

THE DAIRY RESEARCH FOUNDATION'S 2021 Online Symposium



**17 & 18 November
Zoom into Dairying**



THE UNIVERSITY OF
SYDNEY

Zoom into dairying

Welcome to the 2021 Dairy Symposium, Live-Online for the second year in a row!!

We can't plan to meet face to face this year, but we can take advantage of the technology and just 'zoom it'.

With an outstanding attendance and positive feedback from last year, we are keeping the same 2-day format, from 9 am to 12 noon each day, which was widely prized on the evaluation survey.

The dairy industry has endured all imaginable and unimaginable challenges over the last few years, but light is seen at the end of the tunnel. In general, most regions have benefitted from improved rainfall and the demand for milk and price have increased; a little bit of breathing space for the heavily hit Australian (and NSW in particular) dairy farmers.

For the NSW dairy industry there is also great news on the RD&E front, with the recent \$16M co-investment by the NSW government, the DRF, private sector and industry organisations into the 5-year program "Dairy UP (Unlocking Potential) launched in May. Dairy UP is led by the DRF and delivered in conjunction with Scibus, NSW DPI and Dairy Australia. The program aims to increase productivity and profitability on farm, de-risk the industry, and develop new markets.

All these changes point into the same direction: a proactive, forward-looking dairy industry that believes and invest into its own future.

Thus as last year our focus was on "business", this year we just Zoom into Dairying for a deeper look into risk management, people in dairying, tools that may change future farming, and what RD&E is on the horizon.

I would like to sincerely thank all members of our Organising Committee, who have dedicated a lot of time and provided invaluable input all along the organisation of this event. Special thanks to Lynne Gardner, Cara Jeffrey and Josie Clarke for the tremendous work behind the scene to organise the Symposium!

We hope you can attend, participate and enjoy this terrific program and we look forward to welcoming you to the Symposium on 17th and 18th November.



Professor Yani Garcia
Chair of the 2021 DRF Symposium
Organising Committee

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Key Speakers: Wednesday 17 November



Niall Blair

The Hon. Niall Blair is the Independent Chair of the Dairy Up Steering Advisory Committee (SAB) with more than twenty years' experience across government and private sectors, specialising in risk management, agribusiness and sustainability.

Niall is also Chairman and Non-Executive Director for the NSW Biodiversity Conservation Trust and in 2020, he was appointed as the Victorian Fire Services Reform Implementation Monitor. He is Professor of Food Sustainability and Co-Chair of the NSW Circular Economy Research Taskforce. He is also the Chairman of Elf Farm Supplies Pty Ltd and Non-Executive Director of White Prince Mushrooms Pty Ltd.

Prior to these roles, Mr Blair served as a senior member of the NSW Parliament for nine years, most of them as NSW Minister for Primary Industries, Water, Lands, Trade and Industry and Deputy Leader of the Government in the Legislative Council.



Ian Lean

Ian's general interests are in improving the profitability of ruminant production. He is Managing Director of Scibus, a company that conducts research and consults to dairy and beef producers, within and outside of Australia and an adjunct Professor at the University of Sydney. He is a Past President of the Cattle Vets, Cattle Chapter of the Australian College and a recipient of the Gilruth Medal, the Australian Dairy Science Award and the prestigious American Feed Industry Association Award for excellence in published research. Ian has extensively published on the interactions of nutrition with production, reproduction and health and has been a key researcher in developing the use of meta-analysis in veterinary and animal science. Since 1990, Ian has also been active in discussing the implications of increasing population on food availability and the roles of technology and activism in addressing these. He has a deep knowledge of factors influencing farm profit from a biological and economic perspective and has presented nationally and internationally on these. He likes cows and people.



Sheena Carter

As a Development Officer with the NSW DPI Dairy team, Sheena leads the Dairy Business Advisory Unit which aims to help farmers understand and manage their businesses to ensure profitability and manage volatility and risk. Existing and new activities and projects that are instrumental in this area are the NSW Dairy Farm Monitor Project, a podcast (*The Business of Dairy*) launched on World Milk Day, in which Sheena speaks to farmers and service providers about aspects of farm management that impact on business performance, the monthly *Dairy Business Report* compiled in partnership with Tocal Dairy and leading the DairyUP project P3: *Economics of Intensive Systems*.

Key Speakers: Wednesday 17 November



Cameron Clark

Cameron is enabling a step-change in livestock productivity and welfare, both in Australia and internationally, through novel, collaborative research. Cameron's research is changing the global focus of farming towards the individual production animal to improve efficiency and welfare by revealing the value of technology, data and associated advanced precision livestock systems. Cameron plans to expand on this highly innovative research to link the individual production animal and farm practice with the needs of the market and in so doing, add significant value to the food produced in systems that exceed the welfare demands of society. Cameron has a particular interest in the diversity in heat resilience within livestock species.



Nicola Shadbolt

Massey University Professor, delivering farm and agribusiness management research and education, particular interest in farm business strategy and business analysis and cooperatives; currently Chair of Plant & Food CRI, a Climate Change Commissioner and on the executive board of the International Food & Agribusiness Management Association (IFAMA). Shareholder/ Director/Manager of farming and forestry ventures, a mix of share and cash leasing arrangements within 5 equity partnerships – including 1000 dairy cows plus sheep, beef, deer & forestry. Nicola is a Fellow of the NZIPIM, IFAMA and the AIOD and an Officer of the New Zealand Order of Merit.



Ben James

Aurora Dairies owns and operates a diversified portfolio of highly productive dairy properties across southeast South Australia and the southwest, northern and Gippsland regions in Victoria.

As Chief Executive Officer, Ben James's remit is to ensure that Aurora Dairies sustainably produces high quality dairy products in a safe and efficient manner to deliver superior value for Aurora's investors, people and communities.

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Key Speakers: Thursday 18 November



Elise Sharpley

Elise leads Deloitte's national Workforce Strategy, Planning and Analytics practice and helps organisations plan for and build their future workforce needs. She is an experienced Human Capital practitioner with deep technical expertise in organisational transformation, analytics and talent management practices.

With a background in behavioural science, Elise brings creativity, energy and data driven insights to help her clients transform work and the workforce. She has a passion for innovation and managing complex stakeholder environments to achieve results.

Elise has worked across a variety of industries helping clients to transform their workforce.- including the design and implementation of holistic people strategies, workforce planning processes, strategic capability development, leadership, culture change and business transformation.



Nollaig Heffernan

Nollaig Heffernan is an Independent Management Consultant specialising in Leadership and Organisational Psychology. She is an author, specialist lecturer and an award-winning conference speaker. Nollaig works across all sectors but is best known in the Agricultural sector for delivering thought-provoking, relevant, and enjoyable workshops primarily to the dairy and pig industries on the subjects of leadership, employment, resilience and time management.



Sharon Parish

Sharon is a Dairy farmer located in Bodalla, NSW.

She has been dairy farming for 29 years with her husband, Darren and together they have a strong focus on animal welfare and the sustainability of their industry. Sharon is passionate about educating others about the dairy industry and regularly hosts farm tours, while also organising the Dairy Discussion Group in the local Bodalla area.

Photo courtesy of DataGene

Dairy Research Foundation 2021 Symposium



PROGRAM - Wednesday 17 November

9:00am	Welcome to Dairy Research Foundation Symposium	Jane Sherborne DRF President
9:05-10:25am	Session 1: Dairy UP	Chair: The Hon. Niall Blair
9:05am	Dairy UP: Introduction	The Hon. Niall Blair Chair of Dairy UP's Steering and Advisory Board
9:15am	The 'geriatric' cow	Adjunct Prof Ian Lean Managing Director Scibus
9:30am	New insights into the economics of intensive dairy systems	Sheena Carter Dairy Farm Business Management Development Officer, NSW DPI
9:45am	Virtual weaning? Remotely revealing calf development	Assoc/Prof Cameron Clark Livestock Production and Welfare University of Sydney
10:00am	Q&A	
10:25-10:30am	Break	
10:30-12:00pm	Session 2: De-risking future dairying	Chair: Dr Sabrina Lomax University of Sydney
10:30am	Risk, strategy and business analysis in dairy farming	Professor Nicola Shadbolt Farm & Agribusiness Management Massey University
11:00am	People, Safety and Culture	Ben James CEO Aurora Dairies
11:30am	Panel Discussion	
11:55am	Closing	Professor Yani Garcia DRF Director

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PROGRAM - Thursday 18 November

9:00am	Welcome and Introduction	Professor Yani Garcia DRF Director
9:05-10:25am	Session 1: Farm teams: a world of perspectives	Chair: Greg Duncan Dairy Australia
9:05am	The Deloitte Global 2021 Millennial and Gen Z Survey	Elise Sharpley Partner, Consulting, Deloitte
9:25am	Ag industry: my farming team	Nollaig Heffernan Independent Management Consultant
9:45am	Dairying: becoming an employer of choice	Sharon Parrish Dairy farmer, Bodalla NSW
10:05am	Panel discussion	
10:30-10:35am	Break	
10:35-11:55am	Emerging Scientist Competition	Chair: Dr Nicolas Lyons NSW DPI
	Giving dairy farmers extra motives to reduce green-house gas emissions	Santos Amadeo Charles Sturt University
	Environmental consequences of replacing dairy production in NSW	Zita Ritchie NSW DPI
	A decision-support tool for robotic dairy farmers	Juan Ignacio Gargiulo University of Sydney, NSW DPI
	Monitoring Calf Health Using an Accelerometer-based Ear Tag	Lara Houen University of Sydney
	Does selecting for A2 milk increase inbreeding?	Beth Scott LaTrobe University
	Can we track calf development from their ear?	Sarah Mac University of Sydney
	A customised DNA chip for accurate genetic testing of cows	Ruidong Xiang University of Melbourne
	Q&A and discussion	
11:55am	Closing	Professor Yani Garcia DRF Director

Emerging Scientists: Thursday 18 November



Santos Amadeo

Santos' love for farming dates back to his first visit to his grandparent's dairy farm in Santa Fe province of Argentina. Arriving to the gate of 'San Lazaro' always gave Santos this sense of freedom. Growing up, his career path was clear, he would pursue work in a place that gave him that exact feeling. After graduating high school, Santos left home to work at a relative's farm in Uruguay. That experience confirmed his desire to follow agriculture as a profession, so he continued his formal studies. After various jobs in different agricultural industries, Santos saw a common issue and what is perhaps modern agriculture's biggest dilemma: the deterioration of the natural resources it depends upon. This ignited once again his will to deepen his studies on sustainable agriculture, with the objective of giving generations to come the opportunity to have the same love for nature he had when he first stepped on a farm.



Zita Ritchie

Zita has dairy industry experience having worked throughout Australia and overseas. Her areas of expertise include group facilitation and training, farm business management, and climate risk management in the dairy sector. She holds a Bachelor of Animal Science from the University of Sydney and a Masters of International and Community Development from Deakin University. Her previous roles include dairy extension in Victoria, and in international dairy development in Indonesia, Pakistan and the Philippines including work with the United Nations in Ethiopia in Food Security.



Juan Ignacio Gargiulo

Juan is originally from Argentina and holds a B. Ag. Science and a Postgraduate degree in Dairy Science. He started his professional career in his country, working for a leading dairy processor and providing direct support to dairy farmers. In 2018, he moved to Australia and commenced his PhD at The University of Sydney with the Dairy Science Group. His research focused on the applications and impacts of automation in pasture-based dairy systems and contributed to major Australian R&E dairy industry projects such as Milking Edge and Dairy Up. Juan submitted his PhD thesis in August 2021 and recently started a position as Development Officer Dairy at the NSW Department of Primary Industries

Emerging Scientists: Thursday 18 November



Lara Houen

Lara is a 4th year honours student of Animal and Veterinary Bioscience at The University of Sydney. She has always had a passion for animals from a young age, but did not have much exposure to farm animals as she has lived in Sydney's Inner West her whole life. It was only with this degree that she had a new-found appreciation for the dairy industry, particularly calves. She decided to pursue honours in dairy science for this reason, and is her first real taste of executing a large-scale study.



Beth Scott

Beth Scott (BAV, MAS) is a PhD candidate studying inbreeding and dairy genetics at La Trobe University. Previous research projects looked at the role of genetics in stillbirths in the Jersey breed. Beth works part-time at Dairy Australia, where she is involved in the genomic acceleration project. Growing up on a dairy farm in South Gippsland, Beth bought her first stud Jerseys when she was 13 and bred a heifer that won her class at International Dairy Week competition four years later in 2010. Beth completed a Bachelor of Animal and Veterinary Bioscience in 2014, at the University of Sydney and a Master of Animal Science in animal breeding and genetics at the world-leading Wageningen University in the Netherlands. Today, Beth's passion for dairy breeding and genetics extends from the farm and show ring to the research centre, linking the daily practices of dairy farming to scientific advancements.



Sarah Mac

Sarah Mac is a third year PhD Candidate at the University of Sydney pursuing a thesis in optimising the weaning process in cattle. From the outside, Sarah Mac doesn't look like a scientist (or like she can work cattle), but she has been in dairy for 6 years both as a farmhand and as a researcher. One thing that is evident is her passion for dairy and leaving an impact that advances the industry. Through her thesis, she has completed three projects challenging the longevity and effects of a 100 day pasture cow-calf system, comparing the impact of common weaning methods, and using technology to track calf development through weaning. Sarah Mac's goal with her thesis is to challenge the current weaning methods in calves to provide each individual calf the chance to reach their full potential.



Ruidong Xiang

Ruidong Xiang obtained his PhD in animal genetics at the University of Adelaide, South Australia. Transitioned from wet-lab molecular biology to statistical genetics, his research focuses on understanding the mechanisms via which genetics shape phenotype in agriculture species. Currently, he is a Research Fellow at the University of Melbourne and also holds a joint fellowship at Agriculture Victoria. He works on how to use multi-trait and multi-omics data to improve genomic selection of complex traits, such as milk productivity, fertility and welfare of dairy cattle. He also integrates biological and functional information into breeding programs to more accurately select productive and healthy animals

The Dairy Research Foundation's 2021 Symposium is proudly supported by



Sincere thanks to the 2021 Symposium Organising Committee:

Peter Beale, LLS Hunter
April Browne, Dairy Australia
Rob Cooper, dairy consultant
Cameron Clark, University of Sydney
Greg Duncan, Dairy Australia
Sergio (Yani) Garcia, University of Sydney
Lynne Gardner, University of Sydney
Helen Golder, Cows R Us / Scibus
Sabrina Lomax, University of Sydney
Nicolas Lyons, NSW DPI
Emily Neilson, dairy farmer
Andrew Smith, dairy farmer
Justin Walsh, dairy farmer
Kirsty Jaensch, University of Sydney
Josie Clarke, University of Sydney
Cara Jeffrey, University of Sydney

