

INNOVATION PROFILE



BUSINESS SNAPSHOT

OWNERS

David and Genevieve Counsell

PROPERTY NAME

Dunblane

PROPERTY LOCATION

Barcaldine, QLD

SIZE OF PROPERTY

15,000 hectares

BRIEF ENTERPRISE DESCRIPTION

Wool production, some sheep agistment and/or cattle trading.

NUMBER OF PEOPLE WORKING IN THE BUSINESS

2 people working in the business (1 full time equivalent)

AVERAGE ANNUAL RAINFALL

495mm

WHY THIS IS A PASTORAL ZONE INNOVATION

Wild dogs are a significant threat to the pastoral sheep industry but baiting can be time consuming. This innovation shows how pastoral producers can increase baiting efficiency while saving labour.

Efficient Wild Dog Baiting

David and Genevieve Counsell of 'Dunblane' operate a sheep enterprise, set in rolling Mitchell Grass Downs country near Barcaldine, Queensland.

Wild dogs pose a significant threat to David and Genevieve's business. They have regular invasions by wild dogs onto their property, and in the past, they have impacted their sheep enterprise. Including ewe losses, David and Genevieve are aware of the impact wild dogs are having on lambing percentage. Via pregnancy scanning data, they have observed lower than expected lambing percentages in ewes that were known to be in lamb.

David has constructed electrified boundary fences by incorporating 3-wire off-sets which are positioned 45 degrees to the fence to help reduce invasion of wild dogs. This is shown in Figure 2. They also run several donkeys as guardian animals. While they have implemented these practices, baiting with Compound 1080 (sodium fluoroacetate) also plays a critical role in controlling this threat, reducing agricultural losses and biodiversity impacts.

This innovation profile explores how David has identified and implemented an efficient baiting practice for his property. David has found that baiting using a motorbike significantly reduces the time taken to do a bait run and increases his access across his property.

Figure 1: David Counsell ready for wild dog baiting on Dunblane.

WHAT WAS THE MOTIVATION TO CHANGE?

David recognised that although baiting for wild dogs is essential, it was time consuming and an inefficient use of labour. Commonly, baiting programs are implemented with two people. A ute, with one person driving while the other person distributes the baits from the back.

Baiting from a moving vehicle has its limitations, including the ability to access key areas of the property to provide effective bait placement. Baits are often only distributed where the vehicle travels, namely on tracks around the property. Whilst wild dogs are well known for travelling along tracks and roadways, there are many other corridors such as sandy creek beds and gullies, where they are known to travel.

Bait can often land on roadways and tracks where non-target animals such as birds can find the baits.

Cleaning the vehicle thoroughly following each baiting was also recognised a labour-intensive task.

David baits 5-8 times a year on Dunblane, depending on wild dog activity. They are also actively involved in the biannual community coordinated baiting program that occurs across their district.

“I know I have to keep baiting as wild dogs are a serious threat to my business, but it was taking up a lot of my time and I wanted a more efficient way of doing it,” explained David.

Based on these observations, David assessed how he could achieve more effective bait placement across the landscape, whilst reducing the time taken to complete the baiting and vehicle wash-down.

As a result, a motorbike was set up to use for baiting across Dunblane.

HOW DOES THE INNOVATION WORK?

To use a motorbike to distribute the baits, some modifications were required. This involved fixing a milk crate to the back of the motorbike, and using a large bucket to hold the baits. The bucket is then placed inside the milk crate.

Using a motorbike allows for the baits to be placed in locations where dogs are likely to be present. The motorbike is able to access more areas of the property than a ute such as sandy creek beds or areas covered in dense vegetation. Best practice includes to strategically locate the bait to increase effectiveness and to reduce non-target poisoning. For more details on best practice, please see your state's legislation. Wild dog tracks are also a lot easier to see from a motorbike.

David has also found the clean-up process to be far more efficient than it was when using a ute.

Shooting is still an important control measure, so a firearm is carried in the event of sighting a wild dog while out motorbike baiting.



Figure 2: The electrified boundary fence with 3-wire off-sets, positioned 45 degrees to the fence to reduce invasion of wild dogs.

WHAT ARE THE KEY BENEFITS OF THE INNOVATION, AND THE IMPACT IT HAS MADE?

This practical innovation has a number of key benefits:

- Bait is placed where wild dogs are more likely to be. Often these areas covered in dense vegetation and can't be easily accessed by a ute.
- Bait can be accessed by the rider easily without the need to get off the bike unless required for a specific placement. Baiting via the motorbike allows for more effective bait placement, for example a hollow log or buried under a bush.
- The vehicle wash-down that must occur after the baiting can be completed faster for a motorbike than a ute.
- When distributing meat baits there is a chance of blood and therefore seepage of 1080 from the bait getting into the vehicle. This increases the risk of transfer to humans and non-target animals. By using a motorbike, the rider can keep gloves on as they ride and distribute baits on the go.

“Because I see baiting as a relatively simple task, I am far more inclined to conduct a bait run when I suspect, or see signs of dog activity,” said David.

KEY MATERIAL REQUIRED FOR THE INNOVATION

The key material required for this process is as follows:

- A motorbike
- Milk crate, strapped to the motorbike to hold the bucket
- Bucket, to hold the bait
- Meat, baited with 1080
- A firearm
- Gloves and appropriate personal protective equipment (PPE) for the task

POTENTIAL CAUTION AND RISK

There is a high risk of blood containing 1080 dripping onto you from the gloves. David recommends using meat that has been well drained prior to being handled and baited. Appropriate personal protective equipment (PPE) must also be worn; an apron may be useful PPE.

David's motorbike can safely carry approximately 25kg of bait, so he returns to the bait station to replenish as required. He recommends assessing the safety limits of the motorbike you intend to use and complying with the load recommendations.

Before using 1080, all personnel must be aware of the rules and regulations concerning use of the poison in your state.

COST BENEFIT ANALYSIS

David and Genevieve recognised that efficiencies could be made to reduce the time required to perform wild dog baiting. They realised that time was lost preparing the ute for a baiting trip, doing the bait run with at least two people and washing down the vehicle afterwards.

In the past, a typical bait run in the ute took two people six hours (total of 12 hours) to complete on Dunblane.

By adopting the motorbike option, this task was reduced to approximately 2 to 3 hours for one person. Given these time savings, implementing this innovative process:

- Motivates David to continue to be proactive in the control of wild dogs on his property;
- Alleviates labour pressure, by reducing the number of people involved and time required to perform the baiting program; and
- Increases safety pertaining to the use of 1080, by reducing the risk of humans and non-target animals being affected during the baiting process.

"Any option to reduce the time it takes to undertake a task is a big advantage," said David.

Figure 3: A wild dog.

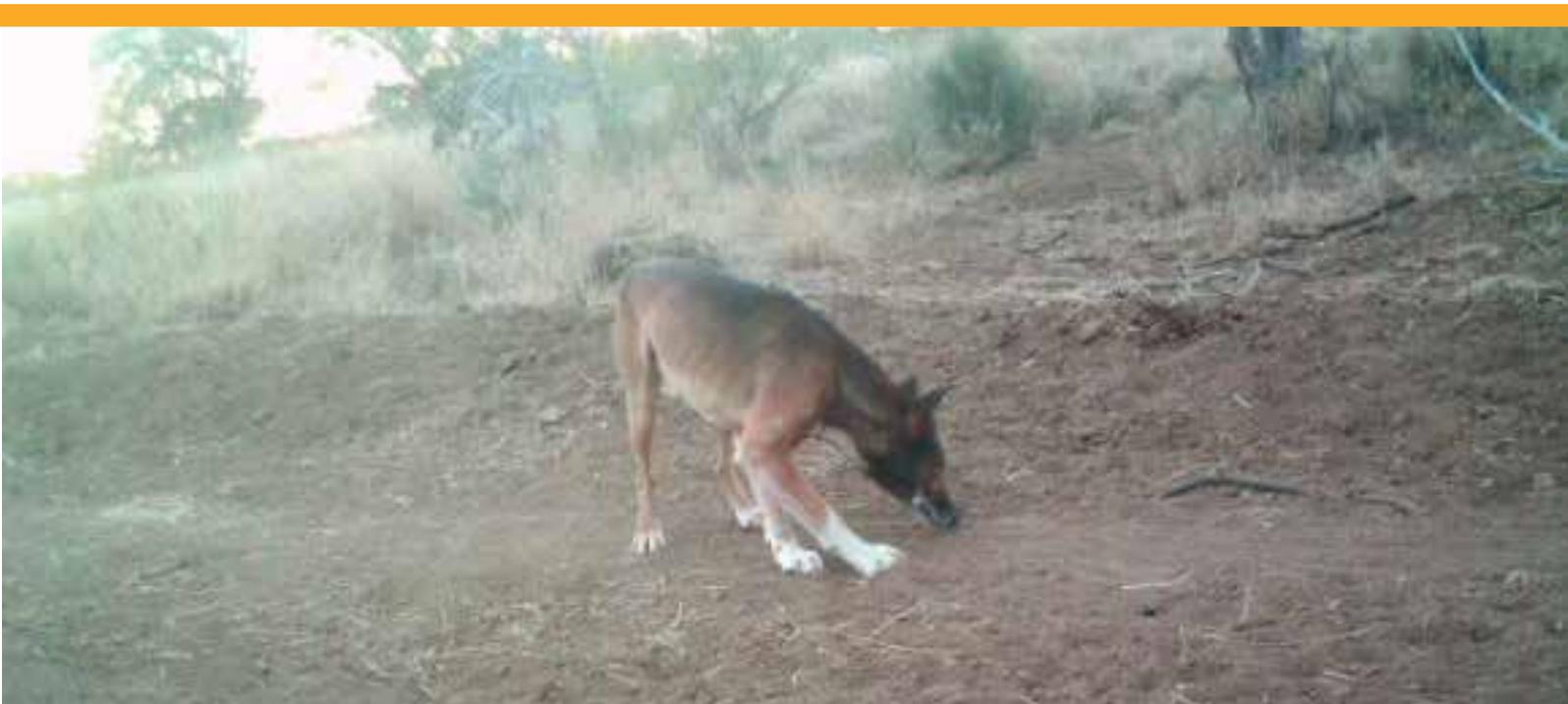




Figure 4: Mitchell Grass Downs country on Dunblane.

Figure 5: Dunblane property.



FURTHER RESOURCES

AWI Wild Dogs, Foxes and Pigs funding initiative

<http://www.wool.com/fl/on-farm-research-and-development/sheep-health-welfare-and-productivity/pest-animals/wild-dogs-foxes-and-pigs>

Bestprac innovation case study "Bite Back"

<http://www.bestprac.info/pages/posts/biteback-54.php>

THE FINAL WORD

"I believe it is critical that I have bait out in the landscape as soon as wild dog activity is suspected or noticed...if baiting takes increased hours of work, it is more likely to be delayed."

Bestprac acknowledges the contribution of David and Genevieve Counsell in the development of this innovation profile.

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