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OFFICIAL OPENING OF THE CAF2004 – INTERNATIONAL CONFERENCE ON CONTROLLED ATMOSPHERES AND FUMIGATION

JIM VARGHESE

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Australia*

It is with great pleasure that I open this international conference.

I welcome delegates from North and South America, Africa, Europe and Asia.

The role of the Department of Primary Industries and Fisheries is to facilitate the sustainable economic development of the primary industries sector of the State of Queensland. A profitable primary industries sector is one of the cornerstones of our economy. Because we have a small population, the economic health of this sector relies on our ability to export our production to overseas markets.

The ability to export grain and grain products is crucial to the sustainability of the economic, social and cultural fabric of many Queenslanders. Production from broad-acre farming is anticipated to be worth approximately \$675 million this year (excluding sugar) and the industry employs thousands of people, both on the land, in food processing and further along the value chain.

Queensland produces and exports wheat, barley, sorghum, sunflowers, cotton seed, and a range of pulses and processed commodities.

However, exporting is a tough business. International grain markets are highly competitive. Consuming countries demand high quality grain, free of insects and increasingly free of chemical residues.

Despite producing grain in a climate that is ideal for the growth of insect pest populations, Queensland successfully exports a wide range of commodities into a very competitive world market.

It has been the development and implementation of Controlled Atmosphere and Fumigation technologies, particularly the application of phosphine that has facilitated our export success.

This brings me to the theme of this conference: “Sustainable fumigation alternatives”. This is most appropriate and important as it reflects the two major challenges that must be met:

1. The phase out of the fumigant methyl bromide and the search for practical alternatives, and
2. The challenge of resistance in insect pests to phosphine and the need to ensure phosphine's continued availability.

As you will hear shortly, methyl bromide must be phased out because it is an ozone depleter. Researchers and industry, both in Australia and overseas, have been searching for replacements. Some new materials have been put forward and some older materials have been re-assessed. None, however, can match the broad properties and advantages of methyl bromide. In the future, it is likely that we will have a range of treatments, each with advantages and disadvantages for particular circumstances. This situation will require even better management than in the past.

Phosphine is now the only broadly applied and widely accepted fumigant available. The major threat to this gas comes from the target organisms themselves. Insect resistance to phosphine is a serious threat to its continued efficacy.

Ensuring the continued availability and effectiveness of phosphine in the face of the development of strong resistance has been a priority for officers of my department.

Loss of phosphine would have a substantial impact on our grains industries.

Our research and development has centred on resistance monitoring and management, development of fumigation protocols effective against resistant insects and, in collaboration with colleagues at the University of Queensland, development of a rapid test for resistance using molecular techniques. Much of our work has been undertaken in cooperation with colleagues in other state and commonwealth agencies.

Meanwhile, our extension team, in cooperation with inter-state colleagues, has undertaken a national phosphine stewardship programme. This involves extension and training to promote the safe use of phosphine as well as best management practices to avoid development of resistance.

In addition, as part of our contribution to the economic development of our region, we have been working with scientists in China, Vietnam and India to integrate effective phosphine fumigation into food protection systems in those countries.

The outcomes of this work include improved food security and better quarantine systems as well as access to overseas markets for local products.

Controlled Atmospheres and Fumigation is an applied discipline. Scientists work closely with industry to develop outcomes that enhance economic development and

benefit humanity. This close link between science and industry is reflected in the range of delegates attending this conference and the breadth of topics covered by the speakers. The third player in this equation is government. We provide not only the salaries of many of the scientists but also set the policy priorities and provide the regulatory framework within which you must work.

Scientists, government and industry working together in the discipline of controlled atmospheres and fumigation contribute significantly to outcomes that include food security, access to markets, effective quarantine systems, protecting the supply chain and the provision of high quality food.

I am particularly pleased to be asked to open this conference as it provides a forum for researchers, technologists, industry and practitioners to discuss and exchange ideas, transfer technology and to disseminate information.

I trust that you will find this conference rewarding, particularly those delegates who have travelled from overseas. I also hope that you can manage just a little time to enjoy some sightseeing here on the Gold Coast.

I have much pleasure in declaring this Conference open.