



Day 1 Program Summary

Time	PROGRAM – DAY 1		
8:00am	REGISTRATION, POSTERS & TRADE DISPLAY OPEN		
9:00am – 9:10am	Opening Remarks by MC, Conference Chair & Welcome by APBA		
9:10am – 9:50am	Embedding Māori values for the conservation and breeding of New Zealand native tree species Dr David Chagné		
9:50am – 10:10am	Presentation by Gold Sponsor - GRDC Investment Update Dr Jessica Hyles		
10:10am – 10:30am	Predicting early flowering QTLs in citrus from small population sizes using a high-resolution pipeline Zac Stewart (Session sponsored by QUT)		
10:30am – 11:00am	MORNING TEA - Sponsored by Grasslanz Technology		
11:00am – 11:40am	Accelerating perennial crop improvement via multi-omics-based predictive breeding Dr Hannah Robinson		
11:40am – 12:20pm	Breeding ornamental plants for conservation and resilient landscapes Digby Grown		
12:20pm – 12:30pm	Presentation by Silver Sponsor - Impact and future opportunities of DArT technologies Andrzej Kilian		
12:30pm – 1:30pm	LUNCH - Sponsored by Grasslanz Technology		
	Advanced Genomic Prediction and AI in Breeding	Optimising breeding for climate resilience	Breeding for Climate Resilience and Food Security
1:30pm – 2:00pm	Advancing Soybean Breeding: Enhancing Predictive Power through an Ensemble of Diverse Models Dr Melanie Wilkinson	Optimising bang for buck in plant breeding Prof David Jordan	Breeding for Hay and Grain Yield in Common Vetch (<i>Vicia sativa</i>) Huanhuan Zhao
2:00pm – 2:15pm	Next-Gen Breeding: Merging Genomic Prediction, AI and Simulation Tools Prof Lee Hickey	Role of plant breeding in improving pasture forage yields and quality of animal feed John Caradus	Genetic Diversity and Field Validation of Oats' Coleoptile and Mesocotyl Length for Successful Establishment in Deep-sown Conditions Angelia Tanu
2:15pm – 2:30pm	Haplotype Block-Based Autoencoders for Dimensionality Reduction and Genomic Prediction Philipp Heilmann	Evaluation of Seedling Root Architecture Traits in Bread Wheat Varieties Using a Cost-Effective Phenotyping Method Zizhu Zhao	Genomic Insights into Heat Shock-responsive Genes in Brassicaceae: Implications for Breeding Heat-tolerant Canola Aldrin Cantila
2:30pm – 2:45pm	Ensembles of Graph Neural Networks Improve Genomic Prediction Shunichiro Tomura	Sow deep: Breeding long hypocotyl canola for improved emergence from deep sowing Dr Matthew Nelson	New kid on the block - towards climate-smart black rice varieties for the aerobic rice industry Szabolcs Lehoczki-Krsjak
2:45pm – 3:00pm	Enhancing genetic gains in pulses, wheat, and horticultural crops through advanced s genomics and AI-driven breeding approaches Prof Rajeev Varshney	Parthenocarpy and Self-Pollination in Pear (<i>Pyrus</i> spp.): Investigating Mechanisms and Breeding Implications Lee Boyd	Significant lentil yield increases are possible by matching phenological traits to environments Dr Abeya Tefera
3:00pm – 3:30pm	AFTERNOON TEA Sponsored by Grasslanz Technology		



Day 1 Program Summary cont.

Time	PROGRAM – DAY 1		
	Novel Breeding Approaches and Genetic Diversity	Genetics and genomics for climate resilience	Genomic Tools to Support Efficient Breeding
3:30pm – 4:00pm	Non-traditional breeding approaches for trait improvement in tree crops Dr Stephanie Kerr	Unravelling the Genetic Control of Flowering Time in Oats to Enhance Climate Adaptation Dr Meredith McNeil	Fast-tracking macadamia genetic Improvement for future orchard systems Mobashwer Alam
4:00pm – 4:15pm	Exploiting the power of inbreeding and outbreeding in crops con brio Prof Wallace Cowling	Harnessing genetic diversity to improve grain legume production in current and future climates Dr Millicent Smith	Accelerating passionfruit breeding: A strategic path to industry profitability and resilience Xinhang Sun
4:15pm – 4:30pm	Epigenetic landscapes: the role of DNA demethylation dynamics in shaping sorghum grain composition Kusumitha Shrinivasan	Tapping into genebanks to reveal geographic patterns of temperature adaptation in chickpea Dr Shanice Van Haeften	Multi-trait improvement with Optimal Haplotype Stacking on Trait Index Mark Edward Fabreag
4:30pm – 4:45pm	Haplotype-resolved reference genome assemblies for papaya: towards decoding the genetics of sex determination Dr Rhys Copeland	Improving wheat tolerance to abiotic stress in Australian current and future climates A/Prof Karine Chenu	MosaicFarmAI: An innovative deep learning model for accurate genomic predictions in ultra-sparse field trials Dr Abdulqader Jighly
4:45pm – 5:00pm	How much missing data is too much? A strawberry case study Dr Katie O'Connor	Climate-resilient reproduction: Genetic and environmental factors influencing seed set to improve the cost effectiveness of hybrid sorghum seed production Laura Torres Gonzalez	A structured workflow to standardise large scale multi-source genotypic and phenotypic datasets for global genomic prediction in apple (<i>Malus domestica</i>) Dr Shashi Goonetilleke
5:00pm – 5:15pm	Genetics for next generation Almond orchards Dr Bruno Santos	Haplotype-based breeding for developing high-yielding and drought tolerant chickpea varieties for Australian environments Dr Rutwik Barmukh	Enhancing genomic prediction of Cotton fibre quality by integrating gene network information into genomic prediction models Dr Angel David Popa-Baez
5:15pm – 5:30pm			Improving the impact of current and future genetic and genomic investments in Australian emerging plant industries Dr Shashi Goonetilleke
5:15pm – 6:00pm	GENERAL VIEWING OF POSTERS		
7:00pm – 9:00pm	Networking Reception at Bathers Beach House – Sponsored by Rijk Zwaan		



Day 2 Program Summary

Time	PROGRAM – DAY 2		
8:00am	REGISTRATION, POSTERS & TRADE DISPLAY OPEN		
8:45am – 8:50am	Welcome by MC		
8:50am – 9:30am	From Seedbank to Bio-Digital Resource: Transforming the Future of Australian Agriculture Dr Sally Norton		
	PANEL DISCUSSION – Grower perspective on plant breeding impact Facilitated by Bill Burgess, Illumina & Tress Walmsley, InterGrain		
9:30am – 10:10am	Panellists: <ul style="list-style-type: none"> • Connor Baker, P & A Baker & Son • Rob Bell, Pasture seeds • Shane Kay, Moora Citrus & Northern Valley Packers 		
10:10am – 10:50am	Disentangling genotype by environment interaction for improving selection for broad and specific adaptation Dr Daniel Tolhurst		
10:50am – 11:30am	MORNING TEA - Sponsored by ARC Centre of Excellence for Plant Success		
	Horticultural and Tree Crop Improvement	Digging data for climate resilience	PBR Workshop
11:30am – 12:00pm	The Genetics for Next Generation Orchards Research Program Peter Prentis	Negative variance components in linear mixed models: applications in plant breeding programs Dr Ky Mathews	Protecting your plant breeding outputs – PBR reform and industry case studies Facilitated by Tress Walmsley, InterGrain <ul style="list-style-type: none"> • Isabel Ward, IP Australia • Daniel Taylor, DPIRD
12:00pm – 12:15pm	Functional genomic approaches reveal dormancy-associated genes modulating almond flowering in response to seasonal declines in temperature and photoperiod Dr Lucky Paudel	Integrating environmental gradients into forest tree breeding: genomic norms of reaction in maritime pine Dr Victor Papin	
12:15pm – 12:30pm	Evaluating the sensitivity of selection index to population means in a multiplicative value function for horticultural breeding Stephane Kern	Using environmental data to better understand G×E for Australian wheat yield and prospects for climate adaptation Nick Fradgley	
12:30pm – 12:45pm	Genetic, physiological and genomic insights into vigour in macadamia Pragya Dhakal Poudel	Genotypic Variability in Water Use Efficiency of Australian mungbean accessions Yayue Zhong	
12:45pm – 1:00pm		Screening for phytoestrogen content under waterlogging in subterranean clover ssp. yanninicum Dr Gereltsetseg Enkhbat	
1:00pm – 2:00pm	LUNCH - Sponsored by ARC Centre of Excellence for Plant Success		



Day 2 Program Summary cont.

Time	PROGRAM – DAY 2		
	Breeding Innovations for Cereal Crops	Strategies in climate mitigation	
2:00pm – 2:30pm	Integrated Omics Uncovers Gene Regulatory Networks and Predicts Flowering Time in Australian Wheat Dr Shannon Dillon	A national approach to mitigating the impacts of extreme heat on wheat productivity Dr Rebecca Thistlethwaite	
2:30pm – 2:45pm	A haplotype-based approach to explore genotype by environment interactions for barley yield Stephanie Brunner	Increasing grain fill duration in sorghum provides opportunities to increase the yield and yield stability in variable environments Dr Daniel Otwani	
2:45pm – 3:00pm	Nested-association mapping to dissect the genetics of resistance to net form net blotch disease in Australian barley breeding germplasm Muhammad Nadeem	Reducing the heat-stress risk to sorghum hybrid seed production Dr Tolera Keno Fufa	
3:00pm – 3:15pm	Predicting Performance: GxE Models for Unbalanced Early Generation Wheat Breeding Trials Mitchell Eglinton	Characterising Abiotic Stresses to Enhance Barley Productivity Across Australia Bita Heidariask	
3:15pm – 3:45pm	AFTERNOON TEA - Sponsored by ARC Centre of Excellence for Plant Success		
	Haplotype-Based Breeding Strategies and Exploiting Recombination	Phenotyping for climate resilience	Breeding for Enhanced Nutritional Quality and Biofortification
3:45pm – 4:15pm	Exploring genetic variation for barley leaf rust resistance in Australian germplasms Madhav Pandit	Unravelling the genetics of root architecture in Australian crops Dr Yasmine Lam	Gene Editing for more nutritious grain crops Dr Karen Massel
4:15pm – 4:30pm	A haplotype catalogue for quantitative disease resistances in barley Dr Dilani Jambuthenne	Defining the traits required for effective resistance to pre-harvest sprouting in wheat under field conditions in Australia. Jeremy Curry	Development of an endemic sandalwood species for indigenous led forestry on Cape York Peninsula A/Prof David Lee
4:30pm – 4:45pm	In-silico haplotype stacking for multi-disease resistance in barley Dan Liu	Rootstock-Driven Precocity in Macadamia: A Multi-Year Assessment of "HAES 741" Dr Patrick Mason	Subclover natural mutant to assist in breeding for environmentally friendly and healthier forages for livestock Dr Maria Pazos Navarro
4:45pm – 5:00pm	Quantifying Recombination Variability in Sorghum: Unlocking Genetic Potential for Crop Improvement Mahendra Babu Kurapati	Exploring ways to improve wheat productivity through the use of beneficial epichloe endophytes Lisa Wood	Accelerating genetic gain in common bean for improved grain yield and cooking time using single-step genomic prediction Dr Renu Saradadevi
5:00pm – 6:00pm	Flash Poster Talks with Presenting Author – Beverages served		



Day 3 Program Summary

Time	PROGRAM – DAY 3		
8:00am	REGISTRATION, POSTERS & TRADE DISPLAY OPEN		
	Phenomics and High-Throughput Technologies	Technology innovation for enhancing crop resilience	Breeding Innovations and Genetic Advances
9:00am – 9:30am	Plant tissue culture technologies for the future of foods and ecosystems Dr Alice Hayward	RootSense: integrating UAV technologies for scalable field-based root phenotyping solutions Dr Samir Alahmad	Insights from New Breeding Breakthroughs in Cotton Dr Shiming Liu
9:30am – 9:45am	Rapid identification of candidate genes and molecular markers for resistance to phytophthora root rot in chickpea using next-generation sequencing technologies Dr Ahsan Asif	Transgenerational Eco-Physiological Variation in Clonal Shiraz Grapevines: Implications for Drought-Resilient Breeding Grace Prayogo	Editing the way to resilient high value sorghum Prof Ian Godwin
9:45am – 10:00am	Pixel to Plant: System Adjustments to Facilitate Digital Phenotyping Adoption in Commercial Breeding Programs Stefanie Renaud	Establishing Phenomic and Genomic Tools to Accelerate Breeding for Acute High Temperature Tolerance in Lentils Sukhjiwan Kaur	
10:00am – 10:15am	Is UAV-Based Photogrammetry a useful tool for breeding for improved lodging resistance Srinivasa Reddy Mothukuri	Development of High Yielding Imidazolinone Herbicides Tolerant Field Peas Babu Pandey	Pre-breeding for Australian aerobic black rice: insights from GWAS and Transcriptomics on trait loci linking grain pigmentation and UV resilience Truong Duc Nguyen
10:15am – 10:30am	Aligning UAV flights: use of interpolation to align UAV-derived phenotypes across environments Dr Will Shaffer	Fast-tracking the development of awnless triticale using doubled haploid technology Dr Daniel Real	Multiple environment genomic prediction on cotton yield and fibre quality traits using advanced statistical methods Zitong Li
10:30am – 11:15am	MORNING TEA - Sponsored by Enza Zaden		



Day 3 Program Summary cont.

Time	PROGRAM – DAY 3	
	Disease Resistance and Trait Improvement	Advancements in Horticultural Genetics and Crop Improvement
11:15am – 11:45am	Breeding strategy and genetic gain in the Australian Strawberry Breeding Program Dr Jodi Neal	Investigating pest and disease resistance in culinary ginger towards building sustainable production A/Prof David Lee
11:45am – 12:00pm	Deploying Predictive Breeding Tools to Improve Ascochyta Blight Resistance in Chickpea Sukhjiwan Kaur	Accounting for Population Structure in Genomic Prediction of Key Mango (<i>Mangifera indica</i> L.) Traits Using a Reparameterized GBLUP Model Norman Munyengwa
12:00pm – 12:15pm	Improving assessment of blackleg disease in canola breeding through automated plant counting and improved genomic prediction approaches Timothy Thavarajah	Do Self-Pollination Methods Impact Nut Set and Nutlet Abscission in Macadamia? Palakdeep Kaur
12:15pm – 12:30pm	Genetic improvement of phytochemical content in apples Dr Satish Kumar	Genomic insights into early flowering for breeding improved Australian mango cultivars Sihini Waidyaratne
12:30pm – 1:30pm	LUNCH - Sponsored by Enza Zaden	
1:30pm – 2:10pm	Progress Towards Papaya That People Like Prof Rebecca Ford	
2:10pm – 2:50pm	Accelerating crop genetic gain: Yesterday, today and tomorrow Prof Rod Snowdon	
2:50pm – 3:00pm	Impact Awards and Exhibitor Prize Draws	
3:00pm – 3:15pm	CLOSING REMARKS - Prof Jacqui Batley and MC	
3:15pm – 4:00pm	AFTERNOON TEA - Sponsored by Enza Zaden	
4:00pm – 5:00pm	Digital Tools to Unlock the Genetic Diversity of the Australian Grains Genebank FOR APPROVED APPLICANTS ONLY	
4:00pm – 7:00pm	Free Time prior to Gala Dinner	
7:00pm – 11:00pm	Gala Dinner at Esplanade Hotel	