AUSTRALIAN FERTILIZER INDUSTRY
CONFERENCE 2016 - CAIRNS

CONFERENCE PROGRAM

Arthur J. Gallagher

Muntajat
MEETINGS AND SESSIONS

TUESDAY SEPTEMBER 13

08:30       AFSA Board – Boardroom 1
14:00       Fertilizer Australia Board – Boardroom 1
15:30       AFSA AGM – Tully 2
17:00       Fertilizer Australia AGM – Tully 2
18:30       WELCOME RECEPTION – POOL DECK

WEDNESDAY SEPTEMBER 14

08:30       Session 1 – POLICY
08:40       Great Barrier Reef Issues and Queensland Government Response – Elisa Nichols
09:00       Improving the Use of Fertilisers in Reef Catchments – Chris Johnson
09:20       Green Growth Plan – Nick Drew
09:50       Industry Engagement – Adam Richardson
10:00       MORNING TEA
WEDNESDAY SEPTEMBER 14 (continued)

10:30  Session 2 – STEWARDSHIP

10:35  IFA - Raising the Global Profile of the Fertilizer Industry: an Industry Image up for the Change – Yvonne Harz-Pitre

11:00  Sustainability and Stewardship - Australian Fertilizer Industry – Nick Drew

11:10  Fertcare in Action, Important for our Industry – Jeff Kraak
Fertcare in Action: Integrating Composts into Your Product Offering and Advisory Scope – Jeff Kraak

11:30  Fertcare in Action: The Advantage of Fertcare Advisor Accreditation to Elders – Graham Page

11:40  Retail Sector Requirements – Karen Schroder

12:00  LUNCH

13:30  Session 3 – BIOSECURITY AND LOGISTICS

13:35  Biosecurity Legislation and the Importation of Fertiliser – Leanne Herrick

13:55  Revising the Protocols – Leanne Herrick

14:20  Is a Weak Shipping Market Good for the Australian Fertiliser Industry? – Colin Everett

14:40  Facilities Stewardship – Fertilizer Handling Code of Practice – Jeff Kraak

14:45  Facilities Stewardship – Lessons from Newcastle Part 1 – Anthony Peters

14:55  Facilities Stewardship – Lessons from Newcastle Part 2 – Michael Rayner

15:00  AFTERNOON TEA – FOLLOWED BY FREE TIME
THURSDAY SEPTEMBER 15

08:30  **Session 4 – TECHNOLOGY I – PRODUCTION**
08:40  Australia’s More Profit from Crop Nutrition Program – Mike McLaughlin
09:10  Better Fertilizer Decisions Database – Tony Cox
09:20  Rapid Screening of Controlled Release Fertilizers – Mike McLaughlin
09:40  Yield Mapping – An Essential Component of Site Specific Management – John Markley
10:00  MORNING TEA

10:30  **Session 5 – ECONOMICS AND MARKETS**
10:35  Global and Australian Economic Outlook - Waiting For the Bounce – Michael Harvey
11:00  Fertilizer Market Outlook – Isaac Zhao
11:25  Reef Tender - Economic Incentives Drive Change – Angela Cameron
11:40  Recycled Organics Industry Overview – Peter McLean
12:00  LUNCH

13:30  **Session 6 – LIFE AND BUSINESS**
13:35  Thriving on the Challenges of Change – Ian Berry
15:00  AFTERNOON TEA
### THURSDAY SEPTEMBER 15 (continued)

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<td>Coatings and Inhibitors: Production and Relevance to Fertiliser Efficiency</td>
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<td>The Practicalities of Using Controlled Release Fertilisers</td>
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<td>Intercepting Nutrients from Waterways using Floating Wetlands</td>
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<td>How to Build Momentum in Agricultural Sustainability – Perspectives from Smartcane BMP</td>
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<td>Identifying and Managing Variability for Site Specific Management</td>
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### FRIDAY SEPTEMBER 16

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Great Barrier Reef Issues and Queensland Government Response

The reef is facing a number of serious challenges, including those caused by climate change and land based runoff. In May 2015, the Great Barrier Reef Water Science Taskforce was formed to provide recommendations on how to meet reef water quality targets and how to best invest an additional $90 million committed by the Queensland Government. The final taskforce report, released in May 2016, made 10 recommendations, including enhancing communication, increasing levels of agricultural extension and innovation, expanding water quality monitoring, financial and other incentives, and introducing staged and targeted regulations. This talk will discuss these recommendations and the Queensland Government’s response.

Elisa has led the Office of the Great Barrier Reef since May 2015 and has recently overseen the Great Barrier Reef Water Science Taskforce, formed to provide advice and recommendations to the Queensland Government on the best approach to meeting reef water quality targets. She has been with DEHP and its former incarnations for over ten years, specialising in environmental management, policy and legislation. During this time, Elisa has led major projects including the Great Barrier Reef Protection Amendment Act 2009 and the Greentape Reduction project. Elisa also has a Masters in Environmental and Resources Law.

Improving the Use of Fertilisers in Reef Catchments – Extension, Regulation, Incentives and Innovation

There are currently a range of programs and practices being implemented to reduce the loss of nutrients to the reef from broad scale agriculture. Whilst there has been some success in improving reef water quality, there is room for improvement. The Queensland Government recognises that a mix of policy interventions (i.e. voluntary BMP programs, extension and education, regulatory compliance, financial incentives, innovation and technology) are needed. This talk will discuss the current and emerging fertiliser management practices and strategies that are delivery priorities within these policy tools to both enhance progress towards water quality targets and improve producer profitability. This will include the role of fertiliser manufacturers, retailers and advisors.

Chris has worked in DEHP’s reef program (now the Office of the Great Barrier Reef) since 2009. He currently leads a team that focuses on increasing the adoption of best practice on agricultural land in reef catchments. This includes managing and funding research to identify the management practices needed to improve landholder profitability and achieve reef water quality targets. The team also oversees funding and supports delivery of industry BMPs, extension and other on-ground programs that increase the adoption of best practice. Chris has a Masters in Environmental Management from the University of Queensland.
SESSION 1  Wednesday September 14  (continued)

09:20  Nick Drew
Executive Manager, Fertilizer Australia, Canberra.

**Green Growth Plan**
The Perth and Peel regions in Western Australia are projected to grow to 3.5 million people by 2050 – an increase of 70 per cent. Supporting this growth and delivering an efficient and liveable city while protecting the unique natural environment is a significant challenge. The Green Growth Plan will deliver two critical outcomes; cutting red tape by securing upfront Commonwealth environmental approvals and streamlining State environmental approvals; and unprecedented protection of bushland, rivers, wildlife and wetlands through implementation of a comprehensive plan to protect our environment. The effects of Agriculture on the environment are a significant component of the plan.

Nick graduated from Queensland Agricultural College and has a professional career of over 30 years, including in commercial cotton production, as a research and extension agronomist with Victorian Department of Agriculture, and in the fertilizer industry in commercial and technical roles with Incitec Fertilizers, and as Fertilizer Manager with West Australian distributor, RTC. Since 2002, Nick has lead Fertilizer Australia in delivering effective engagement and good policy outcomes for the industry.

09:50  Adam Richardson
CEO, Summit Fertilizers, Kwinana, Western Australia.

**Industry Engagement**
The fertilizer industry faces a number of issues in food safety, environment, quarantine and public safety. Public perceptions and concerns also change over time and this is reflected in the public policy debate and actions by government. Managing issues, through codes of practice and Fertcare, fulfils an inherent obligation to manage known problems with our products. It also allows us to engage with governments, the science community and public interest groups. This ensures our codes and programs are appropriate and helps us to contribute to good public. The presentation will relate how recent experience in Western Australia demonstrate the effectiveness of this approach.

Adam has been employed with Summit Fertilizers for the past 11 years, the last five as CEO. Adam is current Chairman of Fertilizer Australia and has sat on the board for the past 5 years. Summit Fertilizers has been heavily involved in the WA fertilizer market for the past 26 years and run a dedicated trials and agronomy services program throughout the South West of WA. Summit has been directly involved with the Swan Coastal Catchment program and helping promote Fertcare for over a decade.

10:00  MORNING TEA
Sponsored by Compass
SESSION 2  Wednesday September 14

10:30  Stewardship

10:35  Dr Yvonne Harz-Pitre
PhD, Director Communications & Public Affairs, International Fertilizer Association, Paris.

IFA - Raising the Global Profile of the Fertilizer Industry: an Industry Image up for the Change
The impact of climate change, economic fluctuations, a steeply growing world population and an increasingly global awareness of limited agricultural resources paired with strongly voiced requests for sustainable solutions put the fertilizer industry under pressure to profile itself as accountable, innovative and solution driven. The International Fertilizer Industry (IFA) will present how the sector addresses its many reputational challenges on a global level and how it works strategically with a range of UN institutions and global stakeholder groups to address the new environmental and societal concerns.

Yvonne joined the International Fertilizer Institute (IFA) in September 2015 as Director of Communications and Public Affairs. Prior to IFA, she held the position of Global Communications Director at AgroFresh, a former division of Dow AgroSciences, which developed fruit quality management technologies and plant protection products. Her responsibilities encompassed international corporate communications and public affairs, with a particular focus on the implementation of reputation and issue management strategies in relation to food safety, environment and nutrition. Before AgroFresh, Dr Harz-Pitre worked for the International Food Policy Research Institute (IFPRI) in Washington D.C., followed by a European Public Relations Manager position at Thales Group in Paris, France. She started her career in corporate communications at Michelin. A native German, Dr. Harz-Pitre has earned her PhD at the Sorbonne in Paris and has served several years as a member of the Board of Directors of the Issue Management Council (IMC).

10:50  Nick Drew
Executive Manager, Fertilizer Australia, Canberra.

Sustainability and Stewardship Australian Fertilizer Industry
The Australian Fertilizer Industry has made a significant commitment to stewardship and sustainability by developing a number of codes of practice and engaging with interest groups and policy makers. In quarantine, security, food safety, environment and occupational health and safety members of Fertilizer Australia have developed industry standards to meet public expectations. In 2013 members agreed that Fertilizer Australia should test how well these standards were being implemented by members through a detailed annual survey.

For Nick's biography see session 1, Green Growth Plan.
Jeff Kraak  
Program Manager, Fertilizer Australia, Echuca.

Fertcare – Important for our industry  
The Fertcare® brand provides a nationally recognised image for best practice fertilizer supply, advice and contract application. This training and accreditation program is about promoting productivity while protecting the environment. Farmers, the fertilizer industry and governments all benefit from Fertcare. The program continues to provide substance for the fertilizer industry’s public policy engagement on nutrient management issues. This presentation will summarise why Fertcare exists, recent achievements and the key challenges ahead.

Jeff grew up on a farm in Bundaberg, Queensland and followed his interest in soils and plants by studying at Queensland Agricultural College. Jeff has a long history in the Australian fertilizer industry in a range of sales, marketing and technical support roles. A large proportion of his professional life was spent with Incitec. Having worked across much of eastern Australia, Jeff has had exposure to industries such as sugar cane, horticulture, grains and intensive pasture. Jeff is now part of Fertilizer Australia. His main area of responsibility is to manage the industries environment and food safety stewardship program Fertcare.
Jeff Kraak
Program Manager, Fertilizer Australia, Echuca.

Fertcare in Action: Integrating Composts into Your Product Offering and Advisory Scope
Recycling organics waste streams, which have historically gone to landfill, makes sense, has important agricultural soil health benefits and is a practice governments are encouraging. To help achieve this outcome, Fertcare is supporting the Australian Organics Recycling Association (AORA) and MRA Consulting in a NSW EPA funded project. Training on the use of composts in agriculture is being made available free to agronomists. The project is also providing the opportunity for rural distribution businesses to explore the addition of organics soil amendments and compost products into their product offering. The presentation provides an overview of the project and its key messages.

For Jeff’s biography see above, Fertcare: Important for our Industry.
10:30

Graham Page  
National Technical Services Manager, Elders Rural Services, Adelaide.

**Fertcare in Action: The Advantage of Fertcare Advisor Accreditation to Elders**

Elders Rural Services has 120 agronomists across all major regions. For Elders, the key to business success is understanding client needs and making sure our agronomists not only deal with day to day production risk, but steer growers in a direction that is both profitable and sustainable. With one retail distribution outlet to 120 producers, this can be challenging given the competitiveness within the supply chain. The key to providing a sustainable competitive advantage is taking a disciplined approach to service offering with a high standard of technical excellence and client focus. The Fertcare Accredited Advisor program assists Elders with this approach.

Graham is the National Technical Services Manager for Elders Rural Services based in Adelaide. Over the past fourteen years with the company he has successfully introduced key competency standards for Elders agronomists, focusing on technical excellence to support Elders’ farm supplies business and improve farm productivity across rural Australia. Graham is a huge advocate of the fercare program and strongly believes the sustainability of farming in Australia will be determined by the good work that private agribusinesses, like Elders, provide through on-farm development and extension to farmers. “Business success and compliance takes a disciplined approach.”

10:40

Karen Shroder  
Group Manager Safety Health Environment Sustainability and Workers’ Compensation Wilmar Sugar Australia (NZ) Pty Ltd.

**Retail Stewardship**

What do our customers want? In a consumer driven environment where loyalty to brand is increasingly about the integrity and sustainability of the supply chain – the long term and efficient management of resources - how do we practically and effectively demonstrate this commitment and gain recognition to a globally recognised standard such as Bonsucro – and why do we need to?

Karen has 20 years’ experience in safety, health, environment, sustainability, and workers’ compensation leadership roles in a range of organisations across the FMCG and telecommunications sectors, including Nestle and Telstra, agribusiness, mining and manufacturing organisations. She has a proven track record of developing and implementing strategic plans which deliver tangible outcomes and sustainable processes coupled with significant cost savings. Wilmar Sugar Australia (NZ) grow, transport and crush sugarcane, manufacture bioethanol, and refine sugar. Operating 7000ha of our own sugarcane farms, a rail distribution network, eight Mills, two distilleries and three refineries: Wilmar is the largest sugar producer in Australia.
Biosecurity Legislation and the Importation of Fertiliser

This year has seen important changes to Australia's biosecurity system. On 16 June, the Biosecurity Act 2015 and the Biosecurity (Prohibited and Conditionally Non-prohibited Goods) Determination 2016 went live. The Biosecurity Act affects how the risks of goods, people and conveyances entering Australia are managed. It provides a more modern, less complex legislative framework - making it easier for the Commonwealth to regulate, for stakeholders to understand their obligations, and for ongoing compliance to be rewarded with reduced intervention. The majority of requirements for importers will remain the same. However, there are changes which may be of interest to the fertiliser import industry.

Leanne joined the department in 2006. She has extensive strategic biosecurity experience, working with state and territory agencies and affected industries on emergency eradication responses; and reforms under the Intergovernmental Agreement of Biosecurity aimed at leveraging government investment and better targeting national programs. Prior to this, she spent over 25 years with the Civil Aviation Safety Authority and related Transport departments. Leanne is now responsible for the operational policy for biosecurity clearance of air and sea cargo, as well as international mail. The development and implementation of fertiliser protocols and supporting policy for managing inorganic fertiliser imports falls within this scope.

Revising the Protocols

The fertiliser protocols, developed collaboratively by the Department of Agriculture and Water Resources and Fertilizer Australia, have played a large role in keeping biosecurity risks associated with inorganic fertilisers offshore. The protocols work by recognising where industry has effectively implemented measures to stop these fertilisers from being contaminated with biosecurity risk material such as seeds, soil and plants, resulting in reduced inspection regimes. Last revised in 2013, the bulk in vessel protocol was introduced in 2004 and the containerised protocol in 2007. The protocols are now being reviewed to further streamline arrangements and reduce the regulatory impost on importers that demonstrate longstanding and high level compliance.

For Leanne's biography see above, Biosecurity Legislation and the Importation of Fertilizer
Mr Colin Everett
Chartering Manager, Oldendorff Carriers, Melbourne.

**Is a Weak Shipping Market Good for the Australian Fertiliser Industry?**
The importation of bulk fertiliser is 100% reliant on the world’s fleet of bulk carriers. Since 2003 we have seen an explosion in the number of new ships being delivered from ship yards. This has given the Australian fertiliser industry unprecedented access to an easy, albeit sometimes expensive, supply of ships that meet Australia’s strict Importation Protocols. How will the current down turn in world demand affect fertiliser shipments into Australia: Cheaper freight rates, or fewer new ships that suit Australia’s Importation Protocols?”

Colin has been employed in the shipping industry since 1986. 1986 through to 1998 he was employed in the container industry. In 1998 he moved into bulk shipping when he commenced employment with Western Bulk Carriers. Since 2003 Colin has been employed at Oldendorff Carriers Melbourne. Although Colin has been involved in multiple areas within the Oldendorff organisation including their parcel trades and time charter desk, his primary focus over the past 13 years has been guiding Oldendorff in their involvement in the Bulk Fertiliser trade into Australia.
14:40 Jeff Kraak  
Program Manager, Fertilizer Australia, Echuca.  

Facilities Stewardship – Fertilizer Handling Code of Practice  
Across Australia, legislation and licensing set the environmental framework that governs the operations of fertiliser manufacturing, transporting and distribution. The industry’s Fertilizer Handling Code of Practice has established appropriate standards when handling products in public areas and company storages.  
For Jeff’s biography see session 2, Fertcare – Important for our Industry.

14:45 Mr Anthony Peters  
Regional Distribution Manager Central, Incitec Pivot Fertilisers, Newcastle.  

14:55 Mr Michael Rayner  
Senior Environmental Advisor, Incitec Pivot Limited, Newcastle.  

Facilities Stewardship – Lessons from Newcastle Parts 1 and 2  
Residential communities adjacent to fertiliser operations are becoming more informed on environmental risks and are finding their voice with increased access to community forums and social media. The resulting challenge for the fertiliser industry is to be able to successfully, and profitably, continue to undertake their activities in full compliance with environmental obligations while being monitored by the authorities and the community. The fertiliser industry at Kooragang Island Newcastle has faced a range of environmental challenges. The presentation will provide a snap shot of what the industry is doing, what can be learnt from this situation and a case study example of Incitec Pivot Fertilisers' path towards environmental compliance.  

Michael has 20 years’ experience in the environmental field and holds qualifications in engineering, science, environmental science and project management. Michael has a wide range of experience having worked in consultancy, government and industry. He currently provides environmental advice to the IPF business nationally. Developing a framework to achieving environmental compliance has been a key area of focus in the four and a half years he has been with IPF.  

Anthony has 16 years with the Incitec Pivot Fertilisers business. He has undertaken various roles across the organisation including; operations; HSE functional support across the wider Incitec Pivot Fertilisers business; and Site Management Mackay and Regional Management Central. He has also worked with Big N Operation (Anhydrous Ammonia). He commenced at the Kooragang Island facility in 2012, with responsibility for NSW fertiliser assets and 3rd party contracts.  

15:00 AFTERNOON TEA – FOLLOWED BY FREE TIME  
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Australian Government
Department of Agriculture and Water Resources

The Department of Agriculture and Water Resources plays a vital role in maintaining Australia’s biosecurity system. This system reduces the risk of exotic pests and diseases entering the country and harming our natural environment, agriculture systems, community health and economy.

Fertilisers pose a biosecurity risk because they are applied directly to soil. The department works closely with the fertiliser industry to manage this risk and rewards compliance through reduced onshore inspection.

agriculture.gov.au/import/goods/fertiliser

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Proud insurance partner to:
SESSION 4

Thursday September 15

08:30 Technology I – Production

08:40 Prof. Mike McLaughlin
University of Adelaide and CSIRO, Waite Campus, Adelaide.

Australia’s More Profit from Crop Nutrition Program
Fertiliser applications are the largest single variable expense for grain growers, and crop nutrition is a major determinant of farm profit. The More Profit from Crop Nutrition (MPCN) Program of the Grains Research and Development Corporation aims to improve the return on investment from fertiliser inputs by improving the nutrient use efficiency of crops, improving the capacity of soils to supply nutrients, reducing the soils propensity to lose or lock-up nutrients and to develop improved fertiliser formulations. The MPCN program brings researchers from multiple agencies together to tackle these issues, with a strong focus on extension and grower education.

Mike is a Professor in the School of Agriculture Food and Wine and Director of the Mosaic-sponsored University of Adelaide Fertiliser Technology Research Centre (http://www.adelaide.edu.au/fertiliser/). He is also a Science Fellow of Australia’s Commonwealth Science and Industrial Research Organisation (CSIRO). Mike gained his B.Sc. from the University of Ulster in Northern Ireland, a M.Agr.Sc from the University of Reading (UK) and his Ph.D. from the University of Adelaide. Mike's research interests are in soil chemistry and crop nutrition. He is a member of GRDC’s Southern Panel and Chairs the Advisory Committee of the More Profit from Crop Nutrition Program.

09:10 Tony Cox
National Coordinator Crop Nutrition, NSW-DPI MPCNII BFDCII, Orange.

Better Fertilizer Decisions Database
Fertiliser inputs account for up to 30% of farms costs. Advisors work with clients on fertilizer recommendations to enable them to produce their maximum economic yield. BFDC provides advisors and industry with the critical ranges required to do this based on rigorous scientific research across all agro-ecological areas, soil types, tillage systems, rotations, and soil classifications. BFDC can be interrogated for a range of parameters including: crop; soil; rainfall; nutrient; and farming system. BFDC encompasses over 50 years of research data. BFDC is a valuable part of Fertcare professional development.

Tony has been coordinating MPCNII since November 2014. Tony sits on two National boards which coordinate crop nutrition research and soil test crop response calibrations. Prior to that Tony was working in the Mining Rehabilitation area for Department of resource and Energy as an Inspector. Prior to that he was District Agronomist for the Orange region. Tony also ran the northern Crop Evaluation unit for NSW DPI for over ten years undertaking agronomy and variety trials across NSW. Tony is married with two children and his wife's family run a mixed farming enterprise at Ungarie. He has a Masters of Agriculture from UNE.
SESSION 4 Thursday September 15 (continued)

09:20
Prof. Mike McLaughlin
University of Adelaide and CSIRO, Waite Campus, Adelaide
Rodrigo Coquidasilva, Ros Baird and Fien Degryse

Rapid Screening of Controlled Release Fertilizers
Controlled-release fertilizers (CRFs) are a key part of any strategy to minimise losses of nutrients to surface or groundwater by runoff and leaching, respectively. Most CRFs are developed for controlling supply of nitrogen (N), but there are also products designed for controlling supply of phosphorus (P) and sulfur (S). Evaluation of CRF performance is often time consuming and costly, so that rapid evaluation techniques are needed to screen products and to aid formulation and development. A series of quick evaluation methods for CRFs will be outlined and their ability to predict nutrient losses in runoff compared.

For Mike’s biography see above, Australia’s More Profit from Crop Nutrition Program.

09:40
John Markley
Managing Director, Farmacist Pty Ltd, Mackay

Yield Mapping – An Essential Component of Site Specific Management
There is an increasing requirement for more astute land resource management through efficiencies in agricultural inputs in a sugar cane production system. Yield mapping is seen as an essential component of a complete farm management program. Archived remote sensing satellite imagery has been used to develop yield maps for sugar cane blocks in the Mackay/Whitsunday region. The process involves normalising yearly data to account for the effects of differing climatic and growing conditions. The resulting maps are an indication of yield distribution and when combined with statistical analysis of yearly data can be transformed into yield potential maps. These maps have been validated by growers and are now used as an integral dataset for Variable rate nutrient applications.

John started in the sugar industry in 1975 as a chemist. In 1991, John was seconded to work with the Field Department in Mackay Sugar to develop their GIS program and continued to alternate between GIS and chemist duties until 2000 when he was appointed the GIS Officer and then Projects Manager for Mackay Sugar cane supply department. In 2011 John co-founded Farmacist which is an agronomic consulting and research company. John has been at the forefront of a number of significant developments in the sugar industry with a particular emphasis on GPS and remote sensing technologies.

10:00 MORNING TEA
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SESSION 5  Thursday September 15

10:30  Economics and Markets

10:35  Michael Harvey
Senior Analyst Food and Agribusiness Research and Advisory, Rabobank, Melbourne

Global and Australian Economic Outlook - Waiting For The Bounce

Michael Harvey, Senior Analyst Food and Agribusiness Research and Advisory, Rabobank, Melbourne
The broad global and Australian economic outlook will be summarised and the impacts for agriculture explored.

Michael joined Rabobank in 2011 as a senior analyst, responsible for dairy and farm inputs. Rabobank's Food & Agribusiness Research and Advisory team is charged with analysing developments in food and agricultural markets and industries, and advising the bank and its clients on strategic implications for their businesses. Michael has over a decade of experience as a commodity analyst, mostly in the dairy sector, gained through working with Dairy Australia. Michael was raised on a dairy farming and irrigation property in Northern Victoria. Michael holds a Degree in International Trade from the Victorian University and a Postgraduate Degree in Diplomacy and Trade at Monash University.

11:00  Isaac Zhao
Senior Consultant, CRU International Ltd. Beijing

Fertilizer Market Outlook

The global fertilizer outlook for nitrogen and phosphorus is significantly affected by what happens in China. The outlook for Chinese producers will be discussed and the implications for the global outlook explained. The market outlook for potassium will also be covered.

Isaac graduated from Shandong University and received a BA in Economics in 1994. He joined Mitsui & Co. (China) Ltd. as deputy manager of the risk management division. After 8 years' service in Mitsui, he joined CRU in April 2005 and started his research career in the metals and chemicals industry. From 2006, he joined CRU's fertilizer department and concentrated on phosphate, sulphur & sulphuric acid. He gained rich experience across the spectrum of phosphate, from rock mining to finished phosphate as well as industrial derivatives. The experience in base metals also helped him to develop insight and knowledge in elemental sulphur and sulphuric acid markets.
Growing Food for the Future

As a trusted and reliable supplier, Canpotex has delivered Saskatchewan potash to Australia for over 40 years, and invested nearly US$1 million in market development programs that promote balanced fertilization and the optimum use of potash.
11:25  Angela Cameron  
Assistant Director Reef Trust, Biodiversity Conservation Division, Australian Government Department of the Environment and Energy.  

**Reef Tender - Economic Incentives Drive Change**  
Two pilot reverse auctions have been undertaken in the Wet Tropics and Burdekin. The reverse auctions provide financial incentives to participating farmers to improve their nitrogen use efficiency and reduce the amount of nitrogen lost from their sugar cane farms. Cane farmers determine their own nitrogen fertiliser management targets and the most cost-effective means of achieving them. Farmers bid for the amount of money needed to implement the changes on their farm. Those bids that represent value for money are contracted to implement management practice changes over the duration of the project.  

Angela completed tertiary qualifications in marine ecology, prior to joining the Australian Public Service as a graduate in 2008. Angela has worked in a number of roles including environmental biosecurity, threatened species protection and working in the offices of former Environment Ministers. Angela joined the Great Barrier Reef protection area in February 2014 and has since been involved in the development and delivery of programs that build the health and resilience of the Reef. Angela has worked closely with the Reef 2050 Independent Expert Panel to ensure programs delivered through the Reef Trust provide cost-effective environmental benefits and are focused on addressing the highest priority threats to the Reef.  

11:40  Peter McLean  
Executive Officer, Australian Organics Recycling Association (AORA), Sydney.  

**Recycled Organics Industry Overview**  
The organics recycling industry will be explained as well as the peak industry body of the Australian Organics Recycling Association (AORA). Peter will highlight the capacity of the organics recycling industry in Australia including the ongoing growth and expanding markets across Australia. Opportunities will be presented for collaboration and partnership between the organics recycling industry and the fertiliser industry to assist in meeting future international demand for Australian produce. Some case studies will be presented to illustrate examples of synergies which can be expanded and utilised across Australia and across multiple agricultural sectors.  

Peter spent a number of years in State and Local Government, and then worked for Keep Australia Beautiful where he spent 11 years. Peter managed Keep Australia Beautiful litter reduction campaigns and various community development programs like Tidy Towns before becoming CEO in 2007 and successfully strengthened the organisations public profile, community achievements and financial sustainability. He recently became Executive Officer of AORA. Peter holds a degree in Environmental Management, a Masters in Business Administration sub-majoring in Business Law and Public Relations and Certificates in Bush Regeneration and Business Governance. Peter believes that healthy soils means healthy people, environments and economies.  

12:00  LUNCH  
Sponsored by Muntajat  

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**Canpotex**

**impact**
SESSION 6   Thursday September 15
13:30   Life and Business

13:35   Ian Berry
Geelong.

Thriving on the Challenges of Change
In this highly interactive session Ian will share proven principles you can begin to apply immediately, and in your own best way, to; do less yet achieve better results; ensure increased loyalty from your customers through greater value delivery; and improve personal leadership effectiveness and the accountability levels of others.

Ian has helped business owners and leaders in over 40 countries to increase and sustain the positive momentum needed to thrive on the challenges of change. More about Ian at www.ianberry.biz

14:30   AFTERNOON TEA

Sponsored by Compass
SESSION 7    Thursday September 15

15:00    Technology II – Environment

15:05    Dr Sam Stacey
Asia Pacific Technical Manager, ICL Specialty Fertilizers, Sydney.

**Coatings and Inhibitors: Production and Relevance to Fertiliser Efficiency**
Efficient use of nitrogen will not be achieved by focussing on application rates alone. Synchronising delivery to crop need is necessary and can substantially increase efficiency in combination with rate optimisation. Controlled release fertilisers (CRF) allow growers to manage the timing of nutrient delivery without having to make additional applications. Nutrient delivery can be synchronised to virtually all crops by adjusting coating materials, coating weights and through blending. Modern CRF technologies can reliably and cost effectively improve synchrony, which can significantly reduce the risk of nutrient losses compared to conventional fertilisers. A summary of technologies and industry capacity will be presented.

Sam holds a PhD in plant nutrition & soil chemistry from the University of Adelaide. Over the past 5 years Sam has trialled controlled release fertilisers in a broad range of crops in Australia and Asia, working with researchers, agronomists and farmers to measure CRF efficiency and to accelerate the adoption of more efficient practices.

15:30    Dr Tim Muster
Principal Research Scientist, CSIRO Land and Water, Adelaide.

**The Practicalities of Using Controlled Release Fertilisers**
There is a global focus on nutrient use efficiency in agriculture which can increase farm productivity while at the same time mitigate potential damaging effects of nutrient losses to the atmosphere and to water bodies. A key advantage of developing improved controlled release fertilizers to meet this challenge is the ability of technology to have an immediate impact on efficiency, rather than modifications in farming practice which rely upon laborious educational programs and generational change. This presentation explores the existing materials science solutions and their practicality for supporting agronomic outcomes in the Australian sugarcane industry.

Tim gained his PhD at the Ian Wark Research Institute where he focused on the manufacturability of controlled release pharmaceuticals. His work over the last 15 years at CSIRO has spanned the domains of controlled release fertilisers, corrosion and coatings, and urban water technologies. In 2007 Dr Muster was the recipient of CSIRO Young Scientist John Philip Award and more recently, Dr Muster was the recipient of a CSIRO Julius Career Award for nutrient recovery from wastewater.

15:50    Dr Darren Drapper
Research & Development, SPEL Environmental, Brisbane.

**Intercepting Nutrients from Waterways using Floating Wetlands**
Floating Wetlands are a naturally occurring phenomena in many areas around the globe. Most occur without any active intention to provide water quality improvement or even any human involvement. Others are actively built upon by the local population. In recent years, the floating wetland technology has been developed and refined to specifically target water quality improvement in wastewaters and stormwater. Originating in the United States, this technology has been introduced to New Zealand and Australia and is presently being researched and implemented in several regions from Mackay to Melbourne and west to Mandurah, WA. Several case studies will be presented and current research data discussed on this promising technology for nutrient removal.
Darren is an Environmental Engineer with 20 years of experience in the environmental management, water, stormwater, and wastewater fields. He has a Bachelor degree and Doctorate in Environmental Engineering and post-graduate qualifications in WHS and an MBA. Darren has worked for the QLD Department of Public Works, CRC for Catchment Hydrology, various consulting firms and was a national manager for a heavy manufacturing business before starting his own consulting firm. He has designed, constructed and monitored Water Sensitive Urban Design measures across Australia and internationally. His work has been recognised by Engineers Australia (QLD) and Stormwater Queensland Awards for Excellence.

16:10

Mr Matt Kealley
Senior Manager Environment & Sustainability, CANEGROWERS, Brisbane.

How to Build Momentum in Agricultural Sustainability – Perspectives from Smartcane BMP

The Queensland cane industry has some pretty big challenges. This includes practice change to improve water quality draining into the Great Barrier Reef Lagoon, and community expectation and market access requirements of sustainably produced sugar by buyers and end-users. So how do you manage the multiple drivers for sustainability and barriers to adoption and get uptake in an industry best management practice program that represents over half the area under cane production in Queensland in just three years? Matt will provide an insight into how CANEGROWERS have achieved this with Smartcane BMP.

Matt likes to work at the point where farm productivity, grower viability and environmental stewardship meet. He believes this is the definition of agricultural sustainability. Matt’s role at CANEGROWERS allows him to deal with a broad range of topics across environment and agriculture. This often means he’s in the middle of some pretty challenging problems and complex issues. A lot of them relate to the health of the Great Barrier Reef. Most of them involve change of some kind. It’s easy to find the problems – it takes hard work to find the answers and sheer determination to make them work.

16:30

John Hughes
Senior Agronomist, Department of Agriculture and Fisheries, Mackay

Identifying and Managing Variability for Site Specific Management

Addressing water quality issues through sound management of nitrogen inputs is an essential consideration for sugarcane production along the Queensland coast. But you can only manage what you know. In many cases, low crop yield potentials may be the result of poor topsoil or subsoil conditions (e.g. sodicity or poor soil drainage) that are unrelated to the nutritional status of the soil; they may be identified, however, from key mapping layers to facilitate the delivery of site-specific management options. If the non-nutritional constraints to crop growth cannot be mitigated economically, then consideration may be given to reduce inputs in the less profitable areas.

John, with a farming background in South Africa and North America, is a senior agronomist with the Queensland Department of Agriculture and Fisheries, Mackay. He has championed site-specific management approaches to improved sugarcane production in the Central Region since importing a unit in 2001 to map soil electrical conductivity patterns. The outcomes of that work underpinned the
successful completion of two large, federally-funded research projects that identified and validated the key precision agricultural components required for sugarcane production that is profitable and has environmental integrity. The results have been disseminated to, and adopted by, land managers in the industry.

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