CASE STUDY

Will Gibson

At a glance

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Genetics Consultant and farmer

Challenges

- Making informed decisions based on individual animal identification
- Keeping track of which animals have a continually low condition score or continually produce singles

Benefits

- Compare ram sources and make breed changes.
- Culling decisions can be made easier based on individual animal performance.
- Draft out low performing ewes or ewes that consistently produce multiple lambs

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Potential value gained far exceeds the $2 per head cost of putting an electronic identification (EID) tag in the ear of every ewe lamb in the country, says genetics consultant and farmer Will Gibson.

Smart tag investment easy decision

He admits being a strong advocate for collecting individual animal data using Allflex EID tags comes easily from his role with genetics consultancy NeXtgen Agri. "I know there's a heap of value to come out of EID tagging by actually finding out what a flock is doing, without really doing any more work," he says.

"Most farmers already have technology in their yards to weigh their stock. They've been putting a hand on their animals to condition score, and they're getting scanning data so they can store it all against an animal for its lifetime, not just a one-off." "If you've got some sort of computer background, the data is easy to store it and pull it together. Otherwise there are people out there like ourselves that do that for them."

Before tagging any sheep or cattle with EID tags, Gibson advises farmers to really focus on what data they want to collect and what they want to gain from it. Common intentions among his clients are farmers wanting to compare ram sources, make

breed changes, and improve culling decisions to lift profitability.

He advises commercial farmers to start by tagging ewe lambs at tailing time, rather than tagging retained ewe hogget replacements because it provides an extra year of performance data to improve future decisions. When tagged at tailing time, each ewe lamb's birth rank (single or multiple) is known and it is easy to collect a weaning weight to rank each lamb on weight gain to weaning. Another weight in autumn provides further growth rate data, which can assist with culling and mating decisions as a hogget. Knowing if they were born a single or multiple based on their birth rank adds extra insight for both culling and mating.

He says there is a range of data analysis options available, depending on a farmer's own computer knowledge and software provided by tag or reader technology companies. Some of his clients choose to manage it all themselves, using mobile phone application supplied with the tag reader to either process data in the sheep yards or on their home computer, or through to a bureau like NeXtgen Agri operates. "Say one of my clients has just finished doing weights on a mob, they'll connect their phone to their data capture device and next minute I've got an email sitting in my inbox of the session. Then I pull that down to an Excel spreadsheet to sort all of that data and email it back to my client." "It's utilizing the right people for the right job. If you've come back to a farm coming from an analysis job in say a bank where you do have good Excel skills and a reasonable computer understanding, well those issues aren't going to be hard to do that." Gibson says a simple Excel spreadsheet is ideal in most cases for presenting data back for selection decisions to be made. Most farmers using FarmIQ have integrated their data collection and analysis with the software.

Gibson says one of the best examples of making more informed decisions based on individual animal identification was a client who was transitioning his Romney flock to halfbred Merino. He wanted to evaluate how the progeny from four different Merino ram sources performed as halfbreds, so started in 2018 by mating them in four groups to rams from four different studs. The ewe lambs were tagged at tailing time and then grouped up and run together from weaning right through to their first scanning as a two-tooth. "Three mobs did about 130% at tailing time, and one lot came in at 162%. However, the farmer wouldn't have known that unless he had an EID tag in their ears." Having that individual ewe data meant he could make a more informed choice and source rams from the best stud for his property and stock.

Another good example was the farmer who split his flock into three groups for mating. At scanning time when they had been mobbed up on winter rotation, the data showed that two mobs had conceived at a typical level, but the third mob had 20% dries. Further analysis explained the drop in conception – a problem with water in the block where they were being mated. "So that had given them a check, and then they had a couple of rams die on them in that mob as well, so that's why the lower scanning happened."

Other farmers Gibson works with are using the tags to evaluate animal performance on different crops or pasture mixes. "There is huge scope to learn more from managing individual animals rather than a mob of animals. EID tags and the technology that is now available just takes the time and effort out of collecting it, processing and storing it for use at a later date."

The ease of collection means that every time stock is in the sheep yards, there's the opportunity to collect data. Once collected, Gibson says it's amazing what use it can be put to. Culling decisions in times of a feed shortage can also be greatly improved based on individual animal performance, especially when liveweight or age are rudimentary criteria for culling decisions to be made from. With EID tags holding an animal's performance history, a farmer could pull a list of tags to be culled, load it into an auto-drafter and it automatically splits the mob on pre-set criteria.

"If you dive into the data you can ask which ewes have continuously been a low condition score through their life, and they've only had singles? Or, you look at the other side of it; who are our twiners every year that maintain good condition, because they're going to give us our best return from keeping them here." Rather than just drafting off the lightest ewes as they come down the race, a farmer is able to draft off the lower performing group based on several criteria sifted from the data history. "For instance, those lighter ewes could have been born a twin but still got in lamb, and her lambs might be genotypically superior sheep but phenotype-wise, they've been raised off a ewe lamb and they will be more likely to be smaller."

Gibson has been working with the owners of Lindis Peaks Station at Tarras on a bloodline comparison. Two new ram sources were introduced and data from the resulting progeny was analysed to pinpoint which one delivered more of the type of wool required to meet specific contracts the station has, as well as better ewe pregnancy rates and liveweight gains in sale lambs. "And that's where even just in that one year's worth of data on those first crosses has shown an increase in scanning percentage, an increase in wool weights and an increase in live weight on those ewes in a mob where they've all been run together." "It showed their current genome type was definitely holding them back," he says. "But it also shows them that within a mob of 1200 ewes, there are good and poor individuals. With EID tagging, over the first year you can be getting rid of some of the rubbish and by year four you've really got the top end left in the flock to be breeding your replacements from."

On the Gibson's family farm, using collected data has allowed them to improve lamb survival over lambing in their multiple mobs. Their flock is mated for two cycles. At scanning time, the scanner assigns a single, twin, triplet, or dry status to each ewe, and also assesses each ewe's lambing period as early, mid and late. The pregnancy status information allows the Gibsons to set the auto-drafter to create mobs of singles, twins and triplets for the remainder of the winter. When these mobs are back in the

yards for their pre-lamb vaccinations, the lambing period data is loaded into the auto drafter to split them again to their early, mid and late groups for set stocking before lambing.

With limited easy country, it means the most vulnerable ewes get the easier country at the right time leading into lambing. "So, our second and third, or mid and late singles gets put back out on the hill, because essentially we don't need them eating the tucker on the flats at that stage." "Early multiples are set stocked on the best tucker, the mid multiples are on blocks that are going to come sort of two weeks after that, and the late twins are on our later country. "This approach has really helped our bottom line through improved survival, better lamb growth rates and better weaning weights in our ewes. Instead of having mobs lambing over a six week period; you've only got ewes lambing over a two week period. This leads to being able to streamline the tailing activity, and tail mobs earlier when they are all similarly aged. "All this is not unachievable without EID, but it takes a hell of a lot more work," Gibson says. "And, I reckon you could be looking at about a 10% improvement in survival in your twins because you've got less mob pressure and more feed on offer. That's a win right away."

After scanning, he creates a spreadsheet for each year group born that has weight history, condition score at the start of mating, and pregnancy status. They also record whether each ewe was a wet-dry at tailing and its weight at weaning. Data is collected on which mob ewe lambs were born in, whether they were born as singles or multiples, and then a weaning weight.

Mindset shift is all most farmers need to change to EID

Electronic ID tags are a significant breakthrough for sheep farming, says genetics consultant Will Gibson. "Farmers have animals at the yards more than they actually think they do, and a lot of those times when they're there, they could be collecting something on them," he says. "Getting that mindset change is the hardest part. Then you just need a plan to know what you want from the data. What's actually the reason you are collecting it and what's the problem you're trying to solve is the best way to look at it." He is a strong advocate of mandatory EID tagging of all sheep. "It is a cost if you're not using them to achieve an outcome. It's just putting a $2 bit of plastic in an ear which is an expensive way to colour code year groups," he says.

Gibson has tried every EID tag option available on his own family's property and says the key to retention is following the recommended tag insertion procedure correctly. "In my situation at home, everything is disinfected and that's a must for all farmers to ensure. The tags should pierce the ear properly, but if they haven't, we make sure they do."

Gibson mixes family farm activities with his full time role as a genetics consultant with NeXtgen Agri, where he is primarily responsible for advising clients on how to get more value from data they are collecting. The family property is a commercial Merino operation which also runs two cattle studs and a Suffolk sheep stud. "So, there's certainly lots of data recording going on," he says. He is also a qualified wool classer. Aside from the home farm clip, Gibson also classes elsewhere including a 10-day annual stint classing for a large commercial flock at Tarras in Central Otago.