologies/market-led innovations Dr Eileen Nchanji, International Center for Tropical Agriculture (CIAT), Kenya	**Evolutionary systems genetics of plant success** Assoc Prof Daniel Ortiz-Barrientos, The University of Queensland, Australia	**Forest biosecurity: How can we mitigate risk?** Dr Madaline Healey, The University of Sunshine Coast, Australia	**PNG school gardens potential for food provision model and agri-nutrition practical learning** Ms Trudie Sikas-Iha, Morobe School Gardens, Papua New Guinea	**Spatial and temporal monitoring of farm practices in Great Barrier Reef catchments** Mr Kevin McCosker, Department of Agriculture and Fisheries, Australia	**The mosaic genome of African cattle: A unique adaptive genetic resource** Prof Olivier Hannote, International Livestock Research Institute (ILRI), Ethiopia
	Market-Led approaches to cocoa, palm oil and cassava variety breeding at the National Research Centre in Côte d'Ivoire Prof Sangare Abdourahamane, National Centre for Agricultural Research (CNRA), Republic of Cote d'Ivoire	**Accelerating plant success: From phylogenomics to agriculture** Prof Barbara Holland, University of Tasmania, Australia	**Understanding the burden of animal disease in Indonesia** Dr Dianne Mayberry, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	**Tuvalu food futures: From Foodcubes to better diets** Ms Teuleal Manuella, Live and Learn Environment Education, Tuvalu	**Using wetland processes to enhance nitrogen removal in farming landscapes** Ms Carla Wegscheidl, Department of Agriculture and Fisheries, Australia	**300,000 years of evolution of gene regulation: What does comparing the Bos indicus and Bos taurus genomes reveal?** Dr Mehrnush Forutan, The University of Queensland, Australia
	ACIAR's approach to supporting agricultural innovation in emerging economies Dr Eric Huttner, Australian Centre for International Agriculture Research (ACIAR), Australia	**Crop improvement for climate change** Prof Charlie Messina, The University of Florida, USA	**Understanding the value of regional biosecurity** Prof Tom Kompas, The University of Melbourne, Australia	**Pacific Island Food Revolution: Innovating Local Solution to combat a health epidemic** Ms Votausi Reur-McKenzie, Pacific Island Food Revolution, Vanuatu	**Applying social science insights to enhance outcomes for landholders and the Reef** Ms Meg Bickle, Department of Environment and Science; Office of the Great Barrier Reef, Australia	**Functional palaeogenomics reveals how farming drove the evolution of virulence in a-chicken-virus** Prof Dr Laurent Frantz, Ludwig Maximilian University of Munich, Germany
	Advances in demand-led breeding of dry grain and vegetable runner beans Prof Paul Kimani, University of Nairobi, Kenya	**CropGen: A novel tool for optimising sorghum crop design** Miss Genevieve Durrington, The University of Queensland, Australia	**Understanding roles and experiences of women managing FAW in maize in SEA** Miss Leandra Fernandes, ASEAN FAW Action Plan, Singapore	**Participatory approaches to improve food environments and consumption of fish** Ms Agustinha Duarte, World Fish, Timor-Leste	**Can insurance help farmers mitigate nitrogen impacts on the Great Barrier Reef?** Dr Peter Thorburn, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	**Genomic architecture for complex traits in hybrid populations** Mrs Christie Warburton, The University of Queensland, Australia
18:00–20:00	Welcome reception and poster viewing					

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Tuesday 1 November 2022

07:30–17:00	Registration desk open					
08:00–09:30	**Plenary speaker 3: Farming in the 21st Century: Protected Cropping as a solution to mitigate the impact of climate change and supply chain disruption** Prof Paul Gauthier, Professor of Protected Cropping, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia - USA **Plenary speaker 4: Future of First Nations food systems and emerging trends** Hon Prof Henrietta Marrie AM - Australian Research Council - Training Centre for Uniquely Australian Foods, The University of Queensland, Australia					
09:30–09:55	**Morning Tea,** sponsored by PCA					
Theme	**Agribusiness, value chains, and the bioeconomy**	**Predictive agriculture**	**Sustainable agrifood systems**	**Healthy agriculture and food for healthy communities**	**AgFutures**	**Harlan**
			Australian Government, Australian Centre for International Agricultural Research		Queensland Government	HARLAN IV
Concurrent symposium session 4						
10:00–12:00	**4.1 Protected cropping in the tropics: How it stacks up for sustainability and supply chains?** Hort Innovation silver sponsor	**4.2 New and emerging methods and technologies to improve phenotypic predictions in livestock agriculture** NEOGEN symposium sponsor	**4.3 On-farm biodiversity to increase climate resilience and sustainability**	**4.4 One health from a livestock view**	**4.5 Provenance: Challenges and opportunities in adding value to food** QUT the university for the real world silver sponsor	**4.6 The archaeobotany of domestication of vegetatively-propagated field and tree crops**
	Chairperson: Prof Paul Gauthier, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia and Dr Alison Anderson, Hort Innovation Australia	Chairperson: Dr Elizabeth Ross, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	Chairperson: Dr Nora Devoe, Australian Centre for International Agricultural Research (ACIAR), Australia	Chairpersons: Dr Conny Turni and Muhhamad Noman Naseen, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	Chairperson: Dr Daniel Cozzolino, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	Chairperson: Prof Tim Denham, Australian National University, Australia
	Opportunities for developing protected cropping in Australia — National RD&E Strategy overview Dr Elio Jovicich, Department of Agriculture and Fisheries, Australia	**Recent advances in genomic prediction in dairy using multi-omics resources** Dr Amanda Chamberlain, Agriculture Victoria Research, Australia	**Diversity in agricultural landscapes for pollinator diets** Prof Helen Wallace, Griffith University, Australia	**Livestock-derived foods and one health** Dr Jimmy Smith, International Livestock Research Institute (ILRI), Kenya	**Imposter fish: Uncovering fraud and obscure trade in global seafood supply chains** Dr Donna Cawthorn, Department of Agriculture and Fisheries, Australia	**Tracing tropical plant domestication using microfossils** Dr Alison Crowther, The University of Queensland, School of Social Science, Australia
	Plant breeding for indoor agriculture-changing paradigms and unlimited potential Prof Gail Taylor, UC Davis, USA	**Microbiome predictions for methane in sheep** Dr Melanie Hess, University of Nebraska, USA	**On-farm diversity increases productivity and carbon sequestration opportunities in smallholder farming systems** Dr Joel Buyinza, World Agroforestry Centre (ICRAF), Kenya	**Global challenges and solutions for implementation of antimicrobial stewardship in veterinary medicine** Prof Glenn Browning, The University of Melbourne, Faculty of Veterinary and Agricultural Sciences, Australia	**Provenance of food proteins** Prof Louw Hoffman, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Establishing a virtual, on-line database of archaeological parenchyma for Indo-Pacific root crops** Ms Aleese Barron, Australian National University, School of Archaeology and Anthropology, Australia
	New opportunities in protected cropping Ms Emily Rigby, Protected Cropping Australia, Australia	**Recent innovations in the use of Nanopore sequence data in predictive livestock agriculture** Dr Loan Nguyen, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Data and digital solutions for managing carbon and other forms of natural capital on farm** Dr Madeline Mitchell, Food Agility CRC, Australia	**Collaboration – Queensland's One Health Response to Japanese Encephalitis** Dr Jo Mollinger, Biosecurity Queensland, Department of Agriculture and Fisheries, Australia	**Honey authenticity and provenance** Dr Natasha Hungerford, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**The identification of tropical arboriculture in Oceania using wood charcoal** Ms Alexandra Ribeny, Australian National University, School of Archaeology and Anthropology, Australia
	Beyond Geography: How the best vertical farms can operate anywhere and grow quality crops for local diets Mr David Farquhar, Intelligent Growth Solutions, Australia	**Lessons from human quantitative genomics that can improve livestock production** Dr Kathryn Kemper, IMB, Australia	**Agroforestry reduces erosion and increases income over maize monoculture in Northwest Vietnam** Dr Nguyen La, Soils and Fertilizer Research Institute, Vietnam	**One Health at work: A systems dynamics model of brucellosis in Jordan** Assoc Prof Simon Reid, The University of Queensland, School of Public Health, Australia	**Cybersecurity and provenance** Prof Ryan Ko, The University of Queensland, School of Information Technology and Electrical Engineering (ITEE), Australia	**Tracking the domestication and dispersal of banana cultivars: New insights from phytoliths** Dr Luc Vrydaghs, Maritime Cultures Research Institute (MARI) – VUB, Department of Art Studies and Archaeology, Belgium
	National Vegetable Protected Cropping Centre (NVPCC) – glasshouse films to reduce energy use and increase resource use efficiency Prof David Tissue, Western Sydney University, Australia	**New and emerging methods and technologies to improve phenotypic predictions in livestock agriculture** Speaker five	**AgCarE – helping landowners measure and capitalise on improving natural capital condition** Dr Greg Leach, AgForce Queensland, Australia	**Pig apocalypse, chicken nirvana and dangerous Australians - Aspects of One Health Research in QAAFI** Dr Lida Omaleki, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**What is the next level sensing provenance?** Dr Daniel Cozzolino, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Historical dynamics of enset diversity in Ethiopian, integrating archaeobotany, ethnobotany and genomics** Dr Philippa Ryan, Royal Botanic Gardens Kew, UK
	Data driven growing – current and future trends for protected cropping Mr Marcus van Heijst, Priva, Australia	**New and emerging methods and technologies to improve phenotypic predictions in livestock agriculture** Speaker six		**Knowledge on antibiotic use and resistance among poultry farmers in Fiji** Miss Shivani Singh, Fiji National University, Fiji	**Initiatives, advancements, and constraints in sustainable meat labeling in Latin America** Mr Manuel Diaz, Alliance of Bioversity International and CIAT, Germany	**The archaeobotany of vegetative domestication in the tropics** Prof Tim Denham, Australian National University, Australia
12:00–12:55	**Lunch and poster session,** sponsored by biora by MineARC Systems, mineARC					
Concurrent symposium session 5						
13:00–15:00	**5.1 Manufacturing plants – key to sustainable supply chain**	**5.2 Breeding tools for predicting fruit quality**	**5.3 Building inclusive innovation in international development** CGIAR, Independent Science for Development Council symposium sponsor	**5.4 Disease sentinels: Farm animals and wildlife as sentinels to better predict and prevent human disease pandemics** The Doyle Foundation symposium sponsor	**5.5 Improving food safety and traceability in the horticulture sector**	**5.6 Tree translocation, cultivation and domestication in Australia and the Asia-Pacific**
	Chairpersons: Dr Jayeni Hiti Bandaralage, Prof Neena Mitter and Dr Alice Hayward, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	Chairperson: Assoc Prof Heather Smyth, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	Chairperson: Dr Holger Meinke, University of Tasmania; CGIAR Independent Science for Development Council, Australia	Chairperson: Prof Gabrielle Persley, The University of Queensland, School of Agriculture and Food Sciences (SAFS), Australia	Chairperson: Mr Jim Dodds, Safe Food Production Queensland, Australia	Chairperson: Prof Andrew Fairbairn, The University of Queensland, School of Social Science, Australia
	Banana gene editing technology Dr Leena Tripathi, International Institute of Tropical Agriculture, Tanzania	**Molecular work on developing citrus varieties with preferred flavonoids profiles** Prof Juan Xu, Huazhong Agricultural University, China	**Inclusivity in Innovation Processes** Dr Simon Fielke, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	**Surveillance of emerging infectious diseases in animals and wildlife in low and middle income countries of Africa, Asia, and the Americas – the role of USAID** Dr Robert Bertram, United States Agency for International Development (USAID), USA	**Investigation on foodborne illness outbreaks linked to fresh produce** Dr Craig Shadbolt, NSW Food Authority, Australia	**Tree translocation in Aboriginal Australia** Dr Jennifer Silcock, The University of Queensland, Australia
	Potentials in commercialisation in coconut cloning Prof Steve Adkins, The University of Queensland, School of Agriculture and Food Sciences (SAFS), Australia	**Improving tomato flavor quality by integrating genetics and consumer-driven approaches** Dr Denise Tieman, University of Florida, Institute of Food and Agricultural Sciences, USA	**View from the field: Co-innovation with small-scale farmers** Dr Bruno Condori Ali, US Department of Agriculture (USDA); Agricultural Research Service (ARS), Bolivia	**African Swine fever (ASF) – Unintended consequences of the disease** Dr Edward Okoth, International Livestock Research Institute (ILRI), Kenya	**Primary production and processing standards for horticulture** Mr Brian Witherspoon, Safe Food Production Queensland, Australia	**Genomic data reveals dispersal of edible rainforest trees by First Nations peoples** Ms Monica Fahey, Royal Botanic Gardens and Domain Trust, Australia
	The frozen orchard – securing avocado genetic diversity via cryopreservation Dr Chris O'Brien, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**The importance of fruit sensory quality – an industry perspective** Mr Michael Tatlock, Perfection Fresh Australia Pty Ltd, Australia	**Co-creating sustainability: Innovation in Sustainable Agrifood Systems** Dr Alyssa Jade McDonald-Baertl, CGIAR, Germany	**Diagnostic assay use in detecting emerging infectious diseases in sentinel animals** Dr Phil Toye, International Livestock Research Institute (ILRI), Kenya	**Enabling food safety compliance in the fresh produce industry** Dr Sukhvinder Pal (SP) Singh, Horticulture Food Safety and Traceability, NSW Department of Primary Industries, Australia	**Domesticating treescapes – as seen through archaeobotanical analyses of macroremains, case-studies from Australia and the Pacific** Ms Chae Byrne, University of Western Australia, Australia
	Let's toast – avocado tissue culture goes commercial Dr Jayeni Hiti Bandaralage, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Profiling the flavour of Australian papaya (*Carica papaya L.*) varieties** Dr Shane (ZiWei) Zhou, Griffith University, Australia	**Effectiveness of inclusive partnerships for international development innovation in areas with limited resources** Dr Melinda R.S. Moata, Kupang State Agricultural Polytechnic, Indonesia	**The role of vectors as sentinels: Mosquitos and birds as sentinels to detect and mitigate West Nile Virus spread: Implications for emerging vector borne disease surveillance** Prof Susan Vandewoude, One Health Institute Colorado State University, USA	**Improving food safety and traceability in the horticulture sector** Speaker four	**The exploitation of sago (Metroxylon sagu) in the Asia-Pacific** Prof Huw Barton, The University of Leicester, UK
	Regeneration of naked cells: A reliable protoplast regeneration platform for Duboisia species Mr Yuxin Xue, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Tropical fruit - using key aroma components as predictors of sensory quality** Mr Jenson George, Department of Agriculture and Fisheries, Australia	**Inclusive partnerships for One CGIAR** Dr Nompumelelo Obokoh, CGIAR Independent Science for Development Council, South Africa	**How science can drive policy in the management of epidemics** Prof Martin Jeggo, Geelong Centre for Emerging Infectious Disease, Deakin University, Australia	**Fresh produce production and supply chain ecosystems** Mr Terry O'Leary, Melons Australia; Paramagh Farming, Australia	**A 20,000 year history of Canarium (galip/pili nut) exploitation from Papua New Guinea: Was it foraging or cultivation?** Prof Andrew Fairbairn, The University of Queensland, School of Social Science, Australia
	Manufacturing plants – key to sustainable supply chain Speaker six	**Fruit quality: Do we know what consumers want?** Assoc Prof Heather Smyth, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Panel discussion**	**AMR in Pacific Island countries: Current status, challenges and strategic solutions** Dr Royford Magiri, Fiji National University, Fiji	**Postharvest sanitisers and fungicides interactions and their implications on food safety** Ms Joanna Rothwell, The University of Sydney, Australia	**Morphological characterisation of coconut in conserved ex-situ germplasm in Papua New Guinea** Mr Julius Maot, Kokonas Indastri Koporesen of Papua New Guinea
15:00–15:25	**Afternoon Tea**					
15:30–17:30	**ACIAR and CGIAR plenary session: Food security and food systems transformation in the Indo-Pacific–the role for science**					
19:00–23:00	**TropAg conference dinner**					

TropAg Symposia Speaker Program

TROPAG INTERNATIONAL AGRICULTURE CONFERENCE

Wednesday 2 November 2022

07:30–15:30	Registration desk open					
Theme	Agribusiness, value chains, and the bioeconomy	Predictive agriculture	Sustainable agrifood systems	Healthy agriculture and food for healthy communities	AgFutures	Harlan
			Australian Government Australian Centre for International Agricultural Research		Queensland Government	HARLAN IV THE FOURTH JACK R. HARLAN INTERNATIONAL SYMPOSIUM
Concurrent symposium session 6						
08:00–10:00	**6.1 Genetic characterisation of tropical crops to take advantage of market niches** MGI symposium sponsor	**6.2 Beaming out paddock secrets: The application of remote technology for a new era of beef cattle research**	**6.3 Sustainable pork, chicken meat, and egg production. How far is the "net-zero" emission?**	**6.4 Dietary patterns, habits, and health outcomes**	**6.5 Growing our AgTech future—Innovation for tomorrows agriculture**	**6.6 Plant genetic resources - initiatives to harness biodiversity and increase utility** illumina silver sponsor
	Chairperson: Dr Natalie Dillon, Department of Agriculture and Fisheries, Australia	Chairperson: Dr Matt Kelly, Australian Agricultural Company, Australia	Chairpersons: Prof Eugeni Roura, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI) and Mr Glenn Anderson, Department of Agriculture and Fisheries, Australia	Chairpersons: Dr Olivia Wright and Maral Seidi Damyeh, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia		Chairperson: Prof Robert Henry, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia
	Breeding for flavour and yield in Theobroma cacao L Prof Pathmanathan Umaharan, Cocoa Research Centre, The University of the West Indies, Trinidad	**Digitally aided rangeland management** Prof Derek Bailey, New Mexico State University, Animal and Range Sciences Department, USA	**The sustainability of the Australian Agri-food System** Mr Michael Beer, AgriFutures, Australia	**Dietary habits and health and the Decadel plan on nutrition** Prof Helen Truby, The University of Queensland, School of Human Movement and Nutrition Sciences, Australia	**Robotti—the first robotic autonomous implement-carrier to Australian farmers** Mr Braden Hellmuth, Corematic, Australia	**DivSeek International Network and the Australasian Hub–extending the community of practice for open dissemination of information about plant genetic resources** Prof Graham King and Prof Andy Lowe, DivSeek International Network and the Australasian regional Hub
	Deconstructing elements of "Terroir" in cocoa (Theobroma cacao L.) for niche marketing Dr Darin Sukha, Cocoa Research Centre, The University of the West Indies, Trinidad	**The intertwine of technologies for sustainable landscapes** Dr Phil Tickle, Cibolabs, Australia	**The sustainability of Australian pork production** Ms Margo Andrae, Australian Pork Ltd, Australia	**Environmental impacts of dietary patterns — methods and global perspectives** Assoc Prof Jolieke van der Pols, Queensland University of Technology, School of Exercise & Nutrition Sciences, Faculty of Health, Australia	**DigiHort: Digital twins for innovation of future orchard systems** Dr Liqi Han, The University of Queensland, Australia	**The role of CePaCT in the conservation and use of plant genetic resources to support food security, nutrition and resilient food systems in the Pacific** Ms Logotonu Meleisea Waqainabete, Centre for Pacific Crops and Trees (CePACT), Fiji
	Topic to be confirmed Assoc Prof Surya Bhattarai, Institute for Future Farming Systems, CQ University, Australia	**Lambing event detection as an example of autonomous sensing** Dr Sabine Schmoelzl, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	**Australian chicken meat industry's sustainability roadmap** Dr Kylie Hewson, Australian Chicken Meat Federation, Australia	**Dietary patterns, food security and food choice in the Pacific Islands** Dr Sarah Burkhart, School of Health & Behavioural Sciences, Australian Centre for Pacific Islands Research, USC	**Innovation in action** Ms Reeanjou Ram, CEO, iTrazo, Australia	**Coordination of information platforms to support use of Plant Genetic Resources** Dr Sarah Dyer, European Bioinformatics Institute (EMBL-EBI), UK
	Tomorrow's vanilla: Genomics, plant breeding, and conservation of the world's favorite flavor Dr Muhammad Sohail Mazhar, Department of Industry, Tourism and Trade, NT Government, Australia	**Evaluating and enhancing technologies to detect parturition events in cattle** Dr Christie Pearson, Northern Territory Department of Industry Tourism and Trade, Australia	**What does "zero" in "net zero" really mean?** Dr Tony Peacock, Australasian Pork Research Institute, Australia	**Seeking sweetness – a systematic scoping review of factors influencing sugar-sweetened beverage consumption** Ms Jessica Cartwright, ARC Industrial Transformation Training Centre for Uniquely Australian Foods, The University of Queensland, School of Human Movement and Nutrition Sciences, Australia	**Panel session: Building a connected and dynamic AgTech ecosystem** **Strategic vision Queensland AgTech Roadmap** Ms Kym Coyne, Department of Agriculture and Fisheries, Australia **Queensland Smart Farms-putting the latest AgTech research and development into action** Mr Ian Layden, Department of Agriculture and Fisheries, Australia **Queensland AgTech and Logistics Hub-for a collaborative innovation ecosystem** Mr Owen Williams, AgTech and Logistics Hub, Australia **Attracting and retaining talent to support a future tech equipped workforce** Dr Amy Cosby, Central Queensland University, Australia	**Genebank perspectives on improving efficiencies through using omic technologies** Dr Sally Norton, Australian Grains Genebank, Australia
	Shaping the Future of Agriculture with Genomics Dr Xin Liu, BGI, China	**Capturing reproductively associated behaviours in cattle using agricultural technologies** Dr Anita Chang, CQUniversity, Australia	**Pathways to net zero for Australian pork and poultry production** Miss Mary-Frances Copley, Integrity Ag & Environment, Australia	**Alternative options for salt in dietary patterns: Underutilised plant species+** Ms Sukirtha Srivarathan, ARC Industrial Transformation Training Centre for Uniquely Australian Foods, The University of Queensland, Australia		**Collection genomics: Rapid assessment of wild diversity and advances with target capture** Dr Katharina Nargar, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia
	Breeding papaya to suit every household: Genetic gains and trait stability Prof Rebecca Ford, Griffith University, Australia	**Technobeefuction: Development and application of tools for a new era of northern beef production** Dr Kieren McCosker, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia		**Strawberry – an overlooked source of natural folate?** Dr Michael Netzel, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), ARC Industrial Transformation Training Centre for Uniquely Australian Foods, Australia		**Indian National genebank- A goldmine for future trait specific genetic resources** Dr Veena Gupta, Indian Council of Agricultural Research, National Bureau of Plant Genetic Resources, India
10:00–10.25	**Morning Tea,** sponsored by Sustainable Crop Protection ARC HUB					
Concurrent symposium session 7						
10.30–12:30	**7.1 Fungi as foods, medicines, and biomaterials**	**7.2 Designing photosynthesis for improving crop yield in contrasting environments**	**7.3 Resilient crops and agricultural systems** University of Southern Queensland symposium sponsor	**7.4 Biological approaches to manage agricultural pests and diseases**	**7.5 Nanotechnology for a new era of eco-sustainable agriculture**	**7.6 The future of crop diversity: Innovating governance and management of genetic resources and seed systems**
	Chairperson: Dr Alistair McTaggart, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	Chairperson: Dr Alex Wu, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	Chairperson: Dr Kaara Klepper, GRDC, Australia	Chairpersons: Ass Prof Femi Akinsanmi and Dr Ivy Chen, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	Chairperson: Dr Peng Li, The University of Queensland, Australian Institute for Bioengineering and Nanotechnology, Australia	Chairperson: Assoc Prof Ola Westengen, Norwegian University of Life Sciences, Norway
	Trajectory of the gourmet mushroom industry Mr Mickey Pascoe, Little Acre Gourmet Mushrooms, Australia	**Mining natural variation for greater rice canopy photosynthetic efficiency** Prof Xinguang Zhu, Institute of Plant Physiology and Ecology; Chinese Academy of Sciences, China	**Why climate resilient dryland cropping systems?** Ms Verity Morgan-Schmidt, Gheerulla Creek Consulting, Australia	**Precision pest management: A key to support healthy agriculture and food systems** Dr Nancy Schellhorn, RapidAim, Australia	**Internalisation of clay nanoparticles by plant cells** Prof Qin Li, Griffith University, Australia	**Navigating seed systems: Pathways to climate-resilient development** Dr Teshome Hunduma Mulesa, Norwegian University of Life Sciences, Norway
	Fable Food Co – ending industrial animal agriculture with mushrooms Mr Michael Fox, Fable Food, Australia	**Physiological trait networks enhance understanding of crop growth and water use in contrasting environments** Dr Sean Gleason, USDA Agricultural Research Service, Fort Collins, USA	**What is likely to be the productivity frontier for dryland cropping by 2050?** Dr Stephen Crimp, Australian National University, Australia	**Beneficial insects to deliver non-toxic solutions for pest management** Mr Dan Papacek, Bugs for Bugs, Australia	**Plant nanobionics for enhanced photosynthesis in Arabidopsis** Dr Yichao Wang, School of Life and Environmental Sciences, Deakin University, Australia	**Rethinking the control and freedom of seed banks** Dr Kamalesh Adhikari, School of Law, The University of Queensland, Australia
	Production of psilocybin mushrooms in Australia Mr Shaun Duffy, RESET Mind Science, Australia	**Designing wheat crops for changing environments** Assoc Prof Karine Chenu, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Northern Australia Climate Program: Improving climate forecasting in northern Australian grazing systems** Dr Chelsea Jarvis, University of Southern Queensland, Australia	**Bioreporters and microbial omics approaches for discovery and deployment of biocontrols** Dr Louise Thatcher, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	**Silica nanoparticle-based nanobiopesticides for sustainable agricultural applications** Dr Jun Zhang, The University of Queensland, Australian Institute for Bioengineering and Nanotechnology (AIBN), Australia	**Strengthening farmers' seed systems in East Africa** Dr Gloria Otieno, Alliance Bioversity-CIAT, Uganda
	Multi-Omic characterisation and therapeutic potential of a native Australian mushroom, Hericium coralloides Dr Kylie Agnew-Francis, The University of Queensland, Australia	**Assessing effects of photosynthetic enhancement on crop growth and yield** Dr Alex Wu, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Trait physiology driven breeding for climate adaptation in cereals** Dr Fernanda Dreccer, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	**Bio-control of parasites and disease vectors associated with domestic livestock species** Dr Peter James, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Exposure assessment of nanopesticides** Assoc Prof Melanie Kah, The University of Auckland, New Zealand	**National efforts to strengthen seed systems: Experiences from Bhutan** Dr Asta Tamang, National Biodiversity Centre, Bhutan
	Mushrooms: A sustainable choice for agriculture in a changing climate Ms Georgia Beattie, Bulla Farm, Australia	**Manipulating sorghum leaf angle for improved growth** Dr Karen Massel, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Towards assessing the benefits of using genomic tools to inform herd management decisions in drought** Dr Sabine Schmoelzl, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	**Biological control of invasive weeds in natural ecosystem** Prof Vic Galea, BioHerbicides Australia Pty Ltd, The University of Queensland, School of Agriculture and Food Sciences (SAFS), Australia	**Interactions between nano formulations with plant leaves** Miss Shang Xu Jiang, The University of Queensland, Australian Institute for Bioengineering and Nanotechnology (AIBN), Australia	**Developing seed law in Southeast Asia's Greater Mekong Subregion** Mr Erik Delaquis, International Center for Tropical Agriculture (CIAT), Lao People's Democratic Republic
	Increasing the production yield of mushrooms with pulsed electric field technology Mr Farzan Zare, The University of Queensland, Australia	**Understanding physiological changes associated to yield gain in US commercial sorghum** Ms Paula A Demarco, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia; Kansas State University, USA	**Gender-specific perceptions on climate risks and farm level adaptation in coastal Bangladesh** Dr Esmat Ara Begum, Bangladesh Agricultural Research Institute, Bangladesh	**Antifungal photodynamic inactivation with curcumin** Dr Maral Seidisamyeh, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Development of plant-derived nanovesicles for anti-fungal strategies** Dr Angela Chen, University of California Riverside, USA	**The future of crop diversity: Innovating governance and management of genetic resources and seed systems** Speaker six
12:30–13:10	**Lunch and poster session,** sponsored by APPF Australian Plant Phenomics Facility					

TropAg Symposia Speaker Program

TROPAG INTERNATIONAL AGRICULTURE CONFERENCE

Concurrent symposium session 8						
13:15–15:15	**8.1 The new protein paradigm – new models to meet global demand**	**8.2 Innovation in tropical pulse breeding**	**8.3 Designing and modelling crops for a hotter and drier world**	**8.4 RNA for plant health** Nufarm AUSTRALIAN THROUGH & THROUGH symposium sponsor	**8.5 Enhanced efficiency fertilisers in (sub) tropical agriculture – opportunities to improve sustainability**	**8.6 Value of ancient ingredients in modern foods**
		Chairpersons: Prof Michael Udvardi, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI) and Prof Rajeev Varshney, Murdoch University, Australia	Chairpersons: Dr Inigo Auzmendi and Prof Andrew Borrell, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	Chairpersons: Dr Donald Gardiner, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI) and Mr Mike Pointon, NuFarm, Australia	Chairperson: Mr Jeff Kraak, Fertilizer Australia, Australia	Chairpersons: Prof Henrietta Marrie and Dr Anh Phan, ARC Training Centre for Uniquely Australian Foods, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia
	The new protein paradigm – new models to meet global demand Speaker one	**Pan genomics for tropical legume crop improvement** Prof Rajeev Varshney, Centre for Crop and Food Innovation, Murdoch University, Australia	**Designing plant architecture for future climates** Prof Andrew Borrell, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**RNAi for insect pests** Prof Guy Smagghhe, University of Ghent, Belgium	**Performance of different N fertiliser technologies used in subtropical maize production** Prof Michael Bell, The University of Queensland, Australia	**Aboriginal legacy for the Brisbane area and historical artifacts connected to food** Ms Madonna Thomson, Nyanda Cultural Tours, Australia
	The new protein paradigm – new models to meet global demand Speaker two	**Genomics and phenomics assisted Mungbean breeding** Prof Ramakrishnan Madhavan Nair, World Vegetable Center, India	**Aquaporins: Hydraulic engineering for a drier world** Assoc Prof CaitlIn Byrt, Australian National University, Australia	**Organic nanovesicles are ideal RNA delivery carriers for spray-induced gene silencing** Dr Angela Chen, University of California Riverside, USA	**Assessment of enhanced efficiency fertilisers in sugarcane grown in North Queensland** Mr Julian Connellan, Sugar Research Australia, Australia	**Cultural and modern connections to native foods** Ms Michelle On, Kiril Park Wild Harvest Enterprise, Australia
	The new protein paradigm – new models to meet global demand Speaker three	**Physiological approaches to pulse breeding** Dr Millicent Smith, The University of Queensland, Australia	**Optimising root-microorganism dynamics to future rainfall patterns** Dr Vicky Waymouth, The University of Melbourne, Australia	**Protecting Australian crops from lepidopteran insect pests using RNAi** Dr Julia Bally, Queensland University of Technology, Australia	**Comparing nitrogen runoff losses in sugarcane fertilised with EEF or urea** Mr Tony Webster, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	**65,000 years of anme (plant foods) at Madjedbebe, Mirarr Country, northern Australia** Dr Anna Florin, St John's College; McDonald Institute for Archaeological Research; University of Cambridge, UK
	The new protein paradigm – new models to meet global demand Speaker four	**Proteomics for designer pulse protein** Ms Arineh Tahmasian, Cowan University, Australia	**Designing sorghum crops for adaptation to future climates** Prof Graeme Hammer, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**RNAi to control rusts** Dr Anne Sawyer, The University of Queensland	**Benefits of EEFs to sugarcane and the environment: Nitrification inhibition vs. controlled-release** Dr Weijin Wang, Department of Environment and Science, Australia	**Future flavours from the past: Sensory analysis of Australian native fruits from Arnhem Land** Dr Selina Fyfe, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia
	The new protein paradigm – new models to meet global demand Speaker five	**Application of AI in tropical pulse breeding** Prof Ben Hayes, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia	**Scalable modelling tools to assess G×E×M interactions at continental scales** Dr Jonathan Ojeda, Regrow Ag, Australia	**RNA for plant health** Speaker five	**Nitrogen use efficiency and reducing greenhouse gas emissions in sub-tropical agricultural systems** Prof Peter Grace, Queensland University of Technology, Australia	**Value added food products from wattle seed** Mr Oladipupo Adiamo, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia
	The new protein paradigm – new models to meet global demand Speaker six	**Novel breeding approach for faster cooking biofortified common beans in East Africa** Dr Clare Tekla Mukankusi, Alliance of Bioversity International and International Centre for Tropical Agriculture (CIAT), Uganda	**Economic analysis of *Arachis-pintoi* under climate change conditions in Colombia** Miss Karen Enciso, Alliance Bioversity & CIAT, Colombia		**When to expect benefits from enhanced-efficiency fertilisers and why? Insights from modelling** Dr Kirsten Verburg, Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia	**Functional ingredients from *Terminalia* sp. Kakadu plum as a case study** Prof Yasmina Sultanbawa, The University of Queensland, Queensland Alliance for Agriculture and Food Innovation (QAAFI), Australia
15:15–15:25	**Comfort break**					
15:30–17:00	**Plenary speaker 5: Banana genome diversity is shaped by admixture and large structural variations** Dr Angelique D'Hont, Team Manager and Researcher, CIRAD French Agricultural Research Centre for International Development, France					
	Plenary speaker 6: Science-fiction or science-fact? Research for sustainable livestock agri-food systems Dr Jimmy Smith, Director General, International Livestock Research Institute (ILRI), Kenya					
17:00–17:30	**Closing ceremony, award presentations and final function**					

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TABLE DISPLAY

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