

InterDrought-IV Conference

Crown Perth, Western Australia 2-6 September 2013

> Registration **Brochure**



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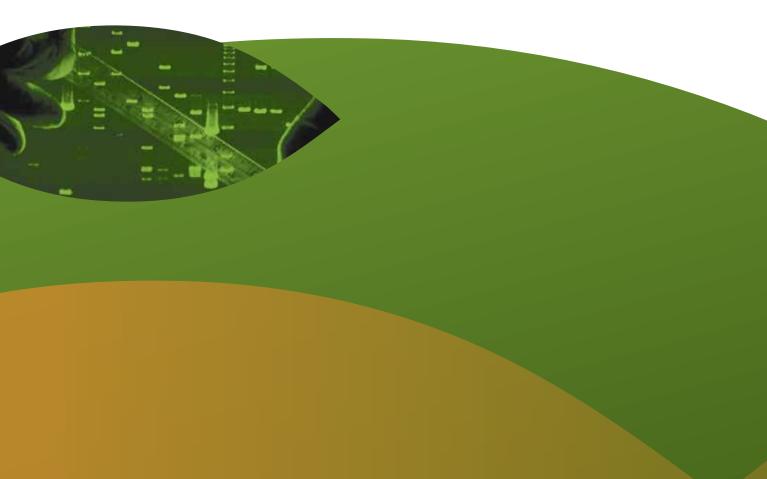






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Invitation to register

On behalf of the Conference Organising Committee, we would like to invite you to register to attend the InterDrought-IV Conference, taking place 2-6 September 2013, at the Crown Perth, Western Australia.

The objective of the InterDrought-IV Conference is to serve as a platform for presenting and debating key issues and strategies relevant for increasing the yield and stability of crops under drought conditions by genetic and crop management approaches. Great advances have been made in recent years in understanding the molecular basis of plant responses and plant tolerance to drought stress. Hundreds of drought responsive genes have been identified and the function of some of these has been resolved at the cellular level. However, there is a huge gap between the molecular level science and the interpretation

and application of this knowledge at the whole plant/crop level in the field. There is an increasing demand in both public and private research sectors for crosstalk between disciplines involved with the molecular science and those involved with whole plant/crop problems aimed at solving issues at the farm level in order to advance practical solutions to drought prone farming. The InterDrought-IV Conference offers a unique and timely platform for this purpose.

The main mission of the Conference is to explore the possibilities of scientific and technological

applications to crop improvement and crop management under drought-prone farming by linking progress made at the molecular level to that at the whole plant and crop level in the field.

This conference will provide recommendations on the most effective approaches to achieve better crop productivity under drought conditions as well as the research needed to move forward in this direction. It is especially concerned with the developing countries that face an increasing problem of food production with less water and under drought-prone conditions. Attendance of experts and postgraduate students from such countries is strongly encouraged.

We are making every effort to create a comfortable and hospitable environment for you at this conference. We cordially extend our invitation to you and your colleagues.

Roberto Tuberosa

Congress Chair

University of Bologna, Italy

Neil Turner

Congress Vice-Chair

The University of Western Australia, Australia

Mehmet Cakir

Australian Organising Committee Chair Murdoch University, Australia

Australian Organising Committee

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Conference Secretariat

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Conference themes

A number of themes will be covered throughout the InterDrought-IV Conference, including the following:

- 1 Coping with Drought in Agriculture A Global Perspective
- 2 Maximising Water Productivity in Dryland and Limited Irrigation Cropping Systems
- 3 Maximising Dryland Crop Production Crop Design
- 4 Plant Productivity Under Drought: I. Effective Capture of Water
- 5 Plant Productivity Under Drought: II. Transpiration Efficiency
- 6 Plant Productivity Under Drought: III. Growth and Yield
- 7 Breeding for Water-Limited Environments: I. Trait-Based, Genomics-Assisted and Transgenic Approaches
- Breeding For Water-Limited Environments: II. Variety Development and Seed Delivery Systems
- 9 Crop Adaptation to Water Limited Environments
- 10 Future Challenges and Opportunities



Keynote speakers



David Bergvinson

Gates Foundation, USA

David Bergvinson is a Senior Program Officer for the Agricultural Development team of the Bill & Melinda Gates Foundation. David brings technical (PhD, Biology, U. Ottawa) and profession experience in crop protection and maize breeding as well as experience in integrated forest pest management (Masters in Pest Management, Simon Fraser University). During his 12 years at the International Maize and Wheat Improvement Center (CIMMYT), he lead the Entomology Unit that developed insect resistant maize varieties for Latin America, Africa and Asia using conventional and transgenic (i.e. Bt) approaches. David emphasized the importance of involving farmers in the early stages of product development to ensure higher adoption rates - a philosophy he continues to follow at the foundation to ensure the development and delivery of farmer-preferred varieties.

David has been with the foundation for over five years and manages several crop improvement grants for maize, rice, cowpea, groundnut, common beans, soybean, chickpea, and pigeonpea as well as a molecular breeding platform for staple crops. David is coordinating the foundation's initiative to leverage digital technologies for agriculture development and serves on the grant review committee of the Alliance for a Green Revolution in Africa.



Mark Cooper

Research Director, DuPont Pioneer, USA

Mark Cooper is a Research Director with DuPont Pioneer. He is responsible for the Maize Stress Product Development group that undertakes product development research utilizing transgenic and native sources of genetic diversity. Mark runs a 108 maize-breeding program focused on developing drought tolerant products for the Western region of the US corn-belt. He undertakes research focused on understanding the genetic architecture of drought tolerance in maize and application of molecular technologies in the development of hybrids with improved yield, stress tolerance and agronomics.



Elias Fereres

University of Cordoba and Institute for Sustainable Agriculture (IAS-CSIC), Cordoba, Spain

Elias Fereres is Professor in the School of Agricultural and Forestry Engineering, University of Córdoba, Spain, and Researcher at the Institute of Sustainable Agriculture, Scientific Research Council of Spain (IAS-CSIC). He obtained his PhD (Ecology) at the University of California, Davis, where he worked between 1972 and 1982, after which he returned to Spain. Current research interests are focused on the relations between water use and food production and on the sustainability of water-limited agriculture, and include topics such as crop yield response to water, water management at different scales, soil and water conservation, irrigation scheduling, and deficit irrigation with emphasis on tree crops and vines. He has published over 130 refereed international scientific publications and over 40 book chapter, and he has directed 34 doctoral theses. He is currently President of the Royal Academy of Engineering of Spain.



Jonathan Lynch

Penn State University, USA

Jonathan is a Professor of plant nutrition at Penn State University, researching the genetic, physiological, and ecological basis of plant adaptation to drought and low soil fertility, with particular attention to root traits enhancing soil resource acquisition.



Matthew Reynolds

Principal Scientist and Head of Wheat Physiology, CIMMYT Global Wheat Program, Mexico

Matthew Reynolds works at the International Maize and Wheat Improvement Centre (CIMMYT) where his professional goals are to develop and transfer technologies to increase productivity of wheat cropping systems worldwide with a special focus on developing countries. His outputs include conceptual models of stress-adaptive traits for wheat, developing high-throughput phenotyping protocols, designing novel experimental population for gene discovery, and capacity development through training and supervising young agricultural scientists from all continents. Impacts include a new generation of advanced wheat lines based on physiological breeding approaches that have been distributed as part of CIMMYT's international nursery system, identification of common genetic bases for heat and drought adaptive traits in wheat, agronomic recommendations for marginal wheat growing environments, trained personnel up to PhD level, scientific literature including over 90 peer reviewed articles. He recently edited a book entitled Crop Adaptation to Climate Change, published in May 2010 by CABI academic press, UK, and is leading an international consortium of scientists to raise the genetic potential of wheat. He currently holds honorary positions at Nottingham University, Oklahoma State University, and the Australian Centre for Plant Functional Genomics. He serves on the advisory boards of BREEDWHEAT

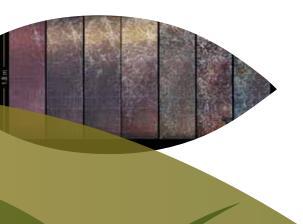
(France) and TRITICAE-CAP (USA).



Jean-Marcel Ribaut

Director, CGIAR Generation Challenge Programme (GCP), CIMMYT, Mexico

Jean-Marcel's scientific background is in plant physiology and molecular biology, with main research interest being understanding the genetic basis and underlying physiological and metabolic pathways that influence plant performance under abiotic stress- particularly drought - as well as innovations in molecular breeding. He holds a PhD in Plant Physiology from Lausanne University, Switzerland, and has cumulative experience in agriculture biotechnology and plant breeding, project and finance management and policy formulation, as well as leadership skills for dispersed global R&D teams. Jean-Marcel has a particular interest in promoting modern breeding methods to hasten crop improvement in the developing world. He believes in true partnership and solid capacity building to overcome some of the bottlenecks in R4D, with the developing-country partners as key actors and leaders in the research arena. Prior to becoming GCP Director in 2005, Jean-Marcel worked at CIMMYT, Mexico, where he held positions of increasing responsibility, rising to Deputy Director of the Genetic Resources Programme in 2003 and Biotechnology Group Leader in 2004.





Kazuo Shinozaki

Director, RIKEN Plant Science Center & Biomass Engineering Program, Japan

Kazuo Shinozaki took his Ph. D. at the Institute of Molecular Biology, Nagoya University on DNA replication. He was appointed to be Research Associate of the Department of Molecular Genetics, National Institute of Genetics, and analyzed the structure and gene expression of tobacco chloroplast genes.He then became Assistant Professor of the Department of Biology, Nagoya University, and studied gene structure and expression of cyanobacteria and tobacco chloroplast. He became Associate Professor, Center for Gene Research, Nagoya University, and determined the nucleotide sequence of the tobacco chloroplast genome in 1986. As a Visiting Scientist, he studied transgenic plant technology at The Rockefeller University. In 1989, he was appointed to be Chief Scientist of the Plant Molecular Biology Laboratory, RIKEN Tsukuba Institute to start molecular biology of plant abiotic stress response using Arabidopsis. In 1999, he started Arabidopsis functional genomics (collection of full-length cDNAs and Ds and T-DNA insertion mutants) as Project Director of the Plant Functional Genomics group, RIKEN Genomic Sciences Center. Since 2005, he has been Director of RIKEN Plant Science Center. His major research interest is to understand gene networks of plant responses to abiotic stress, especially drought stress.



Thomas R. Sinclair

North Carolina State University, USA

Thomas Sinclair is an Adjunct Professor, North Carolina State University. Dr. Sinclair obtained his BS and MS degrees from Purdue University and his PhD from Cornell University. He was on the faculty of the University of Florida for 30 years before moving to North Carolina State University. He is a crop physiologist who has investigated responses of crop development, growth and yield to environmental challenges including drought. His recent studies have been with soybean, peanut, sorghum, and maize to identify possible genetic variation in response of transpiration rate to soil drying and to varying atmospheric vapour pressure deficit. Large variation has been observed for both traits and this variation in most cases is associated with differences in hydraulic conductance in the plant. Specific aquaporins seem to be linked with the differences in hydraulic conductance. Simulation studies have highlighted the environments and probability of yield increase that can be expected by introducing these traits into commercial germplasm.



François Tardieu

Directeur de Recherche, Institut National de la Recherche Agronomique

Coordinator of the FP7 UE project DROPS and of the French Plant Phenotyping Network

Francois Tardieu was first trained in agronomy, with a thesis on the architecture of root systems in the field and its consequence on plant water uptake (Howard Taylor prize, SSSA). His main work now deals with the modelling of the genetic variability of plant responses to water deficit and temperature, in particular applied to stomatal control, leaf growth and reproductive development in relation with hydraulic and chemical signalling. Since 1998, he has developed an approach combining ecophysiological modelling, genetic analysis and high throughput phenotyping. This involves quantitative genetics of the sensitivity of studied processes to environmental cues, estimated both in phenotyping platforms and in field networks. A major output is to compare the genetic and environmental determinisms of this sensitivity in several organs and for several processes. Mechanisms and QTLs are tested via physiological analyses of near isogenic or of transgenic lines. The ultimate goal is to insert calculated genetic coefficients in plant models, thereby allowing one to test the effect of combinations of alleles in a large range of climatic scenarios.



Vincent Vadez

Principal Scientist, ICRISAT, India

Vincent Vadez, a French national, Agronomist and Crop Physiologist, has lead the Crop Physiology Laboratory of ICRISAT (International Crops Research Institute for the Semi-Arid Tropics) since 2004. He is also the assistant director of the Dryland Cereal Research Program, one of the four research programs of ICRISAT. Vincent has 20 years of experience in international research and has worked in various countries and diverse topics. His work at ICRISAT focuses mostly on the abiotic stresses and particularly drought, working on the genetic and mechanistic deciphering of characteristics contributing to drought adaptation in cereal and legumes. Prior to working with ICRISAT, he worked with a Bolivian lowland indigenous group to understand and measure the socioeconomic drivers of deforestation and of new farming technology adoption. This experience was an enlightening one where he learned that beyond the technologies that plant scientists develop, there are people with a say. Prior to that he was closely involved with research on legumes during a postdoctoral position at the University of Florida working on drought in soybean, during his stay at CIAT in Colombia working on low phosphorus in bean, and during a stay at the National University of Singapore working on low phosphorus in a legume tree.



Rajeev Varshney

Principal Scientist, ICRISAT, India

Rajeev Varshney is the Director, Centre of Excellence in Genomics at ICRISAT (International Crops Research Institute for the Semi-Arid Tropics), Theme Leader for the CGIAR Generation Challenge Programme (GCP) based in México and an Adjunct Professor in the University of Western Australia. With a basic background in molecular genetics, he possesses research experience for more than 15 years in international agriculture. Before joining ICRISAT in 2005 and GCP in 2007, he worked at Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Germany for five years. He is an Elected Fellow of the Indian National Academy of Agricultural Sciences, in addition to receiving several prestigious awards at an early age. His research programme funded by a range of international and national funding agencies led to authorship of over 180 research papers/invited articles in a spectrum of international journals including Nature Biotechnology, PNAS, Trends and Current Opinion. He has served/been serving Steering Committee/Organizing committee for international conferences, panel member/reviewer for leading funding agencies of USA, EU, France, Índia and several international journals as editorial board member/reviewer. He has been a frequent invited speaker/chairman/facilitator in international conferences. He is the Chair for organizing VI International Congress on Legume Genetics and Genomics in 2012 in India.



Lizhong Xiong

Huazhong Agricultural University and National Key Laboratory of Crop Genetic Improvement, Wuhan, China

Lizhong Xiong is Professor and Deputy Dean in the School of Life Science and Technology, Huazhong Agricultural University, and Group leader of stress biology at the National Key Laboratory of Crop Genetic Improvement (NKL-CGI), China. He obtained his PhD (Biochemistry Molecular Biology) in 1999 at the Huazhong Agricultural University, where he worked since 2002, when he returned to China after three years' postdoctoral experience in United States. Current research interests are focused on discovery of novel genes for stress resistance of rice with focus on drought resistance by using integrated forward- and reverse-genetics approaches, characterization of key regulators (especially transcription factors) for their roles in stress tolerance, and improving drought resistance and/ or water use efficiency of rice at reproductive stage by combination of biotechnology (transgenic and marker assisted selection) and conventional breeding. He has published over 50 peer-reviewed papers in international scientific journals such as Plant Cell, PNAS, Plant Journal, Plant Physiology, PMB, and TAG. Major honours he has received include Excellent Young Scholar of National Science Foundation of China (NSFC) and Award of Young Scientist of China.

Invited speakers



David Jordan

Associate Professor, University of Queensland Queensland Alliance for Agriculture and Food Innovation

David Jordan has been a sorghum breeder and geneticist working in both the public and private sector for the past 22 years and is acknowledged as one of the world's leading sorghum researchers. He obtained a PhD in molecular breeding from the University of Queensland in 1999. Since 2002 he has jointly led the QLD government sorghum improvement program and a range of related sorghum projects. In 2010 he was appointed to QAAFI as a Principal Research Fellow retaining his leadership of the sorghum improvement program. Germplasm from the program he leads is widely used in commercial breeding programs in Australia and world wide. In recent years his research has focused on increasing grain yield in water limted environments by integrating a range of new technologies.



Dr Richard Richards

CSIRO Fellow, CSIRO Plant Industry, Canberra

Dr Richard Richards is a CSIRO Fellow at CSIRO Plant Industry in Canberra, Australia. His research interests are to understand the genetic and physiological basis of variation in growth, development and yield of wheat, and then to apply this understanding to breed higher yielding wheats – particularly in water-limited environments. This research has resulted in over 200 refereed scientific publications. In addition, nine wheat cultivars developed by Richard and his group have been released commercially in Australia in the last decade. Richard is also interested in understanding how breeding and crop management intersect to lead to improved yields and the best land management practices in water-limited environments. Richard is also Principal Scientist for the wheat breeding company, HRZ Wheats Pty Ltd. In this role he works closely with industry to ensure adoption of suitable varieties. Richard is an Adjunct Professor with the University of Western Australia and an elected member of the Australian Academy of Technological Sciences and Engineering.



Stephen Beebe

Bean Program Leader, International Center for Tropical Agriculture (CIAT), Colombia

Stephen Beebe received his B.Sc. degree in horticulture in 1974 from Iowa State University, and M.Sc. and Ph.D. degrees in Plant Breeding-Plant Genetics from the University of Wisconsin in 1976 and 1978, respectively. He has spent his career in the International Center for Tropical Agriculture (CIAT) in Cali, Colombia as a breeder of common bean (Phaseolus vulgaris), serving both Latin America and East and southern Africa. He has worked on disease and pest resistance, nutritional quality, and more intensively in the past decade on abiotic stress: tolerance to drought, aluminum, and low soil phosphorus, in particular seeking tolerance to combined stresses as a key to improving bean yields in the tropics.



Arvind Kumar

Plant Breeder, Drought and Aerobic Rice, International Rice Research Institute (IRRI), Philippines

Arvind Kumar is Senior Scientist and Plant Breeder for drought and aerobic rice at International Rice Research Institute (IRRI), Philippines. He received his B.Sc. degree in Agriculture in 1989 from Indira Gandhi Krishi Vishwavidyalaya (IGKV), Raipur, India and M.Sc. and Ph.D. degree in Plant Breeding and Genetics from IGKV in 1992 and 2002 respectively. He leads IRRI research on developing high yielding drought tolerant rice using both conventional and molecular approaches. At IRRI, his group is engaged in identifying major effect QTLs for grain yield under drought, introgressing and pyramiding two to three QTLs together to enhance the yield level of presently cultivated popular varieties by 1.0-1.5 t/ha under drought while maintaining their high yield potential, grain quality and other traits. Over years, the group studied more than fifty mapping populations and has identified at least six chromosomal regions on rice that show large effect on grain yield under drought across genetic backgrounds, environments and ecosystems. Prior to joining IRRI, Arvind Kumar worked with Indira Gandhi Krishi Vishwavidyalaya, Raipur, India and identified seven different genes for gall midge resistance that are used on a large scale in rice breeding program to incorporate gall midge resistance.

Program outline

Monday, 2 September 2013

0745	Registration Opens
0830 - 0840	Indigenous Welcome to Country
0840 - 0900	Introduction Roberto Tuberosa, Conference Chair
0900 - 0915	Official Opening
0915 - 1000	Coping with Drought in Agriculture – A Global Perspective Jean-Marcel Ribaut, Director, CGIAR Generation Challenge Programme (GCP), CIMMYT, Mexico
1000 - 1030	Morning Tea & Poster Displays
1030 - 1215	Session 1: Maximising Water Productivity in Dryland and Limited Irrigation Cropping Systems
1030 - 1100	Elias Fereres, University of Cordoba and Institute for Sustainable Agriculture (IAS-CSIC), Cordoba, Spain
1100 - 1215	Contributed papers and facilitated discussion
1215 - 1345	Lunch & Poster Displays
1345 - 1530	Session 2: Maximising Dryland Crop Production – Crop Design
1345 - 1415	Thomas R. Sinclair, Adjunct Professor, North Carolina State University, USA
1415 - 1530	Contributed papers and facilitated discussion
1530 - 1600	Afternoon Tea & Poster Displays
1600 - 1700	Poster Session Maximising Water Productivity in Dryland Cropping
1700	Day 1 Close
1700 - 1830	Welcome Reception Grand Ballroom Foyer, Crown Perth

Tuesday, 3 September 2013

0745	Registration Opens					
0830 - 1015	Session 3: Plant Productivity Under Drought I – Effective Capture of Water					
0830 - 0900	Jonathan Lynch, Professor of Plant Nutrition, Pennsylvania State University, USA					
0900 - 1015	Contributed papers and facilitated discussion					
1015 1015	Marrier Tar O Bratan Displace					
1015 - 1045	Morning Tea & Poster Displays					
1015 - 1045	Morning Tea & Poster Displays Session 3: Plant Productivity Under Drought II – Transpiration Efficiency					

1215 - 1345	Lunch & Poster Displays
1345 - 1530	Session 3: Plant Productivity Under Drought III – Growth and Yield
1345 - 1415	Kazuo Shinozaki, Director, RIKEN Plant Science Center & Biomass Engineering Program, Japan
1415 - 1445	François Tardieu, Directeur de Recherche, Institut National de la Recherche Agronomique - Coordinator, FP7 UE Project DROPS & French Plant Phenotyping Network
1445 - 1530	Contributed papers and facilitated discussion
1530 - 1600	Afternoon Tea & Poster Displays
1530 - 1600 1600 - 1700	Afternoon Tea & Poster Displays Poster Session Maximising Water Productivity in Dryland Cropping
	Poster Session

Wednesday, 4 September 2013

Conference tours (refer to pages 14 & 15)

- 1. Dry Climate Adaptations in Australian Native Plants
- 2. Cropping Systems in Low Rainfall Environments
- 3. DAFWA Managed Environment Facility
- 4. Cereal Breeding Programs in Western Australia

Thursday, 5 September 2013

0745	Registration Opens				
0830 - 1015	Session 4: Breeding for Water-Limited Environments I – Variety Development and Seed Delivery Systems				
0830 - 0900	David Bergvinson, Gates Foundation, USA				
0900 - 1015	Contributed papers and facilitated discussion				
1015 - 1045	Morning Tea & Poster Displays				
1045 - 1230	Session 4: Breeding for Water-Limited Environments II – Trait-Based, Genomics-assisted and Transgenic Approaches				
1045 - 1115	Mark Cooper, Research Director, DuPont Pioneer, USA				
1115 - 1145	Rajeev Varshney, Director, Centre of Excellence in Genomics, ICRISAT, India. Theme Leader, CGIAR Generation Challenge Programme (GCP), Mexico. Adjunct Professor, The University of Western Australia				
1145 – 1230	Contributed papers and facilitated discussion				

1230 - 1345	Lunch & Poster Displays				
1345 - 1530	Session 4: Breeding for Water-Limited Environments II – Trait-Based, Genomics-assisted and Transgenic Approaches (continued)				
1345 - 1415	Matthew Reynolds , Principal Scientist and Head of Wheat Physiology, CIMMYT Global Wheat Program, Mexico				
1415 - 1445	Lizhong Xiong , Professor, Huazhong Agricultural University and National Key Laboratory of Crop Genetic Improvement, Wuhan, China				
1445 - 1530	Contributed papers and facilitated discussion				
1530 - 1600	Afternoon Tea & Poster Displays				
1600 - 1700	Poster Session Breeding for Water-Limited Environments				
1700	Day 4 Close				
1900 - 2100	Forums organised by interested parties				

Friday, 6 September 2013

0745	Registration Opens
0830 - 1010	Session 5: Crop Adaptation to Water Limited Environments – Case Studies
0830 - 0855	Africa - Beans Steve Beebe, CIAT, Columbia
0855 - 0920	Australia - Wheat Richard Richards, CSIRO Plant Industry, Canberra
0920 - 0945	Asia - Rice Arvind Kumar, IRRI, The Philippines
0945 - 1010	Australia - Sorghum David Jordan, University of Queensland, Brisbane
1010 - 1045	Morning Tea & Poster Displays
1045 - 1200	Session 6: Future Challenges and Opportunities – Panel Discussion
	Panel members to be announced Facilitated Discussion
1200 - 1230	Closing Summary Graeme Hammer, University of Queensland, Brisbane, Australia
1230 - 1300	Conference Close Roberto Tuberosa, University of Bologna, Italy Mehmet Cakir, Murdoch University, Australia
1300 - 1400	Lunch & Poster Displays

This program is subject to change. Please visit the Conference website for updated information.

Conference tours

Four offsite tours will take place on Wednesday September 4, from 0800 until 1800. Tour fees include morning tea, lunch, afternoon tea and tour transportation.

1

Dry Climate Adaptations in Australian Native Plants

Native plant adaptation, form and function in response to water limited environments.

Cost: \$100

Locations: Kings Park and Botanic Garden, Perth and Boyagin Nature Reserve, Brookton

The morning visit to Kings Park will provide the opportunity to take a 4000 km 'tour' of Western Australian Flora in under an hour. From the South West to the Kimberley in the north, the Western Australian Botanic Gardens offers a selection of over 3000 species adapted to the diverse Western Australian climate. This will be complimented with an overview of restoration activities conducted in remnant bushland of Kings Park. Focusing on the Mount Eliza Restoration Project, this will look at techniques, challenges and lessons learnt in restoring disturbed vegetation communities on the Swan Coastal Plain.

We will then highlight the science underpinning conservation and restoration of Western Australias native plant diversity. A behind the scenes look of Australia's leading conservation and restoration science research laboratories and growing facilities will highlight how King Park scientists are using state of the art seed science, in vitro plant, genetic, ecophysiological and ecological technologies to understand all aspects of native plant biology. For more information see www.bgpa.wa.gov.au/science.

The Boyagin afternoon part of the tour will visit a typical granite monadnock of the Yilgarn Craton. These low granite domes are typical landforms of Western Australia's south-west biodiversity hotspot. They support a fascinating vegetation of plants adapted to the extreme Mediterranean climate of the south-west, characterised by wet winters and very hot, dry summers. A highlight will be resurrection plants (e.g. Borya) which are able to desiccate in summer to very low moisture content, then rehydrate quickly when wetted to become physiologically active. The tour will also take in the typical plants of the Darling Scarp's jarrah forest.

2

Cropping Systems in Low Rainfall Environments

Sustainable and profitable broad acre cropping systems and no-tillage practice.

Cost: \$100

Locations: Western Australian No-Tillage Farmers Association (WANTFA) Trial Site, Cunderdin & Neighbouring Farmers

The Western Australian No-Tillage Farmers Association (WANTFA) main research site is near Cunderdin, located 150 km East of Perth in the "Central Wheatbelt of W.A". The research site has the largest agronomic conservation trial in Australia which has been running for 7 years that investigates low and high carbon inputs for conservation farming and their benefits to growers. The site also includes numerous small plot trials investigating; crop variety, weed management, nutrition, disease and carbon sequestration trials to name a few. Come and hear from local experts on the agronomy and practices of conservation farming in the heart of the wheatbelt. Also hear from conservation farmers and how they manage seasonal variability in a drying climate.



3

DAFWA Managed Environment Facility

Water use efficiency, crop physiology and genetics research

Cost: \$100

Locations: Merredin Research Institute: Managed Environment Facility

The Merredin tour will visit the "Managed Environment Facility" and the Department of Agriculture and Food's (DAFWA) "New Genes for New Environments" initiative. The aim of the Managed Environment Facility (MEF-Merredin) is to provide support for projects to identify adaptive traits and management strategies for field crops, especially wheat and barley, growing in water-limited or drought-prone environments. The New Genes for New Environments initiative is designed to enable evaluation of the world's best candidate GM traits from both public and private research organisations under Western Australian (WA) conditions in a highly contained and safe testing environment.

4

Cereal Breeding Programs in Western Australia

Cost: \$100

Locations: Intergrain Pty Ltd Wheat and Barley Breeding, Bibra Lake, and Australian Grain Technologies Pty Ltd, Northam.

InterGrain is a leading Australian crop breeding company with highly successful wheat and barley breeding programs that target the major cereal growing areas of Australia. InterGrain varieties occupy a significant proportion of the area sown to cereals in Australia and have been bred by InterGrain's strong team of experienced cereal breeders. This part of the tour will visit the Intergrain Centre at Bibra Lake and provide an introduction and background on the Australian breeding environment, will view crossing, seed trial packaging, seed chipper and threshing/cleaning operations and will visit a demonstration field trial of current and historic Australian wheat and barley lines at Intergrain's Meckering trial site, finishing with some samples of beers made from their latest malting barley release.

AGT and its predecessors have more than a century of experience in plant breeding, plant breeding related research, and commercial variety development. AGT are regionally focused, yet truly a national grower benefit driven enterprise, aiming to enhance the rate and scale of genetic gain through new varieties where experienced plant breeders combine the latest technologies with traditional plant breeding principles and methodologies, resulting in new varieties with improved quality and agronomic performance. The tour will visit AGT in Northam where participants will learn about the company's operations and will view breeding trial plots, selections, discuss methodologies, heat stress screening and drought.



Social program

Welcome Reception

Date: Monday 2 September 2013

Time: 1730 - 1900

Venue: Grand Ballroom Foyer

Crown Perth

Cost: Inclusive for Full Registrations

Additional Tickets: \$66 per person

Day one of the Conference will conclude with a Welcome Reception, held at the Crown Perth. Drinks and lights snacks will be served whilst delegates reflect on the day's program, catch up with colleagues, renew past acquaintances and make new contacts in a relaxed atmosphere.

Conference Dinner

Date: Tuesday 3 September 2013

Time: 1930 - 2300

Venue: Fraser's State Reception Centre, Fraser

Avenue, West Perth

Cost: \$120 per person

Enjoy a fabulous dinner overlooking the Swan River at the recently refurbished Fraser's State Reception Centre. This evening is the perfect opportunity to get acquainted with other Conference delegates, whilst being entertained, wined and dined on the best that Western Australia has to offer. A night not to be missed!



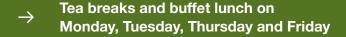
Registration information

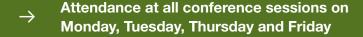
Registration can be made by completing the enclosed registration form and returning it via fax or post to the Conference Secretariat, EECW Pty Ltd.

Alternatively, online registration is available through the Conference website www.interdrought4.com. Visit the registration page and follow the prompts to complete the registration details as requested. We suggest that you print a copy of your registration prior to submission.

Included in Full Registration

→ Conference satchel and handboom





Registration Fees

All prices quoted in this brochure are inclusive of GST.

Registration Type	Early Bird (Closes 10 May 2013)	Regular (11 May 2013 onwards)
Full Registration	\$770	\$880
Student Registration*	\$530	\$530
Day Registration	\$250	\$350

^{*} Student registrations must supply proof of full-time student status from their institution.

Registration Enquiries

EECW Pty Ltd PO Box 749 Wembley WA 6913

T: (08) 9389 1488 F: (08) 9389 1499 E: emmap@eecw.com.au



Transfer/Cancellation Policy

Should you be unable to attend the Conference, a substitute delegate is welcome. All cancellations or alterations to registration must be made in writing to the Conference Secretariat – EECW Pty Ltd. Cancellations and 'No Shows' that have not paid will be charged the full registration fee and any incidentals including accommodation.

- A full refund, less a cancellation fee of \$100 will be made on those received by 5 July 2013.
- A refund of 50% of the registration fee will be made on cancellations received after 5 July 2013 and before 2 August 2013.
- No refund will be made after
 August 2013.
- 4. All refunds will be paid after the conclusion of the Conference

Payment Policy

It is a condition of registration that full payment is received prior to the commencement of the Conference. If full payment is not received, delegates will not be admitted.

Accommodation



Special Conference rates have been negotiated with several properties at and within close proximity of the Crown Perth.

Crown Metropol Perth

Great Eastern Highway, Burswood Onsite at Conference venue

Check IN: 3.00pm Check OUT: 11.00am

Room Rate and Type

\$305 Deluxe Twin/King Room\$335 Deluxe View Twin/King Room

On the banks of the world-famous Swan River overlooking the stunning sun kissed backdrop of the Perth city skyline, Crown Metropol offers distinctive, modern and stylish accommodation. Located at the site of the conference and only 15 minutes from the International and Domestic airports and five minutes from the Perth CBD, Crown Metropol is perfect for both conference delegates and their partners.

Each of Crown Metropol's fully refurbished guest rooms are abundant with space and natural light and feature high-tech entertainment facilities, plush furnishings, large executive desk area and spacious bathrooms. Plus you'll have access to the signature resort-style pool area, children's zone and glamorous ISIKA Day Spa Perth.

Not only will you delight in Perth's premier accommodation offering, close by you can discover world-class restaurants and bars, 24-hour casino, theatre and more at the renowned Crown Perth.

Crown Promenade Perth ★★★★

Great Eastern Highway, Burswood
Onsite at Conference venue

Check IN: 2.00pm Check OUT: 11.00am

Room Rate and Type

\$265 Urban Twin/Queen Room

On the banks of the picturesque Swan River, Crown Promenade is the perfect destination for both delegates and partners to the conference.

Located only 15 minutes from the International and Domestic airports and only five minutes from the Perth CBD, Crown Promenade appeals to quality-seeking guests who desire a level of unsurpassed service in comfortable, modern surrounds.

Be sure to soak up the renowned West Australian sunshine at the outdoor pool and sundeck or fit in a quick workout at the fully equipped gymnasium. Dine at Market & Co, or explore the array of restaurants, bars and non-stop entertainment only a few minutes' walk from the hotel and conference venue.

* Please note, any cancellations within 14 days of the booking will incur a penalty of one night's room charge to the guest. Any cancellations within 7 days of the booking will incur a penalty of the accommodation rate for the duration of the booking.

Metro Hotel Perth ★★★

61 Canning Hwy South Perth WA 6151

3 minutes by car to Conference venue. Public transport to the conference centre is also available.

Check IN: 2.00pm Check OUT: 10.00am

Room Rate and Type

\$225 Superior Riverview Room \$245 Executive Riverview Room

Metro Hotel Perth offers guests a wide range of stylish and spacious hotel accommodation, with most rooms enjoying spectacular panoramic views of the Swan River and Perth city. The Hotel has a total of 94 rooms, of which over 70 have views of the south side of the scenic Swan River and have their own private balcony. Metro Hotel Perth has recently completed the first stage of a multimillion dollar renovations and refurbishment program.

The hotel is close to Perth's major tourist attractions, Perth Zoo, Kings Park and the river foreshore. Crown Perth (conference venue) is 2.5 kms from the hotel as is the famous West Australian Cricket ground. Located within walking distance from the hotel are many fantastic restaurants offering a wide variety of international cuisines. Guests who wish to dine in are able to enjoy the hospitality of the Perth region with many dishes featuring locally sourced produce. Offering free parking and within close proximity to the conference venue, The Metro Hotel Perth is the ideal accommodation for both conference delegates and partners.



Goodearth Hotel

195 Adelaide Terrace
Perth WA 6004
7 minutes by car to Conference
venue. Public transport to the
conference centre is also available.

Check IN: 2.00pm Check OUT: 10.00am

Room Rate and Type

\$200 Standard Double Studio

\$200 Standard Twin

\$220 Superior Double Studio

Located on Adelaide Terrace, the Goodearth Hotel offers fully serviced, apartment style accommodation. The Hotel is in close proximity to Perth's shopping, entertainment and nightlife and is just a leisurely stroll from the beautiful Swan River.

Comfort Hotel Perth City

200 Hay Street East Perth WA 6004

6 minutes by car to Conference venue. Public transport to the conference centre is also available.

Check IN: 2.00pm Check OUT: 10.00am

Room Rate and Type

\$185 Studio Queen\$185 Queen Single Room

\$200 Studio King

Comfort Hotel Perth City is a 3.5 star CBD hotel situated in East Perth, offering affordable, well presented hotel rooms for corporate or leisure travellers. Just minutes walk to the Perth CBD, or the free public transport (CAT BUS) leaves nearby. The casual and friendly Bluerock Cafe.Bar. Restaurant is located on site.

Additional Accommodation Options

There are other properties close to the Conference venue that you may wish to consider, should the options listed above be unsuitable:

www.ascotapartments.bestwestern.com.au

www.assuredhotels.com.au/ascot_quays.php

www.gemotorlodge.com.au

Cancellations & Amendments

Cancellation of Booking:

Hotel guests will be subject to the cancellation policy of their nominated hotel. Please refer to the cancellation policy outlined for your preferred property.

Deadlines:

We encourage delegates to book accommodation well in advance as hotels impose strict release dates for block accommodation bookings, all rooms are released 30 days prior to the meeting and therefore accommodation bookings requested after by **31 July 2013** will need to be secured by delegates through the hotels directly.

Deposit:

Either one night's accommodation rate or a credit card is required to secure your room. Please note bookings that have not advised either method by **31 July 2013** will be cancelled. Delegates are required to settle their own accounts including incidentals incurred upon check out. The deposit or your credit card guarantee will be forwarded onto the hotel. The hotel at their discretion will deduct the guarantee from your credit card.

Amendments to Booking:

Amendments to accommodation including hotel preference, check in/out dates and room type will only be accepted in writing.

Early Arrival or Late Departure

Requests for early check in or late check out must be advised in writing to EECW Pty Ltd. Please note that early check in may require the booking of an additional room night prior to guarantee immediate access to the hotel room.

General information

Child Care

Please note that no official arrangements have been made for child care during the Conference. We suggest you check with your accommodation provider who may be able to assist you further with babysitting services during your stay.

Communication

All communication with delegates will be by email, fax, or post. If you register and do not receive confirmation within 5 working days please contact the Conference Secretariat – EECW Pty Ltd: (08) 9389 1488 or email: emmap@eecw.com.au

Dress

Conference Sessions: Smart Casual Welcome Reception: Smart Casual Conference Dinner: Smart Casual

Liability

In the event of industrial disruption or other unforeseen circumstances, the Host, Organizing Committee and EECW Pty Ltd accept no responsibility for loss of monies incurred by delay or cancellation.

Meals

We recognise that some delegates may have special dietary requirements. Please advise the Conference Secretariat via the registration form or in writing should you require alternative arrangements be made on your behalf.

Please Note: Dietary requirements received less than 72 hours prior to the event cannot be guaranteed. Kosher meals may be available, however please note this will be at an additional cost.

Parking

Undercover Paid Parking

There are 340 parking bays available underneath the Crown Metropol. Parking is valid for up to 24 hours at \$20 per day.

Outdoor Paid Parking

There are 1,090 outdoor paid parking bays available. Parking is valid for up to 24 hours at \$15 per day.

Free Parking

There are 1,856 free outdoor parking bays available at various locations across the Complex, the majority being outside the Crown Perth.

Smoking Policy

The West Australian Government imposes a strict no smoking policy in venues, restaurants, bars and shopping centres in Perth.

Conference Venue

Crown Perth Great Eastern Highway Burswood WA 6100 T: +61 8 9362 7777 F: +61 8 9362 7547

www.crownperth.com.au

With its advanced technical facilities and communication infrastructure as well as first class catering and service, the Crown Perth meets all the requirements needed for an enjoyable and productive working environment and is undoubtedly an ideal host venue for the 2013 Conference.

Website

www.interdrought4.com

The information provided within this brochure and program is correct at the time of printing.

The Conference website will be updated regularly and we urge those interested to view the site for further details on the program, general information and to register for the Conference.







FOR OFFICE USE ONLY
Ref No:
Date Received:
C/C Approval:
Completed by:
Date:

Registration Form

Please complete and return completed form with payment to:

InterDrought-IV Conference 2013 Secretariat PO Box 749, Wembley, WA 6913, Australia Or fax to +61 8 9389 1499

Privacy Statement: The Privacy Act 2001 provides that, before your personal contact details can be published, and may be made available to major sponsors, exhibitors, EECW Pty Ltd and other parties directly related to the Conference, you must give your consent. If you do not consent to your contact details being provided to the above mentioned parties please tick this box. If you do not tick this box we confirm that you consent.

THIS REGISTRATION FORM IS A **TAX INVOICE ABN 82 064 781 568 – EECW Pty Ltd.** PLEASE PRINT CLEARLY AND KEEP A COPY FOR YOUR RECORDS

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2 Delea	ate Regist	ration				
		ollars and include GST)				
Registration		,		Early Bird (Closes 10 May 2013)	Regular (11 May 2013 onwards)	
Full Registra	tion			\$770	\$880	
Student Reg	istration			\$530	\$530	
Day Registra	ation Mon	Tue Thu Fri		\$250	\$350	
SUBTOTAL	SECTION 2					\$
3. Social	Evente					
		attanding the following fun	otions:			
riease indica	te ii you wiii be a	attending the following fund	วแบทร:			

Date	Function	Ticket Type	Attendance	Cost per person	No of Tickets		Total Cost
Mon 2 Sept	Welcome Reception	Full Registration Additional Tickets	Yes No	Nil x \$66 x	1	=	Nil \$
Tue 3 Sept	Gala Dinner	Tickets		\$120 x		=	\$
SUBTOTAL	L SECTION 3						\$

4. Optional Tours

Date	Tour	Cost per person	No of Tickets	Total Cost
Wed 4 Sept	Option 1: Dry Climate Adaptations in Australian Native Plan	nts \$100 x	=	\$
Wed 4 Sept	Option 2: Cropping Systems in Low Rainfall Environments	\$100 x	=	\$
Wed 4 Sept	Option 3: DAFWA Managed Environment Facility	\$100 x	=	\$
Wed 4 Sept	Option 4: Cereal Breeding Programs in Western Australia	\$100 x	=	\$
SUBTOTAL	\$			

Wed 4 Sept	Option 2: C	ropping Syste	ems in Low Rainf	fall Env	ironmen	ts	\$100 >	K [:	= [\$			
Wed 4 Sept	Option 3: D	AFWA Manag	ed Environment	Facility	/		\$100 >	κ [:	=	\$			
Wed 4 Sept	Option 4: C	ereal Breedin	g Programs in W	estern/	Australi	a	\$100 >	x [:	=	\$			
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	ne night's pay	ment for your	<i>on.</i> nominated hotel i ee the booking. If							to pro	vide y	your c	redit c	ard	
Number of Nig		Arrival Date:	/	/2013	ETA:			m/pm	Departu	ure Dat	te:		/	/2	2013
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•		\$185 \$185 \$200	185 Queen Single Room												
2 Goodeart	h Hotel		\$200 \$200 \$220		Standard	Double S Twin Roo Double S	om				_				
3 Metro Ho	tel Perth		\$225 \$245	=	•	Riverview Riverviev					_				
4 Crown Me	etropol		\$305 \$305 \$335 \$335		Deluxe K Deluxe Vi	win Room ing Room ew Twin F ew King F	ı Room				_				
6 Crown Pr	omenade		\$265 \$265		Urban Tw Urban Qı	rin Room ueen Roor	m								
If sharing or ac	ccompanied b	y another pers	son in a Twin/Doul	ble roor	n please	advise na	ame:								
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Subtotal Section 5*			Expiry da	Expiry date:											
Signature:															
*Section 5 not applicable if providing credit card details			Please m	Cheque (Australian Delegates Only) Please make Cheques payable to "EECW in trust for InterDrought-IV Conference" and forward to: EECW Pty Ltd, PO Box 749 WEMBLEY WA 6913											
☐ I understa	and and accep	ot the condition	s of the cancellati	ion polic	cy (Refer	to page 1	5 of the	Regist	ration Bro	chure)					
Signature:									Date:						

www.interdrought4.com