



Mr Gary Banks
Chairman
Productivity Commission
LB2 Collins Street East
MELBOURNE VIC 8003

Dear Mr Banks

Rural Research and Development Corporations Inquiry Submission

AgriFood Skills Australia (AgriFood) is a significant stakeholder in Australia's rural and related sectors. It is an independent not-for-profit company established by the Australian Government to identify and address the skilling and workforce needs of our industries. AgriFood welcomes the opportunity to provide this submission to the Productivity Commission's Inquiry.

AgriFood Skills Australia

AgriFood's mission is *"sustainable economic growth of agrifood industries through world class capabilities"*.

AgriFood's major industries include the following sectors:

- Food processing, beverages and pharmaceuticals manufacture;
- Rural and related industries – agriculture, horticulture, conservation and land management, and animal care;
- Meat including abattoirs, small goods and meat retailing;
- Seafood – aquaculture, fishing and fishing charter operators and seafood processing;
- Racing – thoroughbred, harness and greyhound.

While working across these sectors to enhance productivity in the workforce through capability development at the individual and enterprise levels, AgriFood is also seeking to broaden its engagement with Research and Development Corporations to drive the extension and adoption of research outcomes and best practice. Agriculture and other primary industries have always relied on and been early adopters on R&D outcomes and innovation, and this is now an even higher priority due to declining levels of productivity in these industries over the last decade.

AgriFood sees the need for closer engagement and collaboration with RDCs, particularly on extension and adoption of research outcomes.

AgriFood draws on widespread industry networks and active stakeholder engagement to undertake its roles which are to:

- Collect industry intelligence and advise business and government on workforce development and skill needs Australia-wide;
- Actively support the development and implementation of quality skills training arrangements and related services;
- Provide independent skills and training advice to businesses, including matching identified skills needs with appropriate training solutions;
- Promote the benefits of skills development and training to industry enterprises, employers and employees.

Our Sectors

Together AgriFood's sectors generate approximately \$200 billion a year, representing 46% of retail sales and 17% of exports. Almost 900,000 people work in the agrifood industry and there are over 184,000 enterprises ranging from small one person operations to multi-international enterprises with thousands of employees.

AgriFood industries are responsible for nearly two thirds of Australia's landmass and these sectors are an important source of employment in regional and rural Australia.

Environmental Scan

AgriFood undertakes a major environmental scan each year into the skilling and workforce development challenges of our sectors. The last report was published in March 2010 and highlighted four key issues that necessitate unprecedented collaboration between government, industry and AgriFood on a reconceived training system and the policy that underpins it, namely:

- Attraction of workers;
- Adoption of higher level skills across the workforce;
- Adoption and diffusion of new research, practice and technology across the industry;
- Workforce retention and effective skill utilisation.

These four key issues are being addressed against a background of what has been quoted in AgriFood's 2010 Environmental Scan as 'a perfect storm of shortages'. 2050 has been quoted as the year we will reach 'peak humanity' – a world population of some 9.1 billion that will demand a 70% increase of food, feed and fibre output. 2030 is considered a key year when existing food production levels need to increase by 50% from a trajectory of reducing resources including arable land, diminishing fossil fuels, an increase in erratic and warmer climate and less water.

Industry's challenge is to increase output with fewer resources. Therefore, research and development into rural and related industries, and more importantly the adoption and diffusion of research findings to drive innovation and best practice, will continue to be paramount to achieving increased productivity.

Research underpins innovation and innovation drives productivity. It is in this context that AgriFood Skills Australia strongly endorses the work of the Research and Development Corporations and enhanced funding from Government, coupled with a new emphasis on extension and adoption of research outcomes.

ABARE (2010) advises that agricultural productivity has continued to decline for almost a decade. The reduction in research funding over a longer period has contributed to this decline. AgriFood is seeking to extend its engagement RDCs (and CRCs) to address two key challenges identified in the 2010 Environmental Scan, namely:

- Adoption of higher skill levels across the workforce; and
- Adoption and diffusion of new research, practice and technology.

Adoption of higher skill levels across the workforce

Within agrifood industries, adoption of higher skill levels across the workforce remains a key strategy in meeting the challenges which lie ahead and will involve:

- Diffusing new and emerging skills across the workforce through a targeted, building blocks approach to delivery; and
- Increasing workforce language, literacy and numeracy proficiency, and core skills of the workforce.

The quantum shift needed in technology and science and how this will impact on the workforce development and productivity is significant. RDCs play a crucial role in the development of this technology and scientific advancement, but a key challenge is to hasten the uptake of research outcomes through structured extension and adoption.

Maintaining effective research efforts requires skills across a range of scientific disciplines in soils, biotechnology, plants, animal and aquaculture sciences and environmental sciences. These skills form the basis of career pathways for professionals and flexibility to 'jump' between research organisations and industry. An additional challenge is due to the nature of the rural and related sectors, where human and physical resources must be spread geographically to meet the needs of the specific rural sectors.

For a considerable time, universities have been advising on falling demand for agricultural science courses. This is also reflected at the school level with a reduction in schools offering agricultural science as a subject, and a decrease in the numbers of teachers trained to teach it.

The reduction in public funding of rural and related research and development over more than a decade has seen the loss of research positions and career pathways available to research professionals.

Jobs in the rural and related sectors at all levels are requiring increased language, literacy and numeracy proficiency to successfully undertake higher level jobs. For the sector to remain competitive on a global scale, these skills will be fundamental in ensuring that workers will be able to implement new research and technology outputs and keep their knowledge and skills up-to-date.

Government at all levels needs to have a clear long-term commitment to supporting effective research and development in the rural and related sectors, and to provide sufficient funding support for research organisations to be effective. Similarly, industry contributions need to be maintained at least at the current levels. This will provide long term career paths for professionals and ensure the retention of knowledge. RDCs are a significant component of this long-term commitment and to achieving strong research outcomes.

AgriFood is enhancing its engagement with RDCs and government to assist with the development of higher skill levels across the workforce to help drive productivity gains for the rural and related industries. This will be focused on assisting with extension and adoption through the specialist training to facilitate these processes.

Adoption and diffusion of new research, practice and technology

Research and development is a major driver of innovation in the agrifood sector and its ability to respond to market forces. It also has been a significant factor in maintaining strong productivity growth over several decades through which the agrifood sectors have withstood the effects of declining terms of trade, enabling it to maintain its international competitiveness and profitability, and grow its contribution to the Australian economy.

The ABS estimates annual rural research and development at \$1.5 billion. This includes private research and development, State government, RDCs, universities, CRCs, the CSIRO and other agencies. This figure includes manufacturing of rural products research but excludes environmental research in the rural industries.

RDCs account for approximately 33% of rural research and development expenditure and, as a model, have been successful in leveraging additional resources from industry and other organisations to improve research outcomes.

One area that requires further consideration is the adoption and diffusion of new research, practices and technology from RDCs, without which the research outputs are not effective in achieving optimal productivity gains.

One of the biggest challenges facing Australia's research bodies is how to speed up dissemination, adoption and adaptation of new knowledge at a grass roots level and to equip managers and employees with the skills to extract ideas from research in a practical manner, and that delivers strong economic returns.

RDCs need to recognise the importance and value of vocational educational and training in providing the skills to assist with extension and adoption of research outcomes.

For Australia to legitimately reposition itself as a knowledge economy, innovation and new knowledge must occur at all levels of the workforce.

It is therefore recommended that the vocational education and training system, which is responsible for the skilling of over 85% of all job roles in the economy, becomes a key partner in dissemination and adoption of RDC outputs. AgriFood Skills Australia is ready to enhance its relationship with RDCs to support adoption and diffusion of new research, best practice and technology outputs to enhance productivity gains from government and industry investment.

AgriFood's commitment to enhancing dissemination and adoption of research outputs is evidenced by its partnership with the CRC for Sheep Industry Innovation. See attachment for further details on this partnership.

Conclusion

AgriFood Skills Australia is committed to working with RDCs, government, industry and education and training organisations to support sustainable economic growth of agrifood industries. AgriFood Skills Australia strongly endorses the role RDCs are playing in this endeavour.

AgriFood will enhance its collaboration with RDCs to support greater and efficient adoption and diffusion of new research, practice and technology utilising the vocational education and training system and extension initiatives. AgriFood Skills Australia will also work with RDCs to support the adoption of higher skill levels across the workforce to ensure greater capacity for implementation of research outputs. This will underpin national productivity improvement and maintaining global competitive advantage in the rural and related sectors.

If you would like to discuss any issues raised in this submission, or require any further details, please contact me at AgriFood on (02) 6163 7200 or email Arthur.blewitt@agrifoodskills.net.au.

Yours sincerely

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Chief Executive

25 June 2010