

Conference Program

AUSTRALIAN SOCIETY OF SUGAR CANE TECHNOLOGISTS



ASSCT

Australian Society of Sugar Cane Technologists

45TH ANNUAL CONFERENCE

PROFITABILITY | SUSTAINABILITY | ADAPTABILITY

16 - 19 April 2024

Townsville Entertainment & Convention Centre

The ASSCT wish to acknowledge:

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Tuesday 16th	
0800-1630	Agriculture field tour
1830-2000	Welcome function & official opening
Wednesday 17th	
	Palm room
0845-1000	<p>President's welcome</p> <p>Guest presentations</p> <p>Krosch - Ark Energy's journey to date</p> <p>Harris, Roberts - Technology pathways supporting adaptable and sustainable sugar industry transitions</p>
1000-1030	Break and viewing Equipment Exhibition
1030-1100	O'Sullivan - Are biofuels a sweet deal for the Australian sugar industry? Opportunities and barriers
1100-1130	Schroeder - Will the Australian sugarcane industry's current agricultural R&D enable the next 'step change'?
1130-1200	Broadfoot - Potential major changes in process control of Australian sugar factories
1200-1230	Lochner, Quirk - Pricing impacts and rationale for transitions in sugarcane farming in northern New South Wales and Queensland: a conversation starter
1230-1330	Lunch and viewing Equipment Exhibition

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	Palm room	Yongala room	Magnetic room
1330-1400	Renouf et al - Life-cycle assessment of greenhouse-gas emissions from changes in cane-growing practices	Bhuiyan - Temporal development of smut, yield loss, and integrated management strategies using a fungicide and varietal resistance	Southern, Plaza - Modelling the harvester's front end to reduce billet and stool damage: the behaviour of leaves
1400-1430	Headon et al - Growers reduce uncertainty around adjusting nitrogen rates following legume cover crops in the Murray district	Waters et al - Detection of ratoon stunting disease with freely available satellite-based multispectral imaging and machine learning	Kent et al - Automating the handling of soft canes through the factory
1430-1500	Skocaj et al - Impact of nitrogen fertiliser application timing and interaction with harvest time on crop performance	Milla, Magarey - Extension and RSD management in the Burdekin: challenges and successes	Bakir et al - Evaluation of a pilot-scale system for removing bagacillo from juice
1500-1530	Break and viewing Equipment Exhibition		
1530-1600	Schroeder et al - Are urea-based enhanced-efficiency fertilisers widely appropriate for reducing nitrogen application rates in sugarcane production?	Li et al - Carbon nanodots as novel fungicides for driving disease prevention in sugarcane Zia et al - Toxicity of carbon dots to sugarcane and human cells	Matsueda et al - Modelling the integration of bagasse pyrolysis into sugar mill energy systems
1600-1630	Larsen et al - Nutrient content after the application of mill by-products and implications for nutrient management	Fillols - Post-emergent control of balsam pear	Attard et al - Using activated bio-char to reduce colour during juice clarification in a raw sugar mill
1630-1700		Rahimi Azghadi et al - Precise robotic spot-spraying of weeds for improved environmental and economic outcomes in the sugarcane industry	Shepherd et al - Heat transfer surface film impact on heat transfer rate in evaporators
1730-1830	Happy hour		

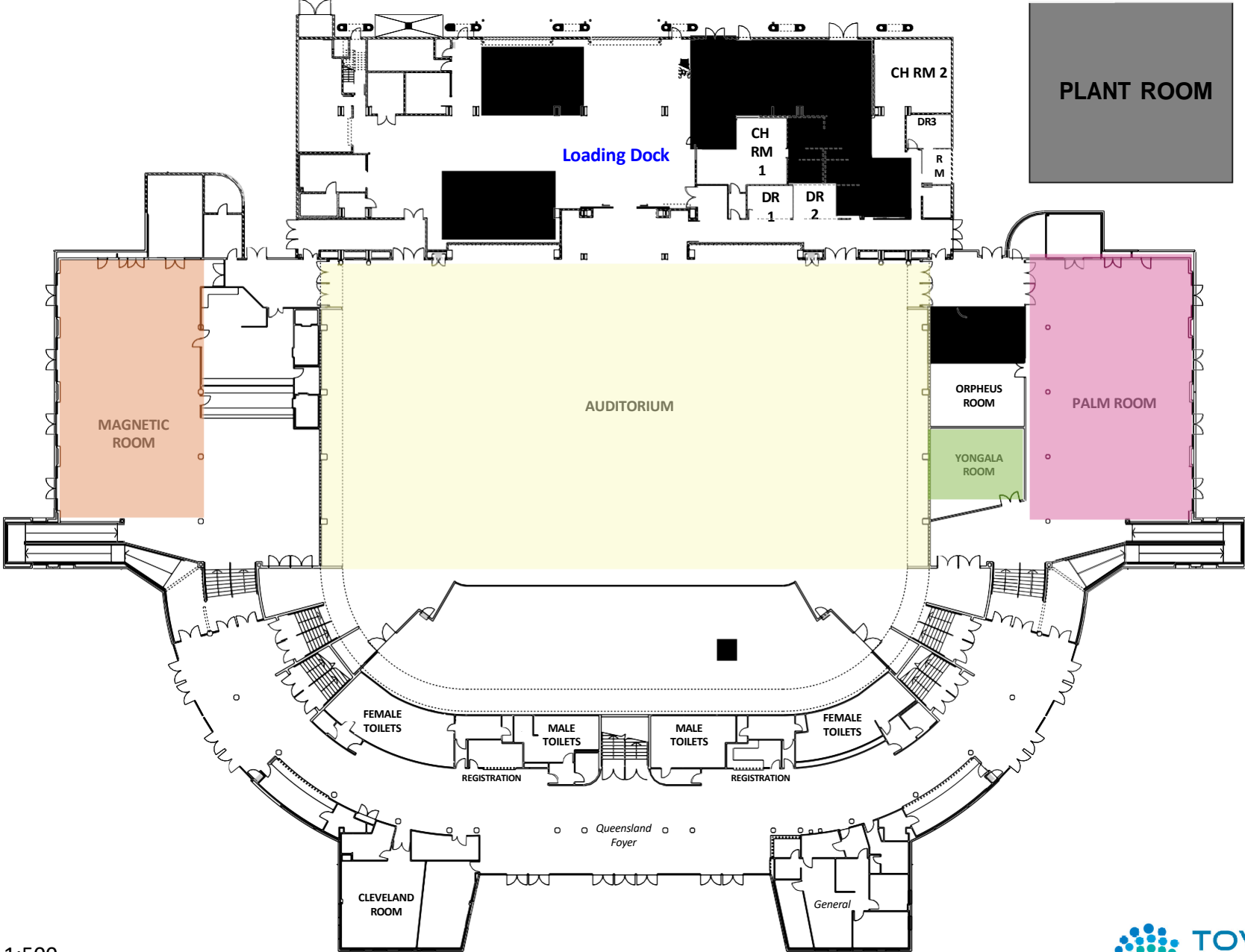
Thursday 18th	Palm room	Yongala room	Magnetic room
0800-0830	Bradshaw, Scardamaglia - Working together to achieve a sustainable outcome for the sugar industry and environment		Wilson, Burke - Introduction of a new Laboratory Information Management System (LIMS)
0830-0900	Almeida et al - ESG analysis on-farm: a practical framework to support Australian producers		Thaval, Dowling - Performance of the bagasse diffuser at Invicta Sugar Mill
0900-0930	Wang et al - Enhancing efficiency and profitability: the impact of smart irrigation scheduling in sugarcane production systems	Chung, Jardine - Cane railway track inspection methodology and best practices	Wallace et al - Challenging convention to improve chemistry management of sugar-mill boiler stations
0930-1000	Schembri et al - Nutrients and pesticides in end-of-paddock run-off water for farming practices in the Central region	Marcelo et al - Revised design of signal poles used at active level crossings of cane railways	Mann, Broadfoot - Effect of factory reliability on bagasse usage and surplus
1000-1030	Break and viewing Equipment Exhibition		
1030-1100	Emtia et al - Review of soldier flies in sugarcane and identification of some key research gaps Bawa et al - Using novel screening methods for evaluating insecticides against canegrubs		Qureshi, Ghazanfar - The journey towards sustainable business through technological advancement and diversification into the downstream industry: a role model in the Pakistan

1100-1130	<p>Green et al - Removal of carbon dioxide via enhanced weathering of sugarcane mill ash under different soil conditions</p> <p>Holden et al - Removal of carbon dioxide through enhanced weathering of basalt in acidic soils under sugarcane</p>		<p>Supplier's presentation</p> <p>Rózsa, Rukavina - Supersaturation-based control of sugar crystallization</p> <p>Posters</p> <p>Matthews - Using hydrotreated vegetable oil (HVO) as a renewable fuel in the Wilmar locomotive fleet</p> <p>Philp - Retrofitting versus replacement for obsolete remote shunting unit (RSU) systems</p>
1130-1200	<p>Posters</p> <p>Robertson et al - Implications for sugarcane nutrient management following a green-manure crop of sunn hemp</p> <p>Leekar et al - Potential of UAV imagery and Learning Techniques for determining gaps in sugarcane rows</p> <p>Park - Effect of application of Moddus® on yield of stand-over sugarcane in the Herbert River District in 2023</p>		<p>Posters</p> <p>Badger, Kelly - Towards zero effluent in Wilmar's Proserpine mill</p> <p>Jennings - Analysis of diffuser juice application at Inkerman Mill</p> <p>Nilon, Richter - A suspected Maillard reaction in a continuous C Masecuite pan - findings and outcomes</p> <p>Biggs, McLean - Pan condenser performance versus modelled performance</p>
1200-1230	Agriculture section meeting		Manufacturing section meeting
1230-1330	Lunch and viewing Posters and Equipment Exhibition		
1330-1400	Magarey - The BSES yield decline program: foundational research into soil factors affecting root health in the Australian sugarcane industry		Broadfoot, Fraga - Guidelines for cost-effectively improving sugar recovery from C massecuite cooling crystallisers
1400-1430	Halpin et al - The 'best' legume rotation for southern cane growers		Jenssen, Broadfoot - Measured and predicted consistency values for C massecuite
1430-1500	Halpin et al - Soybean and peanut rotations benefit sugarcane production in the Burdekin		Fraga et al - Use of dry substance as the process variable to control massecuite concentration during pan boiling
1500-1530	Break		
1530-1600	Salter - Impact of long-term trash blanketing and tillage prior to planting on soil carbon and sugarcane production		Bankie - Supplementary compressed air ploughing system for batch centrifugals trialled at Racecourse mill
1600-1630	Green et al - Long-term effects of gypsum on the chemistry of sodic soils under sugarcane		Gilberd et al - A clarifier scraper design to minimise nuisance lifting
1630-1730	Annual general meeting		
1830-2300	Gala dinner at Museum of Tropical Queensland		

Friday 19th	
0715-1300	Manufacturing field tour

REAR CAR PARK

REAR CAR PARK
ACCESS POINT



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SCALE 1:500