

WA's Korellup farm blooms with diversity

SARAH JOHNSON



INNOVATIVE MIXED FARMERS ROB AND JENNY EGERTON-WARBURTON.

At a time when mixed farming is steadily declining in favour of cropping-only enterprises, West Australian farmers Rob and Jen Egerton-Warburton are profiting from a more diversified approach.

Rob, a Nuffield scholar, addressed the topic of diversity at SANTFA's 2013 conference, presenting his experiences researching and developing an integrated livestock cropping system on his 4,000 ha farm near Kojonup, in the south-west corner of WA.

Diversity in a farming enterprise is all about risk management, he said. "Having multiple streams of income is how we manage risk. The key is finding what fits within your enterprise and your lifestyle and can generate you a bit more income."

The Egerton-Warburtons' farming business currently comprises 30% livestock, including Merino sheep and cross-bred lambs, and 70% cropping, with a rotation of canola, wheat and barley. The family also runs Lucinda's Everlastings, which supplies everlasting seeds throughout Australia.

Rob is a sixth-generation farmer and the second family member to own the family property, Korellup, located in a picturesque part of WA known for its rolling hills, tall Eucalypts and reliable

rainfall. His father and brother moved off the farm several years ago and relocated to the city to develop the Agrimaster business, an agricultural software provider.

He has seen farming come full circle since he returned to the farm in 1995. "When I started farming we were all sheep and had no crops at all, but in the 1990s we very quickly worked out that the only way to survive with Merinos was to get rid of some of them and starting putting crops in and that's exactly what we did."

I'm one of those vultures who goes around in a really bad year, when no one else is buying machinery, and buys up the stuff as cheap as I can.

At the same time the family doubled the property size by buying a neighbouring farm, putting the business under enormous financial pressure. Their solution was to put sheep on one farm and crop the other.

"What I couldn't understand as we moved into the 2000s was that everybody was getting rid of their sheep and doing more

and more cropping," said Rob. "I realised a few years ago that I'm one of the few farmers that still has large stock numbers and is doing okay."

According to Rob, the sheep industry in WA has more than halved in the past six years. "It's getting to the point where the sustainability of the industry is in question," he said.

Rob is chair of the Sheep Industry Leadership Council in WA, which was set up by the State's agricultural minister to resurrect the sheep industry and a board member of the Cooperative Research Centre for Sheep Industry Innovation (Sheep CRC) and Merinotech Pty Ltd.

Agriculture's dwindling diversity was the impetus for Rob's Australian Nuffield Scholarship in 2010, when he decided to research how mixed farms operated around the globe and return with ideas for his own farming enterprise. "I thought I'd find out about mixed farming and come back with all these great new varieties of grass, but what I found was that no-one has mixed farms," he said. "Australia is really it; along with Uruguay, a little bit of Argentina and Brazil."

His scholarship took Rob to the United Kingdom, Europe, North America and South America, including a 10,000 km road trip across the US, stopping at research stations and roadside farms where he thumbed rides on headers.

He found that government subsidies made single-enterprise farms viable in the northern hemisphere but that in the southern hemisphere farmers had to fly solo. "In South America mixed farming is again really important because farmers have to manage their risk," he said.

Brazil has taken the same road as Australia, with farmers shifting to cropping at the expense of livestock. "They've all moved out of livestock, selling their cattle and sheep." However, there is a push by the Brazilian government to encourage diversified farming, whether that means livestock, trees or other enterprises, he said. "The government really fears that that farms relying on only cropping will start to fall over. If you go to Brazil, all you see growing are soybeans, with the

odd corn crop. They're really concerned, because when people go hungry, governments lose power."

Despite discovering little mixed farming overseas, Rob returned to Australia with a renewed enthusiasm to pursue a diversified approach and has set about applying the concepts detailed in his Nuffield report, titled *How diversity decreases risk and increases opportunity in agricultural enterprises*, on Korellup.

He suggests the interaction between livestock and cropping on his farm is what makes it different.

"The livestock and cropping enterprises fluctuate but can stand on their own. The real cream on the cake comes from the interaction between the two," said Rob. "That's where we make our money."

He's coined the phrase 'farming the margins' to explain how grazing livestock on crops has benefited their bottom line, with income generated from fattening lambs on crops without the grazing reducing the grain yield.

"That was one of the pivotal points in farming for us; realising that we could graze our cereal and canola crops with virtually no yield penalty," he said. "That doubled our stocking rate."

Finishing lambs was a problem in the past, but the Egerton-Warburtons now move all of their sheep from pastures onto crops during June and July, allowing the pastures to bulk up and providing an opportunity to spray them for weeds.



SOWING EVERLASTINGS AROUND THE EDGES OF CROPPING PADDOCKS HAS REDUCED PEST PRESSURE IN THE CROP.

"When the sheep come off the crops they go onto pastures with 2½ tonnes of feed a hectare," said Rob.

Grazing crops has also proved a boon for controlling weeds that germinate in the row. Grazing GM canola crops opens up the rows so a second application of glyphosate, applied about two weeks after the initial spray, can reach weeds in the crop that would otherwise have been sheltered by the crop canopy.

Not happy to rest on their laurels, the Egerton-Warburtons have experimented further and found that seeding canola into lucerne is another successful way to

combine grazing and cropping, with any lambs not sold over summer put into canola/lucerne paddocks for fattening.

Sheep prefer lucerne over canola, so they graze the lucerne, leaving the canola untouched until the lucerne starts to run out. They are removed as soon as they start to eat the tips out of the canola.

"The sheep absolutely nail the lucerne down to the ground, taking out what is essentially the weed so the canola can develop with minimal growing-season competition," said Rob.

He has seen no yield reduction from grazing crops. "They come back incredibly



GRAZING CROPS INCLUDING CANOLA IS STANDARD PROCEDURE ON KORELLUP, WITH SIGNIFICANT BENEFITS FOR THE SHEEP AND NO OR LITTLE ADVERSE IMPACT ON CROP YIELD.



A CANOLA CROP THREE WEEKS AFTER GRAZING.

quickly. Four to five weeks after grazing you're battling to tell the difference between crops you have and haven't grazed."

In 2010, a poor year for cropping in WA, with no finishing rains, he put sheep into a canola crop as it started to flower, then shut it up for grain. At harvest time the crop was half a metre shorter than expected but the yield was good, with very little difference between the tonnage from that paddock and a nearby one that wasn't grazed.

"The grazed paddock was all pods. It's amazing what happens to those little plants; they all tiller from the base. Plus it was much easier to harvest."

The family looked outside the square to further diversify their farming enterprise in 2004 when they established Lucinda's Everlastings, a seed supply business. It started when the family was given a kilo of everlasting seed collected from the 100 ha of native bush on their property. They were told that everlastings, a native Australian wildflower, hadn't been successfully grown as a commercial enterprise before but to see what they could do.

They grew 70 kg of seed in the first year and soon realised the enterprise would be more profitable if they packed and supplied the seeds themselves, which is how Lucinda's Everlastings blossomed. The business, named after Rob and Jen's oldest daughter, is now the premium supplier of everlasting seed to nurseries, tourist centres and gardeners throughout



HARVEST TIME ON KORELLUP. NOTE THE CHAFF CART, WHICH IS REDUCING WEED POPULATIONS, AND THE AGE OF THE HEADER. ROB BELIEVES THERE ARE BETTER THINGS TO DO WITH MONEY THAN SPEND IT ON NEW MACHINES.

Australia, with 120 distributors nationwide. "We have so dominated the market, that when people talk about everlasting flowers they call them Lucinda's everlastings," said Rob. "That's the ultimate in branding and is really good business."

The family have also found that planting everlastings on their property promotes biological pest control. They plant 'waste' everlastings – the seeds rejected from the supply business – on headlands, drains and the margins of crop paddocks, where

insects are attracted to the flowers. "The daisies flower early and are the only plants flowering at that time of year," Rob said. "All the wasps, beetles and other insects gravitate to the flowers and we don't seem to have any problems with aphids in the crops." Insects aren't alone in their attraction to the flowers; members of Australia's media have swarmed to Korellup too, chasing the vibrant vision of the flowers in bloom. Since 2004, several television shows have filmed on the farm, including Channel Nine's *Farmer Wants a Wife* and Channel Seven's *My Kitchen Rules*.

Rob welcomes the opportunity these visits afford to promote agriculture. "These opportunities give me a chance to talk about farming," he said. "They want to talk about flowers; I talk about farming. I talk about how good farming is and how much I love it. It's a great opportunity to talk about my business and my industry and that's one thing we really need to do well."

He laments agriculture's poor image and the negative effect if that on investment opportunities and appealed to members at the SANTFA conference to talk positively about farming, rather than wailing about the problems of the industry. "If it's a bad season, talk about the opportunities you have in farming. If you love farming, then talk about it," he urged. "You don't hear the mining industry bitching and moaning about the price of



AFTER HARVEST THE SHEEP GRAZE THE STUBBLES AND FEED ON THE PILES OF CHAFF DUMPED FROM THE CHAFF CART.

iron ore; they talk about the opportunities, the jobs and the growth. Agriculture is my industry and I want it to grow.”

Rob is looking for people or enterprises to invest in farmland and has the attention of international investors, but little local interest. “There’s interest from Asia and the UK, but a big bugbear of mine is the struggle to attract Australian investors,” he said. “It’s very hard for locals to be enthusiastic about investing in Australian agriculture when farmers keep grizzling about how bad it is.”

The family are interested in external investors buying land they can lease or share farm. They want a long-term arrangement – 15 to 20 years – to give them time to achieve a return on their investment and give investors confidence that their investment will be looked after by a long-term tenant.

“Agriculture is restrained by capital and banks have indicated that they’re less likely to keep lending for land expansion. The price of land has reached the point where you’re tying up a lot of capital if you buy, which means you don’t have funds to invest in actual production.”

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Timing and technology tip the scales

Rob Egerton-Warburton doesn’t mince words when it comes to farm machinery: he ‘absolutely loathes it’.

“One really important part of our business is not spending money on machinery, so I’m one of those vultures who goes around in a really bad year, when no one else is buying machinery, and buys up the stuff as cheap as I can.”

He spent \$100,000 on a tractor, bar and air seeder – a Morris Concept 2000 – and is barely happy with the outlay. “I just think of all the money I’m losing. It just keeps depreciating. The same set up could cost me \$350,000 to \$400,000, but I’d



WINDROWED CANOLA IN A Paddock WHERE IT WAS SEEDING INTO A STAND OF LUCERNE; A CONCEPT THAT WORKS WELL ON KORELLUP, WITH THE SHEEP USED TO EAT DOWN THE LUCERNE AHEAD OF SEEDING.

rather take that extra \$250,000 and buy a house in Perth, or do something that’s going to appreciate.”

His headers are two second-hand CDS harvesters, which have each done 4,500 hours, that he bought for a total of \$100,000.

Rob prefers to invest in technology to improve the capability of existing machinery rather than buy new machines.

“It’s the latest GPS and monitoring equipment on late-model seeding and harvesting equipment that makes the difference.

“We run an old sprayer, but spend whatever it takes on the technology; the tips and nozzles. Whatever it takes to deliver the chemical onto that weed, that’s where all the money goes.”

Rob mostly uses AIXR nozzles, which provide the best penetration of the chemical to the target. “As much as 30% of the chemical doesn’t even hit the ground with a fine-droplet nozzle,” he said. “It either evaporates or drifts away from the target. We’ve tended to increase droplet size so we get more droplets on the target and we’ve increased the water rate to improve distribution.” He uses a water rate of 80 to 120 L/ha for most chemicals except glyphosate, which is applied using a water rate of 60 L/ha. The nozzles on his boom are spaced at 25 centimetres, which matches the seeder

spacings. “That’s about weed control; making sure there’s a nozzle pretty much over every single row,” he said.

Fertilisers are the other aspect of cropping that Rob believes worthy of investment. “With fertiliser, it’s all about timing,” he said. “We spend a lot of money on fertiliser, and make sure it goes on at exactly the right time. If we have to put fertiliser on four times, then we put it on four times, because that’s where we get yield reliability.”

Despite Rob’s aversion to machinery the family bought two chaff carts in 2010, a decision that has benefited Korellup’s cropping and grazing operations. He is frustrated by the fact the carts have slowed harvest, but improvements in weed control and having the header chaff as stock feed cancel out the extended harvest. “For us, it’s worth it,” said Rob. “Integrated weed management is a must. If we’re going to spend money on high rates of trifluralin and GM canola we can’t leave any weeds in the paddock. Chaff carts are just a fantastic way of getting rid of weeds.”

The header chaff is also a valuable extra feed source for livestock during summer. The chaff piles are positioned close to dams so the stock don’t trample paddocks moving between food and water. “The sheep will sit on the dam, walk to the chaff piles then go back to the dam,” said Rob.