

Registration Brochure & Program

THE 14TH AUSTRALIAN BARLEY TECHNICAL SYMPOSIUM



13 - 16 SEPTEMBER 2009
BARLEY : GRAIN FOR GAIN

Novotel Twin Waters Resort
Sunshine Coast, Queensland, Australia

www.abts.com.au



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**Grains Research &
Development Corporation**

Welcome from the Chairman

Dr David Poulsen



The 14th Australian Barley Technical Symposium offers delegates the opportunity to celebrate technical, production and industrial successes of the barley and associated industries across Australia and around the world. Through the formal program, you will hear the latest technological and marketing developments in the industry from leading industry and research personnel, as well as from a selection of talented young professionals and leading university students from across Australia. You will also have the opportunity to meet and mix with the speakers, industry leaders, scientists and barley producers in the relaxed subtropical environment of Queensland's Sunshine Coast. On behalf of our Sponsors and the 14th ABTS Organising Committee, I am delighted to invite you to the Twin Waters Resort in September 2009 to join us and share an event that promises to be an enjoyable, informative and memorable experience for all.

Invited Speakers



Mr Henning Luetje: Mr Luetje has had a lifetime's experience in the international grains industry. Prior to founding Agro-Handel in 2008, a grain market trading consultancy based near Hamburg, Mr Luetje worked with Toepfer International for over 40 years, specialising in malting barley and malt marketing.

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Ing Vera Honigova: Ing Honigova completed her Dipl. Ing. degree at the Institute of Chemical Technology in Prague in 1973 and a Graduate course in Brewing and Malting at the Catholic University of Leuven, Belgium in 1993. She is a member of the Czech Society of Applied Sciences and the Beer Safety International Management Team of Brewers of Europe. Ing Honigova worked in numerous breweries in Czech Republic to become a Head of Quality Department at Prague Breweries. She was appointed Quality Assurance Director, Czech Republic for BASS International and Group Quality Compliance Manager, Czech Republic, for InBev. She currently is the Manager of the Research and Development Department and is Company Secretary at the Research Institute of Brewing and Malting in Prague.



Mr Don Taylor: Mr Taylor, Chairman of GrainCorp, B.Com., CA, Grad.Ceft. Rur.Sc., FAICD, has a diverse background, being a graingrower and chartered accountant with audit and taxation experience in manufacturing and heavy industry. Mr Taylor joined the Board of GrainCorp in 2003 following the merger of GrainCorp with Grainco Australia Limited and became Chairman in 2006. Mr Taylor operates a mixed farming and grazing property in the Moonie district of Queensland. Crops grown by the business include barley, wheat, chickpeas, cotton, sorghum and various forage crops.



Invited Speakers (cont)



Dr Jim Helm: Dr Helm is a barley breeder with Alberta Agriculture, Food & Rural Development. He has been with Alberta Agriculture for over 35 years and his primary focus is on the improvement of barley for animal feed. He has been a driving force behind the feed grain development program at the Field Crop Development Centre in Lacombe and to date this program has released to Alberta producers 26 new barley and 8 triticale varieties adapted for Alberta. He has also been a leader in the application of Near Infrared Reflectance Spectroscopy (NIRS) technology to the agriculture industry. This technology is used to measure feed and malting quality characteristics of barley.



Dr Stephen Neate: Dr Neate leads the winter cereals plant pathology team for Queensland Primary Industries and Fisheries at the Leslie Research Centre in Toowoomba. He joined CSIRO Division of Soils in 1985 as a post-doc, leaving in 2001 as a principal research scientist. During that time he led multi-disciplinary and multi-institutional research programs at CSIRO, the CRC for Soil and Land Management and for GRDC. His work was on development of methods to control soil-borne diseases in sustainable cropping systems for Southern Australia. From 2001 to 2009, he was a professor at North Dakota State University, Fargo, USA, where he taught host-parasite genetics and led a research program on control of diseases of barley which focussed on resistance gene discovery, mapping and development of molecular markers as well as disease management strategies.



Queensland Government



Dr Antonin Dreiseitl: Dr Dreiseitl works at the Agricultural Research Institute Kromeriz, Czech Republic, where he is engaged in problems associated with resistance to biotrophic parasites on cereals, particularly on the model host-pathogen relationship barley-*Blumeria graminis* f. sp. *hordei*. Since 2006, he has taught plant pathology at Mendel University in Brno.



Dr Kay Denyer: Dr Denyer of John Innes Centre, Norwich, United Kingdom is a biochemist studying starch synthesis and degradation in cereal endosperms. Her aim is to understand how the quality and quantity of cereal starch is determined. To understand the role of the enzymes involved, she is studying mutants of cereals (mainly barley, rice and wheat) that are affected in their ability to synthesize starch. As well as biochemical approaches, she also uses cereal genetic and genomic tools



Assoc Prof Kevin Smith: A/Prof Smith is based at the University of Minnesota, St. Paul, USA and conducts research on barley breeding and genetics. His breeding efforts concentrate on development of six-rowed spring barley for malting. Research projects include: understanding genetic diversity and linkage equilibrium in breeding populations, genetics of complex traits and marker assisted breeding strategies.

Invited Speakers (cont)



Dr Ken Street: Dr Street is the Curator of the food and forage legume collection at the International Center for Agricultural Research in the Dry Areas (ICARDA), Aleppo, Syria. Since 1999, his duties at the Genetic Resource Unit of ICARDA have included general maintenance of the medium and long term collections, undertaking diversity studies and seeking to expand the collection with materials from under represented areas. Dr Street also coordinates plant genetic resource special projects in central Asia and the Caucasus in collaboration with Australian institutions and the N.I. Vavilov Research Institute of Plant Industry (VIR), St. Petersburg, Russia.

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Dr Udda Lundqvist: Dr Lundqvist started her career with the induction of barley mutants in 1949 and was responsible for barley research characterising and describing different mutant groups. She was employed by the Swedish Seed Association, Svalöv, later Svalöv AB and SvalövWeibull AB, Sweden. Since 1980 she co-operated with the Nordic Gene Bank, today Nordic Genetic Resource Center, Alnarp, Sweden. Since her retirement from the NGRC 16 years ago, she works as a consultant for Nordgen, co-edits the Barley Genetics Newsletter and serves as International Overall Chairman for Barley Linkage Groups and collections.



Assoc Prof Jason Eglinton: A/Prof Eglinton is the Barley Program Leader at the University of Adelaide. The Program develops new barley varieties suited to malting, feed and human food uses for farmers across Australia. Varieties released from the program account for a significant proportion of national barley production. Applied research projects are conducted within the Program to drive future advances in plant breeding including work on tolerance to salinity, frost and drought as well as biochemical and genetic analysis of end use quality characteristics.

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Dr John Black: Dr Black is the Coordinator of the Premium Grains for Livestock Program funded by GRDC and several animal R&D organizations and manager of sub-program 1b for the Pork CRC, which extends the work from PGLP for the pig and other animal industries. He was formerly Assistant Chief of CSIRO Division of Animal Production; specialised in animal physiology across species and the development of simulation models. Dr Black left CSIRO in 1996 to establish a Research Management Company and now manages research programs for a range of R&D Corporations and private companies.





Sunday 13th September

2.00pm	Postgraduate Research Session (open to all delegates)
6.00pm	Grain Pool Welcome Reception - Poolside Beach

Monday 14th September

Session 1 : Conference Opening

8.30am	Welcome to Delegates : Dr David Poulsen , Chairman, 14th ABTS Organising Committee, Queensland Primary Industries and Fisheries, Warwick, Queensland
8.40am	Official Opening : Hon. Tim Mulherin , Minister for Primary Industries & Fisheries (TBC)
9.00am	Global Barley Marketing Overview : Mr Henning Luetje , Agro-Handel, Hamburg, Germany
9.40am	R&D Investment for the Future of the Grains Industry : Mr Peter Reading , Grain Research Development Corporation, Canberra, Australian Capital Territory
10.10am	The Future of Barley Breeding Australia : Mr John Oliver , New South Wales Department of Primary Industries, Chairman BBA Advisory Board, Orange, New South Wales
10.30am	Morning Tea

Session 2 : Delivering value and impact from barley

11.00am	Malting Barley in Europe : Ing Vera Honigova , Research Institute of Malting & Brewing, Prague, Czech Republic
11.30am	Pilot Brewing Australia - Brewing for Industry Variety Improvement : Mr Kade Anderson , Fosters Group, Melbourne, Victoria
11.50am	Carbon Emissions, Energy, Water and Malt - the Joe White Maltings Perspective : Mr Anthony Marafioti , Joe White Maltings, Adelaide, South Australia
12.10am	Active Stack Management – Actively Undoing Malt Quality? : Dr Megan Sheehy , Joe White Maltings, Adelaide, South Australia
12.30am	Lunch and Poster Session 1

Session 3 : Productive barley for malt and feed

1.40am	Issues Surrounding Barley Production in the Northern Region : Mr Don Taylor , Barley Grower and GrainCorp Chairman, Moonie, Queensland
2.10pm	Forty-plus Years of Barley Breeding with a Focus on Feed in a Malt Driven World : Dr Jim Helm , Alberta Agriculture, Lacombe, Alberta, Canada
2.40pm	Advance Cycle Breeding for Six-rowed Malting Barley in the USA : Assoc Prof Kevin Smith , University of Minnesota, St. Paul, Minnesota, USA
3.10pm	Royalties and Research : Mr Frank Curtis , Limagrain UK Ltd, Lincolnshire, UK
3.30pm	Afternoon Tea

Session 4 : Economics of Barley Production

3.55pm	Market Price and Supply Issues : Mr Phil Holmes , Agricultural Consultant, Toowoomba, Queensland
4.20pm	Industry and the Development of Australia's Malting Barley Varieties : Dr Doug Stewart , Joe White Maltings, Adelaide, South Australia
4.35pm	Panel Session : "Bringing a New Variety To Market" Moderator : David Thomas , Barley Australia, Adelaide, South Australia Panelists : Dr Jim Helm , Alberta Agriculture, Lacombe, Canada; Mr Simon Crane , AWB Seeds, Bendigo; Mr John Stuart , GrainCorp, Sydney; Mr Trevor Perryman , Malteurop Australia, Geelong; Dr Kensuke Ogushi , Sapporo Breweries Ltd, Tokyo, Japan; Mr John Agnew , Barley Grower, Allora, Queensland
5.20pm	ABTS Incorporated Annual General Meeting
6.00pm	Foster's and Lion Nathan Hospitality Suite Open : Ninderry Room
	Evening Program : Delegates to make own arrangements

Tuesday 15th September

Session 5 : Control of biotic and abiotic stresses

8.30am	Use of Association Mapping for Identifying QTL Associated with Resistance to Common Root Rot in Breeding Lines from North American Spring Barley Breeding Programs : Dr Stephen Neate , Queensland Primary Industries & Fisheries, Toowoomba, Queensland
9.00am	Barley Breeding for Resistance to Highly Adaptable Biotropic Parasites : Dr Antonín Dreiseitl , Agriculture Research Institute, Kromeriz, Czech Republic
9.30am	Accurate Phenotyping Reveals Better QTLs for Waterlogging Tolerance : Dr Meixue Zhou , Tasmanian Institute Agriculture Research, Launceston, Tasmania
9.50am	Resistance to Scald in Australian Barley Germplasm - Progress and Future Options : Dr Hugh Wallwork , South Australian Research and Development Institute, Adelaide, South Australia
10.10am	Barley Breeding for Salinity and Boron Tolerance in Southern Australia : Dr Stewart Coventry , University of Adelaide, Adelaide, South Australia
10.30am	Morning Tea

Session 6 : Biotechnology and future research on barley

11.00am	Genetic and Chemical Genetic Manipulation of Starch Synthesis and Degradation in Barley : Dr Kay Denyer , John Innes Centre, Norwich, United Kingdom
11.30am	Barley CAP - A US Coordinated Research Project to Conduct Association Mapping in Contemporary Breeding Germplasm : Assoc Prof Kevin Smith , University of Minnesota, St. Paul, Minnesota, USA
11.50am	Coeliac Friendly Malting Barley : Dr Greg Tanner , CSIRO Plant Industry, Canberra, Australian Capital Territory
12.10am	Challenges in the Utilization of MAS in Barley Breeding for the Northern Region : Dr Wendy Lawson , Queensland Primary Industries and Fisheries, Warwick, Queensland
12.30pm	Lunch and Poster Session 2

Session 7 : Management of barley's genetic resources

1.40pm	Unlocking the Genebanks - A rational strategy for mining genetic resource collections : Dr Ken Street , International Center for Agriculture in Dry Areas (ICARDA), Aleppo, Syria
2.10pm	Barley Mutations as Genetic Resource during the Last 80 Years : Dr Udda Lundqvist , Nordic Genetic Resource Center, Alnarp, Sweden
2.30pm	Molecular and Cellular Analysis of Dormancy in Barley Grains : Dr Frank Gubler , CSIRO Plant Industry, Canberra, Australian Capital Territory
2.50pm	Genetic Dissection of Grain Plumpness in Barley: a Review of QTL Mapping Progress : Dr David Moody , Department of Primary Industries Victoria, Horsham, Victoria
3.10pm	Genetics of Vernalization and Photoperiod Response in Barley : Dr Ben Trevaskis , CSIRO Plant Industry, Canberra, Australian Capital Territory
3.30pm	Afternoon Tea

Session 8 : Production of barley in variable environments

4.00pm	Barley Production Constraints : Assoc Prof Jason Eglinton , University of Adelaide, Adelaide, South Australia
4.30pm	Eenie-meenie-minee-moe, Which Variety Needs to Go? : Mr Jeff Russell , Department of Agriculture and Food Western Australia, Northam, Western Australia
4.50pm	Effect of Agronomic Practices on Yield and Quality of Malting Barley : Dr John O'Donovan , Agriculture & Agri-Food Canada, Alberta, Canada
5.10pm	Environment Characterisation as an Aid to Improve Barley Adaptation in Water-Limited Environments: Dr Karine Chenu , Queensland Primary Industries & Fisheries, Toowoomba, Queensland
5.30pm	Malt Quality of Barley under Resource Management Techniques : Mr Ajit Singh Kharub , Directorate of Wheat Research, Karnal, India
5.50pm	Foster's and Lion Nathan Hospitality Suite Open : Ninderry Room
7.00pm	Joe White Maltings ABTS Dinner : Lilly's Restaurant (Dress - lounge suit)

Wednesday 16th September

Session 9 : Spotlight on early career barley researchers

8.15am	Introductory Presentation : GRDC Nominee
8.30am	An Update on Variety Identification in the Australian Barley Industry Using SNPs : Ms Julie Pattemore , Southern Cross University, Lismore, New South Wales

Session 9 : Spotlight on early career barley researchers (cont)

8.45am	Microbial T-RFLP Screening as a Solution for Premature Yeast Flocculation assurance for Malt : Dr Mandeep Kaur , University of Tasmania, Hobart, Tasmania
9.00am	Resistance Is the Best Method for Control of Spot Form of Net Blotch : Mr Mark Mclean , Department of Primary Industries Victoria, Horsham, Victoria
9.15am	Phenomics-based Screening for Salinity Tolerance of Barley Genotypes Using Destructive and Non-destructive Techniques : Mr Ehsan Tavakkoli , University of Adelaide, Adelaide, South Australia
9.30am	Measuring Grain Plumpness in Barley Using Image Analysis : Ms Cassandra Walker , Department of Primary Industries Victoria, Horsham, Victoria
9.45am	Varietal Testing for the Malt Barley Industry - Where Are We At? : Mr Nigel Metz , South East Premium Wheat Growers, Esperance, Western Australia
10.05am	Splitting Nitrogen Applications Makes Sense in Malting Barley : Ms Andrea Hills , Department of Agriculture & Food Western Australia, Esperance, Western Australia
10.30am	Morning Tea

Session 10 : Barley as a quality food and feed

11.00am	Barley as a Feed for Animals : Dr John Black , John Black Consulting, Warrimoo, New South Wales <i>Sponsored by Pork CRC</i>
11.30am	Barley in Feed Formulations : Dr Matt George , Nutrition Services Associates, Brisbane, Queensland
11.50am	Barley as an Ingredient for Function Food Products : Mr Juhani Sibakov , VTT Technical Research Centre of Finland, Finland
12.10pm	Effects of Planting Date and Earliness on the Level of DON : Dr Thin-Meiw Choo , Agriculture and Agric-Food, Ottawa, Canada
12.30pm	Lunch and Poster Session 3

Session 11 : Quality barley for malting and brewing

1.30pm	Crop Topping - The Impact for Feed and Malt : Dr Doug Stewart , Joe White Maltings, Adelaide, South Australia
2.00pm	Refinement of the Prediction of Malt Fermentability by Inclusion of Limit Dextrinase and α -Amylase : Dr Evan Evans , University of Tasmania, Hobart, Tasmania
2.30pm	Unraveling the Underlying Influence of Protein on Genetic Expression of Malt Quality Traits : Ms Alison Kelly , Queensland Primary Industries and Fisheries, Warwick, Queensland
2.50pm	Is Barley Brewing a Realistic Alternative for Australian Brewers? : Dr Mark Goldsmith , Foster's Group, Melbourne, Victoria
3.10pm	Barley as an Emerging Forage Resource in Drier Parts of India : Dr Mahesh Shrimali , Rajasthan Agricultural University, Jaipur, India
3.30pm	Afternoon Tea

Session 12 : Moving barley into the future

4.00pm	Gains from Barley Breeding in Australia : Dr Reg Lance , Department of Agriculture & Food Western Australia, Perth, Western Australia
4.15pm	Panel Session : "Barley - The Grain for Gain" Moderator : Dr Andy Barr , GRDC Southern Panel, South Australia. Panelists : Dr Ken Street , ICARDA, Aleppo, Syria; Mr Peter Healy , Lion Nathan, Brisbane; Dr Theresa Craig , Tara-Source, Queensland; Dr Brian Rossnagel , University of Saskatchewan, Canada; Dr Reg Lance , Department of Agriculture and Food, Western Australia
4.55pm	Invitation to the 15th Australian Barley Technical Symposium
5.00pm	14th ABTS Awards Presentation and Closing Ceremony
6.00pm	Barrett Burston Malting Co Barbeque and Farewell : McDonalds Beach
9.00pm	Foster's and Lion Nathan Hospitality Suite Open : Ninderry Room

Program Disclaimer: The information contained in this brochure is correct at time of printing. The ABTS Committee and YRD (Aust) Pty Ltd reserve the right to alter or delete items from the program as circumstances dictate and takes no responsibility for any errors, omissions or changes. The program will be updated on the ABTS conference website as details are finalised.

