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Australian Pork Limited
ABN: 83 092 783 278

PO Box 4746
KINGSTON ACT 2604

P 02 6285 2200

F 02 6285 2288

www.australianpork.com.au

Mr Ken O'Dowd MP
Chair
Joint Select Committee on Trade
and Investment Growth
PO Box 6021
Parliament House
Canberra ACT 2600

Via email: jsctig@aph.gov.au

Dear Sir/Madam

Inquiry into Australia's Future in Research and Innovation

Australian Pork Limited (APL) welcomes the opportunity to provide a brief submission to the Committee on the Inquiry into Australia's Future in Research and Innovation ('the Inquiry') and how the research and innovation sector can better assist in overcoming Australia's geographic, economic and labour challenges.

APL is the national representative body for Australian pork producers. APL is a producer-owned not-for-profit company combining marketing, export development, research and innovation and policy development to assist in securing a profitable and sustainable future for the Australian pork industry.

The Australian pork industry employs more than 20,000 people in Australia and contributes approximately \$2.8 billion in gross domestic product to the Australian economy. The pork industry contributes approximately 2.13 per cent of total Australian farm production with roughly 1500 pig producers producing around 4.7 million pigs annually.

The following points are raised in response to the Inquiry's Terms of Reference as these related to the Australian pork industry.

Pig Productivity and Genetics

A key challenge faced by the Australian pork industry is the need to maintain local production of high quality food for a reasonable price and return on production capital invested, without negatively impacting pig welfare, the environment or the health of the consumer. Profitable pig producers are dependent on safeguarding the health and wellbeing of the pig herd, while reducing input costs and improving productivity.

APL acknowledges Australia is a participant in a global trading environment that brings inherent risks, including the spread of exotic diseases. Australia's pig herd is dependent on strong science-based biosecurity arrangements at the border, and on farm, to protect against disease incursions that could decimate the entire herd, and the industry. This high herd health is an asset underpinning the industry's reputation for quality and safety.

However, there is a negative consequence of having a "closed" genetic herd, which means that the importation of new genetic lines with higher productivity is prohibited. The result is that Australia's productivity lags behind those of major competitors such as the U.S.A., Canada and the European Union.

In order to close this gap, APL maintains strong investment in programs that underpin continuous productivity growth, with a focus on reproductive performance and progeny

viability. New biotechnologies are enabling the Australian pork industry to improve the number of piglets born per sow. More recently APL has invested in recombinant technologies to increase the number of female pigs in each litter. If successful these outcomes will be a world-first and will allow the Australian pork industry to go a long way in bridging the productivity gap between our competitors.

PorkScan

In May 2012, the Australian pork industry launched PorkScan, an AUS-MEAT approved system for measuring carcass quality. Close to a decade ago, the Australian pork industry recognised the need for stronger market signals around pork quality founded on improved carcass measurement systems.

The PorkScan system measures fat and muscle depth at the P2 site on a pig carcass using an ultrasound probe. PorkScan captures and stores measurements for every carcass on the slaughter floor, allowing producers to query results for particular carcasses with their processor if required.

While the P2 fat depth measure provides an effective replacement for other mechanical measurement probes, fat depth is only 60 per cent reliable in predicting carcass lean meat yield. Research into a laser light striping system to measure lean meat yield of pig carcasses was also conducted as part of the consortium project.

This system involves laser light beams being emitted onto the surface of a carcass. Image analysis software determines the amount of curvature of these beams at particular sites on the carcass. This information is then incorporated into a complex algorithm to accurately predict lean meat yield. Currently, this system is being refined for future commercialisation as part of a new Pork CRC project moving to 3D imaging cameras as an alternative to laser light striping to improve system robustness.

APL continues its participation in PorkScan Pty Limited. This company was set up to commercialise carcass measurement technology. APL two directors and provides the company secretary to this board.

Upgrade of NIR Calibrations for Predicting the Energy Value of Cereal Grains for Pigs and Licensing of NIR Calibrations for Worldwide Application

Research by the Pork CRC continues to upgrade NIR calibrations for predicting the ileal and faecal digestible energy content of cereal grains and their likely intake when incorporated into diets. Seventy new cereal grains, including wheat, barley, triticale, sorghum and maize, are being evaluated to improve the accuracy and robustness of the NIR calibrations. The next upgrading of the NIR calibrations has commenced. In the reporting period, Pork CRC licensed the AusScan NIR calibrations to a UK company, Aunir, for worldwide distribution through AusScan Online. Grains and oilseed meals can be scanned anywhere in the world using NIR technology. The scans are uploaded via the internet and results downloaded immediately.

Consequently, AusScan Online makes the unique NIR calibrations developed by Pork CRC for determining the digestible energy values for grains and the amino acid and reactive lysine contents of soy bean meal and canola meal accessible globally within minutes. Calibrations for poultry apparent metabolisable energy (AME) content and intake, ruminant metabolisable energy content, as well as chemical composition of cereal grains, are also available through AusScan Online. The development and commercialisation of the AusScan calibrations would not have been possible without the collaboration of and licensing arrangements with GRDC, APL and the Rural Industries Research and Development Corporation (Chicken meat).

Commercialisation

The majority of research outcomes are disseminated to industry therefore APL only has a few commercialisation projects. APL does not see any specific barriers to commercialisation,

however supports any initiatives that facilitate research and innovation which enhance the productivity, profitability and competitiveness of the Australian pork industry.

Agricultural Levies

Before concluding this submission, it would be remiss of us to not raise the importance of agricultural levies. Agricultural levies exist for many commodities, including pork, for very sound reasons relating to market failure. That is, levies overcome a lack of investment in important industry initiatives as individual farmers and producers do not have the capacity to obtain a return on their individual investments (research and development and marketing are good examples). In other words, the leverage of many producers to fund industry wide activities is far more than the outcomes that might be derived from individual producer investment.

Ultimately, rural industries are today more successful and larger due to the returns on investment from levies, resulting in better efficiencies, lower costs, more appropriate products and greater market understanding.

Society more broadly has benefited from the expenditure of levies by rural industries through cheaper produce, improved food safety and security, more competitive Australian rural industries offering employment opportunities, regional development and as a result, environmental protection and the better care of farm animals. In particular, the Government matching funds are a focal point for the wider public good benefit in industry specific R&D.

RDC collaboration is part of the culture at APL. Of note is the value derived for the Australian pork industry through its involvement with the CRC program, and specifically through the two iterations of the Pork CRC. In addition, the Rural R&D for Profit program continues to address additional industry R&D needs. APL also continues to champion collaboration across RDCs such as through the Council of RDCs. APL notes improvements are being delivered in these areas that will underpin investment in other areas such as innovation.

Should you have any questions about this submission, please do not hesitate to contact John McGoverne on 02 62708846 or via email John.McGoverne@australianpork.com.au.

Yours sincerely



Deb Kerr
General Manager, Policy