

WA's Future Farm

The University of Western Australia is using its Ridgefield Future Farm to encourage agricultural best practice, educating students along the way.

STORY + PHOTOS JILL GRIFFITHS

In the heart of the Western Australian Wheatbelt is an unusual farm. In many ways it's just like all those around it, but in other ways it's part of a revolution.

Ridgefield is The University of Western Australia's (UWA) 1600ha Future Farm. It's a bold experiment in agriculture and agricultural education, but also an ordinary operating farm.

It's the brainchild of Professor Graeme Martin, a silver-haired academic with the heart of a country boy. "UWA is a world leader in agriculture," Graeme explains. "We're consistently ranked in the top 20 universities in the world for agricultural research. We're serious players. And if you're going to have credibility in that space, then you need to be in agriculture – you need to be in farming."

With that in mind, in the early 2000s Graeme convinced the (then) UWA Vice-Chancellor Professor Alan Robson that the university needed to buy a farm. It probably helped that Alan was an agricultural researcher himself.

"We had some strict criteria for the

farm," Graeme says. "We had a tight budget. It had to be within two hours' drive of Perth, so students, researchers and visitors could visit comfortably in a day trip. And it had to be big enough to be economically viable." Graeme moves his fingers in the air to indicate quote marks as he says "economically viable", suggesting there's a catch in that claim. Later, he explains that the catch is that being a university farm presents complex difficulties with the commercial reality of farming – mainly to do with some extra costs associated with the need to pay a farm manager, including holiday pay and associated benefits, which owner-operator farmers would waive during tough times. There is also the need for strict adherence to tight occupational health and safety protocols, and reporting. "We have some extra costs that affect viability, but we wear them happily," he says. "Basically, it's run as a viable farm."

UWA bought Ridgefield in 2008 and initially leased it out. By 2013 it had taken over full management.

"It's a classic mixed farming enterprise – cropping and sheep," Graeme says. "We run Merinos because 80% of the sheep in Australia are Merinos, so to be relevant to most sheep farmers we need to do that. They also give us two enterprises – meat and wool. Farming is more economically viable with more enterprises."

Deciding that the farm needed to have a university-inspired vision, Graeme started exploring the question of what an ideal farm would look like in 2050.

"We don't have \$25 million to convert the farm for the future – the farm has to pay for itself," Graeme says. "We have to be prepared to take risks, to make mistakes, but we then need to look at what didn't work and why."

The work on the farm is underpinned by four pillars: cropping; sheep; biodiversity and conservation; and people.

The cropping enterprise is rain-fed and grown with the idea that every drop needs to count. The sheep are "clean, green and ethical". They are not mulesed and the breeding focus is on producing a robust,

healthy animal. A large dam provides water to every paddock and helps to droughtproof the farm.

Graeme points out that as much as 60% of Australia is owned and run by farmers, so agriculture has an important part to play in biodiversity and conservation. On Ridgefield, UWA is working with Greening Australia to revegetate corridors to link the remaining remnant vegetation. There is also a project Graeme describes as a 'halfway house' between conservation and production agriculture. Called 'Enrich', the project uses native shrubs as livestock forage. Enrich project leader Professor Phil Vercoe says the native forage shrubs provide more than nutrition to the animals.

"They provide shade and shelter as well, and they produce plant secondary compounds that can reduce the need for chemicals," Phil says. "Planting native shrubs benefits not only the animals, but the environment. This is such an important part of livestock production these days, because consumers are demanding products that are 'clean, green and ethical'." The Enrich project team won the 2013 Caring for our Country Landcare Eureka Prize for Sustainable Agriculture for its discovery that feeding native shrubs to livestock could improve profitability, decrease greenhouse gas emissions and reduce erosion.

The fourth pillar of Future Farm is people. Graeme says it's about contented farmers living in vibrant communities.



UWA's Professor Graeme Martin at Ridgefield Future Farm.

"Those things go together here," he says. "It's about the lifestyle of the farmer and also about involvement in community." He says a nice house to live in is a good place to start and at Ridgefield, the farm managers, Richard and Cathy McKenna, certainly have that. Designed by UWA architect Patrick Beale, the house was built offsite, then flat packed to the farm, where it was constructed in three weeks. It follows the clean, green and ethical approach – passive-solar design, and self-sufficient for water and energy. Cathy says she enjoys the excellent natural lighting,

ventilation and temperature control, and adds that the views are amazing. She says she and Richard have also found the community of Pingelly to be very welcoming. "They have made it easy to move and live here," she says. "But I also love everything we do here on the farm. Everyone involved is enthusiastic about what we are doing."

Richard agrees, but is philosophical about Future Farm and the role it plays. "I don't think we do anything here at the farm in a commercial sense that others aren't doing," he says. "Some guys are probably >



Farm manager Cathy McKenna on the verandah of her home on the farm.

doing more. But what I'd like to achieve is to be on par with the best commercial operators, but have exceptional animal care and be in sympathy with nature.

"At one extreme new technology will allow food to be produced at very low cost but in a non-traditional manner, possibly without a farmer or even a rural landscape. At the other extreme, food will be produced in the traditional sense, but with a very big emphasis on ecological, animal and human ethics, and discerning customers will pay a premium for this. It is at this end of the spectrum where this farm can play a role."

A big part of that role is a focus

on education – hardly surprising for a university farm. While field trips for agriculture students, visits from international researchers and open days form an integral part of Ridgefield's business, the vision is to stretch that reach further. "Bringing city kids out here to where their food is grown is important to us," Graeme says. He and Richard proudly show vegetation corridors that have been planted by city kids during farm visits.

Penrhos College, a girls' school in Perth, recently visited Ridgefield for the third time. "The information presented perfectly matches the syllabus objectives,

and the students are always amazed at the variety and range of impacts from planting one bush species," geography teacher Susan Martin says.

Perhaps the amazement today's students feel when they visit Ridgefield will lead them to careers in agriculture and farming. Or perhaps they will simply become more aware food consumers. Either way, Ridgefield will be fulfilling its mission.

UWA Future Farm

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