

## NEWS RELEASE

### *Environment in focus for new plant nutrition group*

Plant nutrition agronomists from a newly formed group, the Agronomy Community, have met for the first time to share the latest in the science of plant nutrition.

Environmental issues were the focus for much of the day, with issues such as soil carbon management and the implications of a price on carbon for farmers.

Charlie Walker, Incitec Pivot Fertilisers' Technical and Development Manager, hosted more than 50 members of the Agronomy Community at their inaugural conference in Brisbane on April 14.

"Broadly speaking, speakers focused on ways to improve the efficiency of fertiliser use for better performing crops and pastures, while reducing losses to the environment.

"With 227 members and growing, the Agronomy Community has been created by Incitec Pivot Fertilisers to advance the science of plant nutrition among researchers and agronomists to help Australian farmers," Mr Walker said.

Keynote speaker at the conference, Dr Rob Mikkelsen, Regional Director of the International Plant Nutrition Institute (IPNI) for western North America, based in California, said agronomists must continue to take a leading role in the management of plant nutrition to ensure sustainable food and fibre production into the future.

Dr Mikkelsen said that while crop yields could fall by 40 to 60% without the use of commercial fertilisers, there was a widespread lack of understanding in the community about the role fertilisers played in supporting the world's growing need for food and fibre.

On the other hand, he said the over-use and misuse of fertilisers was known to be detrimental to the environment.

He said regulations were being developed in California to meet the State's commitment to the Kyoto protocol, as well as minimise nitrate levels in water systems.

"In California, the government has committed to reducing greenhouse gas emissions to 1990 levels by 2020," he said.

"One of their targets is to reduce nitrous oxide emissions from agriculture by 5%, because an estimated 60% of nitrous oxide emissions come from denitrification losses in crops such as cotton, almonds and wheat."

## NEWS RELEASE

He said how emissions would be regulated was not yet clear.

“European research is telling us that simple nitrogen rate reductions may not be the best means,” said Dr Mikkelsen.

“High nitrogen rates alone are not the real concern. It is when nitrogen application exceeds the crop’s demand that presents the greatest risks.”

Professor Richard Eckard, Director of the Primary Industries Climate Challenges Centre, gave the Agronomy Community an update on Australia’s Carbon Farming Initiative.

Dr Eckard said the voluntary initiative currently being developed would be internationally benchmarked and recognise carbon sinks (where carbon could be stored for at least 100 years) and sources (where methane and nitrous oxide emissions to the atmosphere can be stopped or reduced).

He said the National Carbon Offset Standard was being used to assess a range of potential carbon credits in agriculture.

“The key gases in agriculture are methane, with 25 times the global warming potential of carbon dioxide and a lifespan of eight to 12 years, and nitrous oxide with 298 times the global warming potential of carbon dioxide and a lifespan of well over 100 years,” he said.

He said denitrification was the main process driving nitrous oxide release and could come from any source of nitrogen in the soil, including fertiliser or organic sources.

Dr Doris Blaesing, Senior Consultant from RMCG, also addressed the issue of soil carbon.

“It is important to remind farmers that whatever their opinion of climate change, there are likely to be policy changes aimed at reducing carbon emissions and encouraging carbon sequestration, as well as changes in consumer preferences,” she said.

Dr Blaesing said agronomists could help farmers better understand soil carbon, with many farmers needing reassurance that their carbon levels were adequate for their soil type.

“Organic carbon has always had a great value for crop productivity, through improving water and nutrition holding capacity and overall soil and crop health,” she said.

“To protect soil carbon, the more permanent vegetation the better and the less disturbance of the soil the better.”

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