New tools on the horizon for exotic disease control in feral pigs



Australia has long been concerned about the threats posed by feral pigs, the destruction they cause to the environment and the cost to the agricultural industry.

They are also a serious disease risk.

Leader of the *Uptake Products and Strategies* program with the Invasive Animals Cooperative Research Centre (IA CRC), Dr Steven Lapidge says feral pigs carry about 20 different exotic diseases, which could have crippling consequences for human and animal health.

"They are highly mobile and can recover quickly from reductions in population size, either by immigration or reproduction, making them ideal transporters of exotic diseases," Dr Lapidge said.

"It is estimated there are between 4–23 million feral pigs in Australia at any one time, depending on environmental variables such as drought, so it is important Australia is equipped to manage any potential for disease outbreak."

During the past two decades, researchers have continued to refine their predictions of the likely rate of spread of disease through the feral pig population, to enhance Australia's disease preparedness.

However, Dr Lapidge says new ideas and techniques to predict and manage potential disease spread in feral pigs are always needed.

"We are using a different approach from past studies — one based on forensic techniques involving mapping genetic relatedness," Dr Lapidge said.

"This allows us to analyse and provide estimates on the minimum movement of feral pigs, particularly large dominant boars, from which transmission rates of exotic disease can be estimated and appropriate management units for feral pigs in Australian rangelands developed."

"It is all about trying to understand where disease may spread and where it may naturally stop."

"More recently, rapidly-deployable control tools to limit disease spread have also been developed and registered, and faster-acting toxicants are in development that can be used for disease surveillance."

Dr Lapidge says more proactive tools to minimise exotic disease threats are also in the pipeline; a hot topic at the upcoming *Global Biosecurity 2010 Conference* in Brisbane.

"For example, prophylactic vaccination baits, which could be distributed in potential disease hotspots, are an option to create a buffer-zone and take a more proactive approach."

Dr Lapidge will be one of many biosecurity experts presenting at the first international *Global Biosecurity 2010 Conference* to be held in Brisbane in February this year.

The conference will bring together a host of biosecurity experts to discuss best practice and how Australia can maintain effective biosecurity measures, which are vital to keeping our agricultural industries and the environment healthy.



The conference is a partnership event between the CRC for National Plant Biosecurity, Australian Biosecurity CRC for Emerging Infectious Disease and the Invasive Animals CRC.

The Global Biosecurity 2010 Conference is sponsored by: the Grains Research and Development Corporation (GRDC); the Australian Centre of Excellence for Risk Analysis (ACERA); Queensland University of Technology (QUT) and the Australian Quarantine and Inspection Service (AQIS).

Registrations for the conference are now open. Visit www.globalbiosecurity2010.com

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