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Tasmanian Government

25 SEP 2015

Committee Secretary
House of Representatives Standing Committee on Agriculture and Industry
PO Box 6021
Parliament House
Canberra ACT 2600

Dear Committee Secretary

Thank you for the opportunity to contribute to the House of Representatives Standing Committee on Agriculture and Industry's inquiry into agricultural innovation.

The agriculture and food value-adding industries make a significant contribution to Tasmania's economy. The Tasmanian Government recognises this and sees potential for future growth.

The Tasmanian Government's *Cultivating Prosperity in Agriculture* policy sets out its vision and plan to grow the annual farm gate value of Tasmanian agriculture tenfold to $10 billion per year by 2050. The Government is setting out to achieve this vision through co-investment in irrigation infrastructure, strategic investment in research, development and extension (RD&E) activities and supporting better skills pathways. These activities will facilitate innovation in the State's agricultural industries and support farmers and agri-food businesses to turn new ideas into long-term profit making enterprises.

Research, development and extension

Advancement of Australian agriculture to date has largely been driven by the RD&E process. The Productivity Commission's 2011 *Inquiry into Rural Research and Development* observed that individual farming businesses are unlikely to optimally invest in RD&E because each is small in size and lacks the necessary expertise. The maintenance of public and private co-investment in agricultural RD&E was seen to be essential to support the development and adoption of new technologies in the industry.

It is well recognised that farmers are generally open to new technologies provided they see a clear relevance to their business. It is important that research and development projects receiving public funding are effectively linked with potential adopters.

The Tasmanian Government recognises the importance of investing in agricultural RD&E at the State level, which it does in partnership with the University of Tasmania through the Tasmanian Institute of Agriculture (TIA) and other standalone initiatives. Under its *Cultivating Prosperity in Agriculture* policy, the Tasmanian Government has committed an additional $800 000 for research and development that will translate research into practical on-the-ground applications to better align agricultural research with the goals of farmers and industry.

The Tasmanian Government also recognises the importance of Australia's national RD&E strategy that aims to focus RD&E in nodes of critical mass that can deliver nationally important outcomes. The strategy has driven significant change in the design and delivery of RD&E which is helping to catalyse a national approach to technology development. This approach must become the norm if scarce resources are to be harnessed for maximum impact.

Precision agriculture

The profitability of agricultural enterprise is driven by the costs of inputs, yield and the price of outputs. Farmers have little or no control over price but can use new and emerging technologies to manage inputs and yield.

Traditionally, yield has been defined as the average derived by dividing total production of an output by the area or number of animals that produced it. This approach does not take into account the inherent variability in biological systems. If this variability can be recognised and managed, it offers an opportunity to increase production and profitability.

In May 2015, the Tasmanian Government with TIA and industry stakeholders launched the Precision Agriculture Project. The Project will use the latest technology to enable farmers to better match their crops and stock to weather, soil and other conditions. It will help to boost crop and stock yields, reduce fertiliser costs, limit chemical applications and costs, improve irrigation techniques and create better farm management decisions.

The Project will establish a number of commercial scale, on-farm demonstration sites to show the State's farmers the positive impacts of adopting precision agriculture technologies.

Sense-T

Based at the University of Tasmania, Sense-T is supporting innovation and improved efficiency in industries such as agriculture. It is a partnership between the University, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Tasmanian Government, and is also funded by the Australian Government.

Sense-T is helping to build an economy-wide sensor network and data resource that will create a digital view of Tasmania. It is a shared resource that will provide industry, governments and communities the tools to solve practical problems and make better decisions.

Sense-T's stage one projects were carried out in Tasmania between July 2012 and March 2015. Through these projects researchers from the CSIRO and the University of Tasmania worked with industry partners in the beef, dairy, viticulture, water management and aquaculture sectors on activities that included:

- developing an online pasture growth prediction tool to forecast pasture growth in the short term;
- developing tools to help vineyards avoid disease and make better management decisions; and

- helping irrigators in Tasmania's Ringarooma and South Esk River catchments to better manage their water use.

In May 2015, Sense-T announced it would be undertaking a second round of industry research projects which will include activities in food, viticulture, fisheries and forestry.

Sense-T is working to expand the existing sensor coverage by encouraging investment in new sensors and by working with commercial partners to develop new sensing technology that is easy to install and operate.

Other Sense-T initiatives include the Logistics Lab, a partnership with National ICT Australia, which will bring together a multi-disciplinary team to examine freight, logistics and supply chain challenges in Tasmania. The Pathways to Market project has also commenced and will focus on the supply chain for food exports destined for markets in Asia and the United States of America, with particular regard to food safety, traceability, environmental capital and the impact of consumer choices.

More information about Sense-T can be found at: http://www.sense-t.org.au/

Access to data infrastructure

The work being done through Sense-T highlights the growth in data capture capabilities. Future farmers must have the technology that allows them to easily access these types of data rich resources. This highlights the importance of infrastructure such as the National Broadband Network to rural and regional Australia and the role it will have in supporting innovation in industries such as agriculture.

Skills to support innovation and growth

The adoption of new technologies or the adaptation of existing ones, such as robotics, will impact on the quantity and type of skills needed on farms and has the potential to drive further efficiencies through reducing the need for un-skilled labour.

The Tasmanian Government is committed to providing better rural skills and education pathways through development of closer links between TasTAFE, TIA and other rural skills providers. It will also establish an industry representative body to provide advice on key areas such as future training priorities.

Genetics and gene technology

Biological diversity and selective breeding of plants and animals with desired characteristics have been fundamental enablers of agricultural production growth. Genetic modification may, in the future, provide opportunities to enhance the competitiveness of the State's agricultural sector. However, this requires careful consideration to ensure there are no negative impacts on markets or on the State's brand. The Tasmanian Government will maintain a moratorium on the commercial release of Genetically Modified Organisms into the Tasmanian environment until November 2019.

Should the Committee have any queries with regard to the matters raised in this submission, please contact Ms Libby Doughty, Senior Policy Analyst, Department of Premier and Cabinet.

I look forward to the Committee's findings.

Yours sincerely

Jeremy Rockliff MP
Deputy Premier
Minister for Primary Industries and Water