

HINKLER AGTECH INITIATIVE

Feral Pig Trapping Technology

This trial was undertaken as part of CQUniversity's Hinkler AgTech Initiative. The Initiative aimed to increase the productivity and profitability of the Bundaberg region's agricultural sector through greater availability and utilisation of agricultural technology (AgTech). An extensive consultative process undertaken with agribusinesses identified on-farm needs that may be addressed using AgTech. Trials of selected AgTech products and services were then undertaken in partnership with agribusinesses and technology providers to determine the technologies' efficacy in on-farm conditions. This summary provides an overview of findings from one of the technology trials, including grower feedback and considerations for other growers when deciding whether to utilise the technology in their own enterprise.

Background

Feral pigs are among Australia's most widespread and damaging pest animals. They uproot crops and young trees, destroy irrigation systems and eat large amounts of fruit, nuts and vegetables. Feral pigs can also spread diseases and pests to domestic animals.

The management of feral pigs is difficult because they are highly adaptable and intelligent and can thrive in a wide range of habitats. Traditional control methods include trapping, shooting, fencing, and exclusion. However, these methods can be costly and time-consuming, and may not be effective in all cases. Older pigs very quickly learn the location and mechanism of traps, warn each other and even teach new generations how to avoid the dangers. The use of hunting and trapping methods can also raise ethical concerns. In the face of these issues, growers are seeking alternative control methods that are safe, effective and efficient.

The Technology

The 'BoarBuster' pig trapping system is a research-based, innovative technology consisting of a 6m-wide, circular steel enclosure suspended above the ground with bait laid in its centre. The suspended nature of the trap speeds up the conditioning process, because pigs generally don't look up, and it also allows them to enter from any direction. The 'BoarBuster' system uses satellite-connected cameras and can be remotely operated via a mobile phone. Based on data received from a 24/7 alert system and live image feeds, the operator can drop the trap instantaneously when pig numbers in the cage have peaked.

The Trial

A professional feral pest trapper was engaged to deploy the 'Boarbuster' system in avocado, custard apple and macadamia orchards in the Bundaberg region. The trap was deployed 7 times over a 10-month period from January to October. Live imagery of the trap was used to monitor the behaviour of individual pigs, such as alpha boars which influence the behaviour and movement of entire mobs.

RESULTS

This trial resulted in 69 pigs being trapped during the 7 deployments. In one single deployment, 33 pigs were trapped within just 3 days of the trap being set up.







Value to Business

The value of the 'Boar Buster' system to growers is its speed and effectiveness at trapping pigs, compared to traditional methods. In the time taken to track and hunt equivalent numbers of pigs trapped during this trial, they can cause significant damage to crops and infrastructure.

Another significant benefit of the system is its capacity to be operated remotely, thereby eliminating many workplace health and safety issues. The operator does not need to enter the property to check the trap or track pigs, and culling is restricted to the confines of the trap.

The cost to deploy the Boar Buster is \$570 per month* to service a farm and monitor the system, plus a bounty of \$250 per pig trapped*. This cost includes removal of all carcasses from the property in accordance with health regulations. Engaging a professional operator also ensures that appropriate insurance indemnities are in place and all legislative requirements are met.

Grower Feedback

Trial Summary Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I see value in this technology					
I found the technology easy to use					/
The technology was easy to integrate within my business				1	
I was satisfied with the service provided by the AgTech company					1
I intend using this technology in my business					1
I recommend this technology to other growers					1

Other Considerations

When deciding whether to deploy the Boar Buster system, growers should consider:

- The potential advantages of collaborating with neighbouring properties. Feral
 pigs don't recognise farm boundaries and a 'regional' approach to monitoring and
 trapping has proven to be more cost-effective and efficient than a property-byproperty approach.
- Traditional pig trapping methods bring inherent risks associated with firearm use, unattended traps and carcasses left on-farm. The Boar Buster system eliminates these risks.

Further Information



For further information on this trial and results, email CQUniversity's agricultural research team:

agriculture@cqu.edu.au

For further details on the 'Boar Buster' trapping system, contact Guardian Knight Pest Control:

guardianknightpestcontrol@gmail.com

To view live footage of the system in use, visit:

FACEBOOK

Guardian-Knight-Pest-Control

Summaries of other technology trials undertaken through the Hinkler AgTech Initiative are available at: bundabergagtechhub.com.au

The CQUniversity Hinkler
AgTech Initiative was funded
through the Hinkler Regional
Deal. The Hinkler Regional Deal
is a collaboration between
the Australian Government,
Bundaberg Regional Council and
Fraser Coast Regional Council.

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