24th September 2015

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

Inquiry into Agricultural Innovation

Dear Ms Morris

The Pastoralists and Graziers Association of WA (Inc) (PGA) is aware that the House of Representatives Standing Committee on Agriculture and Industry is inquiring into Agricultural Innovation.

The PGA is a non-profit industry organisation established in 1907, which represents primary producers in both the pastoral and agricultural regions in Western Australia.

As a state farming organization, the PGA supports its membership in the operation of profitable farm businesses.
The PGA appreciates the opportunity to provide its views and comment on the inquiry.

Western Australian agriculture is largely export focussed. The importance of agricultural exports to WA's regional economy is critical. It exports over 80 per cent of its total grain production (2008/09 estimates), and in 2014, Western Australia supplied 21.6% of Australia's live cattle exports and 84.6% of its live sheep exports (MLA May 2015).

Consequently, the viability of Western Australia's agricultural industries is dependent on the industry being internationally competitive.

The ability to innovate is vital if Australia is to remain competitive and continue to take advantage of its comparative advantages in agricultural production, such as suitable land available for grazing and tillage, progressive breeding of livestock and plants, superior knowledge in animal husbandry and farming practices, transport logistics and proximity to Asian markets.

Historically the role of technology has been essential to Australian agricultural growth and productivity. Much of the innovation in chemicals, electricity, machinery, financial services and infrastructure was done in other countries.

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As innovation does not necessarily mean novel ideas per se, but rather the ability to bring these into the market, Australia appears to have a proven record of accomplishment in adapting overseas innovations to suit Australian conditions.

For example, Australian agricultural innovation has taken the form of applied technology such as breeding drought and disease tolerant wheats and merino sheep, the jump stump plough, fertiliser applications, and idiosyncratic methods of water use and capture such as dams and artesian wells, and the use of wire fencing to exclude pest animals.

However, farmers will always assess the opportunity cost of implementing innovations against lower risk choices that offer immediate farm productivity growth. Innovations that require long term funding, that are complex, and require agreement on priorities or shared intellectual property and research may be considered high risk by individual farm business units.

Consequently, the PGA makes the following suggestions that could assist farmers to innovate more;

- Agricultural accelerators and incubators, where farmers with a novel idea that stands up to scrutiny can access assistance to bring it to market.
- Doppler radar equipped weather stations to provide better local weather predictions.
- Alternative funding mechanisms such as crowd sourced equity funding.
- Accepting international standards and risk assessments from trusted international organizations to speed up the introduction of agricultural and veterinary chemicals and pesticides.
- Encourage the use of automation (gate openers, pumps and valves, etc) in remote areas through improved battery storage to supply electricity.
- Conduct research into and commercialize vaccines for common (as opposed to exotic) livestock diseases that reduce production.
- Extend research into robotics for farm process work from intensive agricultural industries to extensive farming activities.
- Extend the use of real time sensing to allow real time decision making. Moisture probes for crop production and optical sensors for livestock water supply are useful examples, as well as RFID livestock tracking devices.
- Explore the potential to introduce self-driving trucks into agriculture, following the lead of the mining and resources industries. This may require the state's Restricted Access Vehicle networks to be GPS mapped.
- Access to increased computing power to be able to make sense of information from drones, probes, robots, remote sensing, connected devices, etc. Such access could take the form of 'cloud' servers that connect farms with the rest of the world and confer the ability to update computer hardware and software continuously.
- Conduct research into pest animal genomics to allow farmers to exploit genetic vulnerabilities for feral animal control without harming non-target species.

The PGA notes that many of these developments will require access to high bandwidth internet connectivity for both mobile devices and personal computing.

Therefore, the importance to rural and remote areas of the delivery of good communications outcomes by the National Broadband Network cannot be underestimated, or the continuation of Commonwealth and state based 'mobile black spot programmes'.

Obviously, government policy settings will be crucial to engendering the confidence that businesses require to invest in innovation.

For example;
According to the Agricultural Biotechnology Council of Australia, it costs US$136 million to bring a new GM crop to market, most of which goes on gathering the data required by the regulatory system.

Considering that the World Health Organization says that "no effects on human health have been shown as a result of the consumption of such (GM) foods", and the European Commission has said "that biotechnology is no more risky than conventional plant breeding technologies", the Commonwealth Government should actively reduce the costs of regulating GM crops to remove disincentives to innovation in plant breeding.

With respect to the rural Research and Development Corporation (RDC) model, the PGA notes the gradual transition of the rural RDCs into industry owned corporations (IOC) that then pursue marketing and industry representation activities. These activities have proven contentious in the past, so much so that Government will no longer fund them.

Further, the Government subjects matching government funding for R&D to its own funding principles, and this results in the funding being expended on managing natural resources, food security, biosecurity, market access and responding to climate change.

These are national issues and they should be researched by the nation's peak scientific bodies and not by rural RDCs. The PGA maintains that by doing so, the government is suppressing innovation in the agricultural research and development sector that will result in improvements that increase agricultural productivity on farm.

Government must protect and preserve that bundle of private property rights that stem from evidence of ownership. This will encourage the type of entrepreneurial activity and innovation that is necessary to realize its value.

According to the Institute for Public Affairs (Innovation strangled by red tape), Australia ranked 124th of 144 countries on the burden of government regulation in the most recent World Economic Forum Global Competitiveness Report.

It seems likely that the increased burden of government red tape adds to the cost of entrepreneurial activity and suppresses innovation.

Much of this regulatory activity appears to be connected to the "precautionary principle".

At its simplest, this principle reverses the onus of proof such that a proponent has to prove its actions will do no harm, despite there being no evidence to the contrary.

Regulation that is based on potential adverse consequences, rather than a credible threat of harm stifles innovation by preventing market-based trial-and-error, learning and experimentation.

Regulation is singularly unable to predict the future and it can prevent entrepreneurs with new ideas from entering into markets and testing these ideas. The tangible outcome of this is fewer business entries and therefore reduced prospect of gains to firms, workers and consumers due to reduced entrepreneurial experimentation and discovery.

The PGA believes in market forces to drive change in the commercial environment. Increasing regulation leads to a reduction in innovation. Government must be careful not to confuse the costs of compliance driven change with the benefits of entrepreneurial innovation.

Yours faithfully

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