

Rural Press Club of Victoria Forum
Biosecurity: international threats and strategies
Address by Dr Tony Gregson,
Chair, Victorian committee, Crawford Fund

Thanks Stephen and the Rural Press Club for this opportunity.

In my ten minutes I want to tell you about four things:

- The Crawford Fund and what it does,
- Our latest report, *Doing Well by Doing Good*,
- What the Victorian Committee of the Crawford Fund does, and;
- Some biosecurity examples and issues.

First, what is the Crawford Fund? We were established by the Academy of Technological Sciences & Engineering to honour the life and work of Sir John Crawford, a very eminent Australian who had a major impact on Australia and on agriculture in the developing world. Our purpose is to “increase Australia’s engagement in international agricultural research, development, and education for the benefit of developing countries and Australia”. We do this by raising public awareness, providing evidence based policy options, and most importantly training developing country scientists at several levels.

We are a very small organisation with a budget of only about \$1.5m; roughly \$1m comes from the Australian government via ACIAR, the rest comes from State and Territory governments and private donations. We have a small head-office in Canberra run by our CEO Denis Blight. Much of our funding is directed at our training activities, delivered by Committees in each State and Territory. The mostly voluntary and high profile Board and Committee members (our chairman is John

Kerin) do it because we are all passionate about international agriculture. Couple this with an extensive network and an extremely capable and energetic Public Affairs and Communication Director the Fund has reach and impact that I sometimes think is extraordinary.

Second, let me tell you about an example of our evidence based policy work. I was a member of our recent task force that was charged with producing the Report *“Doing Well by Doing Good: international agricultural research - how it benefits Australia as well as developing countries”*, which was published late last year. This arose out of a question raised by the NFF lamenting the run down in Australia’s agricultural R & D activities over the last 10 or so years. They questioned whether more emphasis should be placed on the benefits to Australian farmers and our own research capabilities from international agricultural research. International agricultural research here is very roughly defined as money spent by ACIAR on developing country agriculture, about \$120m each year and a sizable sum in any one’s language.

The task force concluded that international agricultural research is aid that works, and not only does it serve Australia’s national interests well, it also accrues significant benefits to Australian agriculture in three main ways:

- (1) increased and enhanced research capacity here in Australia,
- (2) the significant introduction of germplasm from many of the international agricultural research centres like CIMMYT, ICRISAT, and ICARDA for most of the crops we grow here in Australia. Benefits from the introduction of this germplasm alone are estimated to be about \$100m/year for an annual contribution of just \$10m, and;

(3) individual projects that have involved many different Australian partners over the years, from which a significant benefit has flowed to Australia and one area is around biosecurity, to which I'm sure Nick will be alluding.

The task force also made some suggestions on how ACIAR might further enhance the benefits to international agricultural research by aligning its portfolio more closely with Australia's relatively new primary industries RD&E framework and by engaging more with the private sector.

Thirdly, I would like now to touch on the Victorian committee of the Crawford Fund. We have an annual budget of about \$80 – 100k, some of which comes from our own DEPI. We spend it on bringing scientists from developing countries to Victoria to receive training that will enhance their productivity and contribution to first, their home country's food security and second, to their country's overall economic development and to our relationship and networks in their country. We usually target needy countries in our region, sometimes in Africa, but always utilising expertise from our Victorian partners. We provide the training that generally others in the development sector do not – ours is niche, hands-on and not targeted to degrees or higher degrees. We would be happy to hear from you if you're already engaging in the developing world and have a good training idea.

Let me give you a few examples of our training activities in Victoria, to show the diversity of our focus and the range of our partners in Victoria. Some of the examples are in the brochure you have for today and are often related to ACIAR projects in some way:

- With AAHL in Geelong we've trained scientists in animal diseases, and Peter will talk more about this.

- With Melbourne Uni's old School of Land and Environment we've had several training programs in plant pathology issues for a range of crops such as chilli and papaya.
- With DEPI we have helped to resurrect the peach industry in the Swat valley in Pakistan and with the Queensland Committee to better understand fruit fly management.
- With NGOs, Rotary and private sector partners we've had several land care projects in Africa and the South Pacific.
- With Holmsglen TAFE and Melbourne Uni, young traditional wood workers from Indonesia have been trained in modern furniture design and construction to allow them to become more internationally competitive.
- With CSIRO, we have supported the publication of four books by John Moran from DEPI on many aspects of the dairy industry in the tropics. These books, covering production, hygiene, welfare and the economics of dairying have been extremely well received throughout south east Asia. They're freely available on the web for Asian and Australian farmers and researchers alike and arose out of several very successful training courses John conducted throughout the region.
- The Victorian committee also supports young Australian graduate students to attend our annual conference, usually in Parliament House in Canberra. You have information on this year's event on the info table today. These are usually students who aspire to work in international agricultural research in developing countries, they come along to network, and allows them to be inspired, network and meet leading practitioners in the field. For the long term this is one of the better things that the Crawford Fund does.

Now let me turn to biosecurity – an issue with significance far beyond the farm gate. Both the Nairn and Beale reports on biosecurity emphasised two things: first the

idea of shared responsibility between government and industry in tackling biosecurity issues and secondly the idea of the biosecurity continuum from pre-border, to border, to post border.

Biosecurity will become increasingly important as agriculture has to expand and intensify to meet the rising demand for food. The other point to note is that with increasing urbanisation there is less understanding of agriculture in the community and with greater travel opportunities for the rising middle classes in the developing world, there's higher risks of incursions. Interestingly, FAO projections suggest that global grain production will rise significantly faster than animal production and so leading to higher risks in plant industries and I will return to this point later.

The Crawford Fund has funded several projects to address pre-border biosecurity issues – Peter will talk about our rabies work in Nepal. I want to talk about citrus greening, also called Huanglongbing (HLB), the world's worst citrus disease. It's spread by an insect and is currently all through Asia down to PNG, but so far, not in Australia. In 2011 a Crawford Fund master class on citrus greening was held in Indonesia to increase regional expertise, networking, and collaboration among scientists throughout Asia, and the USA and Brazil where the disease is also present. This was a pre-border strike - to improve the biosecurity skills of neighbouring countries which will help to keep the Australian citrus industry safe from the worst disease of citrus there is.

Another pre-border activity involved 6 people from PNG attending a training course at DPI at Knoxfield to learn about the production and certification of clean potato seed. In part this was to help PNG to manage late potato blight by using certified clean seed. This was followed up the following year by an intensive training program for PNG scientists in tissue culture and to establish a testing capability for potato viruses in PNG. This common certification program between Australia and

PNG allows better management of diseases by our near neighbours, enhances trade, and helps protect Australia from biosecurity threats.

Finally I would like to put on my plant health Australia hat and tell you about another biosecurity threat from the grains industry that I don't think gets enough attention. We all know about the catastrophic consequences of an outbreak of FMD in Australia, or if we don't then we should.

Last year a workshop exercise was conducted in SA on the consequences of an outbreak of Karnal bunt. KB is a fungus that affects the grain of wheat, durum, and triticale and has been identified as a high priority emergency plant disease in the grains industry. It doesn't affect yield but does effect grain quality, making it unfit for human consumption and it also affects the animal feed value of the grain. In the event of an outbreak, many of our markets would close and effectively all grain movements and trade from Australia would cease immediately. Direct impacts of an incursion like this would affect grain producers, bulk handlers, contract harvesters, road transporters, livestock feed manufacturers, flour mills, grain traders, and many if not all intensive livestock industries like eggs, pork, etc. All would suffer high economic losses, severe inconvenience and disruption to their businesses, stress, and decontamination using current practices would be difficult. There may be animal welfare issues as well with no feed grain being allowed to be brought in. ABARES estimates that a small contained incursion would cost about \$3b whereas a large scale incursion would be more like \$15 – 16 b. This is recognised to be so potentially serious that a full scale national simulation exercise is going to be conducted this time next year.

I bring this to your attention to illustrate that plant industry pests and diseases can be just as costly and disruptive as animal diseases. There are about 350 high priority plant pests that affect one or more of the many crops that we farmers produce, and as I said earlier,

plant production is rising faster than animal production so I think the risks to Australia from plant pests are rising quite significantly.

So what are we doing about these plant biosecurity threats? Australia has a National Plant Biosecurity Strategy which sets out the vision for the Plant Biosecurity System. Although we have pest surveillance overseas and we have strong border protection we must maintain our onshore capability and capacity to respond to incursions. This is supported by the EPPRD, a legal contact between governments and industry, which sets out who does what when, and who pays.

We have also a new National Surveillance system and national strategies for the management of RD&E on Fruit Flies. This will all contribute to a more secure Australia but I do make a plea in the constrained time for continued government and Industry commitment and support for our biosecurity system. It is absolutely essential if we are to maintain a food secure world.

Thank you

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