

Innovation in Agriculture - Opportunities and Constraints

A forum hosted by the WA Division of the Ag Institute Australia



Forum proceedings

Wednesday 19 August, 2015

8:30 am - 5.00 pm, followed by a cocktail function

Pagoda Resort & Spa | 112 Melville Parade, Como WA



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Forum Program

Innovation in Agriculture - Opportunities and Constraints



	Description	Presenter
8:00 am	Registrations open	
8:30 am	Welcome	Dr Michael Robertson, of CSIRO, and Forum Organising Committee Chair
8:45 am	Opening	Hon Ken Baston Minister for Agriculture and Food
Topic 1: Technology development and its uptake; innovations by producers Chair: Dr James Fisher, of Desiree Futures		
9:00 am	The nature of the adoption process in agriculture	Professor David Pannell, UWA Head of School of Agricultural and Resource Economics
9:30 am	Grain producer's perspective – the value of peer learning and benchmarking in driving practice change	Chris Reichstein, Esperance grain grower and Nuffield Scholar 2014
9:50 am	Livestock producer's outlook – how I have innovated on my farm	Craig Forsyth, Dongara cattle producer and Mingenew-Irwin Group Chair
10:10 am	Cropping farmer's point of view – the role of grower groups in fostering innovation	Erin Green, cropping farmer from the Northern Agricultural Region
10:30 am	Questions for panel members	
10:45 am	Morning tea	
Topic 2: How science fosters innovation; the role of RDCs Chair: Dr Kelly Pearce, of Murdoch University		
11:15 am	Consultant's view - how does innovation happen on farm?	Danielle England, agricultural consultant and RIRDC winner 2013
11:35 am	How does science foster innovation?	Dr David Ireland, CSIRO General Manager of International, Precincts and Innovation Systems
12:05 pm	R&D investment to drive innovation and industry growth - issues for funders and researchers	Mark Sweetingham, Department of Agriculture and Food WA – Grains Industry Executive Director
12:25 pm	Questions to the panel	
12:40 pm	Lunch and displays	
Topic 3: What are the constraints to innovation, and how serious? Chair: Prof. Bob Belford, of Curtin University		
1:30pm	Reaping the benefits of innovation - the Australian cotton industry story	David Hamilton, AIA Chair
1:50 pm	Public sector Rural Development and Extension (RD&E) - is it fostering innovation or getting in the way?	Mick Keogh OAM, Australian Farm Institute Executive Director
2:20 pm	Building the evidence and the rigour – combining science and experience	Dr Bill Ryan, GRDC western panel member
2:40 pm	Questions for the panel	
3:00 pm	Afternoon tea	
3:30 pm	Breakout groups to discuss principles and recommendations	
4:15 pm	Findings and conclusions	
4:30 pm	Close of forum	Emeritus Professor Lynette Abbott, of UWA, and AIA (WA Division) President
4:45 pm	Cocktail function	Short presentation by AEGIC Chief Executive Officer David Fienberg

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Sponsoring cropping farmer from the Northern Agricultural Region, Erin Green's presentation.



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Speaker Profiles

Professor David Pannell

UWA Head of Agricultural Resource and Economics

David Pannell is Winthrop Professor, Head of School of Agricultural and Resource Economics, University of Western Australia; Director, Centre for Environmental Economics and Policy; ARC Federation Fellow (2007-12); Distinguished Fellow and past president of the Australian Agricultural and Resource Economics Society; and Fellow of the Academy of Social Sciences in Australia. His research includes the economics of land and water conservation; environmental policy; farmer adoption of conservation practices; risk; and economics of farming systems. He is author of 200 journal articles and book chapters, with awards for research in the USA, Australia, Canada and the UK, including the 2009 Eureka Prize for Interdisciplinary Research.



Chris Reichstein

Esperance grain grower and Nuffield Scholar 2014

Chris Reichstein farms in the Esperance region in the 410-450 ml rainfall zone on a range of soil types from sandplain to duplex mallee. The operation is 100 per cent crop with 4400 ha being a combination of cereals, pulses and canola in order to bring diversity to the rotation. Integrated weed management, controlled traffic farming, no till and precision agriculture are important factors in maximising water use efficiency. Chris has a long history in industry roles and was awarded a Nuffield Scholarship in 2014, to look at agricultural extension. Chris considers himself an early adopter rather than an innovator, believing that the explorers get the arrows and the settlers get the land. He tries to be first to be second.



Craig Forsyth

Dongara cattle producer and Mingenew Irwin Group Chair

Craig Forsyth farms at 'Avoca', 400kms north of Perth, with his family. They operate a successful beef breeding enterprise and backgrounding operation through a profit share arrangement/ complementary alliance with five northern pastoralists. Initially running a traditional mixed enterprise, a combination of environmental issues convinced him to make the change from cropping to cattle in 1999. This move has allowed him to build the farm ecological base while improving its productivity. 'Avoca' now takes on more than 3000 pastoral cattle in April and finishes them for export through winter and spring, as well as running their own 400 breeders. Craig is a member of the WA Beef Council and Chair of the Mingenew Irwin Group. He was the 2011 winner of both the Rural Press Primary Award and Australian Government Innovation in Sustainable Farm Practices Awards, and a finalist for the 2012 Landcare Award.



Erin Green

Cropping farmer from the Northern Agricultural Region

Erin farms with her husband Brady in the Shire of Chapman Valley, 50km NE of Geraldton. Their business, Carrawingee Farms, is 8800 ha and has been through many changes. Following two years of drought in 2006-2007, sheep were removed from the business and the transition from minimum tillage cropping into a complete controlled traffic system began, the goal being to use rainfall as efficiently as possible, look after the health of the soil and give the business the best platform in drier years. In 2010, a farm advisory board was established to assist with the strategic management, particularly the financial impact of the CTF transition, taking on more land and succession from Brady's parents. Erin manages the farm office and since 2013 has also been the WA Coordinator of Partners in Grain (PinG). They are actively involved in the Yuna community and from 2008 - 2012 Erin was the Secretary of the Yuna Farm Improvement Group.



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Speaker Profiles

Danielle England

Agricultural Consultant and RIRDC winner 2013

Danielle is based in Narrogin WA and is passionate about supporting people within the agricultural businesses and corporations, which make up the industry's economic and social structure. She was the 2013 RIRDC Western Australian Rural Woman of the Year, and has recently been listed in the 100 Women in Australian Agribusiness. Danielle works across WA with grower groups, agronomists, farm business consultants, researchers and farmers to identify, trial and develop 'innovations' that increase on-farm productivity and profitability, and general life enjoyment. Managing Grain and Graze 3 in the Western Region for Grains Research and Development Corporation (GRDC), in cooperation with the Facey Group, means that Danielle works with a network of consultants and researchers to manage 15 trial sites and 30 discussion groups across the State. She has over 15 years of project management and farm management experience.



Dr David Ireland

CSIRO GM of International, Precincts and Innovation Systems

Dr David Ireland is the General Manager, International and Innovation Systems at the Commonwealth Scientific and Industrial Research Organisation (CSIRO). In this role Dr Ireland builds and manages key national and global strategic partnerships, the organisation's global innovation precinct strategy, and innovation policy. Dr Ireland is currently a Governor of WWF Australia and is the Chair of the Federal Government's Horizon Scanning working group. He has previously worked in research commercialisation and management consulting, has spun-out a number of companies, and has been a post doctoral researcher at the University of Queensland's Institute for Molecular Biosciences and the UQ Business School. Dr Ireland has over 20 science and business academic journal publications.



Mark Sweetingham

Department of Agriculture and Food WA — Grains Industry Executive Director

Mark has over 30 years of continuous involvement in the Australian grains industry with a strong research and industry development track record. He has internationally recognised expertise in crop protection, crop genetics and plant biosecurity, and experience in grain food technology and bio-economic modelling. Mark is committed to increasing value to the Western Australian grains industry, in partnership with industry, through research, development and innovation activities.



David Hamilton

AIA Chair

Following a stint developing the Emerald Irrigation area, David took a leadership role with QDPI in Rockhampton and then later moved to Toowoomba. After assuming various leadership roles, David became General Manager Plant Science responsible for Research, Development and Extension for Queensland's field crops. After 38 years, he retired from QDPI built a consultancy business and runs the family farm growing cotton and grains.



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Speaker Profiles

Mick Keogh OAM

Australian Farm Institute Executive Director

Mick Keogh grew up on a farm in southern NSW. His career has included periods of employment as a farm manager, a University researcher, an agribusiness consultant and an agricultural lobbyist and policy advisor. In late 2003, he was appointed Executive Director of the Australian Farm Institute, an independent policy research institute that conducts research into strategic policy issues of importance to Australian agriculture. Since that time, Mick has been involved in research into a wide range of issues impacting on the agricultural sector both in Australia and internationally, and has authored a large number of papers and reports on these subjects. In 2011, Mick was appointed Chairperson of the Australian Government's panel, which reviewed drought support measures. Mick was also Chairman of the Australian Government's National Rural Advisory Council from 2012 to 2015. Mick was awarded the Order of Australia Medal for services to agriculture in 2015. He remains involved in family farming interests in southern NSW.



Dr William (Bill) Ryan

GRDC Western panel member

Dr Ryan is currently the Chairman of the Agricultural Produce Commission of Western Australia, a board member of the Rural Industries Research and Development Corporation and a member of GRDC's Western Panel. Dr Ryan also provides independent consulting services to a range of clients in the agricultural sector and has recently been a member of an international team that reviewed the agricultural education, training and research system of Morocco. Dr Ryan has previously been the CEO of the Kondinin Group (2003-2008) and a senior executive with the Heytesbury Group (1994-2002). In 2005-06, Dr Ryan was a member of the Federal Government's Agriculture and Food Policy Reference Group. Prior to this, Dr Ryan was involved in animal production research with the Western Australian Department of Agriculture.



During the cocktail function there will be a short presentation from AEGIC Chief Executive Officer David Fienberg.



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Chair Profiles

Chair 1 -

Dr James Fisher

Desiree Futures

James has more than 25 years of experience in applied research and development. He has worked on projects covering many of aspects of agricultural systems including season and crop production, soil acidity, plant nutrition, sheep production and modelling the responses to predict the performance of these systems. He is part of the team delivering the Charles Sturt University Bachelor of Agribusiness Management at the 'new' Muresk. James is a resident of the Wheatbelt region of Western Australia and has a passionate interest in the development of the region, so is pleased to be helping to provide professional opportunities for people who live and work there.



Chair 2 -

Dr Kelly Pearce

Murdoch University

Kelly runs a 7000-acre cropping and sheep farm along with her husband Alan and young son Alastair near Yealering, Western Australia (WA). A proud holder of a PhD in Meat Science from the Murdoch University, Kelly also works part-time as a research fellow at Murdoch University (funded by the Sheep Cooperative Research Centre). Kelly's research mainly focuses on the impact of production and genetic factors on sheep meat quality traits. Kelly's off-farm roles include directorship on the boards of Western Australian Meat Marketing Co-operative Limited (WAMMCO) and Co-operatives WA; as well as committee member of the Grower Group Alliance Strategic Advisory Group, the Facey Group and the Sheep Industry Leadership Council (SILC). Kelly is also an immediate ex-director of the Ag Institute Australia.



Chair 3 -

Professor Bob Belford

Curtin University

Bob worked for the Agricultural Research Council in the UK for many years, with study leave in Nigeria and the USA. He then worked as an agronomic advisor to the former ICI company (now Syngenta) in the UK, France, USA and former USSR before moving to DAFWA in 1985. He moved to Victoria in the 1990s, including six years as Director of the Rutherglen Institute, and the Victorian Institute for Dryland Agriculture, before returning to WA in 2007 as Professor of Cropping Systems at Curtin University, initially at Muresk then Bentley campus. Bob was a member of GRDC's Western Panel 2001 - 2008. He retired in 2012 but retains an adjunct position at Curtin, while working as a consultant.



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Special Membership Opportunity

Why should you join?

Ag Institute Australia is committed to advancing the profession and the application of science and technology for the sustainable development of agriculture and natural resource management in Australia. Our members are engaged in a wide range of activities including research, education, government, agribusiness and private consulting.

The Institute sees its contract with the community as one that demands it maintains expertise and pays heed to the implications of its activities in relation to the wider environment in which the Australian people live. To this end, the Institute is taking the lead in maintenance of professional standards, ethical responsibilities and the recognition in professional work of the broader environmental, social and industry context in which its members work.

We are also taking the lead in promoting the importance of research and development in agri-industry, and in improved training of the agri-industry workforce to ensure a globally competitive Australian agri-industry.

What are the membership benefits?

Events and Networking

With over 1100 members working across all sectors of the industry Australia-wide, membership of Ag Institute will improve your career prospects by expanding your professional networking opportunities, enhance technical knowledge through workshops and State Division events and provide social contact opportunities for geographically dispersed members.

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Update your skills and expand your professional contacts through conferences and workshops conducted at regional and capital city locations and receive discounted registration fees.

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Innovation in Agriculture - Opportunities and Constraints

AIA WA branch

Overview and WA Committee

Ag Institute Australia (the trading name of The Australian Institute of Agricultural Science and Technology) is committed to promoting the advancement of Australian Agriculture and Natural Resource Management in accord with sound scientific developments and represents professionals involved in these areas.

AIA has taken the lead in development of Professional Standards, accreditation process and a code of ethics for members.

The WA branch of the AIA consists of over 100 members, a Divisional Committee and an AIA (WA) events organising committee.

For those of you who are not already members, we encourage you to consider AIA membership and we are currently offering non-members who attend the WA conference the opportunity to become a 2016 AIA member and receive the remainder of the 2015 membership for free.

Please speak to an AIA committee member today, or contact them on the details below. The WA organising committee would like to thank you for attending the Innovation forum.

AIA Publication

Anyone interested in receiving *Agricultural Science*, the official journal of the Ag Institute Australia (published twice a year) should visit - www.aginstitute.com.au

Members receive hard copy versions of the publication and an online version is available in the member-only section of the website. Journal subscriptions are also available for non-members.

Retired Ag. scientist and WA forum organising committee member Peter Finlayson is the Managing Editor of *Agricultural Science*. Contributions are welcome and may be emailed to - admin@aginstitute.com.au.

AIA WA Forum Organising Committee

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Topic One

Technology development and its uptake; innovations by producers

Chair - Dr James Fisher, Desiree Futures

Speaker One - The nature of the adoption process in agriculture

Professor David Pannell, UWA Head of School of Agricultural and Resource Economics

Agricultural innovation involves farmers making decisions to change aspects of their farm or its management. Sometimes the change is an innovation created by the farmer, but more often the innovation was originally created by another farmer, a business or a researcher. Thus, a key aspect of innovation is the process of learning about, evaluating and (perhaps) adopting innovations from elsewhere. Adoption of innovations by farmers is a learning process. Farmers usually trial an innovation before adopting it, to allow them to learn about its performance. They don't leap to full-scale adoption in case it turns out that the innovation is a full-scale disaster. The final adoption decision depends on a range of personal, social, cultural and economic factors, as well as on characteristics of the innovation itself. Amongst people-related issues influencing adoption, key factors include: the farmer's goals, risk aversion, inherent innovativeness, networks and access to resources. Important characteristics of the innovation include: its profitability, its riskiness, its environmental impacts, its ease and convenience of use, and its compatibility with the existing farming system. Adoption occurs when the landholder perceives that the innovation in question will enhance the achievement of their personal goals. A range of goals is identifiable amongst farmers, including economic, social and environmental goals. Innovations are more likely to be adopted when they have a high 'relative advantage' (perceived superiority to the idea or practice that it supersedes), and when they are readily triable (easy to test and learn about before adoption). For more on this topic, see www.RuralPracticeChange.com

Speaker Two - Grain producer's perspective - The value of peer learning and benchmarking in driving practice change

Chris Reichstein, Esperance grain grower and 2014 Nuffield Scholar

Worldwide there has been a trend for governments to reduce expenditure on agricultural research development and extension, this has led to an increase in levy based funding models along with greater private investment in R & D. In Australia, this has also coincided with a decline in the rate of growth in total factor productivity in the grains sector, as a consequence it is vital that R & D be well targeted and relevant, however just as importantly extension needs to be effective. Countries such as New Zealand, Argentina, UK and Ireland are moving to improve extension by the facilitation of peer learning, whether using demonstration or monitor farms, discussion groups or benchmarking. Ireland in particular has seen rapid growth in discussion groups with approximately 500 being established, when combining the peer learning element and benchmarking there have been clear economic benefits with changes at an operational, tactical and strategic level. In Australia, the grower groups are increasingly being used in the extension process to provide a valuable link between researchers and growers. Currently we undervalue the value of peer learning which is one of the most valuable information sources for growers, the use of grower and discussion groups along with benchmarking physical and financial performance can be used to drive practice change.



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Topic One

continued

Technology development and its uptake; innovations by producers

Chair - Dr James Fisher, Desiree Futures

Speaker Three - Livestock producer's outlook - how I have innovated on my farm

Craig Forsyth, Dongara cattle producer and Mingenew Irwin Group Chair

Change can be terrifying and yet taking the plunge can bring huge benefits. Running a traditional mixed cropping, sheep and cattle enterprise on 'Avoca' in Dongara since the 1970s, Craig and Donelle Forsyth were cropping up to half the 3550ha property and were battling against water logging, herbicide resistance and crop disease. In 1999, following a wet year which exacerbated these problems, they decided to move the enterprise into cattle only. With the farm initially carrying 75 large stock units per hectare per year and Dongara hot and dry summers leaving no groundcover and the topsoil prone to wind erosion, it was a bold move. Being an innovative producer, Craig started planting perennial grasses before they were popular. Following their successful establishment and the increase in productivity, he introduced fodder shrubs to his paddocks, fenced based on soil types and improved the watering system. By doing so, he enhanced both the ecological base and the productivity of the farm. As a result of this increase in resources, he was able to develop alliances with northern pastoralists based on the feed complementary between the pastoral zones and his enterprise. 'Avoca' now takes on more than 3000 pastoral cattle in April to October and finishes them for export through winter and spring when feed is available readily. In the drier months, his pasture productivity, with perennial grasses and shrubs, is enough for their own breeders. From GPS tracking cattle, trialling new species and innovative management, to using lasers for measuring their methane emissions, his main advice is "never be frightened to try new ideas".

Speaker Four - Cropping farmer's point of view - the role of grower groups in fostering innovation

Erin Green, cropping farmer from the Northern Agricultural Region

Have you ever met a grower who was 100 per cent happy with 100 per cent of the decisions they made throughout a season, and wasn't looking to "tweak" something the following year? I'm pretty sure they'd be near impossible to find. Have you ever met a grower who doesn't look over the neighbour's fence to see what they've been doing and how they compare? The majority of growers are passionate and driven. They are innovators who are always looking to improve their farming practices, skills, knowledge and businesses. They know there are plenty of things they can't control in a season, so to reduce risk and increase reward, they want to manage what they can control as well as possible. I believe grower groups play a large role in on-farm innovation. WA has many grower groups and many types of groups. Some are localised, others are regional. Some groups are tiny with no staff, others are much larger with numerous employees. What they all have is a network, and that network supports farmers to come together across fence lines, districts, generations and sexes. It encourages comradery, questions, research, learning and ultimately innovation. Sometimes the innovation is significant, other times small changes are all that's needed. There has been a lot of change, or innovation, on our farm in recent years. Our local grower group has definitely played a role in this along the way.



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Topic Two

How science fosters innovation; the role of RDCs

Chair - Dr Kelly Pearce, Murdoch University

Speaker Five - Consultant's view - how does innovation happen on farm?

Danielle England, agricultural consultant and 2013 RIRDC winner

Innovation is the ability 'to find a better way of doing things'. Innovation on-farm happens when there is a need. This need may not be financial. It may be about managing time, it may be about personal and family commitments, it may be about water availability, livestock health or a myriad of other factors. So when farming families consider innovation, they don't consider it in isolation to the other things that will be impacting on their business. When something new is introduced to the farming system, or business, there are a range of things that will change as a result of the innovation, and many things that need to be considered. Things that will influence its adoption include the characteristics of the innovation, its trialability, advisory support and reversibility to name a few. The ADOPT framework provides us with a great road map on how farming families consider the adoption of a new innovation. As we put together any RD&E program, it is vitally important that we meet the target audience where they are, put together a program that addresses their needs specifically and provides them with the support to implement the innovation (in whatever format is necessary). It is absolutely critical that before we invest any money in innovation development or extension, that we take the time to fully understand the target audience, their key information providers, current practices and delivery preferences. Using Grain and Graze 3 as an example, Danielle's presentation will take a quick look at the things that influence innovation on-farm, and how, as key advisors (or researchers) we can support growers in their innovation journey.

Speaker Six - how does science foster innovation?

Dr David Ireland, CSIRO General Manager of International, Precincts and Innovation Systems

As Australia's national science agency, we use science to have a positive impact on industry, people, and the environment. We work closely with almost 3000 organisations each year to understand their challenges and help them to develop tailored solutions to their technical problems. Our innovations like WiFi, plastic banknotes, extended wear contact lenses, self-twisting yarn and many others were possible due to our applied, entrepreneurial, and customer focused approach to innovation, and they have gone on to have a significant impact on the lives of many worldwide.

Speaker Seven - R & D investment to drive innovation and industry growth - issues for funders and researchers

Mark Sweetingham, Department of Agriculture and Food WA - Grains Industry Executive Director

The presentation will consider the learnings from the development and implementation of the Grains Industry National Research, Development and Extension Strategy – “a dynamic framework to enable government and industry to work collaboratively to secure the enduring profitability of the Australian Grains Industry”. Many issues and challenges are transferable to other industry sectors. How well are we doing as innovators, in the applied science space, and as we come together with businesses and industry to solve both straightforward and complex problems to increase productivity and create more wealth from the agrifood sector? Are we optimising the coordination of research and innovation collaboration internationally, nationally, regionally and locally? Are we empowering Australia's agricultural research and innovation capacity for the future through these strategies?



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Topic Three

What are the constraints to innovation and how serious

Chair - Professor Bob Belford, of Curtin University

Speaker Eight - Reaping the benefits of innovation - Australian cotton industry story **David Hamilton, AIA Chair**

The modern Australian Cotton industry has grown from relatively small irrigated areas in northern NSW and southern Queensland to a crop worth in excess of \$2 billion in exports. The modern industry (from the 1970s onwards) has overcome some very difficult challenges in the last four decades. These range from high levels of insect pest resistance to insecticides, environmental contamination, livestock contamination; accusations of excessive water usage and a move from a domestic spinning market to a crop which is entirely exported. Australia now produces yields considered the best in the world with sought-after premium fibre quality. Despite fluctuations caused mainly by drought, the industry has increased national average yields from 500 kg/ha in the early 1970s to over 2000 kg/ha in the last few years. In the past decade, the irrigated cotton industry has achieved a 40 per cent improvement in water use efficiency (as defined by bales produced per megalitre of irrigation water applied). With the almost complete adoption of GM cotton varieties since their introduction in 1996 the Australian industry has adopted the most rigorous and effective resistance management system for Bt cotton in the world. Although herbicide resistant weeds have evolved, these are closely monitored and cotton farmers are acutely aware of the risks of herbicide resistant weeds in their farming system. Through the application of Integrated Pest Management and the use of Bt cotton, the industry has reduced its use of insecticide by 95 per cent. This has led to the near elimination of environmental (and livestock) contamination and enhanced the preservation of beneficial insects in the local ecosystem. Cotton farmers almost universally employ crop consultants to provide advice on day-to-day and strategic crop management and the industry has embraced a publicly (and levy) funded research development and extension program. This is led by the Cotton R&D Corporation (which is accountable to Cotton Australia) and has seen the collaborative efforts of three consecutive Cooperative Research Centres over the past 18 years. Innovation has been the cornerstone of the cotton industry and is widely acknowledged as underpinning the industry's success.

Speaker Nine - Public sector Rural Development and Extension (RD&E) - is it fostering innovation or getting in the way?

Mick Keogh OAM, Australian Farm Institute Executive Director

Australian agriculture has a long history of public sector research, development and extension, with many of the state government agencies involved in this area having histories that date back more than 100 years, and Australian universities and the CSIRO also playing important roles, especially in the post World War II years. However, over the last two decades, state governments have significantly downscaled their expenditure on agricultural research and development, and largely abandoned their agricultural extension activities. Funding responsibilities for agricultural R&D have been transferred to industry and the Australian Government, with universities, state government agriculture departments and the CSIRO increasingly dependent on external funding to support the diminishing level of agricultural research and development they carry out. It is perhaps not surprising that this increased reliance on industry levies (and matching Australian Government contributions) to fund agricultural R&D leads farmers to seriously consider whether their research levies are in fact delivering real benefits, especially in the absence of productivity growth in the sector. Many farmers wonder whether they would be better off keeping these hard-earned dollars to use within their own businesses, or collaborating with other like-minded farmers to fund the specific research they need. These are challenging questions that are not easy to answer, but there are some fundamental issues that do need to be considered in thinking about them.



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Topic Three

continued

What are the constraints to innovation and how serious

Chair - Professor Bob Belford, of Curtin University

Speaker Ten– Building the evidence and the rigour - combining science and experience

Dr William (Bill) Ryan, GRDC Western Panel member

Science and agribusiness both play a role in developing technologies and innovations which, when implemented, improve productivity and profitability of rural businesses. Science provides the foundations and principles and develops new technologies and this must be done with strong scientific rigour. Agribusiness involves all aspects of the business including technical, financial, labour, logistics and other business objectives. Its focus is to make a profit. If science and agribusiness are to work together to develop and implement new technologies it is essential that each understands the contexts and constraints of the other. Three aspects that impact the process are information and data, innovation in implementing technologies and other business objectives and these are explored from both the science and agribusiness perspective.



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The GRDC's mission is to invest in research and development for the greatest benefit to its stakeholders - grain growers and the Australian Government. The Corporation links innovative research with industry needs. The GRDC's vision is for a profitable, internationally competitive and ecologically sustainable grains industry.

The GRDC's research portfolio covers 25 leviable crops spanning temperate and tropical cereals, oilseeds and pulses worth over \$7 billion a year in farm production, alone. The GRDC is a statutory corporation operating as a research investment body in partnership with growers and Government.

Funding is provided through a levy on grain growers. This is determined each year by the grains industry's peak body. The Australian Government matches this funding, up to an agreed ceiling.

Please visit <http://www.grdc.com.au/> for further details.



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Australian Export Grains Innovation Centre

The Australian Export Grains Innovation Centre (AEGIC) is the front-door to Australia's export grains industry.

An independent, not-for-profit organisation, AEGIC supports the trade and use of Australian grain across the world through strategic market intelligence reporting and cutting-edge grain quality and processing research, development and innovation.

AEGIC's vision is to increase the international competitiveness and value of Australia's export grains industry.

AEGIC also specialises in

- Yield and seasonal forecasts
- Economic, business and supply chain analysis
- Grain quality testing services
- Technical training and support

Key stakeholders

Representatives across the supply chain, ranging from Australian grain producers, plant breeders, marketers and traders to international millers, processors and consumers

Why we exist

- Provide global market intelligence to local stakeholders on emerging market trends; functionality requirements and opportunities
- Using accumulated market intelligence, carry out targeted grain quality and processing research and development to continue to meet our international customers' requirements.

Please visit <http://www.aegic.org.au/> for more information.



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Sponsoring cropping farmer from the
Northern Agricultural Region,
Erin Green 's presentation.

What is the GGA?

The Grower Group Alliance (GGA) is a non-profit, farmer driven organisation connecting grower groups, research organisations and agribusiness in a network across Western Australia.

Benefits for Grower Groups

- Increase information and knowledge exchange; regional meetings, group exchange, annual forum, cross regional tours, study tours
- Two-way communications; fortnightly industry Calendar, Newswire, communications support
- Linking right people with right information at the right time
- Grower group event support
- Identification of RD&E project opportunities; developing collaboration and application support
- Access to resources and training
- Grower group operational support; including corporate governance, running events, sponsorship development
- Promotion of grower groups to the wider agricultural industry

Benefits for Industry

- Access to state-wide grower group network
- A central point of contact to reach grower groups
- Conduit for project development and consultation
- Opportunities for participatory action research, extension and communication, directly with growers
- Opportunities to develop links with grower groups for collaborative projects
- Adding value and impact to project activities

Please visit www.gga.org.au for more information.



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The UWA Institute of Agriculture



The University of Western Australia's Institute of Agriculture (IOA) works together with internal and external partners to deliver tangible outcomes and benefits for stakeholders in the agricultural and natural resource management industries, and the wider community.

To advance our agricultural sector and to address the challenges of global food and nutritional security, the Institute fosters innovation and adaptation in agriculture. Underpinned by scientific research, training and development.

The Institute's role is to facilitate and coordinate to best advantage the research undertaken by The University of Western Australia (UWA)'s academic resource. This may involve extending existing research areas, or the fostering of new research interests, either with existing staff or through identifying key staff appointments to develop new areas of research.

IOA plays a key role in communication of research outcomes to industry and other stakeholders. Our activities and initiatives are structured around existing and emerging interdisciplinary themes of plant, soil, engineering, human health, business and economics, which combine and optimise the available knowledge and expertise to facilitate research, national and international links and partnerships, education and training, outreach and technology transfer.

Please see the website: www.ioa.uwa.edu.au for more details.



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AgInnovate is a small agricultural consultancy based in the Great Southern of Western Australia. We tailor our work with grower groups, research organisations, agribusiness, farm businesses and individuals to ensure you achieve your business and/ or industry goals.

At AgInnovate we specialise in:

Agricultural project management

We deliver research, development and extension projects that are designed, implemented, managed and evaluated to ensure project outcomes are delivered on-time and on-budget.

Strategic industry planning

Designing and planning a 'better way of doing things' for an industry or organisation takes leadership and innovative thinking. We bring to the table a process that will help you to identify a range of options and leave you with a plan of action for your success.

Contact us on -

Website: www.aginnovate.com.au

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Venue

Pagoda Resort & Spa

112 Melville Parade, Como WA

The *Innovation in Agriculture - Opportunities and Constraints* forum is being held at the Pagoda Resort & Spa in Como WA, in the Pagoda Ballroom.

Morning tea and afternoon tea will be served in the Pagoda Pre-Function lobby, lunch will be held in the dining room and a cocktail function will follow the conference in the Pagoda Ballroom from about 5pm.

Contact

Please direct any post forum inquiries to:

Samantha Scott
Ag Institute Australia (WA Division)
Event Coordinator
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Venue



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Notes

Innovation in Agriculture - Opportunities and Constraints



Notes

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