PROCEEDINGS
of the
2006 CONFERENCE
of the
Australian Society
of
Sugar Cane Technologists

held at
MACKAY, QUEENSLAND
from 2 May to 5 May 2006

Edited by D.M. HOGARTH

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TWENTY-EIGHTH CONFERENCE
MACKAY, 2006

PROGRAM

The Official Opening, Annual General Meeting, General Sessions and some Technical Sessions of the Conference will be held at the Mackay Entertainment Centre (MEC), Gordon Street. The balance of the sessions will be in the adjacent Senior Citizen's Hall while the Industry Equipment Exhibition will be held in the foyer of the MEC.

TUESDAY, 2 MAY 2006

Registration at the Mackay Entertainment Centre, Gordon Street from 7.30 a.m.

MORNING SESSION—9.00 a.m.
Chairman: Mr Frank Forzatti

OFFICIAL OPENING
OF THE CONFERENCE

By

Professor James Dale
Director of the Centre for Tropical Crops & Biocommodities, Queensland University of Technology

10.00 a.m.—10.30 a.m. Morning tea

GENERAL SESSION
Chairman: Mr A. Barfield

Paper 10.30 a.m.—11.00 a.m.
Viability of sugar mill cogeneration projects, by J.J. Hodgson and B. Hocking .............................................................. 1

Paper 11.00 a.m.—11.30 a.m.
Petrol pricing in Australia and the opportunity to supply ethanol from sugarcane and other raw materials, by Malcolm Wegener and Fabio de Campos Queiroz ............................................................... 12

Paper 11.30 a.m.—12.00 noon
A new opportunity to pulp bagasse in Australia? by G. Covey, T.J. Rainey and D. Shore .............................................................. 22

12.00 noon
Official opening of the Industry Equipment Exhibition
12.30 p.m.—1.30 p.m.
Lunch
AFTERNOON SESSION—1.30 p.m.

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Paper: 2.30 p.m.—3.00 p.m. Harvest and transport integration—A Mackay sugar perspective, by J. Markley, A. Raines, D.A. Langham and G. Fleming .................................................. 49

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GENERAL SESSION
Chairman: Mr A. Barfield

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Paper: 4.00 p.m.—4.30 p.m. 105 years on—relevance and sustainability of BSES, by Eoin S. Wallis, Helen Skippen and Peter G. Allsopp ................................................................. 67

Paper: 4.30 p.m.—5.00 p.m. Understanding the adoption of knowledge intensive technologies in the Australian sugar industry—a pilot study, by Y. Everingham, E. Jakku, G. Inman-Bamber, P. Thorburn, T. Webster, S. Attard and G. Antony .... 76

5.00 p.m.—6.00 p.m. Presentation of the Sugar Industry Innovator Awards/Research awards

6.00 p.m. Welcome function

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Paper: 8.30 a.m.—9.00 a.m. Grower case study on economics of an improved farming system, by N. Loeskow, T. Cameron and B. Callow ......................................................... 96

Paper: 9.00 a.m.—9.30 a.m. Our new farming system—his and her story, by George Henry, Kathleen Henry and N.C. Sing ................................................................. 103

Paper: 9.30 a.m.—10.00 a.m. Environmental management systems and farm management systems from a global perspective and links to the Better Sugarcane Initiative, by Robert G. Quirk ................................................................. 113

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Chairman: Dr P.R. Samson

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Paper: 11.00 a.m.—11.30 a.m. Impact of management of cane trash and legume residues on N mineralisation and crop N uptake, by M.J. Bell, P.W. Moody, N.V. Halpin and A.L. Garside ................................................................. 129

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12.00 noon–12.30 p.m. Manufacturing AGM
12.00 noon–12.30 p.m. Administration AGM
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AGRICULTURE SESSION
Chairman: Mr D. Burgess

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Chairman: Mr D. Burgess

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Chairman: Dr P.R. Samson

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Chairman: Mr L. Cripps

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Chairman: Mr C. Pozzetti

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Paper: 8.30 a.m.-9.00 a.m. Economic effects of diseases: regional variation in Queensland, by R.C. Magarey ................................................................. 226


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Chairman: Mr L. Cripps

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Chairman: Dr P.R. Samson

Paper: 11.30 a.m.–12.00 noon Row spacing effects on the growth and yield of several sugarcane varieties in north Queensland, by A.L. Garside, J.E. Berthelsen, B.G. Robotham and N. Berding ................................................................. 298

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Chairman: Mr D. Burgess

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Chairman: Dr P.R. Samson

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Chairman: Mr L. Cripps

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FRIDAY, 5 MAY 2006

MORNING SESSION—8.00 a.m.

AGRICULTURE SESSION

8:00 a.m.—11:00 a.m. Agricultural delegates visit: BSES Field Day

MANUFACTURING SESSION

Chairman: Mr C. Pozzetti

Paper: 8.00 a.m.—8.30 a.m. Application of energy integration techniques (pinch technology) to reduce process steam consumption for raw sugar factories, by B.P. Lavarack

Paper: 8.30 a.m.—9.00 a.m. Bagasse fractionation by the soda process, by W.O.S. Doherty and T.J. Rainey

Paper: 9.00 a.m.—9.30 a.m. Lactic acid production by a rumen bacterium cultivated on chemically defined medium with ammonia as nitrogen source, by E.L. Joachimsthal, J. Hung and L.K. Nielsen

9.30 a.m.—10.00 a.m. Morning tea

MANUFACTURING SESSION

Chairman: Mr L. Cripps

Paper: 10.00 a.m.—10.30 a.m. Separating high purity B molasses for high pol sugar production, by K. Griffin, P.R. Stuart and B. Stevenson

Paper: 10.30 a.m.—11.00 a.m. Performance of an improved pan stirrer at Isis sugar mill, by D.W. Rackemann, T.J. Rainey, R. Broadfoot and D. Pike

Paper: 11.00 a.m.—11.30 a.m. Costs and benefits of the CBA boiling scheme for high pol sugar production, by R. Broadfoot

11.30 a.m.—12.00 noon Closing ceremony

Following the Closing Ceremony, there will be an SRDC-sponsored workshop for delegates who register their interest with SRDC.

1.00 p.m.—5.00 p.m. Trash and Bagasse Utilisation Workshop.

The Lynnette Denny Space, Mackay Entertainment Centre