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INQUIRY INTO AUSTRALIA'S INTERNATIONAL RESEARCH COLLABORATIONS

Attached is the Department of Primary Industries, Parks, Water and Environment ("the Department") submission to the Inquiry into Australia's international research collaborations.

The Department's response has been developed in consultation with the Tasmanian Institute of Agricultural Research (TIAR), which is the government's provider of research, development and extension services in agriculture, and addresses each of the Inquiry's Terms of Reference.

The research, development and extension work of TIAR is integral to improving Tasmania's agricultural productivity and economic development. The benefits of TIAR's international research collaborations are manifold, including opportunities to work with overseas colleagues, draw on and learn from international expertise, and promote Tasmania's excellent reputation as an agricultural research hub.

Please contact Ms Cheryle Hislop, Policy Analyst, Agriculture Policy Group on 03 6233 6555 or email: cheryle.hislop@dpipwe.tas.gov.au if you have any further queries.

I look forward to reading the Standing Committee's report on the outcomes of the Inquiry.

Yours sincerely

Kim Evans
SECRETARY

3 February 2010

House Standing Committee on Industry, Science and Innovation

Inquiry into Australia's international research collaborations

Introduction

The Tasmanian Institute of Agricultural Research (TIAR) is a joint venture between the University of Tasmania (UTAS) and the Tasmanian State Government Department of Primary Industries, Parks, Water and Environment (DPIPWE) and has research centres in Hobart, New Town, Launceston, Devonport and Burnie. TIAR works closely with industry in research, development and extension programs to address agricultural productivity, efficiency, safe food production, and social and natural resource management issues.

TIAR's research development and extension capacity is organised into five specialist centres, namely Dairy, Vegetable, Perennial Horticulture, Extensive Agriculture and Food Safety; and has expertise in thematic areas of Value Chains, Climate Change, Natural Resource Management and Rural Social Research. These research themes operate across all of TIAR's research activities.

TIAR has 180 staff members and 83 postgraduate students, and manages a research portfolio in excess of AUD\$14 million. The Institution currently manages in excess of 200 projects, with funding being provided from a diverse range of bodies including the Commonwealth and State governments, the CSIRO, the Australian Research Council, Research and Development corporations and industry bodies.

The cornerstone of TIAR's success and growth is an exceptional team of scientists and a strong culture of working in partnership with industry and other research providers, both nationally and internationally.

The Tasmanian Institute of Agricultural Research Strategic Plan identifies TIAR as a "centre of excellence within a regional, national and global framework", and "a supplier of internationally competitive science".

Many of the Institution's goals and Key Performance Indicators include international components, for example: "number and calibre of international visitors"; "ability to attract international postgraduates"; and "quality and number of international linkages". International engagement is clearly a core component of TIAR's strategic approach.

STATEMENT ADDRESSING THE TERMS OF REFERENCE FOR THE INQUIRY

1. The nature and extent of existing international collaborations:

- i. Full or partially externally funded postgraduate degree students.
 - These include 18 Masters Degree students whose curriculum involves both research and course work, and several full fee-paying PhD students and numerous other postgraduates studying at TIAR courtesy of international award sponsorships. Postgraduate research topics include food safety, agronomy and physiology which are of value to the students, their home institutions and Australia. Foreign postgraduate students (including those on various permanent resident visas) can contribute up to 50% of the postgraduate research output for TIAR.
- ii. Joint management/attendance of international symposia
 - TIAR recently provided scientific leadership during the 6th International Walnut Symposium in Melbourne and the International Horticultural Science Congress in Lisbon, Portugal (2010). This will be followed by strong involvement in the next International Horticultural Science Congress in Australia in 2014.
 - TIAR staff frequently attend meetings with an international focus, both in Australia and overseas either as keynote speakers or as delegates. Most postgraduate students attend at least one international symposium in the course of their research degree, and most staff attend international conferences at least once every two years.
- iii. Joint involvement in international research consortia
 - This is a major component in the pure research, practical research and international AID areas of effort. For example, a major consortium (\$12m over 4 years) involving New Zealand and Australian state agencies is providing information on apple agronomy, with half the work in New Zealand and numerous reciprocal visits. Substantial funds come from both Australia and New Zealand.
 - A four year \$2m project funded by the Australian Centre for Agricultural Research (ACIAR) is a highly practical project developing Australia's understanding of vegetable production systems and delivering that information in conjunction with Papua New Guinea (PNG) collaborators to PNG.
 - Similarly a small, internationally funded project (\$100,000) has looked at pork value chains in Canada and means of developing Australian

expertise in this area. This project has also been of direct benefit to Canadian researchers.

- Numerous other international consortia involving TIAR, together with other Australian and international collaborators and with various levels of Australian and international funding, are being undertaken in partner countries around the world, including Mexico, Vietnam, UK, China, and Taiwan.

iv. Conjoint postgraduate degrees

- These are being created with several universities of international high standing. For example, negotiations are currently underway with academic institutions in China, Taiwan and the Philippines, and TIAR is also involved in discussions with Malaysia. The purpose is to jointly fund and supervise postgraduate projects of value to both organisations.

v. Visiting researcher program in both directions:

- In any given year there are several researchers from TIAR at international institutes and several international visitors working at TIAR. For instance, Professor D McNeil (TIAR) will spend seven months at the University of Canterbury learning improved value chain methodologies during 2010. Dr M Whiting from the USA recently spent time at TIAR during 2009 researching cherries and developing an international joint project to continue beyond the term of his sabbatical. In 2010 TIAR will host a senior Mexican University researcher as part of our world-leading MIFE project which looks at membrane transport systems.

2. The benefits to Australia from engaging in international research collaborations.

International research collaborations bring additional resources to Australia as well as provide access to international research outputs. They also increase research value by attracting students, funds, knowledge and skills. This in turn enhances our capacity to retain and attract internationally competitive researchers, and participate in projects that are not (and cannot be) fully funded in Australia. They improve our intellectual capital by exposing our researchers to alternative viewpoints and provide valuable training opportunities for Australian students and researchers.

3. The key drivers of international research collaboration at the government, institutional and researcher levels:

The key drivers of international research collaborations at the government, institutional and researcher levels are captured in the response to the second Term of Reference.

4. Impediments faced by Australian researchers when initiating and participating in international research collaborations and practical measures for addressing these.

A major impediment in engaging with international collaborators within the standard ARC funding system is the lack of ability to provide financial support to activities being undertaken off shore.

While ARC discovery (and linkages) aims to support Australian researchers, there is often considerable benefit in engaging with overseas research agencies, however there is no financial support available for overseas collaborators. This often limits the involvement significantly (or precludes it if the agency for which they work demands the provision of infrastructure costs).

Provision for a proportion of the total budget that could be spent offshore on legitimate expenses (for example, travel for collaborators, off shore trial work, compulsory infrastructure costs) would enable greater participation within these schemes.

Another developmental area for consideration would be the creation of new framework level funding to support major international program initiatives centred in Australia but with major input from key international researchers and groups targeting key research priority areas.

5. Principles and strategies for supporting international research collaborations:

A fundamental principle is that it should be recognised that international research engagement furthers the strategic interests of Australia science. Overarching strategies that should be considered include:

- Attracting international students by providing scholarships, conjoint degrees, and suitable infrastructure for their work in Australia;
- Encouraging jointly funded projects via competitive programs such as ACIAR and the Research and Development corporations which cover Australian science information needs as well as providing information to benefit our international partners.
- Ensuring that researchers have the opportunity to work with top quality international research institutions relevant to areas of research that complement our capabilities.
- That Universities have policies for the provision of sabbatical leave and visiting research scholar funds;
- Promoting access to international programs among staff and using commercial providers (for example, Uniquest) to assist in developing international funding for commercial research projects; and
- Incorporating international collaborations in individual staff performance plans.