



Tracking success: SmartShepherd collars in action

Producers: Father and son, Trevor and Alan Rissmann; 'Rosedale', Yelarbon

Enterprise type: Mixed enterprise of Merino sheep (450 commercial ewes and 850 stud ewes), cattle (300 Angus breeders) and crops (600 ha, predominantly forage).

Land area and type: 4,000 ha across two properties, from decent Belah and Brigalow soils to very light Box Creek country. Rosedale is located near the town of Yelarbon, halfway between Goondiwindi and Inglewood, in Southeast Queensland. It has around 600 mm average rainfall.

Alan Rissmann has been using SmartShepherd collars since 2018 to maternal match ewes and lambs – offering a practical, cost-effective alternative to DNA testing. The collars have become an integral part of Rosedale's broader management approach, which includes differential care for twin and single ewes.

Knowing your top ewes matters

In 2018 the Rissmann's took over a seedstock operation; matching ewes and lambs and recording genetics became a must. Seven years in, Alan says one of the biggest advantages of using SmartShepherd collars is being able to precisely identify which ewes are delivering strong performance.

"When a lamb is doing well, whether it's the best wool or best carcass, I make sure I keep its mother because I know who the mother is now. Being able to follow through and find your top performing sheep, not just on that performance number of kilos weaned, but on genetic potential, is crucial," he said.

Before using the system, Alan could identify dry or wet ewes at marking but had no way of knowing which were single or twin bearers. The difference matters: twin-bearing ewes need up to three times more feed than a dry sheep to maintain condition so need to be offered adequate feed to meet their nutritional requirements. The Rissmann's preferentially feed twin-bearing ewes based on pregnancy scanning data. Depending on the season, that either looks like extra supplementary feed or rotating the twins ahead of the singles so they get first pick from the pasture. Through SmartShepherd collar data, Alan tracks exactly which ewe raised which lambs, and how well.

There can be massive variation between ewes. In the extremes, last year one ewe raised triplets and weaned 72kg of lambs, while others raising twins weaned 60kg. Compare that with some ewes raising only a single 20kg lamb. Without mothering data, those insights would be impossible.

Smarter tagging for smoother workflows

As Alan has refined their use of the SmartShepherd collars and the tagging and collaring process has become much smoother.

"One of the key improvements we've made over time is streamlining how we match the collars to each lamb's eID tag," Alan explained.

"We've now got a pretty efficient system – one person uses the handheld device to pair the collar with a fresh ear tag and bundles them up. Then the next person takes that bundle to tag and collar the lamb. It's simple, but it's made a big difference to how smoothly things run."

Investment delivering long-term genetic gain

Costing approximately \$7–8 per lamb (depending on lambing percentage and additional labour required), Alan said the massive improvements in their genetic gain (averaging 5.5% per year since taking on the stud) far outweighs the initial outlay of the technology.

Targeted selection for fat and muscle has lifted survivability, while wool cut and quality haven't missed a beat. The payoff? Their Australian Sheep Breeding Values (ASBVs) for yearling eye muscle depth



(YEMD), yearling fat depth (YFAT), weaning weight (WWT), post-weaning weight (PWT), yearling clean fleece weight (YCFW), yearling worm egg count (YWEC), weaning rate (WR), and others have moved 3-4 bands up the percentile table (e.g. from the 60% band to the 20% or 30% band). And every wool trait has improved along the way.

"In breeding sheep, our version of compound interest is improving genetics. If we make a genetic improvement this year, it stays around in the genetics of our ewes for their entire lifetime and it also gets passed onto their progeny, and their progeny in turn," Alan said.

Linking data to decisions

Alan has also completed the Lifetime Ewe Management (LTEM) course, and when combined with the individual animal data from SmartShepherd collars, it helped paint a much clearer picture of variation within his flock.

"The main takeaway for me was just how much difference there is between individual ewes – far more than you'd expect," he said. "You'll see a ewe in really poor condition at weaning and assume she's had twins, but sometimes she's only raised one and just hasn't coped. That's a cull ewe for us."

On the other hand, he's seen plenty of ewes wean twins and still maintain good condition. It's insights like these that have helped him make more targeted decisions.

"So often, producers end up feeding or managing their whole flock for the sake of the bottom 20%," he said. "This kind of data means we don't have to do that anymore."

Data is only as good as what you do with it

For Alan, the biggest lesson is clear: there's no point adopting the technology unless you've got the tools and systems in place to capture and use the data it generates.

The Rissmann's use the BreedELITE Sheep System to track their data. The program allows them to precisely record their genetic gains and submit to Sheep Genetics, the evaluation service of the Australian sheep industry. But for other producers just looking to get started? A simple but well-designed Excel spreadsheet does the trick.

"The most important thing is to be clear ahead of time with exactly what data you want to capture. Because if you don't know, or you don't use the data you get, you're throwing money out the window," Alan said.

Top tips

- Figure out what metrics are important to you ahead of time, then collect the data to measure those metrics.
- Matching the collars with the ear tags can be fiddly, so having extra people in the yards makes the process much smoother.
- Talk to someone who's used the smart collar system before you get started. Their insights can save you time and energy.