



Australian Fertilizer Industry Conference 2007

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Conference Program

MONDAY AUGUST 6

08:30 - 10:00	AFSA Council Meeting	
10:00 - 10:30	<i>Morning Tea</i>	
10:30 - 12:30	AFSA Council Meeting	
12:30 - 13:30	<i>Lunch</i>	
13:30 - 15:30	FIFA Board	AFSA AGM
15:30 - 16:00	<i>Afternoon Tea</i>	
16:00 - 17:30	FIFA AGM	AFSA AGM
18:30 - 19:30	<i>Welcome Drinks</i>	
19:30 - 23:00	<i>Food Festival Casual Dining</i>	

TUESDAY AUGUST 7

08:30 - 10:00	<p>Government, Environment & Nutrients</p> <ul style="list-style-type: none"> • Opening Presentation: The Environmental Imperatives for Sustainable Agriculture in Australia <i>Professor Joe Baker</i> • The Importance of the Great Barrier Reef and Actions Industry can take to Protect it <i>Andrew Skeat & Jim Groves</i> • Phase-out of highly Water Soluble Phosphate Fertiliser in Western Australia – A Waterways Protection Strategy <i>Rod Hughes</i>
10:00 - 10:30	<i>Morning Tea</i>
10:30 - 12:00	<p>Global Warming</p> <ul style="list-style-type: none"> • What is going on? <i>David Ugalde</i> • Impacts on Agriculture Globally and in Australia <i>Chris Mitchell</i> • Australian Agricultural Contributions to Greenhouse Gases <i>Richard Eckard</i>
12:00 - 15:00	<i>Orientation by Golf Kart including picnic lunch and quiz</i>
15:00 - 15:30	<i>Afternoon Tea</i>
15:30 - 16:00	<p>Highlight Speaker – Moving Towards Workplace Resilience <i>Dennis Hoiberg</i></p>
16:00 - 17:30	<p>Fertilizer Impurities</p> <ul style="list-style-type: none"> • Food Safety in Australia – The Role of FSANZ <i>Peter Abbott</i> • Contaminants in Fertilizers Phase 2 Study <i>Michael Warne</i> • Fertiliser Derived Fluorine in Grazed Pasture Systems <i>Mike Hedley</i>
18:30 - 23:00	<i>Island Survivor Casual Dining</i> <i>Scott Williams</i>



WEDNESDAY AUGUST 8

08:30 - 10:00	Fertcare <ul style="list-style-type: none"> International Experience in Nutrient BMP's and Product Stewardship <i>Hilton Furness</i> Fertcare Program Evaluation <i>Tim Cummins</i> Making Better Fertiliser Decisions for Grazed Pastures in Australia – Accounting for Nutrients and Fertcare <i>Ken Peverill</i> Fertcare – Progress and Future issues <i>Martin Shafron</i>
10:00 - 10:30	<i>Morning Tea</i>
10:30 - 12:00	Market Analysis <ul style="list-style-type: none"> International Fertilizer Supply & Demand <i>Luc Maene</i> Australian Agriculture – Future Trends <i>Terry Sheales</i> Australian Fertilizer History <i>Nick Drew</i>
12:00 - 13:00	<i>Lunch</i>
13:00 - 14:30	Application Technology and Issues <ul style="list-style-type: none"> Application Uniformity, Testing and Production Issues <i>Ian Yule</i> Management of High Rainfall Cropping to Improve Water Quality and Productivity <i>David Nash</i> A Contracting Business – Analysis and Action <i>Phil O'Callaghan</i>
14:30 - 15:30	Highlight Speaker – Life and Work <i>John Tickell</i>
15:30 - 16:00	<i>Afternoon Tea</i>
16:00 - 17:30	Quarantine & Logistics <ul style="list-style-type: none"> Australian Quarantine <i>Stephen Hunter</i> New Container Protocol <i>Glenn Smith</i> Bulk Import Protocols Review <i>Amy Guihot</i> Shipping Trends <i>Andrew King</i>
18:30 - 19:30	<i>Pre Dinner Drinks</i>
19:30 - 24:00	Night of the Stars – Black Tie Dinner (Business Attire is OK) Live Music (Champagne Jam) <ul style="list-style-type: none"> Chairman's Address Environment Awards AFSA Awards Quarantine Awards

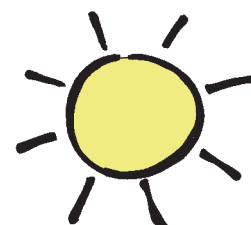
THURSDAY AUGUST 9

07:00 - 08:30	<i>Breakfast</i> Highlight Speaker – Great Barrier Reef Life <i>Glen Burns</i>
08:50 - 16:30	Great Barrier Reef Trip Island Activities
18:30 - 24:00	<i>Dinner – Private Arrangements, 10 Restaurants Available</i>

FRIDAY AUGUST 10

08:30 - 10:30	AFSA Council
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Highlight Speakers made possible by the support of:



Hamilton Island, Queensland





Paper Synopses & Presenter Biographies



TUESDAY AUGUST 7

08:30 - 10:00

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SESSION 1 Government, Environment & Nutrients

The Environmental Imperatives for Sustainable Agriculture in Australia

Joe Baker

AO, OBE, FTSE, MSc, PhD, DSc (hon), FRACI, C.Chem.

Synopsis

This presentation will be based on Dr Baker's extensive experience in working towards sustainable agriculture and aquaculture in Australia and overseas. Dr Baker has been Director of Research in Australia for the agricultural company Roche Maag, a member of the Great Barrier Reef Marine Park Authority, chairman of the National Landcare Advisory Committee, and chairman of the group that produced *A Report on the Study of Land-Sourced Pollutants and their Impacts on Water Quality in and Adjacent to the Great Barrier Reef*.

Dr Baker is committed to the concepts of Ecologically Sustainable Development. He advocates the development and use of agreed indicators of land and water quality, so that change can be measured and debated over time. He pioneered State of the Environment reporting in the A.C.T.

Dr Baker will speculate on the major environmental challenges facing Australia – on land and in its oceans, and move to a focus on the challenges facing land and water farming. He will discuss advances in technology, including biotechnology, which may be used to the advantage of the fertiliser Industry in modern sustainable farming practices.

Biography

Professor Baker was born and raised in Warwick, Queensland and holds a BSc (Hons), MSc and PhD from the University of Queensland, and an honorary DSc from James Cook University. In his role as Chief Scientific Advisor, his principal advice is to DPI&F, but he also advises the Queensland Government on issues relevant to food and fibre based science and technology and assists in ensuring public investment in science and technology is directed in accordance with State Government policy.

Professor Baker was appointed as an Officer of the Order of the British Empire in 1982 for services to marine science, appointed as an Officer in the Order of Australia in 2002, elected as Fellow, Academy of Technological Sciences and Engineering in 1989; Leighton Medallist (RACI) in 1993 and Adrien Albert Lecturer in 1995. In June 2001, in Queensland Week, he was one of the five (5) Queenslanders inducted as the inaugural "Queensland Greats" (Living Legends) by Premier Beattie. In April 2003 he was among the Australians awarded a Centenary Medal, this being for a life-time of service to the environment, and he was a finalist in the 2005 Australian of the Year Awards. In 2005 he was awarded the ATSE Clunies Ross Lifetime Contribution Award for his distinguished career.

In 2007, the Australian Institute of Marine Science dedicated the Joe Baker (Research Laboratories) Wing in honour of Joe's advancement of marine biotechnology at AIMS, as its former Director, and to the subsequent achievements in understanding the molecular biodiversity of Australia's oceans.

Joe was a foundation member of the Great Barrier Reef Marine Park Authority, and had the honour of appearing before the World Heritage Committee to nominate the Great Barrier Reef Region for inscription on the World Heritage List. He also served as Chairman of the Australian Heritage Commission.

Joe also chaired several Committees, including the National Landcare Advisory Committee, the National Committee for the Environment, the Tropical Finfish Management Advisory Committee and the North Queensland Regional Economic Development Board. He has also served as a member of the Prime Minister's Science and Engineering Council during his term as President of the Federation of Australian Scientific and Technological Societies (FASTS).

He has served on the Executive of the international Scientific Committee on Problems of the Environment (SCOPE) and has recently been appointed to an international body addressing the challenges of sustainable aquaculture.

He has been re-appointed Chairman of the Gulf of Carpentaria Fisheries Management Advisory Committee, Chairman of the Cardwell-Hinchinbrook Coastal Management Advisory Committee, Executive Chairman of the Queensland Food and Fibre Agribusiness Council, Chairman of the Major Equipment Committee at ANU, Chairman of the National Research Facility for Plasma Physics, also at ANU, and is an inaugural member of the ACT Sustainability Expert Reference group (SERG).

A keen sportsman, he has been a Queensland Rugby League player and coach of levels up to the North Queensland Representative Sides. He played for Warwick, Brisbane Easts, and Brisbane, introduced Rugby League to James Cook University, and coached their teams for a total of 16 years.

He is a Foundation and continuing member of the Board of the Queensland Academy of Sport, chairing the Academy's Scholarship, Sports Medicine and Sports Science sub-committees, the Advisory Committee of the QAS Centre of Excellence, and the Queensland Academy of Sport Regional Queensland Committee.

Joe is married to Val and they have four (now adult) children – two boys and two girls, and 9 grandchildren.



The Importance of the Great Barrier Reef and Actions Industry can take to Protect it

Andrew Skeat and Jim Groves

Synopsis

The Great Barrier Reef (GBR) is the world's largest coral reef system, extending over 2000 km along the Queensland coast. It is home to over 3000 reefs and other important habitats, making it one of the most complex and ecologically valuable natural systems on earth. Industry sectors reliant on a healthy reef and its catchment contribute around \$6 billion annually to the Australian economy.

Evidence is now showing that agricultural production and urban growth are adversely impacting on water quality and health of the GBR. Water quality decline is a major threat, specifically from sediments, nutrients and agricultural chemicals from land.

The Reef Water Quality Protection Plan provides a framework of strategies and actions designed to improve the quality of water entering the GBR. The intent is for all levels of Government, industry and GBR communities to work together and build upon existing policies, plans and initiatives to address this significant challenge.

Agricultural industries, particularly those in close proximity to the coast, remain a key focus area for action. Key stakeholders such as the agricultural industry are uniquely positioned to assist landholders in implementing actions that can benefit the environment without compromising profitability.

Biography

Andrew Skeat is an Executive Director with the Great Barrier Reef Marine Park Authority with responsibilities that include water quality and coastal development, tourism, education and science. Andrew has more than 25 years experience developing conservation policy and managing protected areas. He has been with the Authority since 1998 and previously held positions as a Regional Manager of National Parks in Queensland, Superintendent of Kakadu National Park and as a biologist. He is a member of a small team of senior Australian and Queensland Government officials that developed the Great Barrier Reef Water Quality Protection Plan. The plan aims to halt and reverse the decline in the quality of water entering the Great Barrier Reef Lagoon within 10 years.

Jim Groves is General Manager responsible for natural resource policy issues in the Queensland Department of Primary Industries and Fisheries. He has spent thirty years in public policy analysis and advice in Canberra and Brisbane, including a total of 11 years dealing with resource management issues for the agriculture sector.

Phase-out of Highly Water Soluble Phosphate Fertiliser in Western Australia – A Waterways Protection Strategy

Rod Hughes

Synopsis

Western Australia's coastal waterways and wetlands are valued for the social, environmental, recreational and many other amenities they provide. But these values are threatened by declining water quality. The causes of river ill-health are complex but central to this is the excessively high level of nutrients transported to waterways causing algal blooms and fish deaths. There is an urgent need to significantly reduce the nutrient load, particularly to estuaries in coastal areas.

Phosphorus is identified as the primary nutrient for controlled use. Other nutrients also contribute to declining water quality but are more difficult to manage. There are many sources of phosphorus on the extensive sandy soils of coastal areas. The most extensive is fertilised pastures for beef and dairy cattle but the urban areas and hobby farms contribute. The more intensive land uses, including horticulture, viticulture and turf managements are limited in area although are potential of high risk where they occur.

The WA Government has announced its intention to phase out the use of highly water soluble phosphate fertilisers in environmentally sensitive areas in South-West Western Australia. The Joint Government and Fertiliser Industry Working Party was formed by the State Environment Minister to develop a 4-year *Fertiliser Action Plan* to implement the decision. The fertiliser industry, through its national organisation (Fertiliser Industry Federation of Australia), has demonstrated its strong commitment to being part of the solving the problem – a response that provides a significant platform on which to build the engagement process.

Biography

Rod Hughes has been General Manager of the Swan River Trust in Perth, Western Australia since October 2003. Mr Hughes, BA (Hons) has held several public affairs and managerial positions in WA government departments, including the Environmental Protection Authority, Water and Rivers Commission and Department of Environment. Mr Hughes previously worked as a journalist in WA and the Northern Territory.





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10:30 - 12:00

SESSION 2 Global Warming

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What is going on?

David Ugalde

Synopsis

We are now experiencing a new paradigm - climate change and its impacts are challenging the way in which farmers and rural communities can continue to produce and compete. Reducing the impact of climate change relies on our ability to reduce our greenhouse gas emissions, and adapt our farming systems.

This paper will start by outlining some of the implications of this new operating environment for Australia and the fertilizer industry. It will then focus on the recent Australian Government developments to address emissions from the agriculture sector, including the proposed emissions trading regime, and emission intensity benchmarking.

Biography

David Ugalde is Director, Greenhouse and Agriculture in the Australian Greenhouse Office. The program focuses on both the abatement of greenhouse gases from Australia's agricultural and natural resource systems, and adaptation by land-based industries to the impacts of climate change.

David's career has previously centred on research and research management in agricultural production, environmental management, and climate change in a number of Australia's agricultural industries. David has a PhD in plant sciences from the University of Adelaide, a BSc from La Trobe University, a diploma of agricultural science, and an extensive publication record in international scientific journals.

Impacts on Agriculture Globally and in Australia

Chris Mitchell

Synopsis

Global warming and the associated changes in climate brought about as a result of human activities represent a significant challenge to industry, including the agriculture and agribusiness sectors.

Climate is pervasive and it not only has the potential to affect agriculture directly within Australia, but also indirectly through knock-on effects that operate through the economy. Australia's agriculture sector is, of course, highly trade-exposed. As a result there is also a nexus between climate change and globalisation that also carry the potential to affect agriculture in Australia significantly but nonetheless through knock-on effects.

Within this framework, this paper will explore the implications of climate change for agriculture particularly focussing on greenhouse gas management and adaptation to climate change.

Biography

Chris Mitchell is currently the Leader of the Climate, Weather and Ocean Prediction Theme with the CSIRO Division of Marine and Atmospheric Research. He has been involved in the science of greenhouse gases and climate change for more than 15 years. He has specialized in the integration of the science of climate and climate change across disciplines and the carriage of knowledge to policy and industry. In this capacity he has contributed to a number of policy-related bodies including cross jurisdictional task-forces, Victoria's Land Conservation Council, and been appointed to an international expert group on National Communications under the United Nations Framework Convention on Climate Change.

He was the Chief Executive Officer of the CRC for Greenhouse Accounting and Leader of the Climate Weather and Ocean Prediction theme within CSIRO Marine and Atmospheric Research.

Most recently he was a member of the Climate Change Adaptation Working Group for the Prime Minister's Science Engineering and Innovation Council which produced the report: *Climate Change In Australia – Regional Impacts and Adaptation: Managing the Risk for Australia*. He is also contributing to the Committee for Melbourne's Climate Change taskforce.





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Australian Agricultural Contributions to Greenhouse Gases

Richard Eckard

Synopsis

Given the recent media attention it is hard not to be aware of climate change as a major emerging issue for agricultural industries in Australia. Not only is our climate changing – which will have both negative and positive impacts on our agricultural industries, but all sectors of society will be expected to show action towards minimising their industry's impact on climate change. This presentation will start by setting the global and local policy context, and then focus on recent research in terms of emission sources and potential abatement actions, in the context of the Australian fertiliser industry.

Biography

Richard holds a joint appointment between the University of Melbourne and the Victorian Department of Primary Industries. He has spent the past 25 years researching various aspects of nitrogen fertiliser and cycling in grazing systems, in the sub-tropics of Africa and in temperate pasture systems in Tasmania and Victoria. Richard leads the 'Greenhouse in Agriculture' program investigating methane and nitrous oxide emissions and abatement from agricultural systems. Richard also now leads the Victorian Climate Change Adaptation Program.



16:00 - 17:30

SESSION 3 Fertilizer Impurities

Food Safety in Australia

Peter Abbott

Synopsis

Ensuring the safety of food in Australia and New Zealand involves cooperation among government, industry, consumers and health professionals. Within this arrangement, Food Standards Australia New Zealand (FSANZ) is responsible for maintaining the *Australia New Zealand Food Standards Code*, which contains standards related to the composition and labelling of food. FSANZ's first objective in establishing food standards is to protect public health and safety. This presentation will examine some of the ways in which FSANZ works, both nationally and internationally, particularly in relation to matters which involve the fertilizer industry, such as food contaminants.

Biography

Dr Peter Abbott is Science Advisor at Food Standards Australia New Zealand (FSANZ). From 1994-2006, he held the position of Principal Toxicologist at FSANZ. His primary responsibility is to provide scientific advice to the Authority in relation to food safety, particularly chemicals in food. He has recently been documenting the use of risk analysis at FSANZ. He has a BSc & MSc from the University of Queensland and a PhD from the University of Manchester.

Contaminants in Fertilisers Phase 2 Study

Michael Warne

Synopsis

In 2002 a public outcry arose over the use of contaminated industrial wastes in some fertilisers and being applied to agricultural soils. Federal and State governments responded by stating that guidelines would be established to prevent this re-occurring. The Fertiliser Working Group was established and given the task of ensuring this occurred. A three phase project was developed and CSIRO employed to undertake the first phase – a Scoping Study. The Scoping Study outlined a framework for the second and third phases. Following a tender process, CSIRO was employed to conduct Phase 2. This presentation will outline the methods to be used in conducting Phase 2 and how FIFA and its members can facilitate this.

Biography

Dr Michael Warne is a Senior Research Scientist at CSIRO. He is the leader of the "Contaminants in Fertiliser Project". He has over twenty years experience in the environmental effects of contaminants and the intersection between research and regulation – having played major roles in the Australian and NZ water quality guidelines, the National Biosolids Research Program, the National Cadmium Management Committee and developing a new framework for deriving Australian soil quality guidelines.

Fertiliser Derived Fluorine in Grazed Pasture Systems

Mike Hedley

Synopsis

Phosphorus (P) fertilisers are essential to sustain profitable animal production from legume-based pastures in Australia and New Zealand, however, they carry an unwanted load of fluoride (F); 2-12 kg F/ha for every 10-30 kg P/ha applied depending upon P fertilizer source. Fertiliser F accumulates in the top few centimetres of untilled pasture soils. Consequently, long-term P fertilizer application continues to increase pasture topsoil F concentrations; some in New Zealand are now more than 400 ppm F. Dietary analysis of sheep and cattle revealed that soil F is mostly re-mobilised through topsoil ingestion and not via grazed herbage. Animal and human health risks associated with the mobilisation of this soil and fertilizer F by grazing animals are discussed.

Biography

Mike Hedley graduated from the University of Leeds with a B.Sc.Hons in Biochemistry and from Massey University in New Zealand with a Ph.D in Soil Science, followed by postdoctoral studies at the Universities of Saskatchewan and Oxford. Currently he is Professor in Soil Science and Director of The Fertilizer and Lime Research Centre, Massey University. His fields of research cover fertilizer chemistry, soil testing technologies and nutrient cycling in grazed pasture systems.

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WEDNESDAY AUGUST 8

08:30 - 10:00

SESSION 4 Fertcare

This session made possible
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International Experience in Nutrient Best Management Practices and Product Stewardship.

Hilton Furness

Synopsis

The public expect to have access to affordable, healthy food while at the same time as having their expressed concerns about the impact of agricultural systems on the environment addressed.

As plant nutrients are one of the most important inputs to agricultural systems, the fertiliser industry has assumed responsibility for developing guidelines on nutrient management that will minimise environmental impacts and maximise economic benefit. This is being achieved internationally through an initiative of the International Fertilizer Industry Association (IFA), which has facilitated the development and promotion of best management practices for fertiliser.

These international developments are discussed and related to product stewardship and best management practices initiatives in Australia and New Zealand.

Biography

Hilton Furness is the Technical Director of the New Zealand Fertiliser Manufacturers' Research Association ('Fert Research'). He has a M.Sc. and PhD from the University of Natal in South Africa. His studies and early work experience involved aspects of water quality management including the impact of land use activities on water quality.

For the past 12 years, Dr Furness has been Technical Director of 'Fert Research'. His duties have included representing the fertiliser industry on agronomic matters of national importance, liaising with Government, Regional Authorities and organisations concerned with the environment, and advising member companies on environmental issues.

Hilton has been actively involved in developing, promoting and reviewing the New Zealand Code of Practice for Nutrient Management – with emphasis on fertiliser use. He is also a member of the IFA Working Group on Fertilizer Best Management Practices.

Fertcare Program Evaluation

Tim Cummins

Synopsis

Fertcare is a training and accreditation program developed by the fertiliser industry with support from the Australian Government. It aims to ensure that people supplying, applying or advising on fertilizers consider the environmental aspects of their services.

With the support of the Australian Government, the Fertcare program is being evaluated for its efficacy in improving fertilizer use practices. The focus of the evaluation is on outcomes and delivery. It looks at both the impact and the program management aspects of Fertcare. It starts with a review of the stated aims of Fertcare, and evaluates whether the course material is fit-for-purpose. It records participants' views on the usefulness and usability of the program, and assesses the cost-effectiveness of the course and the accreditation program. Most importantly, the evaluation will make recommendations for managing Fertcare into the future.

Biography

Tim Cummins & Associates Pty Ltd is a strategic alliance of agricultural, economic, and natural resource management consultants who combine their expertise to undertake specific projects. Tim Cummins has carried out numerous project evaluations and conducted numerous surveys. Tim lives on the north coast of NSW, with his research horticulturist wife and their two young children.





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Making Better Fertiliser Decisions for Grazed Pastures in Australia – Accounting for Nutrients and Fertcare

Ken Peverill

Synopsis

The dairy industry along with key stakeholders and a National Network in government and the fertiliser industry have taken the initiative to develop a number of programs that contribute to improving the efficiency of nutrient use and minimize the likelihood of environmental losses to the environment.

Two key national projects, 'Better Fertiliser Decisions (BFD) for grazed pastures' (2003 – 2007) and 'Accounting for Nutrients (A4N) on Australian dairy farms' (2006 – 2010) have taken this co-ordinated approach to improved nutrient management. The recently completed BFD project delivered:

- the most comprehensive collation and summary of soil test calibration studies for pasture production ever undertaken; and
- the Farm Nutrient Loss Index (FNLI) that identifies areas of environmental risk on farms and recommends steps that can be taken to reduce nutrient losses from farms.

The A4N project will build on BFD outcomes and generate a standardised nutrient accounting approach that enables the dairy industry to pro-actively address nutrient management issues rather than risk dairy farming constraints imposed by environmental policy makers.

Biography

Ken Peverill has worked in the soil science and plant nutrition area for the past 35 years. He is the senior editor of the Australian book entitled "Soil Analysis: an Interpretation Manual" and author of numerous chapters of books and journal papers. After many years employed at State Chemistry Laboratory and the Department of Primary Industries, Victoria, Ken currently works as a private consultant, a Program Coordinator for Dairy Australia and Convener of ASPAC's Laboratory Proficiency Committee.

Fertcare – Progress and Future Issues

Martin Shafron

Synopsis

To achieve improved outcomes for the environment, farm productivity and occupational health & safety, the Australian Fertilizer Industry has developed the Fertcare® training and accreditation program. Fertcare is designed to lift the skills and knowledge of all individuals involved in the supply, advice, application and use of fertilizers.

Since its origins in the Australian Fertiliser Services Association Codes of Practice, Fertcare has come a long way. The program has been broadened to support people involved in logistics, sales and advisory roles, and each of the Fertcare units are matched to national 'competencies' under the Australian Quality Training Framework. Fertcare is also recognised as the standard in a number of agricultural best practice systems – including for the dairy industry. Nevertheless, there is a lot to be done to make sure Fertcare remains relevant and effective for the Australian agricultural industry, and for governments.

This presentation will discuss where we've been, where are we know and where we need to be in relation to the Fertcare program.

Biography

Martin has been working in natural resource and environment management for more than 20 years. After a short stint in ACT park management, he spent 13 years with the Murray-Darling Basin Commission working on research and management programs addressing a number of issues including water quality, native fish, wetlands and integrated catchment planning & management. Just before joining FIFA in 2003, Martin worked for the Australian Government Department of the Environment and Heritage on air quality (briefly) and water policy issues – including *The Living Murray* initiative.

At FIFA, Martin has direct responsibility for various environmental initiatives, including public reporting, and the implementation of the Fertcare program. Martin also provides executive support to the Australian Fertiliser Services Association.



10:30 - 12:00

SESSION 5 Market Analysis

International Fertilizer Supply & Demand

Luc Maene

Synopsis

This paper provides an overview of the world agricultural situation and estimated fertilizer supply and demand prospects in the medium term.

Global economic growth is projected to remain firm during the period under consideration. Income growth in emerging economies will continue to stimulate food diversification. Surging biofuel developments are pushing industrial grain uses above production, leading to very tight grain market conditions and a severe contraction of the world stock-to-use ratios below critical levels. In an environment of strong crop demand and firming prices, global fertilizer consumption has started a new demand driven cycle. In 2006, global fertilizer consumption jumped by 6 Mt nutrients over 2005. This has set the foundation for a sustained 2.4 per cent annual growth rate between 2007 and 2011. The need to rebalance fertilization and to improve nitrogen use efficiency results in a stronger increase in demand for potash and phosphate than for nitrogen.

The year 2007 will mark a major turning point for the international fertilizer industry, as buoyant demand will stretch the industry's capability of meeting global requirements. In the medium term, IFA anticipates that the global nitrogen supply/demand balance will remain in a relative surplus situation, which will expand rapidly after 2009 to reach 17 Mt N in 2011. The extent of this surplus will depend, in part, on how many planned projects are completed on schedule. World phosphate rock supply will mostly grow in a few countries, essentially for captive use. Phosphoric acid is likely to be subject to a negligible surplus until 2010, when the supply will increase relative to demand. Strong demand for potash will lead to tightening market conditions; the prevailing potash surplus is expected to decline until 2009, when this trend will reverse itself.

Biography

Luc Maene is a Belgian national. He graduated from the University of Gent in 1970 with a degree in agricultural engineering and soil science. From 1971 to 1980, he worked for the Belgian Administration for Development Cooperation and was stationed, first in Tunisia, followed by Malaysia. In 1982, he joined the United Nations as the Team Leader of the Fertilizer Advisory, Development and Information Network for Asia and the Pacific, based in Bangkok. In 1987, he started working at IFA and he is currently its Director General.

Australian Agriculture – Future Trends

Terry Sheales

Synopsis

Not Supplied

Biography

As chief commodity analyst, Terry Sheales is responsible for ABARE's commodity market analysis and forecasts. In this role, he oversees the quarterly release of forecasts in ABARE's journal, *Australian Commodities*, and also convenes the national OUTLOOK conference each March and regional OUTLOOK conferences across Australia during the year.

For much of his professional career, Terry has worked on domestic and international marketing and trade policy issues affecting Australia's commodity industries. Economic research undertaken has included studies of prospects for the Australian wine industry, policies affecting global sugar markets; a resource assessment of the Lake Eyre Basin; and economic issues relating to meat processing in Australia. In 2005-06 Terry headed up the Secretariat that produced the Ministerial commissioned 'Corish Report' on agriculture and food policy for the next generation.

Dr Sheales has PhD and masters degrees from Cornell University in the United States, where he specialised in industry policy and marketing research. He also holds an honours degree in agricultural economics from the University of New England, Armidale. 10-30 kg P/ha applied depending upon fertilizer source. Fertiliser accumulates in the top few centimetres of untilled pasture soils. Consequently, long-term fertilizer application continues to increase pasture topsoil concentrations; some in New Zealand are now more than 400 ppm. Dietary analysis of sheep and cattle revealed that soil is mostly re-mobilised through topsoil ingestion and not via grazed herbage. Animal and human health risks associated with the mobilisation of this soil and fertilizer by grazing animals are discussed.

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Australian Fertilizer History

Nick Drew

Synopsis

For the last five years, FIFA has collected sales statistics from its members to allow the compilation of reliable data – at a national and state level. All fertilizer sales are recorded with nutrient content allowing a clear picture of nutrient use in Australia. Data on seven large volume products that make up 85% of total sales is also collected.

The data for the period 2002 to 2006 will be presented along with an analysis of longer term trends, and linkages with agricultural production data.

Biography

Nick Drew holds a Bachelor of Applied Science from the University of Queensland (1984), and is a Graduate of the Australian Institute of Company Directors (2007) He has 25 years experience in Australian Agriculture, including in:

- technical and sales roles in the fertilizer industry
- management and technical roles with the Victorian Department of Agriculture
- large scale commercial cotton production.

Nick is currently the Executive Manager of the Fertilizer Industry Federation of Australia where he is responsible for delivering strategic outcomes in public policy for quarantine, food safety, environment and regulation.



13:00 - 14:30

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SESSION 6 Application Technology and Issues

Application Uniformity, Testing and Production Issues

Ian Yule

Synopsis

World-wide, there are a number of methods available to test the transverse Coefficient of Variation (CV) for a fertiliser spreader. A study was completed to assess the differences between the tests and to ascertain which method gave the most reliable results. Further methods were developed that could be used to calculate the actual "in-field" CV. This was done by taking account of driving inaccuracies in the paddock. A method of mapping fertiliser application from the GPS track log and the spread footprint from the spreader has been developed. This showed that the field CV was often more than double the transverse CV measured from the spreader.

Biography

Ian Yule is the Director of the Centre for Precision Agriculture at Massey University in Palmerston North, New Zealand. His research interests include fertiliser application methods and much of his recent research has been funded through *Fert Research*, a New Zealand association established to promote and encourage responsible and scientifically-based nutrient management. The work has examined issues around the accuracy of fertiliser application from trucks and aircraft.

Management of High Rainfall Cropping to Improve Water Quality and Productivity

David Nash

Synopsis

High rainfall cropping is one of the many industries contributing to the excessive nutrients in Australia's rivers and lakes. In this presentation we examine some of the processes responsible for the exports of nitrogen and phosphorus from high rainfall cropping systems, with an emphasis on southern Australia. Using monitoring data, the pathways through which nutrients are exported are examined along with the effectiveness of some potential remedial strategies.

Biography

David Nash is internationally recognized for his research on the processes responsible for contaminant generation in agricultural systems. David is the State-wide Leader of Soil Chemistry for Primary Industries Research Victoria, the research arm of the Victorian Department of Primary Industries, and his current projects include model studies of river systems, quantification of nutrient exports and the development of improved cropping and pasture systems.

A Contracting Business – Analysis and Action

Phil O'Callaghan

Synopsis

Running a successful fertilizer business requires a focus on business aspects like cost control and efficient resource allocation of labour and capital, so that these can compliment the achievements of good production and income.

Phil will present on some of the 'do's and don'ts' for small business. He will discuss Key Performance Indicators (KPI's) for service providers in the fertilizer industry to help individuals set targets for their own business as a pathway toward achieving their desired outcomes.

Biography

Phil holds a Bachelor of Agricultural Science, and a Diploma of Education. He is Managing Director of O'Callaghan Rural Management (ORM).

Phil commenced ORM in 1989 as a Business Management Consultant specializing in Agriculture. ORM is based in Bendigo Vic, and services clients across NSW, Vic and SA. Phil leads the ORM team which includes specialists in Business Planning, Financial Management, Accounting, Group facilitation, Succession & Estate Planning, communication, marketing and resource management.



16:00 - 17:30

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SESSION 7 Quarantine & Logistics

Australian Quarantine

Stephen Hunter

Synopsis

Quarantine intervention services for the arrival of international vessels, passengers, cargo, mail, animals and plants or their products into Australia are delivered by the Australian Quarantine and Inspection Service (AQIS).

AQIS has over many years improved its efficiency and effectiveness by continuous business improvement and refining its governance systems. AQIS is now looking to the future and has developed a long term strategic planning framework to help develop strategies to meet the challenges it faces today and tomorrow.

The key issues for consideration by AQIS over the next 5 – 10 years are like those faced by organisations of similar size, complexity and role. These issues include risk identification and management, working with industry, customers and governments, improved service delivery, developing and retaining a skilled workforce and adoption of technology to meet business needs.

Stephen Hunter will share his insight and vision on what the future holds for AQIS and its work with partners such as the fertilizer industry in protecting Australia's biosecurity.

Biography

Stephen is Executive Director of the Australian Quarantine and Inspection Service (AQIS) in the Department of Agriculture, Fisheries and Forestry.

Stephen has a long and varied career within the Australian Public Service (APS) including in departments with responsibility for social policy, environment programs and transport and regional services

He joined the APS following tentative careers in the mining industry, photo-journalism and music.

New Container Protocols

Glenn Smith

Synopsis

Following the success of the 'Bulk in Ship-Fertiliser Importation and Inspection Protocols', which were implemented in 2004, AQIS and FIFIA have worked together to develop protocols for containerised fertiliser imports. The systems management approach is based on the bulk protocols.

This presentation will provide a comparison of the bulk and containerised protocols, upcoming trials and future implementation.

Biography

Glenn Smith is the Operations Manager for AQIS Operations in Newcastle (NSW) and the AQIS Bulk National Co-ordination Centre. His role includes managing the partnership between AQIS, the Australian Fertiliser Industry and its overseas suppliers in line with in the Bulk in Ship-Fertiliser Importation and Inspection Protocols.





Because the land is your life.

Bulk Import Protocols Review

Amy Guihot

Synopsis

In 2003, the Australian Quarantine Inspection Service (AQIS) commenced the development of a new import protocol to manage the quarantine risks associated with bulk fertilizer imports. This presentation will examine and review the implementation of this protocol, highlighting the important role played by industry in the development process. Short case studies of successful implementations will also be discussed. Based on the success of the bulk fertilizer import protocol, AQIS is now considering applying the same methodology and systems to the management of quarantine risks posed by other bulk commodities imported into Australia.

Biography

Ms Amy Guihot is currently Manager of the Sea Cargo Unit within the Import Clearance Program of AQIS, a position she has held since 2004. Prior to this, Ms Guihot served in a number of managerial roles within the AQIS Biologicals Program from 1999 to 2003.

Shipping Trends

Andrew King

Synopsis

Not Supplied

Biography

Andrew King joined P&O in London in 2001, as part of the Corporate Development team, heading that team in 2003. The Corporate Development team advised the P&O Group Board on strategic direction and major investment acquisition and divestment proposals. In mid 2004, Andrew returned to Australia to join the Board of P&O Maritime Services and took over as Managing Director on 1st January 2005 on Ross Brewer's retirement.

Andrew has a law degree from Canterbury University, Christchurch, New Zealand and a post graduate diploma majoring in Finance from Auckland University. Prior to joining P&O he held several legal and development positions in international blue chip manufacturing companies, Rothmans International PLC and Carter Holt Harvey Ltd and has extensive new market and project development experience in Eastern Europe, North East and Southeast Asia and Australasia.





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