

R&D Priorities for 2009-2010

R&D priorities for 2009-2010 have been identified by the R&D Specialist Groups and approved by the R&D Advisory Committee.

1. Marketing, supply chain & product development:

- Develop a five year on-going new product development program for the pork industry on a co-funding basis;
- Further refine the PorkScan carcass measurement system to enhance commercial assessment of pig carcasses by Australian processors;
- Undertake an economic assessment, in collaboration with a commercial pork value chain(s), to evaluate the costs, applicability, implementation and optimisation of eating and carcass quality systems for targeted domestic and/or export market(s);
- Obtain new information on nutritional benefits of consuming pork on human health.

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2. Genetics, genetic modification & genetic transfer:

- Incorporate weight of primal cuts, PorkScan data and live-animal measures in pig breeding programs to select for improved market value of the carcass;
- Develop selection strategies for higher iron content in pork;
- Evaluate a mini-laparotomy embryo transfer procedure at the commercial level;
- Adopt selection strategies for improved sow lifetime performance.

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3. Production & product quality:

- Improve pork supply chain management to reduce variability and allow for better supply chain optimisation;
- Improve the efficiency of the pork supply chain by reducing the impact of disease;
- Improve availability and cost of feed grains for the pork industry;
- Increase the demand for pork and the value of pork cuts by consistently producing pork that meets consumers' expectations and desires.

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4. Industry capability & technology transfer:

- Maintain 'industry connectedness' through ongoing communication with stakeholders;
- Facilitate the transfer of research outcomes and new technologies to industry stakeholders;
- Facilitate the evaluation and trialling of new technologies;

- Evaluate the rate of adoption of new technologies to assist with setting research priorities;
- Provide opportunities for building capacity of people.

The key activities that will help achieve these priorities include website content, training network for producers, Pan Pacific Pork Expo, Australasian Pig Science Association (APSA) Conference, PigLink, Distinguished Visitor Awards, APL/Pork CRC Roadshows, Fast Track, Producer Innovation Awards, adoption survey, postgraduate workshops, refresher courses, travel awards, Ron Collins Memorial Travel Award, Doug Ross Pig Industry Award, ProHand delivery, training resources for a Diploma of Agriculture, undergraduate scholarships, postgraduate scholarships, Agricultural Industries Young Innovators & Scientists Award and AUSPIG support.

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5. Environment & welfare:

- Develop Life Cycle Analysis (LCA) methodologies for agriculture and the pork industry;
- Conduct LCA of production and waste management options at piggeries, focusing on water and energy use and GHG emissions;
- Revise the National Environmental Guidelines for Piggeries to incorporate new technologies and Best Management Practices (BMP) and extend these to industry;
- Facilitate on-farm demonstrations of lagoon sludge management with evaporative bays and/or SEPs;
- Facilitate on-farm demonstrations of highly loaded settling ponds;
- Integrate EnviroCheck into APIQ audits;
- Run training workshops to assist producers to develop Nutrient Management Plans;
- Model anaerobic digestion of agricultural wastes (PhD student);
- Collect data from covered lagoon digesters;
- Demonstrate a cover retrofit to an effluent pond;
- Validate PigBal for estimating volatile solid loads;
- Demonstrate the use of low cost biogas for heating piggeries;
- Assess effectiveness of alternative production systems and management practices;
- Benchmark current performance and compare this to international performance;
- Monitor and understand trends in community attitudes and their relationship to consumer purchasing decisions;
- Assess and/or commercialise new technologies to improve welfare (and production) outcomes;
- Community education.

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6. Quality assurance, biosecurity & food safety:

- Develop appropriate on-farm food safety control measures by the application of HACCP principles that are applicable at an enterprise level for pork production. These will underpin the domestic Primary Production and Processing Standard development process and allow the development of strategies through APIQ to address and reduce emerging food safety risks;
- Exotic disease prioritisation - Priority listing of exotic agents based on modelling of clinical and economic severity;
- Repeat baseline survey of pork carcasses and retail pork to characterise processing hygiene and microbial hazard levels with special reference to enterohaemorrhagic E. coli (EHEC);
- Extend current decontamination project to include sow carcass decontamination as well as offal and pork carcasses;
- Listeria modelling and testing in relation to new preservative formulations in processed or cured meat;
- Emergency response training to increase emergency disease (ED) awareness at saleyards, domestic and export abattoirs;
- Determine if working in piggeries poses an OH&S risk in relation to colonisation by Methicillin-resistant Staphylococcus aureus (MRSA) and Streptococcus suis;
- Surveillance and monitoring of the feral pig population to determine bacterial and parasitological loading.

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