Proceedings of the Australian Society of Sugar Cane Technologists

2009
BALLINA
31st Conference
AFTERNOON SESSION—1.30

GENERAL SESSION

Chairman: Dr B Schroeder

Paper: 1.30–2.00 Breeding implications of diversifying end uses of sugarcane, by Nils Berding, Rhylee S Pendrigh .................................................. 24

Paper: 2.00–2.30 Success factors in research collaboration: lessons from the Sugar Yield Decline Joint Venture, by DP Maldonado, RJ Troedson ................................. 39

Paper: 2.30–3.00 RAIN FORECASTER—a seasonal climate forecasting tool, by YL Everingham, D ZamykaL, LI Mc Kinna .................................................. 50

3.00–3.30 Afternoon tea

GENERAL SESSION

Chairman: Dr B Schroeder

Paper: 3.30–4.00 Data exchange: an example of a large harvesting co-operative working closely with the mill, by Peter J. Rose, Simon Hollis ......................... 65

Paper: 4.00–4.30 Sing like no one can hear you, dance like no one can see you but write like everyone will read you, by P Bonaventura ......................................... 73

4.30–5.30 Presentation of the Sugar Industry Innovator Awards/Research Awards

6.00 Welcome function

WEDNESDAY, 6 May, 2009

MORNING SESSION—8.00

AGRICULTURE SESSION (Concurrent)

Chairman: Mr R Beattie

Paper: 8.00–8.30 Emissions of nitrogen gases from sugarcane soils, by BCT Macdonald, OT Denmead, I White, T Naylor, B Salter, SR Wilson, DWT Griffith 85

Paper: 8.30–9.00 Alternative nitrogen management strategies for sugarcane production in Australia: the essence of what they mean, by BL Schroeder, AP Hurney, AW Wood, PW Moody, DV Calcino, T Cameron .................. 93

Paper: 9.00–9.30 Nitrogen needs of sugarcane crops: lessons from testing the N replacement concept, by PJ Thorburn, AJ Webster, JS Biggs, IM Biggs ......................... 104


AGRICULTURE SESSION (Concurrent)

Chairman: M P McGuire

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Paper: 8.30–9.00 Survival of sugarcane smut teliospores under south east Queensland conditions, by Shamsul A Bhuiyan, Barry J Croft, Mike C Cox ........................................ 135


MANUFACTURING SESSION
Chairman: Mr S King

Paper: 8.00–8.30 L(+)-lactic acid production using sugarcane molasses and waste potato starch: an alternative approach, by Z Zhang, B Jin ........................................ 372

Paper: 8.30–9.00 Integrated processing for profit, by Griff Thomas ........................................ 381

Paper: 9.00–9.30 Torrefaction and gasification for high efficiency second-generation biofuel production, by PA Hobson ........................................ 389

Paper: 9.30–10.00 The development of cogeneration projects at Condong and Broadwater Mills, by C Palmer, RM Farrell, J Hurt ........................................ 400

10.00–10.30 Morning tea

AGRICULTURE SESSION (Concurrent)
Chairman: Mr T Willcox

Paper: 10.30–11.00 Bentonite treatments can improve the nutrient and water holding capacity of sugarcane soils in the wet tropics, by Anna Satje, Paul Nelson ........................................ 166

Paper: 11.00–11.30 Validating the ‘Six Easy Steps’ nutrient management guidelines in the Johnstone catchment, by BL Schroeder, AW Wood, G Park, JH Panitz, RL Stewart ........................................ 177

Paper: 11.30–12.00 Potassium management for sugarcane on base saturated soils in northern New South Wales, by G Kingston, MC Anink, BM Clift, RN Beattie .. 186

AGRICULTURE SESSION (Concurrent)
Chairman: Mr N Ensbeay

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MANUFACTURING SESSION
Chairman: Mr S King

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Paper: 11.00–11.30 Reducing factory steam consumption for cogeneration at Condong Mill, by I Rose, P Scroope, R Broadfoot ........................................ 420

Paper: 11.30–12.00 Treatment of cooling tower effluent from sugar mill co-generation power plants using constructed wetlands, by ML Bayley, D McCann, P Shaw, K O’Hara ........................................ 430

12.00–12.30 Section AGMs

12.30–1.30 Lunch
AFTERNOON SESSION—1.30

AGRICULTURE SESSION
Chairman: Mr R Beattie

Paper: 1.30–2.00 Realised value of RD&E in the Australian sugar industry: economic benefits of the changing farming system, by BL Schroeder, T Cameron, AI Linedale, PG Allsop ......................................................... 221

Paper: 2.00–2.30 Use of overhead irrigation in the lower Burdekin uses less water and does not penalise yield, by SJ Attard, NG Inman-Bamber, C Hesp ....... 230

Paper: 2.30–3.00 Online shedmeetings: experiences producing video webcasts that showcase sugar industry best practice, by WHP Thomas .................. 240

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Chairman: Mr C Garson

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Paper: 2.00–2.30 Preliminary investigations into a photometric absorbance method as an option for detecting condensate contamination, by JD Snood ............ 451

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AGRICULTURE SESSION
Chairman: Mr T Willcox

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Paper: 4.00–4.30 Evidence of differences in nitrogen use efficiency in sugarcane genotypes, by N Robinson, H Gamage, A Whan, K Vinall, A Fletcher, R Brackin, J Holst, P Lakshmanan, S Schmidt .................. 256

MANUFACTURING SESSION
Chairman: Mr C Garson

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Paper: 4.00–4.30 Design, manufacturing and maintenance of sugar milling equipment: Observations from the 2008 ISSCT engineering workshop, by GA Kent, SJ Scott ......................................................... 481

4.30–5.00 Posters ......................................................... 580–596

THURSDAY, 7 MAY 2009

MORNING SESSION—8.00

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Chairman: Mr T Willcox

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Paper: 8.30–9.00 Sugarcane yield monitoring in the Herbert District, by LP Di Bella, M Sefton, S Marrero, E Ponce, F Fernandez, M Esquivel, R Coventry 274
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<td>9.00–9.30</td>
<td>Long-term Ingham and Mackay farming system experiments: comparisons between permanent non-tilled beds and re-formed beds, by AL Garside, MJ Poggio, G Park, B Salter, J Perna</td>
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<td>9.30–10.00</td>
<td>The use of geo-referenced soil test data in the Herbert District, by LP Di Bella, RJ Coventry, M Sefton, PW Moody, M Hanks, JK Stringer, RE Kerkwyk</td>
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<td>8.00–8.30</td>
<td>Environmental parameters affecting the reliability of resistance-screening trials for orange rust and yellow spot, by RC Magarey, JI Bull</td>
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<td>8.30–9.00</td>
<td>Development of a web-based decision-support tool and information resource for sugarcane varieties in the Australian sugar industry, by D Millard, B Croft, M Cox, D Payne</td>
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<td>9.00–9.30</td>
<td>Interplot competition between sugarcane families significantly affects estimates of cane yield and family selection, by Felicity Atkin, Joanne Stringer, Mark Dieters</td>
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<td>9.30–10.00</td>
<td>Inter-row yield correlations in selection trials—assessment and implications, by Nils Berding, Rhylee S Pendrigh, Michael Porta</td>
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**AGRICULTURE SESSION (Concurrent)**
Chairman: Dr M Cox

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<td>Implementing Work Flow Control for maintenance: A user’s perspective, by T Peppernell, C Harvey, S Scott</td>
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<td>8.30–9.00</td>
<td>Implementing a structured failure analysis system, by PA Coram, AJ Brown</td>
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<td>Raw sugar quality from a refiner’s perspective, by Terry M Jansen</td>
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<td>Experience and utilisation of an on-line sugar colorimeter in a raw sugar mill, by S King, M Marron</td>
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10.00–10.30 Morning tea
10.30–11.30 ASSCT AGM
11.30–12.30 Lunch
12.30 Agricultural Field Trip

**MANUFACTURING SESSION**
Chairman: Mr C Garson

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<td>Performance of a tandem of Bundaberg two-roll mills, by P Chohan, CA Garson</td>
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<td>An update on the Farleigh evaporators, by B Lavarack, T Lloyd, M Giannangelo, M O’Hara</td>
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2.00 Manufacturing Field Trip
5.15 BBQ
FRIDAY, 8 MAY 2009

MORNING SESSION—8.00

AGRICULTURE SESSION
Chairman: Mr R Beattie

Paper: 8.00–8.30 Impact of Bedminster compost on sugarcane crops, by DV Calcino, AP Hurney, WP Scougall, HT Slattery .................................................. 345
Paper: 8.30–9.00 Automating harvester and haul-out forward progression during harvest using RTK-GPS, by AB Ruxton, PJ Grabau .................................................. 355
Paper: 9.00–9.30 SHIRT – real time supply chain information for harvester managers, by Peter Rose, Stuart McRae, Gabriel Codina .................................................. 365

MANUFACTURING SESSION
Chairman: Mr S King

Paper: 8.00–8.30 Development and testing of a sugarcane harvester single drum chopper system, by MG Barnes, JG Loughran, C Whiteing, BW Lamb .............. 546
Paper: 8.30–9.00 Whole-crop cane transportation: Introduction and maintenance of lightweight high volume aluminium bins, by GT Doolan, BW Lamb ... 556
Paper: 9.00–9.30 The development of electronic consignment bin recording, by J Markley, K Griffin, P Everitt, N Young ............................................. 568

9.30–10.00 Morning tea
10.00–11.00 Closing ceremony