

Using eID in Pastoral Zone Merinos



Enterprise snapshot

Owners	Michael and Sarah Parker
Property name	Bindarra and Wompinie Stations
Location	Olary, North East Pastoral, South Australia
Size	110,000 ha
Brief enterprise description	Commercial meat and wool enterprise running 3,700 merino ewes. Store cattle are brought in on an opportunistic basis.
Number of employees	2 full time and up to 4 additional staff at busier times
Average annual rainfall	207 mm (highly variable from year to year)
eID data being used	Paddock of origin for mobs, wet/dry status at marking, weights of animals being sold and condition score of rams.

Background

Sarah and Michael Parker have owned and managed Bindarra Station since 1997, where they run approximately 3,700 Merino ewes. Their two daughters provide labour as needed, and casuals are brought in for shearing, marking and crutching.

About two thirds of the property is gilgai country, growing predominately saltbush. The remainder is comprised of sandy loam country, supporting scrub and grasses. The feed base varies depending on rainfall, and when feed is abundant they buy in store cattle to grow out and sell on an opportunistic basis.

It is typical for the Parkers to achieve a 100 percent lambing rate with their Merino ewes. Ewe lambs are mostly retained for breeding, while wethers are sold. The ewes spend their lifetime in the same paddock from first joining until they are sold off. Familiarity with their

surroundings, particularly the location of water and feed, reduces stress and losses - which can be common when animals are moved into unfamiliar paddocks in pastoral and rangeland production systems.

Shearing occurs in August or early September and fleeces average 8 kg with 18.9 micron for hoggets and 20-21 micron average overall.

Feeders are put into paddocks with lambing ewes to provide supplementary nutrition.

Sarah and Michael completed Australian Wool Innovation Limited's Lifetime Ewe Management course (LETM) and condition score samples of each mob every time they come in through the yards.

The Parkers first used electronic identification (eID) tags in 2023, applying them to all animals except wether lambs.



Figure 1: Sarah and Michael with their XR5000 equipped Te Pari handler and autodrafter.

What eID supported improvements were the Parkers looking for?

- Improving reproductive efficiencies - by identifying dry ewes at marking and culling ewes that have been twice dry during times when adequate paddock feed is available.
- Reducing animal losses - by keeping ewes in the same paddocks over their lifetime to maintain their familiarity with feed sources and waterpoints.
- Improving labour efficiencies - reducing the need for frequent checking and shepherding, as animals will be returned to the same paddock, for example, after shearing and other management operations.
- Efficiency improvements - when splitting large boxed mobs back into paddock mobs during shearing, crutching and marking times.
- Maximising effectiveness of rams at joining - by ensuring rams are in at least 3.5 condition score.

Data collection and use

The types of data Sarah and Michael collect and record against eID tag numbers are:

- paddock of origin for ewes
- wet/dry status of ewes at marking
- body weights
- condition score of rams post joining through to pre-joining.

In 2023, the Parkers purchased initial eID equipment including a Tru-Test JR5000 weigh scale indicator and panel antenna fitted to a Te Pari handler, and a XRS2 Tru-Test wand. The brand was selected based on recommendation of other users. Early connectivity problems between different pieces of eID equipment were resolved by powering them up in the correct sequence. They also encountered early difficulties with infected ears from tagging, which have been eliminated by adopting the hygiene measure of dipping tags in Hibitane immediately before application.

The JR5000 was unable to operate the 3-way autodrafter and was replaced with an XR5000, which provides full functionality and can support a 5-way draft if upgraded in the future. Paddock allocation data is uploaded to the XR5000 unit, which is used to operate the autodrafter when splitting boxed mobs back into paddock mobs. Animal weights are recorded as they go through the autodrafter to track performance and inform decision making around feed resources and stocking rates. Weight data is shared with agents before sale, providing greater certainty about stock quality.

The wand is used when condition scoring boxed ewe mobs, identifying and allocating condition scores to sample groups from their paddock of origin. It is also used to record the progression of ram condition score from post-joining through to subsequent rejoining. Condition score is used to support decisions on supplementary feeding to achieve target condition score of 3.5 to 3.75 for rams at joining for optimal performance.

All data is saved in excel format as a backup.

The Parkers don't have specific improvement targets due to a wide range of seasonal conditions that result in performance variability from year to year. Instead, they focus on gradual improvement by identifying ewes with poor reproductive performance and removing them from the flock.

How has eID technology helped achieve their livestock goals?

Using individual animal data, such as reproductive success and condition scores, has made decisions about selecting animals to be sold off more objective (aligned with Lifetime Ewe Management (LTEM) principles).

The autodrafter helps sort breeding ewes into the same paddock for their lifetime, saving significant time and effort after post shearing, marking and crutching.

Monitoring and managing ram condition scores and weights supports optimal reproductive performance and higher lambing rates.





Future plans

Sarah and Michael want to explore additional ways to use individual animal data in a pastoral context.

If they adopt containment feeding to finish lambs for sale, they plan to use weight data to identify high-performing animals and those with slower growth rates.



Advice for producers commencing with eID

The Parkers provide these insights based on their experience with data collection and eID in a remote area pastoral system:

- eID combined with an autodrafter is a significant time saver every time sheep are brought into yards and returned back to their original paddocks.
- Make sure you get excellent tech support from your equipment supplier and that support is available when you need it. Troubleshooting a problem at a location with poor phone coverage is difficult, so check equipment before moving to places with poor reception.
- The more you use the equipment the better you'll get with it and the fewer problems you will have.

More information

This case study is an initiative of eID Advantage Program from the Government of South Australia, supported by Meat and Livestock Australia and AWI Extension SA.

For more information visit pir.sa.gov.au/eid

