INTERNATIONAL AGRICULTURAL RESEARCH IS AID THAT WORKS - FOR AUSTRALIA AND DEVELOPING COUNTRIES

Collaborative projects on wheat varieties, fertilisers, cereal diseases, biosecurity, arsenic contamination and ground-water management are just some examples of international agricultural research, involving South Australian institutions and researchers, delivering benefits to South Australia. Other activities are being undertaken in capacity building in scientific writing, extension and young scientists' career development.

Much of the aid-funded agricultural research work is undertaken through projects funded by the Australian Centre for International Agricultural Research (ACIAR), and is assisted by training funded by the Crawford Fund.

Current and pipeline ACIAR projects involving South Australian organisations account for a total expenditure commitment of approx $64 million for 36 projects. This work has involved partnerships with researchers throughout Asia and the Pacific and is having a positive impact on South Australian agriculture too.

> ***"The reasons for Australia being involved in international research and development assistance are at once altruistic and self-interested with tangible and non-tangible benefits; and our involvement is of immense benefit to our international and trade relations."***
>
> - The Hon John Kerin AM FTSE
> Chairman, The Crawford Fund
> and The Hon Tim Fischer AC FTSE
> Former Chairman, The Crawford Fund

The Crawford Fund's purpose is to make more widely known the benefits to Australia and internationally from international agricultural research. The Fund conducts a range of public awareness activities, researches food security issues, arranges specialist training in Australia and overseas for developing country scientists, and conducts master classes for developing country personnel in key topics in agricultural R&D.

For more information:

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Our "Doing Well by Doing Good" report is available on our website or by contacting the Crawford Fund

The Fund's **South Australian committee** supports South Australian institutions and scientists to deliver training that benefits those involved in both developing countries and Australia.

By working with the Fund, institutions can gain further rewarding involvement in international agricultural research.

Are you involved in an agriculture for development project that would benefit from training for your developing country partner scientists?

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INTERNATIONAL AGRICULTURAL RESEARCH WORKING FOR...

SOUTH AUSTRALIA

THE CRAWFORD FUND
For a Food Secure World

The Crawford Fund believes that international agricultural research delivers a wide range of benefits to Australian agriculture.

It also holds the key to alleviating rural poverty in developing countries, opening the door to economic progress and serving our national interests of regional stability. By supporting agricultural research, Australia is "Doing Well by Doing Good."

The Crawford Fund provides an avenue for Australia's highly experienced agriculturalists to exchange knowledge with their counterparts in developing countries.

> ***"Supporting agricultural research for food security provides Australia with benefits worth more than we spend on it through our aid program."***
>
> - The Hon Neil Andrew AO, SA horticulturalist,
> former Speaker of the House of Representatives
> and Chair of the Doing Well by Doing Good Task Force






THE CRAWFORD FUND'S SA PROGRAM...

involves **Adelaide University**, **CSIRO, Flinders University, Primary Industries and Regions South Australia**, **South Australian Research and Development Institute (SARDI), University of South Australia** and private consultants.

In the past 14 years there have been over 90 projects supported in more than 35 developing countries.

The project formats range from in-country courses for groups, to visits to SA institutions by individual scientists.

Below are examples of some of the training we have supported:

- aquaculture and infant pig mortality in Vietnam
- agroforestry in Cambodia
- scientific writing in English in China, Indonesia, Papua New Guinea and Vietnam
- extension methods for rice/wheat rotation in northern India
- agronomy for lecturers from Eritrea
- cereal root diseases for pathologists from Turkey
- insect identification and biosecurity in the Pacific Islands
- ground-water systems in Laos
- grain legume nutrition in Argentina
- arsenic management in water in India and Bangledesh
- applying Landcare methods to small farms in Kenya
- cereal root pathology for pathologists from western Asia, India and northern Africa
- soil borne pathogens of wheat in China
- improved crop production in southern India
- salt tolerance in lucerne in China
- molecular plant breeding techniques for Nepal
- soil fertility indices for crop production for Pakistan
- dryland farming systems for Iraq and Tunisia
- conservation farming and erosion control in Ethiopia
- biological control of plant parasitic nematodes in Indonesia
- chicken nutrition and management in Papua New Guinea
- phosphorus application in the mountains in Cameroon

We also sponsor young scientists to attend the annual Crawford Fund Conference to increase their understanding of global food security issues and develop professional networks with Australian leaders in international agricultural research.

EXAMPLES OF RECENTLY SUPPORTED PROJECTS

Improving access to research

Asia is developing significant scientific expertise, but for others to benefit from the science, and for the scientists' own professional development, it is important that it is published in English. Many of Australia's **ACIAR** programs also require reports to be published in English. For these reasons, we have provided funding for a number of train-the-trainer courses in scientific writing, run by the **University of Adelaide,** in China, Indonesia, Papua New Guinea and Vietnam.

The number of our scientists involved with international research centres is like Australia's Olympic medal tally, with a disproportionately high number represented, relative to our population. Working on international projects broadens scientists' experience and reputations which can lead to being able to attract more funding and be involved in more projects.

International recognition of Australians and our institutions

The Crawford Fund SA Committee has provided funding for scientists from Bangladesh and India to develop skills in assessing and managing naturally occurring arsenic in catchments. Analyses of soil, food and hair samples have been conducted to understand levels of arsenic contamination. Strategies to reduce the uptake of arsenic by rice crops, such as adding organic matter to the soil and selecting rice plants that have lower uptake, are being investigated. The training is increasing the international recognition and skills of the **Centre for Environmental Risk Assessment and Remediation** at the **University of SA**, which is the only one of its kind in Australasia.

"Australia has benefited enormously from international agricultural R&D. Take firstly the case of Australia's relationship with CIMMYT (International Maize and Wheat Improvement Center). When last surveyed, 70% of Australia's wheat varieties had a CIMMYT wheat line in their pedigree."

- ANDY BARR
Affiliate Professor, University of Adelaide, Farmer and recent Chair of the Board of Trustee for CIMMYT, Mexico

Biosecurity and exotic disease readiness

Australian agriculture is very reliant on keeping out plant pests and diseases. **University of Adelaide** training workshops we have supported have improved capacity in neighbouring Asian and Pacific Island countries in insect and disease identification, including the use of DNA techniques. Our Master Class in Citrus Greening means the citrus industry benefits from better awareness and readiness for this devastating disease which is present in countries such as Indonesia. Improving our neighbours' capacity is an important part of our own pre-border biosecurity systems.

Making a real difference

We provided both funding and expertise for a workshop of 20 extension, policy and industry staff from Ghana, following a study tour of SA and Victoria that was funded by the Australian aid program. The workshop resulted in the group committing to apply a number of actions in Ghana to improve the role of women in agriculture, to improve the cooperative marketing system and to improve research/farmer interaction.

Common problems, shared solutions

Dr Albert Rovira, former coordinator of the SA Committee, has significant international standing over a career in soil borne diseases of cereals. He has been the driving force behind many years of training and collaboration with China and with **CSIRO** and **SARDI**. This included the Chinese first identifying, appreciating and eventually treating their problems with soil borne diseases of wheat. Our training, ongoing collaboration and the exchange of information continues, specifically on wheat varieties resistant to cereal cyst nematodes, which cause major production losses in both countries. The strong scientific relationships in this area and exchange of scientific knowledge is a win-win for both Australian and Chinese agriculture.