**August 20, 2015**

**Pork CRC Helping Herd Health**

Despite several years of focussed research by the Cooperative Research Centre for High Integrity Australian Pork (Pork CRC), much remains to be done monitoring changes in the incidence, virulence and resistance of common pathogens over time and in developing appropriate diagnostic tests, according to Pork CRC CEO, Roger Campbell.

“Pork CRC researchers working on pleuro pneumonia (APP) and other respiratory diseases and enteric pathogens such as E coli, Lawsonia and Brachyspira, have been busy addressing these matters and it will be important, given the global emphasis on antimicrobial use and resistance, that this good work continues,” Dr Campbell said.

“It is a major issue and our industry has the opportunity and potential to further differentiate itself from global and national competitors.”

Pork CRC Program 2, ‘Herd Health Management’, has, however, had notable successes.

“Another widespread enteric disease is ileitis and Pork CRC has played a central role in a quantitative PCR (qPCR) test for Lawsonia developed by Dr Alison Collins of NSW Department of Primary Industries.

“It was one of the first of its kind and is, to our knowledge, the only one verified in the laboratory and field. The test tells if the animal is infected with Lawsonia, the number of Lawsonia present and, as such, the likelihood of chronic or impending acute disease,” Dr Campbell said.

Dr Collins, as part of her Subprogram 2A research, developed the test to quantify the load of Lawsonia bacteria in pens with scouring pigs and she hopes that routine use of this test will allow producers to reduce the use of antibiotics to control scouring.

“The new quantitative test provides producers with a measure of pathogen numbers, as well as the associated production losses,” Dr Collins explained.

“If used routinely, producers can avoid disease outbreaks and evaluate the best treatment options for their herd,” she said.

Pork CRC is looking for expressions of interest from companies to commercialise the test. If interested, contact Geoff Crook, email geoff.crook@porkcrc.com.au or Dr Charles Rikard-Bell, email c.rikardbell@porkcrc.com.au. For details on the projects, Lawsonia and the qPCR assay, contact Dr Alison Collins, email [alison.collins@dpi.nsw.gov.au](mailto:alison.collins@dpi.nsw.gov.au)

According to Dr Collins, a Pork CRC Program 2 Project Leader and Senior Research Scientist with NSW DPI, outcomes from Pork CRC Subprogram 2A, ‘Novel disease diagnostics’, have focused on improving the health of pig herds, with research targeting rapidly diagnosing and reducing diseases, especially those requiring antibiotics.

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“Herd-based diagnostic tools that measure disease severity or pathogen load in real time provide pork producers with the ability to treat or prevent disease outbreaks before pigs are compromised,” she said.

NSW DPI colleague Dr Deborah Finlaison and Dr Collins, with Pork CRC support, have developed diagnostic tools to measure viral and bacterial pathogen loads and disease responses in oral fluid samples from pens of pigs, providing producers with an easy, cost-effective tool to routinely monitor herd health and predict disease problems.

Pork CRC has also supported University of Melbourne’s Dr Mark Marenda, who has developed air sampling techniques, combined with quantitative detection of respiratory pathogens in the pig’s environment. Real time monitoring of air quality will allow producers to identify periods where extra ventilation or disinfection of the environment is necessary to avoid disease outbreaks.

Dr Campbell said that in the next four years, Pork CRC would address knowledge gaps across its four programs, while helping Australia produce the world’s highest quality pork that is differentiated from pork produced anywhere else in the world.

[www.porkcrc.com.au](http://www.porkcrc.com.au)

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Pork CRC Pig Health Progress.docx/RC190815AC200815

**ATTACHED IMAGE:**

**Alison Collins\_0284.jpg:** Dr Alison Collins of NSW Department of Primary Industries met with pork producers and Pork CRC representatives at the 2013 Victorian Pig Fair to discuss her progress in developing a quantitative PCR (qPCR) test for Lawsonia.