

PROJECT PIONEER

CASE STUDY 2019



ANDREW & TALI BROWNLIE
'LOCHMEAD', EMERALD

ANDREW & TALI BROWNLIE

For Central Queensland beef producers Andrew and Tali Brownlie, monitoring and managing every aspect of production, including their impact on the overall ecology, is integral to the sustainability of their cattle business.



Their 'bigger picture' outlook has helped guide a range of on-farm management changes that the Brownlies have implemented since becoming involved in Project Pioneer.

Through Project Pioneer, Resource Consulting Services (RCS) has teamed up with the Australian Government's Reef Trust and WWF, and is working with leading beef producers such as the Brownlies to develop, trial and validate improved livestock and pasture management that can deliver significant economic, social and environmental gains.

Based on the rich black soils of the Central Highlands, Andrew and Tali and their young family run 220 Droughtmaster-cross breeders plus progeny across 2,200 hectares at 'Lochmead', near Emerald, currently turning off feeder steers and heifers.

Andrew and Tali manage the cattle side of the family business, while Tali's parents manage the broadacre cropping part of the business.

Andrew said they applied to participate in Project Pioneer to boost their knowledge and management skills; two years down the track, they are starting to see the benefits.

"I think our biggest achievement has been around land management and knowing how we can affect the land for good or bad, and that the biology of the ecosystem is impacted by the way you work your stock around your paddocks," Andrew said.

"Then there's also the figures and management side of the business, and having access to tools to help us with planning and forecasting."

PATH TO CHANGE

Andrew said while they were already utilising a range of on-farm management practices advocated by Project Pioneer, they have made a number of adjustments to further improve results.

"We used to always rotate the stock through our paddocks but not in as strictly controlled a way as what we are doing now," Andrew said.

"We have been splitting up paddocks, making them smaller to increase stocking density and increase the number of paddocks.

"We are seeing the benefits in different grasses that are now able to get away and grow because we're giving the landscape adequate time to rest.

"Most of the property is black soil, but there are some red sandy ridges as well. We've got a mix of native and introduced species – there is some pretty heavy buffel country, right through to speargrass and Mitchell grasses.

"Through time-control grazing and speeding that process up in the wet season, moving cattle every three to five days, you don't necessarily see where they've been because they just top the grass and it continues to grow.

"We've only been through one and a bit wet seasons since we've started Project Pioneer and this calendar year we have only had half of our annual rainfall, but the grass has held on quite well and some of the species of grasses and legumes have also improved. Bambatsi and Desmanthus have noticeably increased and the white spear grass has considerably decreased in this short time.

"The more desirable grasses have increased and the undesirables have decreased, which in turn, improves the quality of the pasture and also the groundcover. We'd love to see a good growing season or two to really see the full impact of the changes.

"Surprisingly, even though we have just been through a dry season, we still had a good amount of grass in most paddocks.

"As a result of what we're learning through Project Pioneer, I think we were more keenly aware of when we were going to need to decrease stock numbers because of the dry. If the

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Tali and Andrew Brownlie.



“The family have got confidence in what we’re doing. They can see the progress and are happy with the results so far and given us management of the cattle side of the business.”

Tali and Andrew run 220 Droughtmaster-cross breeders plus progeny across 2,200 hectares.

improvements continue, then I can’t see why we can’t increase numbers or at least see better gains out of the cattle.”

MEASURE AND MONITOR

Andrew said they have been using the online grazing management tool ‘Maia Grazing’, to record, monitor and manage the available feed.

“We’re using Maia Grazing in conjunction with spreadsheets for paddock rotations,” Andrew said.

“It helps us know how many stock days per hectare of feed is available in each paddock, and provides a snapshot of the whole place and what’s going on.

“It really allows us to monitor grasses, know what the cattle have taken out of the paddock and forecast how many more stock days you’ve got left before you should start selling down to protect the land.

“We used to monitor the paddocks and rotate cattle but it wasn’t based on as much data and was nowhere near to the level we’re doing now.

“It has given us more peace of mind. If you’ve measured the grass that’s in a paddock, and you know if they’re in there for five days they’re only going to eat a quarter of that grass, you know what you’ve got to work with.

“Long-range budget forecasting is another change we’ve made. We have worked through a budget forecast for the next five years to see where we’re heading well before time.

“We probably wouldn’t have done that if we didn’t have the RCS Executive Link board behind us, encouraging us and making us accountable to ourselves.

“Of course, we did budget planning before we became involved in Project Pioneer, but not to this level.”

Since becoming involved in Project Pioneer, Andrew and Tali have purchased an adjoining block of land to ‘Lochmead’, and are leasing Tali’s parents’ breeders for a few years to build up stock numbers.

Andrew said undertaking detailed budget forecasting had helped in making those decisions and given them the confidence to act.

“The family have got confidence in what we’re doing. They can see the progress and are happy with the results so far and given us management of the cattle side of the business,” Andrew said.

Looking ahead, Andrew said their ultimate aim is to be in a position where he no longer has an off-farm job and can focus full-time on their cattle business.

“If we can have our own cattle business and that’s what supports us, then that will be ideal.”



Despite experiencing dry conditions, there is still a good amount of grass in most paddocks at ‘Lochmead’.



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The Brownlies have increased species of desirable grasses at 'Lochmead'.

“By increasing groundcover and species of desirable grasses, locally you have less erosion, so downstream there’s less impact of sediments on water quality received by the Great Barrier Reef lagoon.”

THE BIGGER PICTURE

While ‘Lochmead’ is over 300 km from the coast, Andrew and Tali are well attuned to the fact that their on-farm management has an impact on the ecology downstream and out into the Great Barrier Reef.

A number of creeks run through ‘Lochmead’, feeding into Sandhurst Creek which flows into the Mackenzie and Fitzroy River system, and out into the Great Barrier Reef lagoon.

“If you’re improving the ecology locally, it’s going to have an impact on surrounding areas,” Andrew said.

“By increasing groundcover and species of desirable grasses, locally you have less erosion, so downstream there’s less impact of sediments on water quality received by the Great Barrier Reef lagoon.

“You can know how to handle cattle and know how to get them to a saleable condition, but you don’t always know the effects it’s having on the land and ecology.

“Going through programs like Project Pioneer and actively changing our ways of land management, there are many benefits that result from it.

“There are things in the environment we don’t know about that we influence – but through this process I’ve been able to see better what kind of impacts we have. I think that’s a good thing for other producers to look at and consider as well.”



Funding through the Australian Government’s Reef Trust Phase III Investment Programme allows the delivery of “Project Pioneer – Innovation in Grazing Management”. This project aims to contribute to the delivery of the overarching Reef Trust Programme outcome of improving the quality of water entering the Great Barrier Reef from broad scale land use to increase the health and resilience of the Great Barrier Reef.

For further information on Project Pioneer, contact RCS:

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