

Leading Sheep

What ewe need to know about electronic identification in sheep

In this issue of *FlockTalk*, we talk about the practical use of electronic identification (EID) in sheep.

We spoke with St George grazier Rod Avery who is successfully using EIDs, and share tips from Sheepmatters consultant Anthony Shepherd, who has helped many producers across Australia implement EIDs into their sheep enterprise. We recommend you check out the range of EID resources on the Leading Sheep website for more information: leadingsheep.com.au.

The Leading Sheep project (2015–2018) was a great success. Thank you for your support and involvement. With your help, we engaged over 2000 people at field days, workshops and webinars.

The feedback from these events revealed that a remarkable 63 per cent of people intended to make a change to their business as a result of what they learnt. 94 per cent of participants also said they would recommend the events to others, and 96 per cent gained new knowledge.

This project was funded by the Department of Agriculture and Fisheries, Australian Wool Innovation (AWI), and supported by AgForce. The AWI board has approved further funding for Leading Sheep for 2018–2021.

We look forward to delivering more practical and relevant events in the future.

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Leading Sheep project leader and senior extension officer
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Tags help identify top performers

Electronic identification (EID) is helping wool producers fine-tune flock management to maximise profits.

St George grazier Rod Avery first put EID tags on ewes at crutching in 2017, after seeing a presentation on measurement and recording by Cootamundra consultant Anthony Shepherd at a Leading Sheep technology field day in Dirranbandi in 2016.

"I'd seen genetic gains made by the pig and dairy industries through individual recording and I decided to start measuring the ewes with EIDs," said Mr Avery, who leases 2800ha of improved buffel grass and mulga country on Burgorah, east of St George.

He usually runs 2400 grown sheep, but numbers were down after a dry 2017. He decided to focus on measuring his Merino flock to ensure he retained the most profitable sheep. By measuring lambing traits and fleece weights through EIDs, Mr Avery could start to fine-tune flock management.

Mr Avery invested \$2000 in a Gallagher EID tag reader, \$3000 to update his scales to incorporate a Bluetooth reader, and \$1.80 per tag. With five other producers, he held an information day to learn how to side sample maiden ewes and sent the wool away for yield and micron testing before they had a lamb.

Maiden ewes and the young ewes from the 2015 lambing were tagged first, and he said the results after shearing were surprising.

"The wool varied from 14 microns to 28 microns and averaged 19.5 microns. In the maiden ewes, fleece weights ranged from 2.8 to 8 kilograms," he said.

"It will take time to get the full picture, because we're not just selecting on micron and fleece weight, but on their ability to rear a lamb. We want to select the most profitable sheep."

With five other woolgrowers, Mr Avery engaged Anthony Shepherd from SheepMatters to advise on nutrition and management, and it was on this



St George grazier Rod Avery checks weaners in the yards at Burgorah. Mr Avery aims to identify his most profitable sheep by using EID tags.

advice Mr Avery shortened joining in 2017 from eight weeks to five.

Merino rams were joined with 1100 ewes, ending up with 930 in lamb; 380 of those bearing twins. As conditions got drier, Mr Avery sold off the cast-for-age and dry ewes and put the remainder on a harvested mung bean paddock.

When dry conditions prevailed and feed became scarce, he split the ewes into three mobs: twinners and older singles into two small 1–2 hectare holding paddocks, and maiden singles into a 50 hectare paddock.

"I had trialed drought-lotting with the Department of Primary Industries in the 1990s and read a Leading Sheep article about the Agar family doing it in 2013," Mr Avery said.

"This time I fed oaten hay and ad lib cottonseed for six to eight weeks before we had 110 millimetres of rain, then 10 days later I let the ewes and lambs out onto green pick."

"Good water is essential too. I built troughs of 15 centimetre PVC pipe with slots cut in the top that the sheep could just get their

mouths in to drink, rather than kicking dirt and dust into it."

Mr Avery said he was now considering a similar approach for twinning ewes in 2018 and weighing up feeding better quality lucerne hay and faba beans instead of cottonseed.

He spent \$25 a head in the drought lot and only lost three per cent of ewes, and there was no break in the wool at crutching in 2018.

"It will take a few years to get the full picture by measuring traits like fleece weight, micron, yield, live weight, whether they have a twin or single lamb or are dry, or whether they actually rear a lamb, and recording their condition at lamb marking."

He said there were other bonuses to collecting the data.

"When I am weaning lambs at crutching and shearing, I am collecting information on what the mob is doing. I don't tag wether lambs but weigh them if I have time, so when it comes to selling the agent has the information available."

"There are a lot of variables to juggle but at the end of the day, you want lambs on the ground and to keep the most profitable animals."



‘Control your own destiny’ with electronic identification

Sheepmatters consultant Anthony Shepherd gives advice on making the most out of electronic identification (EID).

In the past three years, high wool and meat prices have sparked a steep growth curve in the use of technology to measure the performance of ewes.

“We go to lots of ram sales where there’s plenty of performance data available on the sires, then we go home and breed from them. But without measuring the ewes those rams are joined to, and the lambs from that joining, how do we know we’re getting the type of sheep we want?” Mr Shepherd said.

Mr Shepherd says the most common misconception about EIDs is that they involve extra work.

“In fact, when sheep are in the yards anyway for shearing, pregnancy scanning, lamb marking or weaning, it’s about opportunity. The EID system enables us to digitally record relevant commercial traits of the individual sheep and rank it on performance, not age.”

“I advise producers to start small because it’s a big investment with RFID tags costing \$1–\$1.60 and hardware and software up to \$30 000. They may only need to spend 10–20 per cent of that money to get what they need from EID.”

Mr Shepherd recommends his clients set a longer term breeding objective to know which data to collect, and EIDs can improve the ease and accuracy of this.

Once producers are measuring and collecting data, the key is understanding it. Producers can work out a three year rolling average clean fleece value by combining specific traits. These traits could include a ewe’s ability to conceive, rear a live single lamb or twins, body weight, and condition score at scanning and weaning. These can then be ranked alongside

wool production traits, such as greasy fleece weight and micron.

Mr Shepherd shows his clients how to combine the data with subjective classing to ensure the right conformation. Following that, ewes are ranked to decide which are kept in the breeding program and which are sold or joined to a terminal prime lamb sire.

“The Merino ewe needs to be a lifetime ewe, so we gather information about her progeny as well—the lamb’s weaning weight, weight gain, whether they’re born in a single or twin mob—and all of this is mapped on the EID tag, like the relevant information you see on the resume of a potential employee,” Mr Shepherd said.

“We’ve found that 28–33 per cent of all commercial twin lambs have a higher weight gain than single lambs, and there’s high repeatability and heritability. With good management, those twins that are ewes are more likely to get in lamb and more likely to have twins.”

“Similarly, I’ve followed maiden ewes that don’t get in lamb the first year, but get in lamb the second year. Of the flocks where we’ve tested these year two maiden ewes, 70–72 per cent of their ewe lambs also didn’t get pregnant until the second joining. So you’re breeding slow ovulating, slow maturing sheep.”

By following 5500 maiden ewes owned by 11 clients, he found a similar outcome with maiden ewes that have a live lamb but fail to suckle it.

“We followed those ewes for five years. Compared to 5.8 lambs on average from a maiden that raised live lamb(s), we found



Sheepmatters consultant Anthony Shepherd wants to improve awareness of the benefits of EIDs in sheep.

that these maidens that lost their first lamb(s) had an average of 2.3 lambs, so there is high repeatability of that inability to raise a lamb,” Mr Shepherd said.

“When some of those ewes died, I did autopsies and found many had hard colostrum in their teats, meaning they got pregnant every year but didn’t have the ability to milk, due to not passing that milk as a maiden.”

“These ewes need to be sold to the meat processor, not kept.”

He says the key to successfully using EIDs is following through on the data.

“It’s not about running the most sheep you can. It’s about getting rid of the bad performers and spending your time on improving productivity.”

For further information, contact Anthony Shepherd at Sheepmatters on 0418 132 864 or anthony@sheepmatters.com.au or visit sheepmatters.com.au.



Anthony Shepherd is based at Cootamundra in southern New South Wales, and operates a commercial farm, ‘Jaffa’, as well as his consultancy business Sheepmatters, which has clients across Australia representing more than 1.3 million breeding ewes.

Top tips for using EIDs

- Know your goals. Where do you want your sheep operation to be in three, five or ten years’ time?
- Learn to swim. Start with EIDs on a small scale e.g. on maiden ewes, and learn how it works.
- Don’t invest in expensive equipment. Until you know what you need, employ a service provider and use their knowledge.
- Only collect traits that matter. Make sure what you’re collecting is useful for your operation.
- Be subjective. Assume all sheep are on the same playing field. Just because a ewe is six years old, it doesn’t mean she’s not productive.

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