

Breeding better wool

Overview

This case study showcases the on-farm value of modern sheep-classing technology, which is helping Queensland wool producer Rod Avery improve productivity and business outcomes.

Producer: Rod Avery, Burgorah, St George, Queensland

Enterprise type: Currently focussed on a Merino sheep breeding production system, having switched from a mix of breeding and wether production.

Land size and type: About 2833 hectares (ha) are leased for the sheep operation; predominantly Mulga-Belah country, with improved Buffel grass pastures during summer.

Flock size: At the time this case study was written, Rod was running about 1300 Merinos, hoping to increase to 1700 with a good season in 2022. All ewes get scanned for single and twins, with twinners run separately during lambing.

The Avery family has been on Burgorah for about 15 years. Rod describes it as a trading operation running a range of breeds, before gravitating back to a self-replacing Merino flock.

“Right now, there's a decent value for wool so it's worthwhile doing a good job of it, even though the meat prices are also very good,” Rod said.

“You've gone from \$20 to \$30 per head to \$150 to \$200 or more per head.”

Rod has the data to confidently estimate that he gets two thirds of his income from store lambs, cast for age and cull sheep due to the massive demand, with wool production providing the other third. But he is actively working to improve the quality of the wool produced, as he has moved towards a total breeding operation.



Burgorah producer Rod Avery

Wool production has increased from about 4.5 to 5kg/head for his ewes due to improved nutrition and flock management. About four years ago, Rod actively began implementing management practices to improve fleece quality.



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Embracing the technology

Rod wanted the ability to identify his best performers, so he started collecting data on his flock four years ago.

Every ewe has an electronic identification (EID) tag with a unique number which is linked to data collected on weaning weight, fleece weight, wool micron and yield of each sheep at the first shearing. Data is also collected on each ewe and if she has a single lamb or twins each year.

Rod now has a good record of his flock's attributes and can use this data to improve the quality and amount of wool produced and increase the number of sheep to take advantage of the demand.

This has required Rod to push himself out of his comfort zone and embrace new technology. He has invested about \$5,000 in quality equipment including animal scales, an indicator and an electronic tag reader (wand).

Rod also invested in ensuring there is Bluetooth connectivity between the indicator displaying the weights and the wand scanning the individual tags.

"From my experience, it's important to invest in a good set of scales and a reader that talk to one another with Bluetooth," Rod said.

"Also, get good support with the equipment because there are moments where technology and man sometimes don't agree and there's a bit of training involved to use the equipment.

"Set your yards up so it's easy to manage, have a good computer at home, and probably someone who knows how to use the spreadsheets.

"The cost of equipment can also be reduced by spreading the purchase bill.

"I actually shared a bit of equipment purchasing with one of my friends. He's got the printer and I've got the scales, and we just share about so you don't have to cover the full costs yourself.

"The first year or two, we were just using the sheep race to do the work and collect data, however, since then I've invested in a sheep handler, which is doing one sheep at a time so I can do multiple tasks such as weighing, drenching and fleece sampling.

"You've just got to think about your plan and how you handle your sheep to record the data. That's probably one of the big points."

Rod says he's now in a position to actively use the data he's collected, having built up the number of ewe lambs on the property.

"I know if I wanted to downsize my flock for any reason, I could take out the bottom 30% of performers," Rod said.



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“For example, next year we have 700 ewe lambs to choose from. If I can have their body weights, fleece weights and micron, I can start using that wool data and information and sell those off a lot earlier at a premium. But for the last few years, we have focused on getting the lambs on the ground and boosting productivity with good nutrition. Any dry ewe at lamb marking or scanned empty is culled.”

Rod also has the option to actively use genetics testing and results in his ram selecting, instead of relying on visual assessment.

During the past few years Rod has had to contend with drought and has focused on keeping stock alive and healthy, resulting in premium prices.

“I’m marking around 110% lambs the last few years with the droughts, and I’m also cutting five kilograms of wool,” Rod said. “I probably wouldn’t have cut four and a half before and probably only had 80% lambs. Also, I haven’t got the weak, low tensile strength in the wool,” he said.



St George wool producer Rod Avery working with his sheep handler

“My agent and I talked about two years ago and worked out that we thought there was a \$10 per head benefit in better nutrition during lambing.”

Rod has been actively improving the ways he gets that nutrition to his livestock, including regularly using supplementary feeding, investing in feeder bins and using confinement yards when drought conditions are at their worst.

He also set up a feed-out bin on a truck and refined the feed provided, preferring Faba Beans due to their nutritional value and reduced risk of acidosis.

Using the information

This year, Rod has decided to start using the records he has gathered combined with future data.

“I have the information on their wool value average over the last three years. I’ll also use the information on when they got in lamb and anything that hasn’t got in lamb is going, which could be up to 5% or 10% of your maiden ewes,” Rod said.

“I’m thinking I’ll use the wool value, plus if it got in lamb, combine it to come up with a figure to cull.



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“A lot of it is about whether I expand my sheep numbers or rein them back in and cash in on the sheep market. So that’s a decision point, and I’ll have the information on if I get rid of the bottom 20% and sell off while prices are high, and maybe that 80% remaining are producing 90% of what the whole flock was anyway.”

Recommendations

Rod has this advice for producers considering going down the record keeping path to improve flock management and fleece quality.

“You need to know what you want to get out of it at the other end. I’m four years into data collection and I now have a good body of information to use. For example, the micron of each ewe could be used to draft into separate micron mobs before shearing to gain a premium if that was warranted. The EID tag could easily be scanned as we have that information,” he said.

Rod is a long-time owner classer and has a good idea of the traits he wants in the fleeces his flock produce. He encourages producers who want to do the same to take advantage of the courses on offer.

“The courses run by Australian Wool Innovation are number one and Leading Sheep do a good job pointing you in the right direction—the more of those we get around the better,” Rod said.

Final word

Rod feels his approach is, in its own way, helping improve the state of the wool industry.

“I think I’m probably collecting more data than I need right now, but in time, I’ll decide where to apply it to make decisions,” he said.

“The first year I collected the wool data, we could see the huge variations in the flock, from a ewe with \$70 worth of wool, down to one with \$25 worth of wool. If you add in the value of one or two lambs it is worthwhile to identify the productive ewes. If you want to select an animal that’s going to be the most productive to breed from, wouldn’t you want the information?”

“I might never get to that point. I may want to trim back to a couple of hundred sheep on a little retirement block, then I’ll just take the best ones with me. But just think about what the possibilities are in increasing our productivity.”

Leading Sheep is a partnership between the Queensland Department of Agriculture and Fisheries and Australian Wool Innovation, and is supported by AgForce.

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