

CONFERENCE PROGRAM



46TH ANNUAL CONFERENCE

28 APRIL - 2 MAY 2025
ROYAL INTERNATIONAL CONVENTION CENTRE

From Field to Future: Advancing Sugarcane Through
Innovation and Research

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Tuesday	
1800-2000	Welcome Drinks and Opening Ceremony

Wednesday	Hall B		
0845-1030	President's welcome Keynote speakers – Prof Ben Hayes, Shayne Rutherford and Tom McNeill		
1030-1100	Break in Hall C		
1100-1130	Mudge, Olayemi - Use of genetic manipulation and gene editing in the Australian sugarcane industry: advances, relevance and barriers		
1130-1200	Yesmin, et al. - Losses from ratoon stunting disease (RSD) are heavily underestimated in Australia and likely exceed \$200 million in annual direct losses		
1200-1230	Mann – Electricity export by the Australian sugar industry		
1230-1330	Lunch and viewing Equipment Exhibition in Hall C		
	Hall B	Room 4	Room 5
1330-1400	Salter, et al. - Observations from an industry-wide leaf and soil survey to detect hidden nutrient constraints	Suppliers' case studies Beletti, Pires - State of the art NIR technology in sugarcane mills in Brazil (10 min) Senjaliya, et al. - Introduction of flex pin design in planetary gear boxes: advanced design and assembly by analyzing applications and load factors (10 min) Darmali - Optimizing sugarcane mill efficiency through real-time torque measurement leading to future AI-enhanced milling software (10 min)	Rosettenstein, et al. - 20 years of innovation in sugar-processing technology: a review (45 min)
1400-1430	Larsen - Mill by-product impact on soil nutrients	Suppliers' case studies Nielsen, Bartels - Experiences with automatic centrifugal wash-water control (10 min) Meesala - Split and dual continuous pans - design aspects for maximizing the benefit to sugar mills (10 min) Thaval, Schneider - Oscillating Vertical Crystallizer (OVC) – A new generation of efficient coolers (10 min)	Supplier's case study Robinson – The Repetitive Surge Oscillograph (RSO) test (10 min)

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1430-1500	<p>Sartor - Trends in soil chemical fertility within the Herbert district (15 min)</p> <p>Di Bella, et al. - Weed suppression, biomass and nitrogen accumulation in mixed species and monoculture cover crops in a tropical sugarcane fallow (15 min)</p>	<p>Bakir, et al. - Towards further improvement in clarifier performance: evaluating juice and mud residence times</p>	<p>Gilberd, et al. - Processing bagasse fly ash in the Australian industry: a review</p>
1500-1530	Break and viewing Equipment Exhibition in Hall C		
1530-1600	<p>Sluggett, Keilbach - Best-practice pesticide application in the Mackay-Whitsunday sugarcane-growing region</p>	<p>Jenssen, et al. - Predicting frictional pressure losses in complex molasses-transfer systems</p>	<p>Tyson, Heck - Measurement of clarifier mud levels at Rocky Point Mill</p>
1600-1630	<p>Hill - Biobeds for reducing the impact of pesticide point-sources of pollution upon water quality entering the Great Barrier Reef Lagoon: a preliminary investigation</p>	<p>McLean, et al. - Performance of the upgraded evaporator station at Kalamia Mill</p>	<p>Tyson, Ironside - Advanced boiler/turbogenerator control in the sugar industry</p>
1630-1700	<p>Bahadori, et al. - Runoff and deep drainage of nutrients and pesticides from sugarcane in the Mackay-Whitsunday region (10 min)</p> <p>Byrnes - Impact of location and soil variability on sugarcane yield response to nitrogen application: findings from Deeral and Babinda trials (10 min)</p> <p>Byrnes - On-farm demonstration trials investigating sugarcane response to nitrogen in the Russell-Mulgrave catchment (10 min)</p>	<p>Broadfoot, Fraga - Are there ways to increase the productivity of batch high-grade strike pans?</p>	<p>Rawlins, et al. - A numerical approach to optimising efficiency in industrial co-generation plants</p>
1730-1830	Happy hour		

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Thursday	Hall B	Room 4/5
0800-0830	Kent, et al. – Eliminating roll arcing	Ngo, et al. - Sugar Research Australia's RSD laboratory – current methods and industry data
0830-0900	Wixted, et al. - An edge-compute machine-vision system for measuring billet length on a mill conveyor	Horvath, et al. - Development of a simple on-farm colourimetric loop-mediated isothermal amplification DNA assay (AgTIY-RSDetect) for the detection of <i>Leifsonia xyli</i> subsp. <i>xyli</i> in sugarcane
0900-0930	Kent, et al. - Optimising milling-train extraction through controlling added water	Magarey, et al. - Modelling RSD detection for sampling xylem and leaf-sheath biopsies
0930-1000	Broadfoot, et al. - Options to reduce Tableland Mill's process steam consumption to below 40% on cane	Young - Understanding resistance to ratoon stunting disease (RSD)
1000-1030	Break and viewing Equipment Exhibition in Hall C	
1030-1100	Barrie - Detection of hot axle boxes on cane bins (5 min) Hofer - FEA simulation of a mill-gearbox emergency repair (5 min) Hartley - Using AI cameras to detect clarifier mud levels (5 min) Jago, et al. - Impact of a corrosion inhibitor on heat-transfer rate in evaporators (5 min) Hofer - Multi-physics simulation of a boiler air heater (5 min)	Byrnes, et al. - Constraint Management Plans in the Wet Tropics sugarcane industry (15 min) Trendell, Hill - Application of targeted extension processes to improve grower uptake of multispecies break crops within the Central Queensland sugarcane-growing region (15 min)
1100-1130	Srinivasalu - Conductivity-based moisture measurements on raw sugar – trials and insights (5 min) Gilberd, Ferraris - Sugar dryer control using fuzzy logic control philosophy (5 min) Smith - Optimising the design of batch pan vessels (5 min)	Park, et al. - Field assessment of attractants to improve the efficacy of RATTOFF® sachets for control of rats in sugarcane (15 min) Etebari, Furlong - Novel insect-specific viruses and their potential for biocontrol in the Australian sugarcane industry (15 min)
1130-1200	Lavarack - Feedback on the 2024 ISSCT Co-Products Workshop held in Réunion	Bawa, et al. - Preliminary study of volatile organic compounds in three host plants of Australian cane beetles (10 min)

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		Chen, et al. - RNAi biopesticides as a sustainable management tool for the protection of sugarcane from root-feeding pests (10 min) Kikitam, Light - Parasitoids of sugarcane moth borers at Ramu, Papua New Guinea (10 min)
1200-1230	Manufacturing section meeting	Agriculture section meeting
1230-1330	Lunch and viewing Posters and Equipment Exhibition in Hall C	
1330-1400	Dahlenburg, Plaza - A simplified model of a boiler furnace to understand effects on grate temperatures and potential overheating events	Natarajan, et al. - UAV-derived plot length to enhance the accuracy of sugarcane breeding trials
1400-1430	Rawlins, Marais - Accelerating the optimisation of water-tube boiler performance using a digital twin: a case study using simulated datasets	Leekar, Jensen - Gap dynamics in sugarcane (10 min) Powell, et al. - Preliminary surveys of soldier fly species in Australian sugarcane fields and progress towards an in vitro rearing system (10 min)
1430-1500	Ferraris, et al. - Measuring steam flow using an elbow-tap flowmeter	
1500-1530	Break	
1530-1600	Moore, et al. - Flue-gas cleaning equipment bagasse-fired boilers to comply with new environmental regulations	
1600-1630	Dauvellier, et al. - Optimisation of wet scrubbing after bagasse-fired boilers	
1630-1730	Annual general meeting in Hall B	
1830-2300	Gala dinner in Hall A	

Friday	
0715-1300	Agriculture and Manufacturing field tours



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LEVEL 1

