

# Advancing Milling & Nutrition Conference

in conjunction with Recent Advances in Animal Nutrition, Australasian Equine Science Symposium and Nutrition Society of Australia

13-14 May 2025,

Crown Promenade, Melbourne, Australia



ADVANCING MILLING & NUTRITION

13-14 MAY 2025

## FINAL PROGRAM

Tuesday 13 <sup>th</sup> May 2025		
0730 - 1730	Registration Open	Promenade Foyer, Level 1
0830-1030	Plenary 1 – Challenges and Opportunities Sponsor: Buhler AG	Chair: Alex Turney Promenade 1 & 2
0830-0840	David Bray and Alex Turney - Welcome	
0840-0845	Alex Turney - AMN Program Chair - Overview	
0845 – 0915	Robert van Barneveld - <i>SunPork</i> Protein production into the future - challenges and opportunities	
0915-0945	Geoffrey Annison- <i>Industry Consultant</i> The crucial connection – An exploration of the way consumer interactions are currently driving nutritional demand	
0945-1015	Constance Cullman - <i>President and CEO - American Feed Industry Association</i> Future demands of the feed industry	
1015-1030	Panel discussion	
1030 – 1100	Morning Tea Sponsored by: BEC Feed Solutions	
1100 – 1300	Plenary 2 – Understanding ingredients and what needs to change Sponsor: Premier Tech	Chair: Neil Gannon Promenade 1 & 2
1100-1130	Gene Pesti – <i>University of Georgia, USA</i> Measurement of the nutrient and energy contents of feedstuffs: Adoption of the latest approaches to analysis is long overdue	
1130-1200	Wayne Bryden – <i>University of Queensland</i> Mycotoxins – a Five Decade Journey Across Feed and Food in Australia	
1200-1230	Ian Sawyer - <i>Feedworks</i> What's new in technology and feeding the world	
1230-1300	Wayne Bryden, Liz Owens and Ian Sawyer Panel discussion	
1300 – 1400	LUNCH Sponsored by: AUSPAC Ingredients	

1400 – 1530	<b>Concurrent Session 1</b>				
	<b>RAAN-A &amp; Milling &amp; Nutrition</b>	<b>P1&amp;2</b>	<b>Equine</b>	<b>P3</b>	<b>Flour</b> <b>M2</b>
	<b>Nutrition meets environment</b> Chair: Fran Cowley		<b>Nutrition</b> Chair: Peter Huntington		<b>Practical session</b>
1400-1410	<b>Richard Eckard</b> - <i>University of Melbourne</i> Accounting for carbon in livestock diets		<b>Joe Pagan</b> - <i>Kentucky Equine Research</i> The role of omega-3 and omega-6 polyunsaturated fatty acids in equine nutrition: A new perspective		<b>Mat Rees – AEGIC</b> PEKAR Testing Demonstration with audience participation
1410-1420					
1420-1430	<b>Matthew Harrison</b> - <i>Tasmanian Institute of Agriculture:</i> Towards prosperous, low emissions, biodiversity-rich livestock farms		<b>Erica Gee</b> - <i>Massey University</i> Selenium status of horses in New Zealand		
1430-1440					
1440-1450	<b>Stephen Wiedemann</b> - <i>Integrity Ag</i> Improving the environmental performance in the animal industry through lifecycle assessments		<b>Mark Barnett</b> - <i>MTB Equine Consultancy Services</i> Feeding industrial hemp flour to horses results in zero detectable levels of Tetrahydrocannabinol (THC) and Cannabidiol (CBD)		
1450-1500			<b>Neerida McGilchrist</b> - <i>Equilize Horse Nutrition Pty Ltd</i> Effect of pelleting, cubing and chaffing on rate of lucerne forage intake		
1500-1510	Panel Q&A		<b>Ryon Springer</b> - <i>Kentucky Equine Research</i> Modelling neutral detergent soluble crude protein in feedstuffs and its implications for crude protein availability in the horse		<b>Christoph Grabmer, Buhler AG</b> Operational efficiency in Flour Milling based on three core principles
1510-1520	<b>Breanna Roque</b> - <i>Future Feed</i> Health and safety review of <i>Asparagopsis</i> feed in ruminant livestock diets		<b>Pat Harris</b> - <i>Waltham Petcare Science Institute</i> Our recent research linked to feeding the ID horse/pony		
1520-1530	<b>Jaz Skinner</b> - <i>University of Southern Queensland</i> Evaluating the feasibility of the RumiWatch system to monitor the feeding behaviour of grazing beef cattle				
1530-1600	<b>Afternoon Tea</b> Sponsored by: LGPM				
1600-1730	<b>Concurrent Session 2</b>				
	<b>RAAN-A</b>	<b>P1</b>	<b>Milling, Nutrition &amp; Flour</b>	<b>P2</b>	<b>Equine</b> <b>P3</b>
	<b>Fibre sources</b> Chair – Zoey Durmic		<b>Ingredient management and quality</b> Chair - Sid Jain		<b>Gut Microbiome, Health and Development</b> Chair - Chris Rogers
1600-1610	<b>Rodrigo Albornoz</b> - <i>Dairy Australia</i> Future forage priorities for the Australian dairy industry		<b>Charlie Rikard Bell</b> – <i>APRIL</i> Nutritional traceability in feed mills		<b>Danielle Fitzgerald</b> - <i>University of Queensland</i> The symbiotic relationship between the horse and its gastrointestinal microbiome
1610-1620					<b>Mark Barnett</b> - <i>MTB Equine Consultancy Services</i> The role of microbial metabolites in the health, wellbeing, and performance of the horse

1620-1630	<b>Bill Mahanna</b> – <i>Pioneer Seeds</i> Maize silage digestion kinetics <i>Sponsored by Nutritional Society of Australia</i>	<b>Claus Holm</b> - <i>FOSS</i> A novel automated multiplex solution for analysis of mycotoxins in grains	<b>Holly Mills</b> - <i>University of Adelaide</i> Equine nutraceutical buffers gastric acid in an in vitro model over an 8-hour period
1630-1640		<b>Neal Cass</b> – <i>Hydronix Ltd</i> The importance of moisture control and measurement throughout the feed and flour milling process.	<b>Anne Beasley</b> - <i>University of Queensland</i> Beyond chemical control of equine internal parasites - the strategy toolbox
1640-1650	Panel Q&A	<b>Jeffrey Marco Wee</b> – <i>Kemin Animal Nutrition and Health</i> Improving Pellet Milling Efficiency Through Preconditioning	
1650-1700	<b>Nerida McGilchrist</b> - <i>Equilize Horse Nutrition</i> The case for exogenous enzymes in equine nutrition	<b>George Boloutis</b> - <i>Gordyn &amp; Palmer</i> Digitalisation in milling	<b>Chris Lawlor</b> - <i>International Animal Health Products</i> Safety of a biological control agent targeting gastrointestinal nematodes as a feed additive for horses.
1700-1710	<b>Lynette Hilly</b> – <i>University of Adelaide</i> Comparison of <i>Bacillus</i> probiotics and exogenous xylanase in broiler diets containing wheat	<b>Kin Ken Chew</b> – <i>Kemin Animal Nutrition and Health</i> Harnessing Real-Time Sensor Technology and Surfactant Science for Precision Milling	<b>Simon Bailey</b> – <i>University of Melbourne</i> Production of biogenic amines in the equine gastrointestinal tract: effects of carbohydrate overload
1710-1720	<b>Amy Moss</b> – <i>University of New England</i> An alternative approach to determine ileal digestibility of nutrients in poultry via response surface methodology	<b>Philipp Fritschi</b> - <i>Buhler AG</i> High precision feed milling	<b>Joe Pagan</b> - <i>Kentucky Equine Research</i> Factors affecting body size and the incidence of skeletal disease in Thoroughbred foals
1720-1730	<b>Rebel Northey</b> – <i>University of New England</i> Digestibility of two commercial food waste sources for broiler chickens with potential to be useful alternative ingredients		
1730-1930	<b>Conference Reception Tonic Bar</b> <b>Sponsored by LGPM</b>		

<b>Wednesday 14<sup>th</sup> May 2025</b>				
0800 – 1630	<b>Registration Open</b>			
0830-1000	<b>Concurrent Session 3</b>			
	<b>RAAN-A</b> P1	<b>Milling &amp; Nutrition</b> P2	<b>Equine</b> P3	<b>Flour</b> M2
	<b>Environmental Nutrition Chair</b> – <i>Tamsyn Crowley</i>	<b>Innovation and Technology Chair</b> – <i>Megan McKenzie</i>	<b>Horses, Society and Welfare Chair</b> - <i>Melody de Laat</i>	<b>Advances and Optimisation Chair</b> – <i>Katherine Sherrie</i>
0830-0840	<b>Ben Holman</b> - <i>NSW DPIRD</i> The sources and impact of microplastic intake on livestock and poultry performance and meat products: A review	<b>Hugh Gould</b> - <i>NSW DPIRD Chief Scientist Unit</i> CRISPR technology in agriculture	<b>Jaz Skinner</b> - <i>University of Southern Queensland</i> Changing role of horses in society	<b>Sam LiRosi</b> - <i>Premier Tech</i> Packaging innovations for flour
0840-0850			<b>Chris Rogers</b> - <i>Massey University</i> Responding to a changing environmental regulatory framework: The New Zealand Equine industry experience.	

*\*\* Please note that this program is subject to change 07/5/2025\*\**

0850-0900	<b>Chris Carter</b> - <i>University of Tasmania</i> Feeding and nutrition in suboptimal aquatic environments	<b>Phat van Nguyen</b> – <i>AP Engineering</i> Organic fumigation: Non-chemical pest control and storage – Post harvest solutions	<b>Lauren Hemsworth</b> - <i>University of Melbourne</i> Recreational horse welfare: Human behaviour change for horse welfare improvement	<b>Philipp Fritschi</b> - <i>Buhler</i> High precision flour milling
0900-0910			<b>Elizabeth Owens</b> – <i>Milne Agrigroup</i> Evolution of equine welfare - sport horses and the Federation Equestrian Internationale.	
0910-0920	Panel Q&A	<b>Olivier Latorre</b> - <i>Premier Tech</i> Packaging Innovations for powdery, granular and flaky ingredients. <b>Sponsor presentation</b>	<b>Ken Hinchcliff</b> – <i>University of Melbourne</i> Emerging themes in equine exercise physiology and sports medicine	<b>Mat Rees</b> - <i>AEGIC</i> Optimal settings for Australian Grain
0920-0930	<b>Ian Hodge</b> - <i>Celtic Sea Minerals</i> In vitro buffering capacity and greenhouse gas emission analysis of a marine based rumen buffer in a high starch diet	<b>Alister MacDonald</b> - <i>Feedworks</i> Recycling / value add: The novel application of enzymes for effective use of co-products and by-products		
0930-0940	<b>Charlotte Adam</b> – <i>University of New England</i> The tissue residue response to bromoform supplementation for Australian Merinos fed high- or low-quality +basal diets	<b>Annabel Mactier</b> - <i>Grain Growers Ltd</i> The future of grain freight in 2045	<b>Warwick Bayly</b> – <i>Washington State University</i> Using accelerometer-based inertial measurement unit sensors to identify racing Thoroughbreds at high risk of catastrophic musculoskeletal injury.	<b>Pietro Barbalarga</b> – <i>OMAS - Allegiant</i> From Vision to Reality: The Journey of Building Moulins Soufflet's 900TPD Flexible Flour Mill with Omas
0940-0950	<b>Fred Petranyi</b> - <i>dsm-firmenich</i> Microbiome modulation by a precision biotic-based glycan reduces the impact of necrotic enteritis in broiler chickens	<b>Doug Pearson</b> - <i>Feedworks</i> Insylo: IoT solution for livestock feed supply chain optimization		
0950-1000	<b>3-minute Poster Pitches</b>	<b>Alex Turney</b> - <i>Lallemand</i> Cow monitoring technologies. Now and into the future.	<b>Kylie Legg</b> - <i>Massey University</i> Relationship between jockey experience and head displacement whilst riding Thoroughbred racehorses	
	<b>John Alawneh</b> : Changes to milk, ruminal, faecal microbiota, and milk production in dairy cows supplemented with a lactobacilli-based direct-fed microbial			
	<b>Shuangshuang Guo</b> : Effects of <i>Lactobacillus reuteri</i> postbiotics on growth performance and intestinal health of broilers challenged with coccidia and <i>Clostridium perfringens</i>			
	<b>Chris Lawlor</b> : Safety of a biological control agent targeting gastrointestinal			

	nematodes as a feed additive for livestock			
1000-1030	<b>Morning Tea</b> Sponsored by: Adisseo Asia Pacific			
1030-1200	<b>Concurrent Session 4</b>			
	<b>RAAN-A</b> <b>P1</b>	<b>Milling &amp; Nutrition</b> <b>P2</b>	<b>Equine</b> <b>P3</b>	<b>Flour</b> <b>M2</b>
	<b>Nutritional Metabolism Chair</b> – Nigel Tomkins	<b>Operational Management &amp; Decision Making Chair</b> - David Bray	<b>Thoroughbred Racing and Welfare Chair</b> - Wayne Bryden	<b>Advances and Optimisation Chair</b> – Paul Martin <b>Session Sponsor:</b> Satake
1030-1040	<b>David Innes</b> - <i>University of New England</i> Metabolic and biochemical regulation of feed intake in ruminants	<b>Brad Tresidder</b> – <i>Gallagher Insurance</i> Insurance Market Update: How to maximise current market conditions and reduce premiums	<b>Chris Whitton</b> , <i>The University of Melbourne</i> Limb injury prevention in racehorses – what have we learned from research?	See Milling & Nutrition Program in P2 for Insurance and Energy presentations.
1040-1050				
1050-1100	<b>Shiva Greenhalgh</b> - <i>Sydney Animal Nutrition</i> Recent advances in managing obesity in companion animals	<b>Alex Townsend</b> – <i>Choice Energy</i> The data behind making energy decisions for Millers		
1100-1110		<b>Bronwyn Von Hellens</b> – <i>FeedSafe &amp; FAMIqs</i> Overcoming the most common pain points in your system	<b>Michaela Gibson</b> - <i>Massey University</i> Race day fatality in the 2023/24 New Zealand Thoroughbred racing season and the role of the equine mortality review panel	<b>Dimitrios Argyriou</b> – <i>Grainar, GREECE</i> Optimizing Enzyme Systems in Flour Milling: A DOE-Based Approach for Performance and Cost Efficiency'. Video session
1110-1120	Panel Q&A			
1120-1130	<b>Thomas Keogh</b> - <i>CSIRO</i> Implementation of a revised sheep growth model to track fat and protein body composition	<b>Phil Chan</b> - <i>Bendigo Bank Agribusiness</i> The Bank's sustainability approach to support responsible lending in a changing world	<b>Joe Pagan / Ryon Springer</b> - <i>Kentucky Equine Research</i> Implications of cooling methods for Thoroughbred racehorses	<b>Roger Cook</b> – <i>Satake</i> The principles and methods for particle separation
1130-1140	<b>Matthew Meggison</b> – <i>BEC Feed</i> Effect of a combination of specific essential oils, on performance and carcass yield traits, when fed to finishing Lambs			
1140-1150	<b>Francesca Susca</b> - <i>Lallemand</i> A Dedicated Research Program for Postbiotic Bacteria in Companion Animals	<b>Dale Grey</b> – <i>Agriculture Victoria</i> Understanding the variant of modelling weather predictions		
1150-1200	<b>3-minute poster pitches</b> <b>Alison Leary:</b> Pilot study Investigating the effects of yeast polysaccharides on commercial broiler performance			

	<b>Fahrul Irawan:</b> Assessing the effects of varying cassava supplementation in 50% leucaena diets on toxicity in Bali bulls			Young Achiever Award
	<b>Shuangshuang Guo:</b> <i>Poria cocos</i> polysaccharides alleviated porcine epidemic diarrhea virus-induced intestinal injury by modulating lipid metabolism in piglets			
1200-1300	<b>Lunch</b> <b>Sponsored by: Moltech Australia Pty Ltd</b>			
	<b>Plenary 3 – Nutritional Drivers of Metabolism</b> In conjunction with Nutritional Society of Australia			
1300-1500	<b>RAAN-A, Equine &amp; Milling &amp; Nutrition</b> <b>Chair – Wayne Bryden</b>	<b>P1&amp;2</b>	<b>Flour</b> <b>Chair – Travis Dunkley</b>	<b>M2</b>
1300-1330	<b>Ian Lean – Scibus</b> Delineation of metabolic disorders in ruminants requires accurate phenotype definition		<b>Kavish Naidoo</b> Wheat Milling: Precision, Process, and Product Integrity	
1330-1400	<b>Jessica Biesiekierski – The University of Melbourne</b> Navigating the complexities of food intolerances			
1400-1420	<b>Melody de Laat – Queensland University of Technology</b> Nutrition and the gastrointestinal tract: key factors driving metabolic dysfunction in horses		<b>Tony Smith - Baking Association Australia</b> Supporting a better baking industry	
1420-1430				
1430-1440	<b>Panel session</b>		<b>Chris Whiteway / Mat Rees - AEGIC</b> Training videos / eLearning ATMA flour milling award trip	
1440-1500				
1500-1530	<b>Afternoon Tea</b> <b>Sponsored by : Alltech Lienert Australia</b>			
1530 – 1730	<b>Plenary 4 – Future Focus</b> <b>Chair – Nick Reid</b> <b>Sponsor: Jefe</b>	<b>P1&amp;2</b>	<b>Flour</b> <b>Chair – Bernard O'Brien</b>	<b>M2</b>
1530 - 1600	<b>Tom Williams – Number 8 Bio</b> Bioengineering for animal nutrition		<b>Steve Faerber – UK Flour Millers</b> Advances in Flour Miller Training	
1600-1630	<b>John Russell – Tegel Foods Ltd (International NZ)</b> Feeding innovation: The use and implementation of AI in nutrition & milling		<b>Industry Roundtable - How flour milling has advanced</b>	
1630-1700	<b>Brad Ridoutt – CSIRO</b> Animal-sourced foods in a healthy sustainable diet – what is the Australian evidence?			
1700-1720	Panel Discussion			
1720-1730	Winner of the 2025 AMN Innovation Award Announced <b>Conference Summary &amp; Close</b>			