

# Feral Pig Trapping Technology



## HINKLER AGTECH INITIATIVE

A CASE STUDY BY CENTRAL QUEENSLAND UNIVERSITY



*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 case study 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.*



## HINKLER AGTECH INITIATIVE

## Introduction

Australian agriculture is seeing a rapid emergence of new technologies that are changing traditional farming practices. Agricultural technology (AgTech) promises improved productivity and yield and the ability for growers to make better decisions, but the rate of uptake of AgTech remains impeded by several factors. These factors include a lack of awareness by growers of potential technology solutions, difficulty in evaluating the on-farm efficacy of technology and a gap between grower needs and technology developments.

The aim of this case study is to assist growers by providing background information on a commercially available technology, including details of its performance and value proven through on-farm trials.

The 'Boar Buster' feral pig trapping system is a mobile, innovative trapping system designed to be operated remotely via a smart phone. The Boar Buster is manufactured in the USA and sold through an international network of supply agents. Several successful trials and deployments of the system have been undertaken in Australia.



FIGURE 1: Small Group of Feral Pigs in Bundaberg Macadamia Orchard

## What Does the Technology Deliver?

The BoarBuster trapping system delivers an efficient and effective means of trapping feral pigs. The BoarBuster incorporates remote monitoring capabilities, enabling the operator to track and manage the trap from a distance. This feature offers convenience and flexibility, allowing the operator to respond promptly to the situation.

The BoarBuster system also incorporates a camera unit, enabling the collection of valuable data

about pig behavior, population dynamics, and trap efficiency. This data can provide trappers with insights into pig movements, activity patterns, and trap effectiveness and be used to improve future trapping strategies.

The removal of feral pigs limits the damage they cause to crops, vegetation and infrastructure such as fences and assists with controlling the spread of diseases to livestock and native animals.

## What is Required from the Grower?

A grower may either purchase a BoarBuster system outright from the manufacturer or contract a licensed pig trapper, with access to a system, to deploy it on their property.

The purchase price of a BoarBuster system is approximately \$20,000 in Australia. The cost to engage a professional trapper to deploy the Boar Buster is approximately \$600 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.

A grower also needs to provide a suitable site on-farm for assembly and deployment of the trap. The site will need to comply with health and safety requirements and pose no risk to humans, livestock or native wildlife.

If purchasing the BoarBuster system outright and operating themselves, a grower will need to familiarise themselves with local laws and regulations regarding feral pig trapping. Necessary permits or permission will need to be obtained and disposal of captured pigs will need to comply with relevant guidelines.



FIGURE 2: BoarBuster Set-up For Bundaberg On-farm Trial

## How Does the Technology Work?

The BoarBuster consists of a 6m-wide, circular steel enclosure suspended above the ground, with bait laid in its centre. The suspended nature of the trap is based on a behavioural trait of feral pigs - they generally do not look up, because they have no natural predators that attack from above. The suspended nature of the trap also enables pigs to enter from any direction, thereby speeding up the conditioning process.

The system incorporates a camera unit and a trap unit that can be viewed and operated remotely via a mobile phone. Based on a 24/7 alert system and live image feeds, the operator is alerted when an animal enters the trap, and they can view it in real-time to determine if the entering animal is a native species or feral pig. Once pigs start entering the trap, the operator can monitor their behaviour and release the trigger system, dropping the trap instantaneously once numbers in the cage have peaked.

The entire system is portable and can be transported in a standard utility or trailer (the largest components are the cage panels which are approximately 3m long.) Assembly and set-up of the trap and associated cameras takes one person approximately 2 hours.



FIGURE 3: Night Vision of Pigs Entering Boar Buster Trap

## Technology Provider

BoarBuster is a USA-based company. There are no BoarBuster dealers or distribution networks in Australia and the company exports their trap systems directly to Australian buyers.

Guardian Knight Pest Control, in Bundaberg, Queensland, owns and operates a BoarBuster system in the local region.

FIGURE 4: Pigs Trapped in BoarBuster System



## Applications of Technology (Current and Potential)

The BoarBuster system can be deployed in most settings for all feral pig species. Several trials of the system have been undertaken in Australia to determine its effectiveness and efficacy in agricultural and National Park settings.

CQUniversity's Hinkler AgTech Initiative, in association with Guardian Knight Pest Control, managed several trials of the BoarBuster system in avocado, custard apple and macadamia orchards in the Bundaberg region. The trap was deployed seven 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. This trial resulted in 69 pigs being trapped during the seven deployments. In one single deployment, 33 pigs were trapped in just three days of the trap being set up.

Based on these results, local growers are collaborating to deploy the Boar Buster system on a multi-farm basis, to address the proliferation of feral pigs throughout the Bundaberg region.

Queensland's Department of Environment and Science has also deployed the BoarBuster system in National Parks in North Queensland. The system is proving to be effective in areas where park rangers want to avoid catching native animals such as cassowaries, and where the distribution of poisons and aerial shooting are not suitable options.

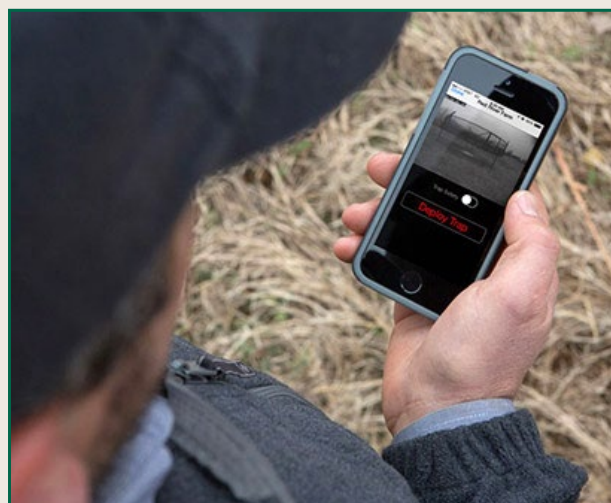


FIGURE 5: Viewing Real-time BoarBuster Footage via Smartphone



FIGURE 6: The BoarBuster is a Suspended Trap System

## Value of Technology

The value of the BoarBuster system to growers is its speed and effectiveness at trapping pigs. In the time taken to track and hunt equivalent numbers of pigs using traditional methods, compared to the BoarBuster, 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 when required, culling is restricted to the confines of the trap.

## Additional Considerations

When considering feral pig elimination strategies, Australian farmers have access to a wide variety of methods.

The Big Pig Trap, sold by Australian Trapping systems, is a locally made suspended trapping system that works in a similar manner to the BoarBuster system.

In addition to these systems, feral pig trapping and elimination methods deployed throughout Australia, include:

- **Corral traps** - typically consist of sturdy fencing with a one-way entry system that allows pigs to enter but prevents them from exiting.
- **Drop nets** - a method of capturing pigs by suspending a remotely triggered net above a baited area.
- **Shooting** - usually employed as a direct method of eliminating individual or small groups of pigs.
- **Dogging** - dogs are used to track, corner, and hold the pigs until human hunters arrive to dispatch or trap them.
- **Aerial control** - particularly useful in vast and remote areas where ground-based efforts may be challenging
- **Fencing** - electric fencing or exclusion fencing systems are often utilised to create pig-proof barriers.

The availability and benefits of these systems varies according to location and the nature and extent of the pig population. Farmers should consult with local providers wildlife management authorities, and agricultural organizations to identify the most suitable options for their specific needs and regional requirements.

When deciding whether to deploy any feral pig trapping system, growers should consider the potential advantages of collaborating with neighbouring properties. Feral pigs don't recognise farm boundaries and a regional, multi-farm approach to monitoring and trapping has proven to be more cost-effective and efficient than a property-by-property approach.

## REFERENCES AND INFORMATION SOURCES



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

[agriculture@cqu.edu.au](mailto:agriculture@cqu.edu.au)

Best practice information for farmers on how to plan, manage and improve pest animal control programs in Australia is available at:

[pestsmart.org.au](http://pestsmart.org.au)

Information regarding the BoarBuster pig trapping system, including case studies, grower testimonials and contact details, is available at:

[boarbuster.com](http://boarbuster.com)

Summaries of other technology trials undertaken through the Hinkler AgTech Initiative are available at:

[bundabergagtechhub.com.au](http://bundabergagtechhub.com.au)



Australian Government



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