

Office of the Deputy Vice-Chancellor (Research)

Deputy Vice-Chancellor (Research)  
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Mr Rowan Ramsey, MP  
Chair, House of Representatives Standing Committee on Agriculture and Industry  
Via email [agind.reps@aph.gov.au](mailto:agind.reps@aph.gov.au)

Dear Hon. Mr Rowan Ramsey

**Re: University of Queensland Submission: House of Representatives inquiry into agricultural innovation**

The University of Queensland (UQ) has a long history and strong reputation in agriculture research and values the impact the university has made towards a more profitable Australian agriculture industry.

UQ is a global leader in agriculture research in subtropical and tropical production systems. Agriculture related research at UQ is one of the university's highest ranked field of research (QS - rank 15<sup>1</sup>; Shanghai Jiao Tong - rank 35<sup>2</sup>; National Taiwan University – rank 12<sup>3</sup>. The establishment in 2010 of a new UQ research institute, the Queensland Alliance for Agriculture and Food Innovation (QAAFI), in partnership with the Qld Government has doubled UQ's agriculture research capacity and has added significant impetus to agriculturally-oriented research at UQ.

UQ believes there are still opportunities for technology advances to **improve the productivity and efficiency** of the Australian agricultural industry. According to the recent 2015 ACOLA report<sup>4</sup>: *Australia's Agricultural Future*, the majority of Australian farmers are operating close to the limits of technical efficiency. The next step change of improvement will come from longer term transformational research. This type of research is not a tap that can be turned on and off with the expectation of immediate responses; it is usually a very long term investment, higher risk but with very high returns. The priority for public research funding should take this into account. Universities such as UQ can provide that long term continuous effort provided the funding arrangements for research are supportive. Schemes like the Australian Research Council, Cooperative Research Centres and Rural Development Corporations are critical funding sources for Agriculture that should be fostered to ensure that longer term more transformational research is emphasised. Better continuity of research funding will also help to attract and retain the highest calibre researchers to this sector.

**Emerging technologies** will form a key platform to achieve the next step change in efficiency and UQ is well positioned to play a key role in applying the right technological solution to the problem

<sup>1</sup> QS Top Universities 2015 Ranking in Agriculture and Forestry available at: <http://www.topuniversities.com/university-rankings>

<sup>2</sup> Shanghai Jiao Tong 2015 Academic Ranking of World Universities (ARWU) in Life sciences available at:

<sup>3</sup> National Taiwan University Ranking 2014 in plant and animal science available at: <http://nturanking.lis.ntu.edu.tw/DataPage/TOP300.aspx?query=PlantAnimal&y=2014>

<sup>4</sup> Daly *et al.* 2015, *Australia's Agricultural Future*, Report for the Australian Council of Learned Academies, Melbourne, available at: <http://acola.org.au/index.php/projects/securing-australia-s-future/7-australia-s-agricultural-future>

faced. In a recent 2015 Thomson Reuters analysis<sup>5</sup> The University of Queensland was the leading Australian university with respect to agriculture and food innovation as measured by patents lodged. The University of Queensland has successfully attracted researchers from around the university to tackle real-world agriculture problems with input of expertise from areas that may not have otherwise been involved in agriculture. Recognising the answers for the next step change may not come from within the agriculture science discipline future policies ought to encourage these types of collaborations.

Ongoing investment in research and development, both private and public in programs that are industry-led, often in partnership with rural R&DC's and CRC's, has been shown to deliver long term industry adoption. Examples of such successes include the development of Meat Standards Australia for the beef industry or the research and introduction of zero till practices for the grains industry. Private individual investment in research and development by agribusinesses (outside of levies) is limited, and schemes aligned to encourage such investment would provide enhanced impetus to increase agricultural productivity to help the sector meet future export growth opportunities.

The 2015 Northern Australia Whitepaper<sup>6</sup> outlines key policy direction for the economic development of northern Australian agriculture and the announcement of a 10 year \$75m CRC with initial focus on agriculture and tropical health. UQ supports this initiative and sees these types of long term investments as critical for increases in **agriculture profitability in northern Australia**. UQ's strength in tropical agriculture systems as outlined above can be harnessed to address these new developments in the north.

Lastly, to improve agricultural profitability UQ sees tremendous opportunity to improve value of the product beyond the farm gate. Greater value per unit production is essential if Australia is to remain competitive in world markets. Increased research focus on the technical basis for final consumer value of Australian foods so that premium price points can be justified, based on identified consumer benefits backed up by technical information. Understanding the technical basis for consumer value is also the key to the design and realisation of innovative agricultural and food products, with a particular opportunity to supply premium products to increasingly discriminating Asian consumers.

Yours Sincerely

Professor Robyn Ward  
**Deputy Vice Chancellor Research**

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<sup>5</sup> Thomson Reuters 2015, Australian Research and Innovation, a White Paper, available at <http://insight.thomsonreuters.com.au/>

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