

APRIL 2012



THE CRAWFORD FUND
For a Food Secure World

HIGHLIGHTS

NEWSLETTER

INSIDE

The Scramble for Natural Resources

Preliminary notice on the Crawford Fund's 2012 annual conference.

Development of the Australian International Food Security Centre

What's guiding the establishment of this new centre?

Making the Public Aware

Crawford Fund events, journalist visits and media efforts to make the benefits of international agricultural research and development better understood.

Crawford Fund Training Program

The latest news on Crawford Fund short-term, hands-on training for men and women from developing countries.

Shared Anniversaries

2012: A special year for both the Crawford Fund and ACIAR.

Impact from Training

A report on personal and professional impact from Crawford Fund training.

Australia in the Asian Century

Some suggestions for the Government's White Paper on the region.

2011 Conference Proceedings	2
Conference Travel Scholarships	2
The Crawford Fund Fellowship 2012	4
The International Grasslands Congress	11
Young Crawford Group Meeting	12
Contributors	13
Congratulations to IWMI	13
Board of Directors	15
What is the Crawford Fund?	16
Awards Training Courses and Master Classes ahead	16
New ATSE Head	16

The Crawford Fund
2012 Annual Conference
9 - 10 October, Parliament House, Canberra



The Scramble for Natural Resources: More Food, Less Land?

The Crawford Fund's 2012 annual development conference will focus on the dynamic interactions between a range of competing uses for land and natural resources, while addressing the need to feed the world's growing population in the face of the constraints and challenges of climate change.

The conference, which has been held every year for over two decades, is a key event in Australia's international development calendar. It attracts 300 development professionals, decision-makers, researchers, agribusiness people, farmers, conservationists, educators, students and other stakeholders.

In 2012, the event will include a one day Parliamentary Conference on 9 October, as well as the Sir John Crawford Memorial dinner and address. A Parliamentary Breakfast will follow, on 10 October. We believe that this year's event will be another in our series of highly successful, well attended and nationally reported conferences.

Background

Steep rises and associated volatility in commodity prices have driven a renewed focus on agriculture and food security in international development circles. In Australia the domestic debate has recently focussed on how this country's role as a major food

exporter is affected by changing patterns of land use and the availability of water resources against the uncertainties of a changing climate. The global dimensions of the problems are underlined by United Nation projections indicating that the population will reach about nine billion in the year 2050. In order to feed this burgeoning population, the world's farmers will have to increase food production by 70 per cent. Meat production over the same period will have to increase 85 per cent to meet increases in demand driven by rising incomes, particularly in Asia. To avoid famine and provide affordable food to the world's poor, these massive increases in production will have to be achieved against a background of increasing competition for natural resources.

The 2012 Crawford Fund Conference has drawn together expert speakers from around the world to address these problems focusing on the dynamic interactions between a range of competing uses for land and other natural resources.

Conference speakers will consider topics such as:

- The global dimensions of future population growth – food security nexus as affected by land availability for production, food losses, energy and climate change

The Scramble for Natural Resources: More Food, Less Land?

- The dynamics of global land use and climate change affecting food production, greenhouse gas emissions and water resources
- Impacts of land clearing for agriculture in tropical areas on biodiversity and ecotourism
- Changing patterns of foreign investment in land in Australia and in developing countries – the land grab?
- Mining and agriculture – competitive or compatible uses of land?
- Urban encroachment on good agricultural land as people flock to the cities
- Environmental services of land in relation to agricultural uses
- Effects of land degradation on potential food production, biodiversity and greenhouse gas emissions
- Land availability and management to expand food production in Africa
- Facing the Malthusian challenge – how can food production be increased to meet future demand?

Confirmed Speakers

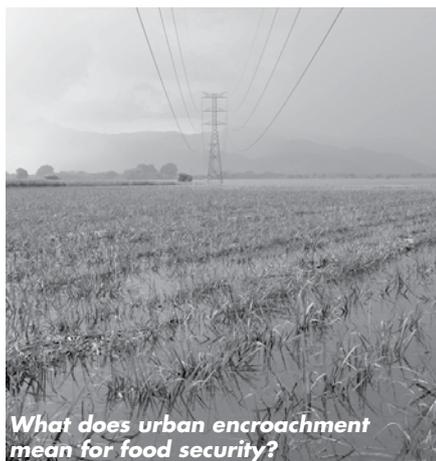
It is a special year for us in that it is our 25th anniversary. Senator the Hon Bob Carr, Minister for Foreign Affairs has been invited to open the event on 9 October and the stellar group of speakers confirmed to date include:

- **Professor Jonathan Foley**, Director of the Institute on the Environment at the University of the Minnesota, where he is also a professor and McKnight Presidential Chair in the Department of Ecology, Evolution and Behaviour
- **Professor Ian Chubb**, Australia's Chief Scientist
- **Dr Frank Rijsberman**, new CEO of the CGIAR Consortium and formerly of the Bill and Melinda Gates Foundation, and the philanthropic arm of Google
- **Dr Derek Byerlee**, former senior advisor, World Bank
- **Dr Shenggen Fan**, Director General of the International Food Policy Research Institute, Washington

- **Dr Nteranya Sanginga**, Director General, International Institute of Tropical Agriculture, Nigeria
- **Dr Chris Moran**, Director, Sustainable Minerals Institute and Member of the Management Board of the International Mining for Development Centre
- **Prof Xuemei Bai**, Fenner School of Environment and Society, ANU
- **Dr Andrew Noble**, Research Program Manager, Land and Water Resources, ACIAR
- **Dr Christine Padoch**, Director of Forests and Livelihoods Program, Centre for International Forestry Research, Indonesia.

More Information

Further details and the final program will be posted on our website in May. If you'd like to receive notifications about the conference, please register your expression of interest through our website.



What does urban encroachment mean for food security?



Impact of mining on land and water to be addressed

THE SUPERMARKET REVOLUTION IN FOOD

2011 Conference Proceedings

Proceedings from our 2011 conference "The Supermarket Revolution in Food: Good, Bad or Ugly for the World's Farmers, Consumers and Retailers?" are available on our website for free download. The conference addressed the extent to which the growing significance of supermarkets and a range of issues related to the marketing chain are impacting consumers, producers and traders for good, bad or worse. International and Australian speakers pointed to the public policy and development options needed to address market access issues associated with world food supply, trade, security and scarcity in developing countries and in Australia. Go to www.crawfordfund.org

Conference Travel Scholarships Available for Young Scholars

It is our intention to once again offer travel scholarships to young Australian agricultural scientists with a genuine interest in international agricultural development to attend the Crawford Fund conference. Further details will be on our website in June or to receive further details, please contact

Crawford@crawfordfund.org



Development of the Australian International Food Security Centre

Our last newsletter alerted readers to the new Australian International Food Security Centre (AIFSC), announced by the Prime Minister in late October 2011, and that it was to be informed by the review that was then underway by an expert panel chaired by Professor Ian Chubb, Chief Scientist of Australia, titled "Strategic framework for international agricultural research within Australia's aid program." The review is now available from the ACIAR website.

The key points in the Prime Minister's announcement were that the initial Australian Government financial commitment to AIFSC was \$36m over 4 years, and the Centre's work is to have an emphasis on the delivery of improved technology; bridging the gap and strengthening linkages between research and extension, and developing long-term public and private sector partnerships.

The ACIAR fact sheet on the new centre explains the reasoning behind its focus on Africa. It notes:

"The largest proportion of people living in poverty is in Africa, where an estimated one in three people go hungry. At the same time the agricultural potential of Africa is enormous, both in terms of uncultivated farming land, and in the levels of productivity that can still be achieved".

Dr Gabrielle Persley, leader of the Crawford Fund's new policy program on "A Wider Canvas for International Agricultural Research" is a member of the AIFSC design team and is chairing the strategy working group. She explains:

"Achieving the levels of productivity possible in African agriculture requires accelerating research, delivery and adoption of innovations, and this will be an important focus of the new food security centre, so as to increase food availability. But it's not just about

productivity. The centre will also focus on enabling better market access for small holder farmers and livestock keepers, to increase their opportunities to earn income by selling surplus production; and will give new attention to better food utilization, to increase the nutritional quality of food and to reduce post harvest waste. Up to 70% of food can be lost after harvest. These three interrelated elements of availability, access and utilisation are the keys to improving food security and will be the thrusts of the work of the AIFSC."

ACIAR has been working overtime to get the AIFSC off the ground to meet the ambitious deadline set for its establishment. An international conference to help provide a 'road map' in establishing partnerships and priorities for the Centre and its work for Africa will be held later this year. The Crawford Fund is pleased to be represented on a number of working groups assisting with its development.

Ms Mellissa Wood, formerly Director of Operations for the Global Crop Diversity Trust, has been appointed as Director of the Centre, reporting to Nick Austin, CEO of ACIAR. She says "The Centre's strategy is being finalised, building on existing Australian aid endeavours and based on extensive consultations with Australian and international stakeholders. The strategy identifies where the Centre should focus its activity to deliver the greatest impacts for food security, matching Australian expertise with priority needs of target countries and regions. We will concentrate on accelerating demand-driven research, delivery and adoption of innovations for improving food security."

So what's guiding the establishment of this new centre and how will it add to other successful efforts underway, such as ACIAR, that are focused on food security?

A series of consultations in Africa and Australia have already been held. In February, a key conference was jointly organised by the Forum for Agricultural Research in Africa (FARA) and ACIAR, and was attended by senior representatives of FARA, sub-regional organisations, farmers' organizations, civil society organisations, regional economic organisations and agricultural universities. The conference's main purpose was to introduce the concept of the AIFSC to FARA and African partners, and to identify priority areas for research, education and training related to enhancing food security from a geographical regional perspective. The consultations were enthusiastically received by African counterparts, who provided critical information for the development of the Centre and its future strategic directions.



Mellissa Wood, Director of AIFSC

Development of the Australian International Food Security Centre

Guidelines from Professor Chubb's Strategic Framework report that are directly relevant to the way AIFSC will work link research needs to smallholder farmers, markets and emerging entrepreneurs so that global best practice is used in the delivery of practical knowledge for farmers and their food security. In keeping with the Chubb review, the new Centre will focus on:

- Enduring engagement vs short term projects — partnerships of 10–15+ years, with a more program-driven approach, rather than short-term projects that can be such a limiting factor for development work
- New partnerships and programs —with multidisciplinary players in Africa, Australia and global institutions from the public and private sectors. Long-term commitment, institution strengthening,

research and capacity building are to be part of these partnerships.

As this enduring engagement is somewhat new to agricultural research for development, the new Centre provides an opportunity for some real innovation.

Key outcomes of the Centre are likely to include:

- Increased food production in target countries, through high rates of adoption of agricultural innovations and increased efficiency of production of staple foods
- Increased income opportunities for small-scale farmers and livestock keepers, through enabling policies and enabling sale of surplus production
- Better quality food available to target countries, through improved nutrition in

foods, reduction of post-harvest waste, improved food safety and more value added foods

- Increased individual and institutional capacity, through training and long-term partnerships between educational and research institutions
- Improved access to knowledge by smallholder farmers and livestock keepers, bridging research and extension through improved information delivery
- Improved resilience of communities and their food systems to enable them to respond better to extreme events, through risk mitigation strategies and preparedness.

We look forward to the development of the new centre and with working with ACIAR on this exciting new initiative.



THE CRAWFORD FUND
For a Food Secure World

THE CRAWFORD FUND FELLOWSHIP FOR 2012

CALL FOR NOMINATIONS

The Crawford Fund Fellowship was established in 2002 with the generous support of Dr Brian Booth AM FTSE. It aims to provide further training for an agricultural scientist from a selected group of developing countries whose work has shown significant potential. The training will take place at an Australian agricultural institution and will emphasise the application of knowledge to increased agricultural production in the Fellow's home country.

The Fellowship is offered annually to an agricultural scientist below the age of 35 years who is a citizen of, or who is working in Bangladesh, Bhutan, Burma, Cambodia, East Timor, Fiji, Indonesia, Laos, Nepal, Niue, PNG, Samoa, Solomon Is, Tonga, Tuvalu and Kiribati, Vanuatu or Vietnam.

Nominations must be made by two proposers, one of whom must be an Australian, and should be made on the nomination form obtainable from: The Crawford Fund Central Office, PO Box 4477 Kingston, ACT, 2604 AUSTRALIA Email: Marchien.vanoostende@crowfordfund.org

CLOSING DATE FOR NOMINATIONS is 29 June 2012
Late nominations or self-nominations will not be accepted

MAKING THE PUBLIC AWARE

It's been a busy start to the year for the Crawford Fund's public awareness program, with involvement in a range of national events, plans underway for more journalist visits to developing countries, assisting with visits to Australia by international specialists, firming of arrangements for our 2012 conference and initial work towards a conference in Perth in 2013. Regular feature stories and generated news reports are provided on our website, with audio and vision to be incorporated when our new website is launched this month. A few key activities from the last few months are highlighted below.

World Food Prize Winner Visits Australia

The Crawford Fund provided media support for the visit to Australia by World Food Prize Winner, Dr Per Pinstrup Andersen, who was involved in two events supported by the Fund.

In national media coverage related to the Australian Agricultural and Resource Economics Society annual conference, held in Fremantle from 8-10 February, and the National Forum on Food Security held in Adelaide on 13 February, Dr Pinstrup Andersen warned that the global food system and related government policies are in disarray.

"In response to increasing food prices and greater food price volatility, caused by extreme weather events, speculation and fluctuating energy prices, many national governments are making things worse," he said. "Bad 'beggar thy neighbour' behaviour such as export restrictions and bans, and excessive food stockpiling by national governments of many developing countries including major food exporters India and China, is further amplifying food price fluctuations."



Dr Per Pinstrup Andersen addresses the Adelaide food forum

National Press Club Events Focus on Food Security

The Crawford Fund also assisted with two televised National Press Club (NPC) events this year, which provided opportunities for additional national media outreach around food security.

Former Crawford Fund Chairman, the Hon Tim Fischer discussed food security and his new position on the board of the Global Crop Diversity Trust at his NPC luncheon in January on his return to Australia following his retirement from the position as Ambassador to the Holy See.

"To step up to the Board of the Trust is a great privilege, as food security is a particular priority that reflects my lifelong policy interests," Fischer said. "Worldwide, preserving the original genetic material in our food crops matters a great deal. It goes to the core of the future of agriculture and preventing famine."

And as a follow-on activity from the Fund's biodiversity conservation conference in 2010, planning and media

assistance was provided for the March visit by the head of the FAO Treaty on Plant Genetic Resources, Dr Shakeel Bhatti, including the facilitation of National Press Club and Victorian Rural Press Club addresses, and meetings with key stakeholders in Melbourne, Adelaide, Canberra and Sydney.

In an opinion piece and interviews during his visit, Dr Bhatti noted "According to a study published by FAO, Australia is highly dependent on foreign crops for the satisfaction of food needs, with a degree of dependency that ranges from 88 to 100 per cent - similar to New Zealand, and double that of countries like China and India. The International Treaty is an instrument that helps Australia and other such dependent countries reduce their vulnerability in food production related to pest, diseases outbreaks and climate change."

Agricultural Economists Focus on Food Security

In addition to wide media coverage in Australian print, radio and TV outlets for Dr Per Pinstrup Andersen, the Australian Agricultural and Resource Economics Society annual conference provided an opportunity for a range of other media interviews around food security related issues by speakers including Australians Dr Will Martin, World Bank Agriculture and Rural Development Research Manager and Dr Phil Pardey from University of Minnesota. Dr Martin noted that more demand for food won't necessarily translate to higher prices and Dr Pardey argued for more support for agricultural research. Other speakers interviewed around food security topics came from developing countries including PNG and Indonesia.

A Wider Canvas for International Agricultural Research – Launch in Adelaide

Dr Gabrielle Persley, Crawford Fund Research Study Director, discussed the first brief of "A Wider Canvas for International Agricultural Research", the Crawford new research study on emerging trends in world food security, at its launch at the National Forum on Food Security organised by the University of Adelaide in February. Readers are encouraged to provide feedback as the Fund's study progresses, through the website and project blog.



Dr Nick Austin, ACIAR and Gabrielle Persley in the panel discussion following the launch of the Fund's research study

The Scramble for Natural Resources - More Food, Less Land?

Dates are now confirmed and plans in train for the Fund's 2012 Conference, to be held on 9-10 October at Parliament House, Canberra with an excellent line up of speakers already arranged, as explained earlier in the newsletter. Titled "The scramble for natural resources - more food, less land?" it will focus on the competition amongst a range of uses for land and natural resources, while addressing the need to feed the world's growing population. Readers are encouraged to register an expression of interest on our website so they are notified when registration is available mid-year.

Denis Blight manages the Q&A at the Adelaide Food Security Summit – a role he will play in the Fund's 2012 conference



Next State Conference

Following the success of the Crawford Fund's Queensland State Parliamentary Conference in Brisbane in 2011, the WA Committee has agreed to host a Parliamentary Conference in Perth in June 2013. The topic is "Mining and Agriculture: Partners in Development" and it aims to show how Australian expertise in agriculture and mining can be used to ensure that mineral exploration, mining and mine rehabilitation is done with minimal damage to agriculture, and to enhance regional agriculture. Further details will be provided as plans are progressed.

AIFSC Explained

The Crawford Fund has organised a range of interviews in relation to the new Australian International Food Security Centre and how it is expected to operate. Gabrielle Persley, who has spent many years in Africa and is involved in one of the working groups assisting with the Centre's development explained "It's not about Australia exporting technology, it's sharing experiences, particularly with climatic variability." And on ABC Country Hour and Rural Press interviews, ACIAR's CEO Nick Austin talked about his recent visit to Africa consulting with possible partners and explained the range of ways that Australia can contribute and benefit.

Crawford Fund Work Highlighted on International Women's Day

The Crawford Fund's NT Committee Coordinator, Tania Paul, was involved in a number of national and NT radio interviews on International Women's Day to highlight her work for the Fund and Charles Darwin University in developing countries. In her ABC interview about her work in Asia, Tania noted "I've spent time in Timor and Indonesia and I think one of the things that strikes me is the very difficult lives that women have there." She went on to talk more about her work in East Timor and South Africa where she has been looking at issues such as water supply and biological control agents.

International Interest in Crawford Fund Medal Recipient

Thai media covered the award of a Crawford Fund medal to Professor Benjavan Rerkasem, an esteemed agronomy professor from the Faculty of Agriculture at Chiang Mai University. Professor Rerkasem received her award from Dr Eric Craswell, the Crawford Fund's director of training, following her participation in the Fund's Master Class in Communicating with Stakeholders (reported elsewhere in this newsletter). The award was given in recognition of her 'continued contributions to international agricultural research'.

Dr Eric Craswell presents Professor Rerkasem with her Crawford Fund Medal



Successful "Seeing is Believing" Visit to Africa

There have been extensive print, radio and online reports from another successful 'seeing is believing' visit completed late last year by journalists from Rural Press and ABC Rural. The visit to Kenya provided an opportunity to highlight a range of projects covering ACIAR, CSIRO, and international centres' work. The Fund is also progressing plans for journalist visits to Africa, PNG, Indonesia and South America, as well as a national journalist award for reporting on food security, with a 'seeing is believing' visit prize.



Laura Poole, ABC meets women involved in ACIAR's SIMLESA project

Website Development and Social Media Strategy

Upgrades to the Crawford Fund website have been taking place, with improvements being made to incorporate new platforms and capabilities. The website has taken a little longer than expected but we are pleased to report that it will be launched this month. Feedback on the new look and capabilities is welcome. And please follow us on Twitter!

A sample of the Crawford Fund's hands-on, short-term training for men and women engaged in agricultural research in developing countries is provided below and a list of upcoming training is on the back cover of Highlights. The Fund's training scheme is managed in large part by the State program committees, whose members volunteer their time and knowledge of the Australian and international research landscape in order to match Australian talent with developing country needs.

The reports provided below cover a sample of the training supported recently that have focused on a broad range of skills and topics including crop health; climate variability; science communication; sustainable vegetable production; managing physical stresses on rice; germplasm conservation; wood processing; sustainable forest management and use; pyrethrum development; scientific barcoding; nematodes in cropping; virgin coconut oil production; biosecurity technology; floriculture, and mango production.

Participants in the highlighted training were from India, Nepal, Thailand, Pakistan, Bangladesh, Sri Lanka, Indonesia, the Philippines, Solomon Islands, Turkey, PNG, Laos, Zimbabwe, Cote d'Ivoire, Mozambique, Democratic Republic of Congo, Ethiopia, Rwanda, Sierra Leone, Zambia, Kenya, Uganda, Tanzania, Malawi, Sudan, Botswana and Peru.

MASTER CLASSES

Master Classes in Africa

Crop health and climate variability in Eastern and Southern Africa were the topics for two Master Classes held in Africa in late 2011, reflecting the greater emphasis that the Fund is placing on training that addresses the problems of the African region. A common feature of two master Classes was the emphasis placed on research methodologies and approaches that provide practical help to farmers in the region.

The Master Class held in Nairobi from 21 November to 2 December involved 20 participants (eight female) from ten African countries and was titled: "The laboratory in the field: the practical use of new plant health diagnostic technologies in community-based extension". The training was conducted under the auspices of The Plantwise Initiative coordinated by CABI, which is assisting farmers, through a plant health systems approach based on plant clinics to diagnose plant health problems and provide recommendations for 'any problem on any crop'. Plantwise aims to provide poor farmers in developing countries with better access to the advice and information needed to help them increase food security and improve their livelihoods by losing less of what they grow due to plant health problems.

This regional Master Class was a unique opportunity for scientists and extension workers to use new technologies and learn how they could be used to provide better advice to farmers. In particular the training was designed to improve understanding and communication between extension workers and lab-based scientists to enable the delivery of better and urgently needed plant health services including novel digital age approaches such as distance diagnosis

using remote microscopy. CABI was the main organiser of the Master Class and other resource persons were provided by the CRC on Plant Biosecurity, reflecting the Australian expertise in this field as well as the recognition of potential benefits to Australian agriculture of training and cooperation in biosecurity. AusAID joined with the Crawford Fund in providing financial support.



Lab in the Field participants using USB microscopes to capture images of infected plants

The Master Class held in Morogoro, Tanzania from 26 November to 2 December concerned "Management of Climate Variability: A participatory approach with researchers, extension officers and smallholder farmers"; attending were 24 participants from seven African countries. The problem addressed was the dependence of farmers on low and or highly variable rainfall across most south eastern Sub-Saharan countries. In combination with

depletion of soil fertility, this makes the effort of intensifying maize based production systems and improving farmer's livelihoods a rather daunting and complex problem. The objectives of the Master Class were therefore to:

- Train the trainers (such as researchers and extension officers) on participatory approaches to improving farmer's preparedness and responses to below and above average rainfall seasons
- Increase understanding on how year-to-year climate variability impacts agriculture production and decision making, and how existing sources of climate information could be used to help farmers make better informed decisions and reduce climate associated uncertainties
- Improve understanding of existing tools, sources of information and products (such as micro-insurance for smallholder farmers)
- Promote a trans-disciplinary dialog between agronomists, extension officers and meteorological officers
- Promote the development of science and extension networks across the seven participating countries.

The CIMMYT/ACIAR SIMLESA project organised the Master Class in collaboration with the University of Queensland, (QAAFI), and DEEDI.



Participants in the Climatic Risk Master Class - Morogoro, Tanzania

CRAWFORD FUND TRAINING FOR IMPACT

"This collaboration involving scientists from both African and Australian partner institutions in an active ACIAR project such as SIMLESA ensured that the training was very relevant to the needs of the countries while strengthening the skills of the African scientists to carry out the research in the project. The further involvement of a CGIAR Centre such as CIMMYT contributed extensive regional experience as well as facilitating the logistical arrangements for the class," said Dr Eric Craswell, Director of Master Classes.

Communicating Science to Stakeholders

There is a growing appreciation of the need to confirm the efficacy of investment in agricultural science by better communicating its impact. For many developing countries' agricultural research institutions, this important communication role falls to science staff who may have no training in communication.

To help fill this gap, the Crawford Fund brought together its expertise in communication and training to hold a course to boost the capability of senior staff in Asian research institutions to communicate their work to stakeholders.

The Crawford Fund's Director of Public Affairs and Communication, Cathy Reade who developed and organised the training, noted that the aim was for the course to be very practical and provide the group with tools to use immediately on return to their institutions.

"They finished the training with a draft communication plan, a press release ready for distribution, a list of media contacts for their country, a fact sheet on a research topic for their website, as well as recordings of their TV and radio interviews and their short presentation made to the group," said Cathy.

Jenni Metcalfe from Econnect Communications and Toss Gascoigne from Gascoigne and Associates, and two of their colleagues, Tom Dixon and Meg Heaslop, facilitated the six day course for a group of 18 scientists from India, Nepal, Bangladesh, Thailand, Pakistan, Bangladesh, Sri Lanka, Indonesia and the Philippines.

The Crawford Fund received support for the Master Class from ACIAR, CSIRO, IRRI, ILRI, WorldFish Centre, and Chiang Mai University.

"I particularly want to thank Jenni and Toss and their associates, as well as some of the working journalists who were



Piyaporn Wongruan from the Bangkok Post and Kannikar Petchkaew from Matichon newspapers in Thailand, and Toss Gascoigne during a panel discussion on interacting with the media

involved, who provided their time as their way of supporting communication of science in the region," said Cathy.

STATE TRAINING PROGRAMS ACT

Coconut Press Presses Ahead in the Pacific

Local and international markets for virgin coconut oil have expanded rapidly over the past decade but producers need to improve their performance to remain competitive, build on past successes and better appreciate the importance of hygiene and the basics of financial management.

A week long training exercise, supported by the Crawford Fund's ACT Committee, follows earlier support for the work by Dr Dan Etherington, formerly of ANU, who collaborated with his CSIRO and ANU colleagues to develop an all-weather cottage industry technology that has been introduced to a range of developing countries and sees them producing coconut oil of 'stunning' quality.

This most recent training focused on the principles of hazard analysis and critical control points (HACCP) and basic financial management for village virgin coconut oil production. Out of the 31 participants, from five provinces, 21 were from the Virgin Coconut Oil Producers Association. They use 'dry' Direct Micro Expelling technology (developed by Dr Etherington and highlighted on the ABC TV New Inventors program) and supply their Certified Organic virgin coconut oil to Kokonut Pacific Solomon Islands Ltd (KPSI). The workshop facilitators included KPSI and South Pacific Community staff

and three staff from Kokonut Pacific (Australia).

"As a robust, village-based technology, the process provides high quality oil at low cost and has proven ideally suitable as an economic business enterprise for remote communities," reported Dr Etherington.

His training report notes that over the seven years since KPSI commenced operations, virgin coconut oil exports have earned more than SBD5 million (about USD \$800,000) and today KPSI is the largest exporter of Certified Organic virgin coconut oil in the South Pacific.

"The coconut palm produces a new bunch of coconuts every month, all year round," Dr Etherington said. "It's hard to imagine a more sustainable crop."

Western Australia Improving the Veggie Chain

In the Philippines, farmers are exposed to financial risks due to the constant threat of typhoons, pest and disease infestation, and low prices. Farmers also have to contend with reduced levels of vegetable consumption due to consumer's concerns about chemical residues.

Promoting appropriate crop rotations, companion planting, insect attractants and the use of organic manures offers a way to both reduce the use of off-farm inputs and produce fresh vegetables with fewer chemicals.

To gain a greater understanding of these techniques, Mr Recarte Bacus, who works with smallholder vegetable farmers in Mindanao in the Philippines, spent six weeks in Perth with the support of the Crawford Fund. Sponsored by Curtin University and facilitated by the Department of Agriculture and Food Western Australia, Mr Bacus was able

CRAWFORD FUND TRAINING FOR IMPACT

to observe some of the techniques utilised by vegetable growers in Western Australia in moving towards sustainable production systems.

"I met people who are extremely motivated and well trained and who were very welcoming. Mostly, I was amazed with the modern technology used by the farmers in the field. The training and exposure also gave me a very thorough insight into the many aspects of the vegetable industry. I was overwhelmed with the level of expertise and advice available to farmers with regard to machinery, chemicals, irrigation and packaging. This type of experience and exposure ensures that vegetable farmers are being continuously innovative," said Mr Bacus.

"I also learnt how to develop a marketing system that can be used along the vegetable industry chain and how to strengthen collaborative efforts in order to achieve better product consolidation and greater market access," he said.

Abiotic Stress in Rice

Over half of the world's population depends on rice as a staple crop. Rice thrives in waterlogged soil and can tolerate submergence at levels that would kill other crops but there are certain environmental factors that cause stress to the crop such as drought, salinity and nutrient deficiencies.

The "Phenotyping for Abiotic Stress Tolerance in Rice" training workshop was conducted at the International Rice Research Institute (IRRI) in the Philippines late last year.

Coordinated by Dr Abdelbagi Ismail, Crop and Environmental Sciences Division at IRRI, the workshop covered several issues including flooding, salt stress tolerance, drought tolerance, nutrient deficiencies, high temperature stress, as well as the development of C4 rice.

Dr Gous Ali from Bangladesh, who attended the training with the support of the Crawford Fund, believes the course will have a lasting impact on the industry in his country.

"The knowledge and skills on various new techniques, especially underwater photosynthesis and respiration, submergence tolerance and other abiotic stresses will considerably benefit our institute, where different activities are being taken for increasing rice production. Our goal is to improve the livelihood of poor farmers in Bangladesh, especially in areas severely affected by these stresses," Mr Ali said.

Training coordinator, Dr Ismail, said many positive outcomes were achieved.

"This course provided an excellent opportunity for a group of young scientists to acquire in-depth, hands-on skills to help them effectively develop and use efficient screening methods to enhance their rice breeding programs. The training was also timely, with the increasing need for marginal resources for food production, coupled with the degradation of natural resources caused by climate change," he said.



Dr Tim Colmer, University of WA, Dr MD Gous Ali, Bangladesh Rice Research Institute, Mr Vo Thanh Toan, Cuu Long Delta Rice Research Institute, Mrs Udornpan Promnart, Prachinburi Rice Research Center, and Dr Abdelbagi M. Ismail, IRRI

New South Wales Protecting Seeds for New Varieties

When it comes to genetic diversity, Turkey is located in an important part of the world – a bridge between the crops of Europe and the Middle East. It is part of a region noted for its genetic diversity of plants which have been cultivated and adapted by mankind for millennia. With large areas of fertile land, the country has also become one of the biggest producers of agricultural products in the region.

Of the many plant species found in Turkey, more than 100 display a wide variation. These species are a very important genetic resource for the future sustainability of many plant species cultivated across the world. Conservation of this germplasm is vital in the development of new and improved varieties.

The Plant Genetic Resources (PGR) Department of The Central Research Institute for Field Crops (CRIFC) in Ankara, Turkey, has been running a seed bank since 1988 – specialising in wheat, lentil and other crops.

PGR scientist, Dr Kür ad Özbek attended a six-week Crawford Fund traineeship at the Australian Winter Cereals Collection (AWCC) in Tamworth in late 2011 – where he was able to witness the procedures undertaken at the AWCC and was introduced to a new web-enabled database called GrinGlobal that is a useful tool for germplasm selection FIGS (Focussed Identification of Germplasm Strategy). FIGS information, relating to salinity, heat and drought tolerance in barley and wheat has been subsequently sent to Turkey for further evaluation.

"During my short but comprehensive visit I met a lot of valuable scientists. Together we are planning collective projects for the future. These projects will be especially important in the determination and characterisation of drought and salinity resistant local species. In our mutual projects we may share materials as well," said Dr Özbek.



Dr Özbek in Tamworth

Victoria Wood-Processing in PNG

The government of Papua New Guinea has listed the development of a competitive downstream wood processing industry as a primary national objective but many factors need to be put in place if this is to be achieved.

Currently, training capabilities in wood processing are limited. A higher level of training, education and R&D capacity is needed to make significant changes to the industry in PNG.

To this end, the Crawford Fund, ACIAR and the University of Melbourne supported a two-week intensive training course with Associate Prof. Barbara Ozarska, Leader of the Forest Products Research Group, called "Wood processing and value-added manufacturing technologies".



Participants learning about machinery used in furniture manufacturing

The course took place in Australia, with six delegates in attendance from PNG institutions representing education (PNG University of Technology), research (PNG Forest Research Institute) and training (PNG Timber and Forestry Training College).

The training provided participants with both theoretical and practical knowledge of wood processing and furniture manufacturing technologies, and consisted of a Wood Drying Training Course and a Wood Value-Adding and Furniture Manufacturing Training Course. It also involved visits to timber and furniture manufacturers - allowing participants to observe advanced, state of the art machinery and production methods.

Feedback from the participants indicated the training course exceeded their expectations and in a post-course survey it was noted that as a result, the capacity of the attendees to provide training to timber companies in PNG has been significantly enhanced. The friendships and networks created as a result of the training and social activities while in Australia will strengthen and enrich the future collaboration between the participants and the institutions they represent.

Tasmania

Forestry in Laos

The Lao Peoples Democratic Republic (Lao PDR) is one of the world's poorest and least developed countries but is comparatively forest-rich as a nation. Therefore forest management and utilisation is an important part of the government's development policies and a vital source of wealth in the asset poor nation.

Since 1990, it is estimated that the area of forest in Laos has decreased by an

average annual rate of 1.4 per cent, or 134,000 hectares. Laos is one of the few remaining SE-Asian countries to allow harvesting of native forests and is under increasing international pressure to restrict native forest utilisation and postpone further plantation development until effective sustainable forest management, monitoring and compliance mechanisms are established.

To address some of these issues, the "Australia-Laos Forestry Capacity Building and Training" project was held in Australia in late 2011 as an initiative of the Institute of Foresters of Australia (IFA), which funded the exchange in collaboration with ACIAR and the Crawford Fund.

Several government representatives from Laos attended the training, which involved presentations, lectures, field trips and hands-on exercises over a three-week period. The course was supported by a number of forestry and government organisations in Australia, with experts from these organisations able to share their knowledge and expertise with attendees.



Participants with Robert Torenus at his sawmill discussing supply chain interactions

"Objectives were achieved by providing the participants with opportunities to take part in field-based supply and value-chain operations in Tasmania and Queensland. Presentations by visiting and practising experts provided strategic training in forest management and policy development," said Mr Aidan Flanagan, General Manager of the Forests and Forest Industry Council of Tasmania, and the Chairman of the IFA Tasmania Division.

Improving PNGs Pyrethrum Industry

Four member of a small team that completed an ACIAR project to re-establish the pyrethrum industry in the PNG highlands were supported by the Crawford Fund to participate in a training course in Tasmania and Queensland around pyrethrum. They are also part of a small team of local PNG vegetable and pyrethrum research and extension officers who have worked very hard to develop the PNG pyrethrum industry with the support of Botanical Resources Australia.



(Back to Front), Ms Janet Yando, Mr Willie Poo, Ms Manday Yaso and Mr Enopa Linsay at a pyrethrum farm in Ulverstone, Tasmania

Neville Mendham, coordinator of the Crawford Fund's Tasmania Committee explained that the work is ongoing, with the insecticidal extract being processed further in Tasmania.

"Brian Chung has led BRA's efforts towards the redevelopment of the pyrethrum industry in PNG," explained Neville.

"The crop complements the fresh vegetable industry in the same way as in Tasmania, where farmers have a perennial crop alongside the annual vegetable crops. In PNG the crops are mixed on the one piece of land, and all work is done by hand," said Neville.

The trainees also attended the International Pyrethrum Symposium held in Tasmania, and visited vegetable growers and research centres in Tasmania and Queensland.

CRAWFORD FUND TRAINING FOR IMPACT

In a report on ABC Radio, it was noted that pyrethrum is a valuable crop for PNG Highland farmers, and that the partnership between Tasmanian researchers and companies and their PNG counterparts is helping pyrethrum make a comeback.

"This trip has been a rare opportunity for me to gain a wealth of information that will be put towards developing a viable pyrethrum and vegetable industry in Enga province," said Ms Manday Yaso, one of the trainees.

South Australia

Barcode of Life

Peru's climate and different geographical zones make it an important agricultural nation. Of the 120 domesticated plants Peru has provided the world, the potato is the most important. There are more than 3,000 varieties of potatoes found in Peru, making it the world's genetic centre for the crop. In addition to this staple, the UNDP estimates the mountain and jungle regions of Peru contain important vegetables and fruits that are relatively unknown but high in vitamins and proteins. Scientific barcoding of such species will allow Peruvian researchers to share information about these precious plants with the outside world.

To learn more about the process, the Crawford Fund sponsored Julio Cesar Cachay Cardenas from the Department of Biochemistry, Molecular Biology and Pharmacology, Universidad Peruana Cayetano Heredia in Peru to attend a two-day training session ahead of the Fourth International Barcode of Life Conference in Adelaide.

The training provided an introduction to barcoding, information on molecular data quality standards and technical advice regarding specimen and tissue handling.

"This new molecular tool – DNA Barcoding – will allow me to identify very important species in Peru. It's a good way to help better control and manage our food resources. The training allowed me to improve my knowledge of BOLD and other barcode databases. Presenters showed new features and functionality available in BOLD 3.0 and explored connectivity to partners such as GenBank, the Barcode Of Life Data Portal and Geneious," said Mr Cardenas.

Examining Nematodes

They are one of the most adaptive animals in the world, able to live in almost any ecosystem, from polar-regions to the jungle-covered tropics – and yet scientists still have so much to learn about nematodes.

Also known as roundworms, nematodes are difficult to identify as they have few distinguishing features. It is estimated there could be more than a million species in existence.

In terms of the agricultural industry, nematodes are known to cause significant losses to crops. More research is needed into this mysterious organism if future outbreaks are to be prevented.

To improve their knowledge of nematodes, Herti Endang Rosmayani from the Indonesian Department of Agriculture and Nigerian University scientist Mohammed Auwal Hassan, spent two weeks in Australia with the support of the Crawford Fund.

The trainees participated in the biennial "Nematodes in Cropping Systems" workshop at the University of Adelaide where they learnt the basics of sampling, extracting, processing and identifying nematodes. They also shared their local knowledge of nematodes with other participants including AQIS quarantine pathologists, state and private diagnosticians, graduate students and researchers from the Asia Pacific region.

An intensive workshop on pest nematodes also took place in Canberra, with the trainees able to learn more about Root Knot Nematodes, Burrowing Nematodes, Root Lesion Nematodes and Stem & Bulb Nematodes.

"There are still many species of plant parasitic nematode that have not been found in Indonesia. These alien species could cause a great loss to crops and food production and could be detrimental to the economy. By gaining the basic screening skills required to identify nematodes – I hope to be able to prevent an invasion and assist with appropriate measures to deal with these species," said Herti Endang Rosmayani.



Herti Endang Rosmayani and Mohammed Auwal Hassan

22nd International Grasslands Congress

Sydney 15 - 19 September 2013

Revitalising Grasslands to Sustain our Communities

Abstract submission now open!

The Crawford Fund is pleased to be supporting the 22nd International Grasslands Congress on Sunday 15–Thursday 19 September 2013.

The program will explore the current issues facing grasslands around the world and share the latest industry developments and solutions.

The Fund will be assisting with media and, as Grasslands Youth Futures sponsor, providing training opportunities for young developing country scientists.

More information at <http://www.igc2013.com/>

Northern Territory

More Guidance for PNG Floriculture

An earlier newsletter reported on the NT Committee's support for a workshop titled "Post Harvest Treatment and Marketing of Tropical Cut Flowers" organised for more than 90 people, mainly women, interested in growing flowers as a business in PNG. The course was run by Darwin horticulturalist Jan Hintze.

The NT Committee coordinator, Tania Paul, recently reported that a colourful and practical manual for tropical gingers and heliconias has now been completed.

"A manual was developed for the 2011 training in PNG on floriculture. The Crawford Fund also supported the refinement and printing of more manuals afterwards for distribution to growers who were not able to attend the training. The small print run sold out almost immediately. The manual was so well received that the author, Jan Hintze is now considering developing the manual for a broader audience and wider publication," said Tania.

Queensland

A Closer Look at Mangoes

There are several varieties of mango that are grown in Indonesia, some of which are now exported. One of the keys to strengthening the Indonesian mango industry is to improve the way the fruit is evaluated and processed.

Horticultural Research Officer, Dondy Setyabudi, from the Indonesian Center for Agricultural Post Harvest Research & Development, travelled to Queensland in December 2011 in order to take a closer look at mango practises in Australia.

With the support of the Crawford Fund, he spent two weeks working in the DEEDI lab in Cairns in the area of quality management and learnt about the measurements for describing internal and external fruit shape and colour, determination of fruit biochemical properties, and scoring sensory and textural parameters.

Mr Setyabudi was involved in two experiments using a new Australian mango hybrid to determine the effects of cold storage and other factors on fruit quality. His training focused on quantifying specific disorders such as internal browning and lenticel damage.



Dr Roberto Marques and Mr Dondy Setyabudi at the DEEDI Postharvest Lab in Cairns

He was also able to visit a mango packing facility to see how harvested mangoes are commercially processed – including de-stemming, washing, fungicide dipping, sorting and grading.

"The opportunity to travel to Australia has been invaluable as it has not only provided me with the necessary training for evaluating mango fruit quality, but also a better understanding and knowledge of research directions and production practices for this important crop," Mr Setyabudi said.

YOUNG CRAWFORD GROUP FIRST MEETING

The Young Crawford Group is a new student organisation of the School of Agricultural Science of the University of Tasmania (UTAS), sponsored by the Crawford Fund. It organises monthly meetings to discuss a range of topics including international research and development in agriculture, fisheries, forestry and natural resources. Students attending the Young Crawford Group meetings have an opportunity to interact with professionals and learn about work in developing countries.

The first Young Crawford Group meeting was held in March, with 35 people attending, of which most were



Josh addressing the first Young Crawford Group meeting in Tasmania

undergraduate students from the School of Agricultural Science. There were also a number of exchange students, Master students and PhD candidates, as well as TIA staff members who came along to show their support.

Dr Neville Mendham, Former Senior Lecturer in Agronomy at UTAS and Coordinator of the Crawford Fund's Tasmania Committee explained the organisation's objectives and why it was founded, and emphasised that the group would like to reach more young people. He also talked about the annual Parliamentary Conference in Canberra, which is held to facilitate the discussion of burning issues in the field of International Agricultural Research and for which there is support for attendance by a young Tasmanian agricultural student.

Josh Scandrett, who attended the Crawford Fund conference last year thanks to a Crawford Fund Scholarship, gave a presentation during the meeting about AusAID's Australian Youth Ambassadors for Development (AYAD) Program, which supports 18-30 years old volunteers in 3-12 month posts. The Crawford Fund has partnered over a

decade or more with the program to facilitate communication graduates in positions with international centres. And each round, there are positions available more generally in agricultural development. Josh explained that as an AYAD volunteer he joined a project coordinated by ACIAR and UTAS, working for nine months in Vietnam on the improvement of pasture species that have a better tolerance to water logging and salinity. He talked about the challenges of working in a cross-cultural setting. During the discussion, Josh was asked what he thought he had brought to the project in exchange for the knowledge he had acquired about Vietnamese farming practices. He said that he was able to share his agronomic and scientific skills during the exchange.

At the end of the event, a survey was sent to participants in order to get their feedback and improve the organisation of the following meetings.

A Facebook page has also been created for the Young Crawford Group and can be found at www.facebook.com/YoungCrawfordGroup.

CONTRIBUTORS

Warmest thanks to the following who, in addition to several individual donors who wish to remain unnamed, have made financial contributions to the work of the Crawford Fund in 2011/12, including in-kind assistance for our 2011 annual conference:

ACIAR
AusAID
Austraining International Pty Ltd
AVRDC - The World Vegetable Center
CSIRO
Co-operative Bulk Handling Limited
Department of Agriculture WA
Department of Agriculture, Fisheries and Forestry
Department of Foreign Affairs and Trade
Department of Primary Industries - Victoria
Department of Primary Industries, Parks, Water and Environment
Grains Research and Development Corporation
Industrial Research Ltd
International Livestock Research Institute
International Fund for Agricultural Development
International Rice Research Institute
NSW Department of Primary Industries
Primary Industries and Resources SA
QLD Dept of Employment, Economic Development & Innovation
QLD Dept of Environment and Resource Management
Ruth and Des Bright
South Australian Research & Development Institute
The University of Adelaide
The Waite Research Institute
Worldfish Centre

DONATIONS CAN BE ADDRESSED TO:

The Chairman
The Crawford Fund
PO Box 4477
Kingston ACT 2604



THE CRAWFORD FUND
For a Food Secure World

Shared Anniversaries

2012 is a special year for the Crawford Fund and ACIAR, with both organisations celebrating milestones.

"It seems quite fitting that the Crawford Fund and ACIAR can each celebrate their achievements in 2012. We can be equally proud of our close association and related histories from the earliest days of Sir John Crawford's involvement in the establishment of ACIAR," said Dr Denis Blight, Executive Director of the Fund.

The Crawford Fund celebrates 25 years working to increase Australian engagement in international agricultural research, development and training to the benefit of Australia and developing countries, and to make those benefits more widely known so as to sustain community and government support.

As part of the celebrations, a book about its founder, Prof Derek Tribe, and the Fund, written by Prof Lindsay Falvey, former Chair of Agriculture at the University of Melbourne, will be launched at the Crawford Fund's conference in October. Copies will be available through our website.



Cultivating partnerships to improve the lives of smallholder farmers

In 2012, ACIAR celebrates its 30th year of providing agricultural research aid to poor smallholder farmers and rural communities across the Asia-Pacific region and Africa. They can be proud of their achievements, having a track record of almost \$32 billion worth of benefits in those 30 years.

As noted by ACIAR's CEO Nick Austin in their recent annual report "We acknowledge our achievements but have our attention firmly fixed on the world's serious continuing food security challenge. The urgency of the situation and the changing global landscape—urbanisation, climate change, new technology, changes in economic order—all provide an impetus to look for new ways of doing business and new and improved partnerships."

For readers who do not already receive ACIAR's "Partners" magazine, you can go online to order your complimentary copy of the special anniversary issue at www.aciar.gov.au or email aciarc@nationalmailing.com.au.



Congratulations to IWMI

On World Water Day in March, the Stockholm International Water Institute announced that the International Water Management Institute (IWMI), headed by Australian Dr Colin Chartres, is the 2012 Stockholm Water Prize Laureate. The awarding committee cited IWMI's extraordinary contribution to the development of 'new policies and investments in agriculture that have not only enabled more productive use of water, but have enhanced food security, economic development and environmental health around the world.' In accepting the prestigious award, Dr Chartres noted: "The real winners are IWMI's dedicated staff members and partners who, for just over a quarter of a century, have consistently delivered scientific research of the highest quality."

IMPACTS FROM TRAINING

Cleaning Up Potato Production in PNG

Sweet potato is a staple food and potato an important food and cash crop in PNG. Both are seriously threatened by diseases. The Crawford Fund has supported training for three women who are now providing PNG with a front line in virus identification and elimination, and in the multiplication of clean material so PNG can develop and further test potato varieties and multiply them to provide to farmers.

Potato plant material cannot be imported into Australia for virus testing so it's particularly important that virus diagnosis on both sweet potato and potato can be carried out in PNG independently and the skills can also be applied to other food crops as well. Unfortunately, until recently there was no virus diagnostic capability in PNG so to help develop PNG scientists' capability and capacity, the Crawford Fund supported a training program for three PNG technicians into methods used for virus identification and elimination.

Winnie Maso works in the micro-propagation lab in Aiyura, mainland PNG; Niligur Rangan was at another tissue culture lab which unfortunately has recently burned down, and Dorcas Homare is with the National Agricultural Research Institute and involved in an important ACIAR sweet potato project lead by Dr Mike Hughes at Queensland's DEEDI. Dr Rudolf (Dolf) De Boer from DPI Victoria, working on an ACIAR potato project, was keen to extend the basic training Dorcas

had done in sweet potato viruses so she could also work on potato viruses. The three women have spent time in Victoria and Queensland honing their skills to help PNG battle potato and sweet potato viruses and move PNG to multiplication of virus free samples of both for farmers.

Late blight of potatoes is the disease that was responsible for the Irish potato famine in the mid-nineteenth century. It is one of the most devastating diseases of potato worldwide. A 2003 outbreak of the disease spread rapidly through potato growing regions. More recently, a high incidence of what was thought to be leaf roll was being noticed in PNG.

The Australian Centre for International Agricultural Research has had a project underway, headed by Dolf to find suitable resistant potato varieties for PNG farmers. With assistance from the International Potato Centre, advanced breeding clones were evaluated of which twelve have been selected for extensive evaluation trials, which require the production of significant numbers of seed potatoes of each variety from tissue culture. The adoption of the best of these by farmers depends on the production of a consistent supply of quality, healthy seed potatoes.

While being a key staple crop, yields of sweet potato have been in decline for some time, thought to be due to a combination of pests, diseases and physiological factors. To help with the production of a pathogen-tested scheme to produce high health planting material in PNG, skills are needed in identifying

the viruses that affect sweet potato. This material can then be multiplied by PNG's seed potato multiplication and certification program, which is managed by the Fresh Produce Development Agency (FPDA).

"This training not only helps PNG, but also Australia. For example the work around Late Blight helps enhance Australia's disease awareness and preparedness, and assists the biosecurity of the region," said Dr de Boer.

Since returning home, Dorcas conducted ELISA virus tests in her lab and confirmed the presence of the Potato Leaf Roll Virus in potato leaf samples that were sent to her from around the highlands of PNG. This is a first for PNG and testing would not have been possible without the additional skills Dorcas learned that extended her sweet potato testing skills to potato varieties.

"While the starting material may be virus free, once the potatoes are grown in the field, they are at further risk of infection and one of the most common is the potato leaf roll virus transmitted by aphids. The ELISA test at which Dorcas is now proficient will help the FPDA certification officers confirm the presence of the virus and track its source and spread," explained Dolf.

Winnie Maso manages the production of both potato and sweet potato plantlets. She currently oversees the production about 10,000 potato plantlets per month (and every month) for FPDA, a very high output. The training she undertook in Victoria with Crawford support was to help her improve the efficiency of the lab and improve the quality of the material she produces. And Niligur's further training means that PNG has backup for Winnie in the event of a serious failure in the system.

So the sweet potato and potato projects share common ground with regard to the skills required for virus identification, virus elimination (from germplasm) and micro propagation, and the Crawford Fund training has helped with the key personnel needed to ensure the material is virus free, as well as multiplying the material for farmers' use.

"I am hoping that their skills can now be used to support other crops in PNG and ensure the timely identification of viruses, their elimination and the multiplication of clean material for farmers," said Dolf.



Dorcas Homare conducting potato virus ELISA test during training at DPI Knoxfield labs in Victoria Credit: Brendan Rodoni, DPI Vic



Australia in the Asian Century

The Crawford Fund's research project "A Wider Canvas for International Agricultural Research" has been launched and is on track to produce a series of briefs analysing key emerging trends on the future research agenda and potential new funding streams for such research. The overview of our project is on our website and we welcome your input on issues that could be considered as part of the analysis of emerging trends for international agricultural research and food security.

To further position agricultural development in the national policy debate, the Fund has made a short submission responding to the Issues Paper distributed as part of planning for the Australian Government's White Paper on "Australia in the Asian Century." The White Paper is to consider the likely economic and strategic changes in the region of Asia's transformation and the Fund's submission noted that greater emphasis might be given to agriculture.

We noted that success in agriculture and rural development has underpinned economic growth in every country in Asia with the possible exception of Singapore and by and large, this success has been driven by improvements in agricultural productivity arising from policy, research and infrastructure development.

Even the poorest of countries have benefitted. Cambodia is now for example a net exporter of rice. With reform in Burma, the chances of it resuming a role as a rice bowl in Asia must be greatly enhanced. Australia has been a key contributor through agricultural research.

Some excerpts follow from the Crawford Fund submission:

Development in Asia and the growth of its burgeoning middle class, with a demand for higher quality and more sophisticated food products have created particular opportunities for Australian agriculture. But success will require innovation and change in the sector – including a change in mindset and marketing.

Australia has great strengths in agriculture and rural development but faculties of agriculture in our universities are weakening through lack of investment. CSIRO and State and Territory Departments of Agriculture are also underfunded. Who is to provide this investment?

We should not rely on exports of produce alone but seek to meet market demand for advanced agricultural technologies, higher-level research and training services, and new products and services. Our strength in agriculture is a renewable resource but someone has to invest in the renewal.

Australia has a long history of international collaboration in innovation, and research and development in agriculture, mostly fostered under aid programs and more recently through the work of the Australian Centre for International Agricultural Research. In some cases, the partnerships formed through this collaboration have endured beyond the development assistance phase. In others, the finite nature of aid programs and the lack of adequate mechanisms to look beyond the aid phase have meant that the partnerships have not survived much beyond aid funding. This stands in contrast to the successful aid to trade transition in the education sector. The contrast is worthy of analysis.

The Crawford Fund Board of Directors

The Hon. John Kerin AM FTSE

Chairman of the Crawford Fund, former Minister for Primary Industries and Minister for Trade and Overseas Development

The Hon. John Anderson AO

Former Deputy Prime Minister and Leader of the National Party

Mrs Sallyanne Atkinson AO

Special Representative for Queensland Government in South East Asia

Dr Robin Batterham AO FEng FAA FTSE

President of the Australian Academy of Technological Sciences and Engineering

Dr Denis Blight AO FRSA

Executive Director of the Crawford Fund and former Director-General of CAB International

Mr Terry Enright

Former Chairman, Grains Research and Development Corporation (GRDC)

Em Professor Helen Garnett PSM FTSE FAICD

Chair ABIN Board of Management

Dr Tony Gregson AM FTSE

Chairman of Plant Health Australia and Former Chair of the Board of Trustees of Bioversity International

Dr Margaret Hartley FTSE

CEO
Australian Academy of Technological Sciences and Engineering

Mr Ian MacKinnon

Tasmanian Agriculturalist and Former Chairman, GRDC Southern Panel

Dr John Radcliffe AM FTSE

Former Deputy Chief Executive, CSIRO, and Director-General of Agriculture, South Australia

The Hon Margaret Reid AO

Former President of the Senate and Liberal Whip

Mr Michael Taylor AO FTSE

Former Chairman, Murray Darling Basin Authority

What is the Crawford Fund?

The Crawford Fund's purpose is to encourage investment in international agricultural research (IAR) by governments and the private sector, in the belief that it is an essential, high priority, international activity.

We believe that IAR holds the key to alleviating rural poverty in developing countries, and can thus open the door to economic progress. Good news is worth sharing, and the Fund's Public Awareness Campaign increases understanding of the importance and potential of IAR, its achievements and needs.

The Fund also has a training program that fills a niche by offering practical, highly focused non-degree instruction to men and women engaged in agricultural research and management in developing countries.

HIGHLIGHTS is the Crawford Fund newsletter. Letters from readers are welcome and should be sent to the editor, Cathy Reade at cathy.ream@crawfordfund.org

Highlights and other publications and materials are on our website: www.crawfordfund.org

Thanks to ACIAR and the CGIAR centres for the use of their field photos in our newsletter.

CONTACT THE CRAWFORD FUND

For further information contact:

The Crawford Fund
Mail: PO Box 4477
Kingston ACT 2604
Office: Level 3
10 National Circuit
Barton ACT 2600
P: 61 2 6188 4370
E: Crawford@crawfordfund.org
www.crawfordfund.org
ABN: 86 141 714 490



THE CRAWFORD FUND
For a Food Secure World

Awards and Training Courses supported by The Crawford Fund July 2010-11

The following awards to individuals and courses for groups will be reported in future newsletters:

Training awards to individuals:

Dr Samran Sombatpanit - Thailand - LandCon e-library: our gift to the earth

Dr John Moran - Australia Reference Books: "Rearing young stock on tropical dairy farms in Asia" and "Managing high grade dairy cows in the tropics"

Mr Yiyi Sulaeman - Indonesia - Follow up on digital soil mapping

Ms Nicola Wunderlich - Australia - IRRI Rice Production Course

Training courses to groups:

More efficient use of nitrogen fertilisers in sub-Saharan Africa - *Dr Deborah Pritchard - April 2012*

Train the trainer in participatory trialling techniques - *Mrs Marg Cover - February 2012*

Enhancing insect identification skills to support ongoing health surveillance in the Pacific - *Dr Simon Lawson - December 2011*

East-African Landcare Master Class 2012 - *Ms Mieke Bourne - March 2012*

Code of practice for the sustainable management of forests and tree resources - *Graham Wilkinson - March 2012*

Fish ageing training workshop - *Craig Proctor - April 2012*

Study tour of Australian Statistics - *Helen Baird - March 2012*

Capacity building in Laos IDM of Durian dieback, diagnostic training and mentoring program - *Lester Burgess - March 2012*

Diagnosis, biology and integrated disease management of soil-borne fungal diseases of cereals - *Lester Burgess - May 2012*

Biometrics training rice, field crops and horticultural crops research - *John Schiller - March 2012*

Soil and water sampling for rice based agriculture - *Ben MacDonald - March 2012*

Alan Finkel to head technology Academy

The Crawford Fund was originally established as an initiative of the Australian Academy of Technological Sciences and Engineering (ATSE) and has had a series of ATSE Presidents supporting our work as members of the Board.

It was recently announced that Dr Alan Finkel, a prominent Australian engineer, entrepreneur and philanthropist, will be the next President of the Academy. Dr Finkel, Chancellor of Monash University, will take up his new role on 1 January 2013, succeeding former Australian Chief Scientist Professor Robin

Batterham, who completes his term at the end of 2012.

In thanking Professor Batterham for his support for the Fund, the Hon. John Kerin said that he looked forward to Robin's active participation on the Board in the months ahead and to his continued participation in Fund activities in the future. "As someone with a genuinely broad appreciation of the role of science and technology in the pursuit of economic growth and the wellbeing of Australia and its people he expected that Professor Batterham would be in a position to do so with flair and wisdom."