

The Pioneers

Stories of the future of agriculture



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Project Pioneer, contact RCS**

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Welcome from Terry McCosker

Australian producers do an incredible job of feeding our nation and the world, and we have developed our training programs to guide and support them in growing their businesses for generations to come – by looking after their land, and growing their businesses.

As an industry, we are constantly developing new and better ways to produce food. We challenged our Project Pioneer producers to go beyond being sustainable, and supported them in moving to regenerative agriculture practices to create a prosperous and ecologically responsive farming future.

The ultimate goal of Project Pioneer was to improve water outcomes for the Great Barrier Reef but the benefits of this program extend far beyond just that. It was our mission to help producers achieve profitable agribusinesses through farm management practices that promote soil health and biodiversity, and reduce sediment run-off.

Project Pioneer has set our producers on a new path by looking at their business holistically. At the heart of our approach was a shift in the relationship we share with the natural environment from one of working against it, to working with it. We did this by applying robust economic and strategic business management practices, which result in more profit in the business, better ecological outcomes and happier, healthier families.

Project Pioneer was built upon the tried and tested RCS teaching platform, one which has transformed thousands of businesses and individuals over more than 30 years. Despite having spent three decades working in this space, I am continually in awe of



what people can achieve within their enterprises, their environment and themselves, through regenerative agriculture.

Our Project Pioneer producers should be incredibly proud of the positive impact they are having on the Reef, their business, their families, and the broader grazing industry.

A handwritten signature in black ink that reads "Terry McCosker". The signature is fluid and cursive.

Dr Terry McCosker OAM
Founding Director,
RCS

Dr Terry McCosker OAM

Terry McCosker is the Founding Director of RCS, and is highly regarded for his outstanding contribution to the evolution and development of agriculture practices in Australia. His innovative career began with the Queensland Department of Primary Industries in 1967, and he has since worked as a Rural Management Consultant across almost all segments of agricultural production. In 2014, Dr McCosker was recognised by Central Queensland University with an Honorary Doctorate of Agribusiness for his contribution to Australia's agricultural sector. In 2021 he was recognised for his services to primary industry with an Order of Australia Medal.



What is Regenerative Agriculture?

Regenerative agriculture links biodiversity to healthy soils, healthy businesses, healthy animals and healthy people.

For farmers and graziers, the practices not only improve their bottom line and increase paddock productivity, they also ensure a farming enterprise can exist in harmony with the natural landscape.

As Australia's leading provider of regenerative agriculture education, training and consulting, RCS offers a highly integrated program which works in close cooperation with industry groups, financial specialists, and leading primary producers, and formed the framework for Project Pioneer.

Through Project Pioneer, it has been demonstrated that a regenerative agriculture approach to farming operations:

- Reduces cost of production
- Reverses land and water degradation
- Improves communication skills within the business and family
- Increases biodiversity on-farm
- Reduces the impact of commodity price variability
- Provides a robust framework for property development
- Successfully supports succession planning
- Supports carbon sequestration and farming.

About Project Pioneer

Project Pioneer has supported hundreds of graziers throughout the Great Barrier Reef catchments to transition to regenerative land and business management practices that grow profitability, while enriching the natural environment and the wellbeing of producers, families and communities.

Since 2016, Project Pioneer producers have learnt to increase and maintain ground cover and soil health to result in the improved quality of water entering the Great Barrier Reef, all while growing the prosperity and resilience of their businesses.

The Project allowed producers to take the health of the business, the health of the farm, and the health of the Great Barrier Reef into their own hands.

Project Pioneer was built on Resource Consulting Services' (RCS) 30 years' experience partnering with more than 10,000 producers to transform management practices for better business, environmental and personal outcomes.

The concept for the Project originated when RCS and WWF struck up a conversation around the health of the Great Barrier Reef and the role producers play in its health. Since inception, the Program has been popular with industry and environmental groups because of the outcomes being proven to be 'win-win' for the farmer, and the Reef. Project Pioneer was most recently funded through a partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation.

Through Project Pioneer, producers have engaged in the RCS learning platform, with more than 220 graziers completing Grazing for Profit™ (GFP) where they are introduced to a new regenerative approach to managing their business. The regenerative movement in agriculture links biodiversity to healthy soils, healthy businesses, healthy animals, and healthy people.

The learning journey continued for 95 grazing businesses with Next Steps, a six-month coaching program where producers are mentored in the application of principles learned through the Project. Many producers then went on to further their professional development with the three-year Executive Link™ program.

Producers are not only given the knowledge to make change, but also dedicated advisors to provide ongoing support to embed learnings back on-farm, and to provide a clear direction for the future.



The Evolution of Project Pioneer

The Project Pioneer concept originated from discussions between Resource Consulting Services (RCS) and WWF about a joint desire to see farm practices change in order to demonstrate the connection between the ecological sustainability and financial success of grazing businesses.

2014

With funding from WWF and RCS, ten producers from the Fitzroy and Burdekin catchments were studied to document the attitudes, approaches and outcomes being achieved from their participation in RCS' programs. The study found these producers had adopted more sustainable practices on-farm, increased their business' profitability and were happier.

2014
–
2016

Key discussions between WWF and the John T Reid Foundation successfully resulted in funding to perform on ground works for reef outcomes.

2016
–
2019

Project Pioneer was officially rolled out and in excess of 750,000 hectares of land came under management of the program. Fifty grazing businesses from across Cape York, the Burdekin, Fitzroy and Burnett Mary catchment areas joined the Project and adopted practices to reduce erosion in grazing lands and improve the quality of the water entering the Great Barrier Reef lagoon. The Project was then extended to offer the Grazing for Profit™ School to a further 50 grazing businesses.

2019
–
2021

The Project turned to focus on high priority areas of sediment loss, and an additional 50 grazing businesses entered the program. This extended the land area impacted to over 1.3 million ha.

Producers were also given the opportunity to develop specific skills through attending RCS Grazing Clinics, Business Fundamentals Workshops and Soil Solution Workshops.

In June 2021, after seven years, the Project came to an end after transforming the lives and business of almost 300 producers, while positively impacting more than 1.3 million ha of land area.



John & Jess Bidgood

Tingle Hill, Baralaba



Tingle Hill at a glance:

Location: Baralaba, Central Queensland

Property size: Tingle Hill - 630ha, Mount Cooper - 1341ha, Round the Bend 559ha

Type of operation: Backgrounding and finishing beef cattle

How regenerative agriculture practices allowed John and Jess Bidgood to achieve their business and family goals ten years ahead of time.

When John and Jess Bidgood took over 630ha Baralaba-district holding 'Tingle Hill' from John's family a decade ago, they did so with an aim to grass-finish steers for the organic market.

However, to achieve their goal of making the property their primary source of income, a different approach to operating the business was required.

The solution was found in 2016, when the couple discovered Resource Consulting Services (RCS) and the transformational change regenerative agriculture could bring to the way they managed their Brigalow country.

Based on their RCS learnings, John and Jess began to implement time-controlled grazing straight away and they were enthusiastic to extend their practice change. So, when an opportunity to join Project Pioneer was presented a year later, they jumped at it.

"We started Project Pioneer at the start of 2017, and it had a huge impact on our business," Jess said.

"It showed us how to create a clear vision for our business and family which has grown our profitability while achieving our ecological goals at the same time. This included improving ground cover, biodiversity of plant species and soil health.

"The Project really suited where we were at that time."

Implementing regenerative land management over the last five years has not only made 'Tingle Hill' more productive and profitable, it has also allowed John and Jess to fast-track expansion of their business. Within two years of commencing Project Pioneer, they purchased Mount Cooper (1,341ha), 35 kilometres to the east of Tingle-Hill and leased Round the Bend (559 ha), also in the Baralaba area.

Focus on soil and pasture

One of the Bidgoods' highest priorities on 'Tingle Hill' was nurturing soil health to achieve a more diverse ecosystem and higher-quality pasture. Traditionally, the property had been operated over four paddocks, two of which fronted the Dawson River and suffered erosion, and had areas of overgrazing and depletion. In the other two paddocks, access to water was an issue which led to poor utilisation of pasture and the formation of clay pans.

During their time as part of Project Pioneer, the Bidgoods invested in 11 kilometres of polythene pipe, and the same number of troughs, to improve water infrastructure and to ensure stock were using the feed available to them. With the same goal in mind, they also subdivided the four large paddocks into 34 by erecting 26km of electric fence.

"Time-controlled grazing has allowed us to gain control of the stock on our properties. It creates a more even utilisation of feed and gives us the ability to plan ahead easily to ensure we are matching our stocking rate to our current carrying capacity," Jess said.

The shift in land management which was borne from their participation in Project Pioneer now sees the Bidgoods meticulously assess the species and growth cycle of vegetation across their paddocks.

"By paying attention to pasture health and growth, we can continually adjust our stocking rate to match the quality and quantity of feed available, this ensures our pasture is left 'rain ready' to make the most of any moisture we receive," John said.

"Even through a recent extended dry, which lasted 12 months, we were able to maintain ground cover the whole way through and our pasture was in a good position to take advantage of any rain that did come at the start of the growing season, which just put us that much further ahead of the market."

John and Jess estimate they had 65 per cent ground cover at Tingle Hill when they commenced Project Pioneer, however this now consistently sits at 80 to 85pc. At Mount Cooper ground cover was around 50pc, however, this has improved to 65 to 70pc, while the growth in diversity of plant species has been exciting.

"The seed is already there, it just needed the right grazing management to appear," John said.

A more holistic approach to management has also heightened the Bidgood's awareness of the performance of their enterprise as a grazing business.

"I used to think I was good at keeping books but all I was doing was my tax accounting," Jess said.



"Now I know our economic position and our cash flow position and where we're heading. We have control over that. The fact that we're cash flow positive and we're profitable every year, regardless of the season, and we're hitting our goals of being able to achieve what we want on farm and off farm in terms of property development and investment for our future, is amazing."

Changes beyond the paddock

At the real heart of what John and Jess wanted to achieve was the desire to make enough on-farm income to strip away the need for them to rely on external streams of income, and to focus their time on beef production and their young family.

"We were trying to find a way we could make this our purpose, our income, our livelihood. We wanted to be profitable while achieving ecological goals including increasing ground cover, biodiversity of species and improving soil health," Jess said.

"Project Pioneer made us realise we had this vision and then it was a matter of chunking it down into goals. We wanted John to be on-farm fulltime and we achieved that, and I have scaled back my off-farm work considerably. Then we set really big goals which included owning 1000 head and buying another property and we've recently achieved them too. Now it's a matter of us reassessing and setting goals for the next stage while, at the same time celebrating how far we have come."

While the last few years of their change to regenerative management have been full of intense shifts for the Bidgoods, they say all changes have set them up for life, especially the adjustments to their thinking about business.

"It's the mental shift into understanding that we create our own destiny. We have absolute control over what we're doing and that realisation has been incredible," Jess said.



"We now have a clear vision that is in sync with our purpose, passions and our family. We can set 'big stretch goals' that we can measure and constantly reassess to look for ways within the business to create a life that we don't want a holiday from and that we absolutely love."

Land

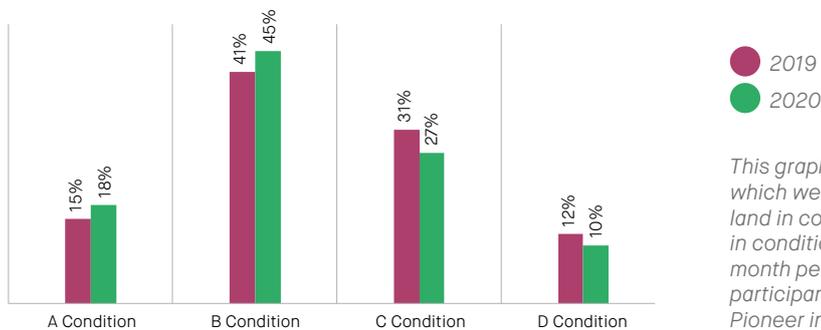
Through Project Pioneer, producers gained knowledge to better understand soil health, ecology and best practice operational methods, to improve the condition of their land.

Producers learned that while seasons are variable, they can employ a suite of tactics to continuously enhance the health of their property by growing ground cover and biodiversity, and make calculations to optimise their feed to cattle ratio. Together, these measures help to ensure producers are not overstocked and, therefore, don't feel pressure to sell into unfavourable markets, contributing not just to ecological health but also the profitability of the business.

While it can take many years to achieve long-lasting improvement in land condition, producers in Project Pioneer properties demonstrated the average ground cover in September 2019 was 77.2%, and by September 2020 it was 80.5%.

Producers use fixed point photographs, taken every six months, to document the vegetative progress. Layering these simple, yet effective, observations with strategic stock movement and grazing have been a game changer for many.

Land Condition 2019 V 2020



This graph demonstrates land condition across 32 properties which were assessed in both 2019 and 2020. The amount of land in condition A and B increased from 57% to 63%, while land in condition C and D decreased from 43% to 37% over the 12 month period, indicating a positive shift in a short timeframe. The participants whose properties were assessed, commenced Project Pioneer in 2019.

Fixed point photo: The Booths property in 2019 vs 2020.



Created with free version of GPS Camera 55

Chris and Chantal Booth

Property name: Southlands

Location: Ridgeland, Central Queensland

Property size: 1412 hectares

Type of operation: Beef cattle and share farming dryland crops



Chris and Chantal Booth have a small beef operation, "Southlands", at Ridgeland, just outside Rockhampton and consider Project Pioneer to have been a "game changer" for their business.

The couple were motivated to transition to holistic management practices after seeing "before" and "after" shots from other producers and have since used these as informal benchmarks for their own progress.

"The proof really has been in the pudding," Chantal said.

"Despite being in drought for the entirety of the project, the before and after photos of our paddocks show significant improvement in pasture density and varieties. The evidence is also clearly visual in the land improvement and the condition and quality of our cattle.

"The whole thing has been positive and an eye opener.

"When Chris and I took over management of the property it was a monoculture of Indian Couch grass that poorly supported 500 head of cattle and 50 brumbies due to previous management practices.

"We reduced stock numbers and built more small dams to increase the water security and to let the landscape recover and this gave Southlands the ability to retain moisture in the soil.

"We know the moisture is soaking in now and you can notice this in our grass quality.

"There's still a high percentage of Indian Couch, which is undesirable, but it's a huge step forward from bare dirt and exposed rock."



16592 ha

of erosion being treated through Project Pioneer



3873

erosion structures installed



93%

increased their use of feed budgeting and recording pasture data



92%

graziers boosted paddock spelling and rotation





Richard & Adele Acton

Greenroc, Thangool



Greenroc at a glance:

Location: Thangool, Central Queensland

Property size: 2800ha

Enterprise: Droughtmaster stud and commercial cattle

A long-held goal of creating a sustainable cattle business that could support their family without relying on off-farm income has now become a reality for Central Queensland beef producers, Richard and Adele Acton.

It's an achievement they credit to improving the efficiency of their land and grazing management practices and financials, and in turn, increasing their economies of scale.

Underpinning those significant changes has been their participation in Project Pioneer. For Richard and Adele, Project Pioneer prompted a complete re-think of their management approach to their business, and has given them the confidence to make big changes that will benefit their business and ultimately their family. Crucially, the flow-on effect has been that Richard now works full-time on their cattle business, without the need for any off-farm income.



"We saw Project Pioneer as a way that we could question everything that we were doing and then really work towards being able to focus all of our energies on making changes," Adele said.

"Richard used to work off-farm as a diesel fitter and supervisor in the mining industry and one of our big goals was to not have to rely on off-farm income. We felt we should be able to earn an income off our farming business alone.

"We had a lot of ideas of how we wanted the landscape to look, and how we wanted our business to look. Off-farm work takes you away from it and you don't have the time to focus completely.

"Project Pioneer has given us the ability to give our farming business the attention it deserves."

The Actons run a commercial Droughtmaster operation and stud, Ambleside, and performance recording the entire herd, selling grassfed paddock bulls.

Until recently, they operated two grazing properties comprising 5000 acres (2024 hectares) in total. They sold both properties – one near Thangool and the other near Baralaba – and bought nearby, "Greenroc", Thangool, which comprises just under 7000 acres (2800 ha).

"The new property will give us the ability to maybe grow some of our younger cattle out and performance record them right through as well," Richard said.

"Previously, we sold all our steers and cull heifers straight off their mum, usually to backgrounders for feedlots. This new property has given us more scope to grow them out and have a bit more diversity and not just rely on bull sales for our income."

"It has a good diversity of country – it has forest country for our breeders but then we've got good scrub country for finishing our bulls and carrying through our steers to help with our performance recording, and increase markets we can access," Adele said.

"It also has some black soil downs country that we can put into cultivation and put back into growing our own forage and oats."

The case for change

The Actons had successfully implemented a range of new land management practices on their previous properties through Project Pioneer, and are now applying the same principles at "Greenroc".

Those changes include time control grazing – rotating cattle through paddocks to allow for country to be spelled at the right time and ensure it is not overgrazed – and careful consideration of water and fencing infrastructure to prevent soil erosion and run-off, and boost pasture growth.

"We joined Project Pioneer in February 2017. At



that time, we were experiencing an extremely dry wet season and had a 12-month rolling rainfall of only 340mm. This was about 300mm less than the average rolling rainfall that we would usually be experiencing at that time of year," Adele said.

"Through our experience with Grazing for Profit, we realised we needed to act immediately and during March 2017 we weaned all of our calves three months earlier than normal (aged three to five months). The average weaning weight of the calves was 180kg with the lowest weight being 128kg. In comparison, our overall average weaning weight for 2018 calves was 252kg (aged six to eight months).

"This reduced our grazing pressure immediately by reducing our total livestock units (LSU) by 16%. These weaners were fed in the yards until they were weaned and then were sent away on agistment.

"The other measure we took to reduce our LSU, and hence grazing pressure, was to pregnancy test all of our cows early with the vet foetal aging the pregnancies so that anything that was not detectably pregnant or less than six weeks pregnant could be sold immediately. This measure reduced our total LSU by a further 9.5% LSU. Overall, these measures led to total grazing pressure reduction of 25.5%

"We got rain in March 2017, however it was too late in the season to achieve useful grass growth. So we did not restock our properties. By the time we received useful rainfall in October to December 2017 we had decided to sell our properties and still did not restock the properties because of the property sale process.

"The AussieGRASS standing grasscover models show that in March 2017 our property cover levels dropped to 45.77%. Due to our actions, these cover levels picked up to 74.78% by end of October 2017 and then by March 2018 were up to 92.4%."

Adele and Richard say they're excited about implementing change at their new property because it's largely been untouched and is like a "blank canvas".

"We have some essential habitat areas here and some beautiful biodiversity we can manage for," Adele said.



"The property was settled in 1930 and we're only the second owners of the property, so there's a heritage with it as well which we think is quite exciting going forward.

"We have a few remnant vegetation areas still on the property and a couple of little patches of scrub vine forest. Through the creek area, there are a few volcanic rock areas with waterfalls that run when we do have water in the creek. There's also a population of bettongs and a big population of birds.

"Obviously we need to make a living off the land but our challenge is to do that in a way that can preserve a lot of these aspects."

Grevillea Creek runs through the property, flowing into the Don River which feeds into the Dawson River, then into the Fitzroy River and out into the Great Barrier Reef lagoon.

"We're only about 10 kilometres away from the head waters of Grevillea Creek so obviously whatever we do up here impacts further downstream and the Great Barrier Reef," Richard said.

"We've got black soil and it can be very erosive, depending on how the infrastructure is set up," Adele said.

"At our previous properties, some of the troughs had been set up in a position so the cattle had to walk downhill to access them and that would open up erosive areas.

"We owned those properties at a time when we had really damaging types of rain off a number of cyclones that had an erosive effect on those areas. So, we worked to change where those water points were located and change the water flow so the sediment would drop back down into those areas and it would grass up again and stop the sediment coming out."

"We have a lot of places in this new property that do the same thing. I'd say at some stage in the last 15 years, it's been grazed heavily and we can see where there's been run-off and erosion and created a mess. We're starting from scratch here but at

least we know what works and what doesn't work," Richard said.

"At our previous place, the fencing allowed us to cell graze more often. We could move our cattle around as soon as our groundcover was getting down to the threshold that we like to, enabling us to move them on and spell areas a lot more.

"We're moving towards rotational grazing here, and we're looking at setting up our waters to make sure that we're utilising our pastures without overgrazing any areas.

"At the moment, all the water points on the new property are all very centralised at one spot, so one area is getting really hammered. We've got a lot of work to do with our fences and waters, but right now we're looking at how we plan them out to best utilise our different land types so that particular areas in a paddock don't get flogged and we'll be able to move back into our rotational grazing systems, which we were doing."

Overcoming challenges

In tackling the often-daunting prospect of implementing change, Richard and Adele said Project Pioneer had provided them with the tools, confidence and ongoing support to make big decisions.

After completing the RCS Grazing for Profit School, they moved on to RCS Next Steps and are now part of the Executive Link program.

"The Next Steps process was important because it gave us a mentor who was encouraging us to make sure we were moving along. It's a coaching/mentor type program which contained modules of grazing management and business management," Adele said.

"It was challenging to get over our own fear and thoughts and restrictions on ourselves in terms of what we thought we could or couldn't do. It was challenging to sell off a place we and our family were comfortable living on and try to take the next step. We were trying to get our head around it for 12



months that it was going to work for us, before we made that step.”

The Actons said while they’re now seeing the positive impacts of Project Pioneer, they were initially reluctant to become involved.

“We were nervous that we couldn’t take the time out from our lives and we had too much else to do, but it probably it is one of the most positive things we’ve been involved in for our business,” Adele said.

“Rather than dancing around and being stressed all the time, it has helped us sort out our goals and start in that direction.

“We certainly feel like we’ve come a long way through it and we’re very excited about the future.”

Solid support network

Now they’re in the RCS Executive Link program, the Actons are in regular contact with other beef producers who are also involved in the Project.

“We meet with them every four months and regularly phone and email each other,” Richard said.

“Confidentiality is very high – everyone is trusting, and open and nothing is off the table. Everyone is supportive of each other and their goals.

“Being in contact with other businesses like ours enables us to nut out things and come up with hopefully innovative ideas about how we deal with some of the really challenging problems that farmers are faced with.

“It’s invigorating. When it’s dry or there’s drought, it can get you down, but talking to some of the people involved in Project Pioneer, they’re very energetic and it keeps you going. It acts as a bit of peer pressure as well. When the going gets tough, you have a yarn and away you go again.”

“You learn so much, it’s a different way of approaching things. You can take little bits from here

and there, rather than trying to work through it all yourself,” Adele said.

“For example, if our costs for supplements are getting a bit high, we can compare what other business are doing and have that inform our decisions.



“It’s a unique environment that was challenging to enter into at the start but it certainly has opened a lot of doors for us and given us access to information that generally would not be available to us.”

‘Give it a go’

For other producers contemplating working with RCS, Richard and Adele’s advice is simple – give it a go.

“Don’t be close-minded. Be willing to listen, try new things, make changes and diversify,” Richard said.

“If you don’t like it, you can go back to what you were doing.

“We were implementing a lot of the changes at our previous properties and we have a plan for our new place. What we would like to do will happen – Rome wasn’t built in a day.”

“I think it’s very important as beef producers that we start putting a more positive message across as a group to society because I think what society wants is how we need to manage our country and that is changing incredibly,” Adele said.

“There are so many other public outcomes that we are required to manage for. I honestly am a true believer that we can balance agriculture with our ecological needs, but I think it’s a matter of challenging how we’ve done things a little bit in the past and that’s what we’re doing.”

Business

Through Project Pioneer, producers learnt about key business indicators and processes, such as cashflow planning and budgeting skills to improve financial literacy and increase profitability.

Profitability and good business management was taught as an essential aspect of any business needed to achieve strong ecological outcomes.

Project Pioneer participants had access to business tool, ProfitProbe™, which provided producers with an accounting breakdown of their business, and benchmarking of productivity, profitability and efficiency in comparison to both previous years and similar agricultural operations. The platform compared any enterprise, drilling right down to analysis of the performance of properties with similar land types.

Providing producers with access to meaningful data allowed improved decision making and the ability to measure the business' vision and goals. This also equipped producers with the information they needed to achieve economic, ecological and social improvement.

 **100%**
participants increased their financial management systems (eg. budgets)

 **10%**
improvement in gross margin ratio over the life of Project*

 **10%**
reduction in overhead ratio (initial Project Pioneer participants)*

 **\$1 billion+**
assets under management of Project Pioneer participants

 **100%**
producers improved their business management processes (eg. decision making)

Key indicator	Second year participants	Fifth year participants	Desired outcome
Average of Enterprise COP / Meat Produced Cattle	\$ 3.33	\$ 2.75	Lower
Average of ROA	1.80%	3.50%	Higher
Average of Asset Turnover Ratio	6.90%	8.80%	Higher
Average of Gross Margin Ratio	58.40%	60.50%	Higher
Average of Overhead Ratio	63.60%	44.30%	Lower
Average of Finance Ratio	7.90%	8.80%	Lower
Average of Expense Ratio	94.70%	74.70%	Lower
Average of Gross Product / Full Time Employee	\$434,974.97	\$449,838.67	Higher
Average of Average AU Managed	2,477	2,386	Higher
Average of Plant Income Ratio	82%	43%	Lower
Average of Economic Gross Margin / AU Cattle	\$290.88	\$342.30	Higher

A cohort comparison of average key business indicators for Project Pioneer businesses who completed ProfitProbe™ in FY1920. The pattern of key indicators becoming stronger as length of time since first receiving support through the project increases was echoed across the board.

*Statistics reflect participants that completed ProfitProbe, not reflective of all Project participants.

Pat and Prue Lonergan

Property name: Rolfe Creek and Parnu

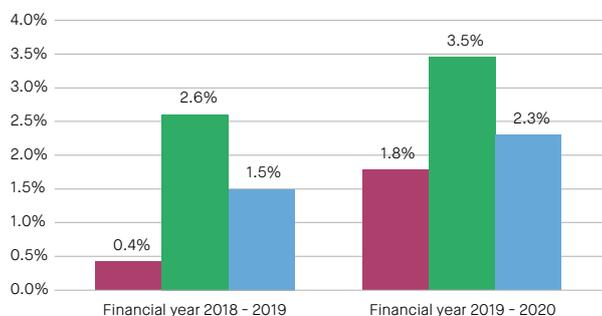
Location: Clermont, Central Queensland

Property size: Rolfe Creek - 4600 Ha, Parnu - 2250 Ha

Type of operation: Beef production, breeding and trading



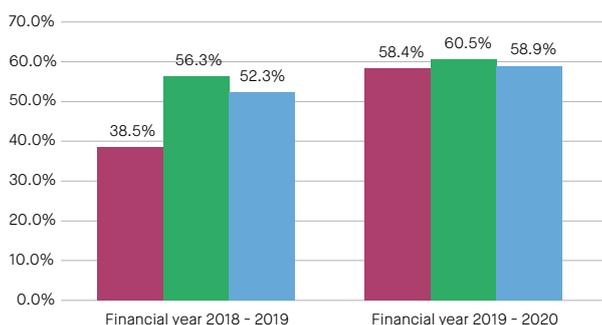
Return on Assets*



- Second year Project Pioneer participants
- Fifth year Project Pioneer participants
- ProfitProbe average

Benchmarked second and fifth year Project Pioneer participants Return on Assets (ROA) compared with the average for all businesses benchmarked via ProfitProbe™. The data demonstrates that fifth year participants, with at least four years of education and support, performed better than the average, who had not necessarily had that education and support. Second year participants improved their ROA to be closer to the average after being involved in the project for just 12 months.

Gross margin ratio*



- 2nd year Project Pioneer participants
- 5th year Project Pioneer participants
- ProfitProbe average

Gross margin ratio indicates how much gross product (cash and non-cash income) remains after paying direct costs. The comparison between groups reflects the trend for ROA, where those businesses involved in the project for longer performed better than those businesses new to the project. The gross margin ratio for the most recent cohort of project participants was considerably better in their second year, indicating a better knowledge and management of their relationship between productivity and direct costs.

Pat and Prue Lonergan own and manage two cattle properties, "Rolfe Creek" and "Parnu", near Clermont in Central Queensland.

For years, the couple injected funds from their off-farm businesses into the development of their properties and believe Project Pioneer helped spearhead their growing business, as priorities were identified methods of consolidation were highlighted – they learnt to utilise the skills and opportunities they had already.

"We needed a better understanding of how we could make our cattle business more profitable," Prue said.

"There was a lot to do and it was hard to know where to begin! For us, it really started to streamline things in terms of what our priorities were because you can't do it all at once – physically or financially.

Understanding and applying the grazing principles outlined by Project Pioneer allowed the Lonergans to create an infrastructure plan, develop grazing plans to suit their management style and apply these strategies to their business. Pat said the tools gathered throughout the Project had streamlined all aspects of the business together.

"It's knowing where we sit at the end of the growing season and having a plan, and knowing in advance that we're going to run out of grass at a certain point in time so we can manage this with stocking rates," Pat said.

"It's enabling to have so many decision-making tools at your disposal for all aspects of the business."

Kale & Karin Robinson

Hillsborough Station, Ravenswood



Ravenswood

Hillsborough at a glance:

Location: Ravenswood,
Burdekin region.

Property size: 43,000ha

Type of operation: Beef cattle



Farmers know climate, interest rates and cattle prices cannot be changed, but the response to these forces can drive long-lasting and balanced practices to benefit both beef production and sustainability.

That's the sentiment which has propelled North Queensland beef producers Karin and Kale Robinson to undertake significant changes to their land and livestock management at Hillsborough Station.

Located in the Burdekin region, approximately 70 kilometres from the coast at Ayr in the Great Barrier Reef catchment, the 43,000 hectare (106,000 acre) property runs close to 6000 head of Brahman and Droughtmaster-cross cattle.

Kale and Karin's new approach to managing the property and its natural resources has been inspired and supported by their involvement with Project Pioneer and their work with Resource Consulting Services (RCS).

The Robinsons purchased Hillsborough Station three years ago in partnership with Karin's parents, Pat and Jenny Williams, who are based in nearby Charters Towers, and in just two years participating in Project Pioneer, the Robinsons have already increased their carrying capacity through improved pasture management.

But at the crux of this improvement is not just a change in on-farm practices, but in the mindset which underlies their management decisions.

"When we first moved here, we came into what was classed as drought in this area. Since we've had the information and knowledge provided by Project Pioneer, we approach the land with different eyes," Karin said.

Kale said the tools and support they now have access to had proved invaluable in producing a range of data to help inform management decisions and give them the confidence to act.

"The data is useful for me and Karin because we can see what is really happening rather than just blaming things on drought, which is what we would have done two years ago before starting Project Pioneer," Kale said.

"By collecting data and analyzing it, we know our benchmark carrying capacity is 8.5 stock days per hectare per 100mm of rain. We have been able to

develop a management plan to match the stocking rate to Hillsborough's carrying capacity."

"In agriculture, you can't change a lot of things, but there are things you can have some control over. That's the frame of mind the project puts you in, so you're not just living on hope that tomorrow it might rain," Karin said.

"You start to understand what the land is doing and how it responds to change, and it's exciting.

"Since being involved in Project Pioneer we've had a paradigm shift – we see ourselves now as being grass producers, because if we can nail that, then the beef is going to be a by-product and it's going to be better for our business.

"Obviously there is big component of understanding the cattle side of production as well, but I think if you go back to basics, and understand that's it's also about what's happening in the soil it gives you new tools. The information is there, so use it."

Positive change

With sugarcane fields close to one side of the property and the Leichhardt Range running along another boundary, Hillsborough Station comprises a diverse range of soils and land types. It is also home to a number of waterways, including Eight Mile Creek and Banana Creek and part of Barratta Creek, which all flow into the Reef catchment.

Amongst the biggest changes the Robinsons have implemented through Project Pioneer to manage this biodiversity is the introduction of a rotational grazing system and the adoption of new on-farm technology.

The combination of the new initiatives will help maintain and increase pastures, and prevent sediment run-off and soil loss, ultimately boosting productivity and profitability.

"We're about to start a cell rotational grazing system that incorporates a walk-over-weighing system.



“We have already noticed that just by changing little practices that we have so far, and increasing our body of pasture, there has been positive effects. It’s also profitable to our business as well – it’s a win-win.

“By understanding the grazing circles of the cattle and managing pastures, we’ve been able to increase our carrying capacity.

“When the cattle walk through to get to water, it will record their weight and instead of us having to muster a whole paddock, if we want to sell a certain amount of cattle, we can just draft them off in paddocks and pick them up. It will also help us identify any non-performers or sickness.

“We’ve also just built new cattle yards with a low-stress focus. The design takes into consideration the behavior of the cattle and how they run, and it decreases the labour needed in the yards, while increasing safety.

“We also have a crush-side system that enables more data to be stored. It records weight and reads the NLIS for each different beast. If a female is in-calf, it can also record three different types of data for that beast – for example if it is 1-3 months pregnant, 3-6 months pregnant or over 6 months.”

Karin said Project Pioneer is providing the ongoing support and guidance needed as they implement change.

“The great thing about Project Pioneer is you don’t just go to little things every now and then. You have support all the time, including on-property visits from people who are just so knowledgeable,” Karin said.

“We have a grazing chart and on-farm monitoring sites throughout the property that help us really look at the biodiversity, estimate the number of stock days per hectare that might be there, and

basically help us evaluate for the whole paddock.

“Being able to read the country and see how many stock days you’ve taken out and thinking ‘maybe we could have put a bit more in there’, it’s a continual process, but also when you’re new at it, you have that support from Project Pioneer and RCS.

“The on-farm monitoring sites are a good record of our management. It’s a chance to see the impact of management changes that we’re making such as more biodiversity in the different grass species coming through.

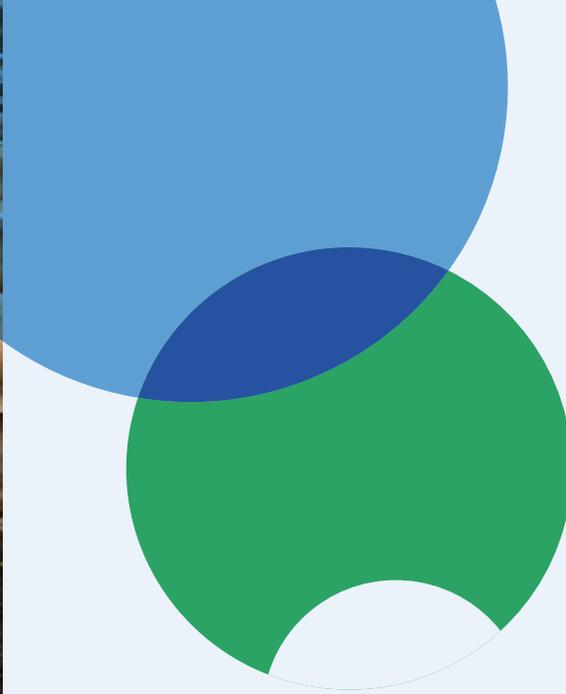
“Besides drought, we’ve had some abnormal seasons as well. Last year, we had winter rain, and so we’re managing those events as well. It has allowed us to have maneuverability in our business and allows you to make real-time decisions.”

More tools for the business kit

Taking a more analytical approach to decision making in the environment of a family business has been another benefit of Project Pioneer for the Robinsons.

“We found it has given us more confidence in trying to make some hard decisions or communicate what might need to be done, and removes the emotion. It gives us some more facts and data to do that, especially when you’re communicating within a family business,” Karin said.

“You’re not just saying ‘I think we should do this’.



It takes the emotion out of decision-making, and I think that's one of the biggest impacts it's had on our business.

Karin said while changing their management practices sounds like an overwhelming task, RCS had made the process accessible to the average



“Project Pioneer is not just about business. It touches on succession and communication and setting yourself up for the future. It touches on everything.”

producer.

“We're lucky in the sense that we have good communication with my parents. We have regular business meetings just touching base, to make sure we're all on the same page.”

Empowered with knowledge

The Robinsons said investing the time and energy into learning more about pasture management through Project Pioneer was empowering.

“Investing in education is an investment in yourself, because it opens up your mind to new ways of doing things and understanding how the land works.

“I know the challenges, the stigma it has. We're the first to put our hands up and say we questioned why we should get involved, before we

made the decision.

“But the reality is we're seeing positive changes happening, and it's benefiting our business.

“Project Pioneer puts you in contact with like-minded people and people looking for ways to keep moving forward and not just surviving. That's refreshing, because we all know the obstacles that living on the land comes with.

“You can't change the weather, interest rates or cattle prices, so what can you change? Project Pioneer has helped us answer that.”



Production

Through Project Pioneer, producers learnt to implement regenerative management practices and grazing principles, including grass budgeting and resting country, to gain a better understanding of the relationship between economics and animals to increase on-farm efficiency.

Producers with mixed enterprises also explored different cropping systems and how they may contribute to a more productive business.

Rotational grazing is a key production strategy of regenerative management, and many Project Pioneer participants who had been in the program for a number of years wholeheartedly adopted this valuable grazing technique so that they now move cattle more frequently.

Setting up for this level of intensification does require significant investment in fencing and the addition of watering points for cattle. Project Pioneer producers made these changes throughout Project Pioneer, demonstrating their commitment to a more sustainable operating model.



Neighbouring properties: Project Pioneer participant's property on left side of fence, September 2019

Dan Carney

Property name: Wongella

Location: Kilkivan, South Burnett

Property size: 4,047 hectare

Type of operation: Beef cattle



Dan Carney manages a 4,047 hectare (10,000 acre) "Wongella" near Kilkivan in the South Burnett. Previously a tree plantation, Dan has completed extensive work with Project Pioneer across the property to transform it into a high-performing grazing system.

Dan's employers purchased the property in 2017 without water infrastructure or internal fences. The pasture was low quality, and the property was a blank slate for grazing development.

Over the past three years, Dan has constructed 150 paddocks on the property, and has a target of 200 by the end of 2021. Traditionally, this type of country supports one beast to four hectares, but Dan said by improving the water infrastructure carrying capacity had doubled.

"Previously they had relied a lot on dams, so with a reticulated (trough) system, we were able to utilise country that would have been too far from water and not grazed efficiently. It also allowed us to spell the better country," Dan said.

"We're now running double what the property would normally run without stressing soil or pastures, and we'll pay all that infrastructure off in a three to five-year window with the increased carrying capacity.

"Project Pioneer really helped in the dry years with the one-on-one consultations with strategy. I had my finger on the pulse with our feed budgets, and coupled with some really good trading opportunities, we made some terrific margins.

"Typically in the drought, I would have been too bogged down doing operational stuff because it was dry and we're trying to do fencing.

"But Project Pioneer just really kept me thinking about the bigger picture, and that's when we really crunched the numbers on some trading opportunities and took advantage of that."



2052 km
of fencing installed throughout the Project



939
number of livestock watering points installed



81%
producers maintained or increased their stocking rate



55%
participants maintained or decreased the number of times cattle were handled each year



89%
producers increased number of times stock were adjusted to match feed available

Change in grazing metrics as a result of subdivision over the course of the project*

	Before project	After project	Change
Avg. no. paddocks	66	145	120%
Avg. paddock area (ha)	106	36	-66%
Avg. graze period (days)	14	7	-50%
Avg. recovery period (days)	30	43	43%
Avg. days not grazed (% of total)	68%	86%	26%
Avg. density (hd/ha)	1.1	6.5	491%
Avg. graze yield (SDH/100mm)	27.9	33.5	20%

The data suggests that the physical change in paddock infrastructure has resulted in changed grazing management in ways that are known to be strongly linked to improved groundcover and reduced run-off.

*Data reflects participants who use Maia Grazing online grazing management software, not reflective of all project participants.

People

Project Pioneer producers learnt the importance of building strong communication, goal setting and time management skills, and to think critically and strategically about the people in their business.

The lines between family and business are often blurred within farming enterprises. For some, the knowledge gained about how to manage people within their business delivered the most powerful results due to stronger human relationships, and defined roles and responsibilities creating clearer lines of communication.



85%

participants said they increased their people management and forward planning

Robert and Stacey Clapperton

Property name: Wheelbarrow Creek

Location: Nanango, South Burnett

Property size: 335 ha

Type of operation: Beef cattle



Robert and Stacey Clapperton are a young couple with a growing family near Nanango in Queensland's South Burnett region.

They purchased their 335 hectare (830 acre) property in 2017, and while they knew they had the skills to run a conventional beef cattle operation, they also knew there had to be a better way.

Stacey said they were determined to increase their profit margin but also wanted to look after the land simultaneously, so the opportunity to join Project Pioneer came at the perfect timing.

"The agricultural industry is a tough one and in doing the Project we were giving ourselves the best chance to succeed against some of the common struggles faced by graziers," she said.

"Being involved in Project Pioneer has completely changed our mindset and we're aiming for a healthier, simpler and more profitable grazing enterprise. We are so much more confident in our decision making and ready to face any challenges with an excited outlook.

"The possibilities are endless. Together, we have had the opportunity to learn new skills and concepts which has opened up a deeper level of conversation.

"Our communication is more meaningful so our goals are feeling a lot closer to reality and have become more ambitious.

"When we are talking about ecosystems and grazing management, we are on the same page, and it is such a good feeling. All in all, we have a healthier, simpler business."



Regenerative Agriculture Pioneers



Coonabar at a glance:

Location: 15km north of Rolleston, 320km west of Rockhampton, Central Queensland

Property size: 6781 ha

Capacity: Maximum carrying capacity of 3500

Average annual rainfall: 650mm

Enterprise: Trading beef cattle

The Coonabar Story

A profitable beef business grounded on regenerative management

When the Gibson family first purchased 6781 ha Central Queensland beef holding, Coonabar, near Rolleston, at the height of the 1980s interest rate surge, it could support only 600 breeders in a good year. But, they saw potential, and took residence in Coonabar's shed for the first nine years while they embarked upon the major development of the block.

Although it was originally their intention to operate under traditional set-stocking practices, running a breeding herd and growing out bullocks, in 1992 the Gibsons attended their first Resource Consulting Services (RCS) Grazing for Profit School™ (GFP). Here, they developed a clear understanding of the intrinsic link between soil, animal, human and financial health – and this set in place a transformation of their business that now equates to a maximum carrying capacity of 3,500 head.

Today Coonabar is a nimble and profitable beef enterprise underpinned by thriving ecological health run by Murray and Wendy, along with their son Cameron and wife Kristy.



Production

Coonabar's 6781 ha of predominantly Brigalow country has been carved into about 150 paddocks, using cost-effective electric fencing, to provide the infrastructure needed to support a time-controlled rotational grazing system which carries up to 3500 head.

On the western side of the property, 90 smaller (25 ha) paddocks run around 1000 cattle which are only grazed for around four to five days per year and rested for the remainder to replenish the root and leaf reserves of grasses – this means the cattle are moved to a fresh paddock almost every day.

The eastern section of the property is still being developed and is currently made up of 60 paddocks averaging 65 ha in size, where cattle are moved about once a week.

This rotational grazing regime has been fundamental to increasing the land's productivity and carrying capacity.

Grass Yield per Hectare Paddock Comparison



PRODUCTION DRIVER: *The smaller paddock size on Coonabar's western side allows for higher stock density and longer rest periods, resulting in a greater yield per hectare when compared to the less developed eastern side of the property.*

"When our rotational grazing system is absolutely pumping, I know the 1000 head of cattle in front of me are putting on more than a kilo a day – for me there is nothing like that, it's a sight to behold," Cameron said.

Animal welfare is prioritised through the implementation of Low Stress Stock Handling (LSS), with skills Cameron has gleaned from spending time with LSS leader, Jim Lindsay, and iconic horsemanship expert, Monty Roberts.

"We have the cattle in a good frame of mind when we move them into the next paddock for grazing," Cameron said.

"Having the mob psychology right means there is no rushing and they won't crash into waters or break fence tapes."

Detailed grazing charts are used to ensure Coonabar is operating at a sustainable stocking rate, a concept introduced to Murray and Wendy at their first GFP school. Almost 30 years on, it remains one of the most fundamental management tools used within their business.

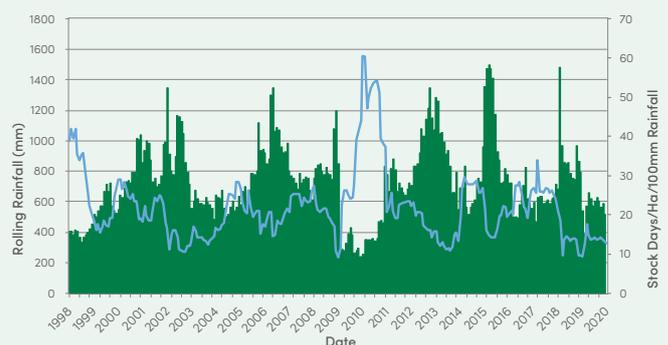
"The grazing charts keep us well informed on each paddock's productivity, and ensures we are never overstocking the land relative to the rainfall we have received," Cameron said.

Digging through the Coonabar records, production during the last three decades has almost tripled as a combined result of using grazing charts to budget feed, and other regenerative practices.

Stock days per hectare per 100mm of rainfall received (SDH/100mm) is used as a unit of measurement to determine how effective a landscape is at converting rainfall into productive pasture for stock. When compared against a benchmark, it can also be used to determine if the appropriate number of cattle are being grazed for the available grass and rainfall received.

In 1999, Coonabar's stocking rate averaged 10.3 SDH/100mm, but by 2020 this figure had risen to 28.3 SDH/100mm, to mark a transformational improvement despite some of the driest periods on record.

Stocking Rate vs Rainfall at Coonabar



CONSTANT IMPROVEMENT: *The graph highlights actual stocking rate over time, measured in Stock Days per Hectare per 100mm Rainfall (SDH/100mm). This unit of measurement enables graziers to determine if they are running appropriate cattle numbers (matching stocking rate to carrying capacity) based on the actual quantity of rainfall received. This methodology expects variable rainfall to occur and provides a way to manage diverse seasonal conditions.*

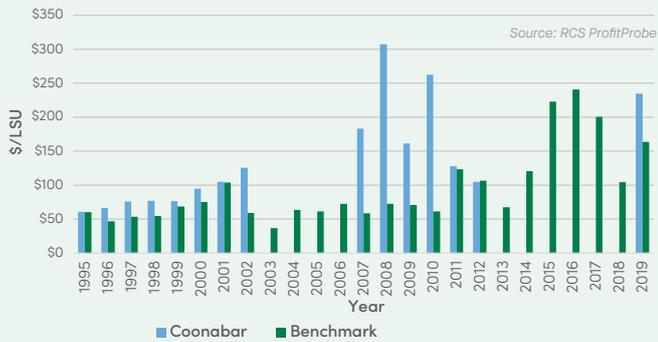
Focussing on the ecological health of their paddocks has propelled Coonabar to continually improve, despite drought and dry periods.

Throughout these harsh dry spells, the Gibsons remained resolute they would not purchase feed, but rather adjust stocking rate to be in-line with the property's carrying capacity at that point in time. In doing so, they could both maintain the integrity of the soil and best position grass to bounce back when the rain did come.

"We maintained our mindset and trusted the system," Cameron said.

"As the feed depleted, our numbers depleted, but by adhering to RCS grazing and KLR Marketing principles we still traded cattle and made a good profit."

Gross Margin per Animal Unit (AU) in years Profit-Probe was completed on Coonabar



CONTINUED FAITH: *The Gibson family have utilised ProfitProbe and on average, they have out performed other grazing businesses in the ProfitProbe benchmarking group in terms of Gross Margin per Animal Unit.*

The Gibsons held fast to the principles in 2019, when they reduced the overall stock numbers to just 129 after Coonabar received only 235mm of its 650mm average rainfall. When a decent drenching of 37mm finally arrived, it took only two weeks for paddocks to be blanketed in feed.

Murray said application of RCS' regenerative grazing principles ingrained a level of resilience and stability into their cattle business and helped shield them from the perils of market trends and seasonal conditions.

"We are insulated from fluctuations to a large degree," Murray said.

"We haven't had an unprofitable year since we started and we know we can get through anything, be that a dry period or downturn in the industry."



Business

Coonabar's management toolkit is further strengthened by the KLR Marketing system which offers strategies to minimise overall risk and increase cash flow when trading livestock.

The system has underwritten their trading business since June 2007, when the family started culling stock based on weight, as opposed to fertility.

Cameron said KLR was a 'no-nonsense' approach to trading.

"It's as straightforward as a spreadsheet where we enter our input costs, cattle weights and the purchase details of the sale before we decide to take action. From that, an answer is generated indicating if that trade is worthwhile or not," he said.

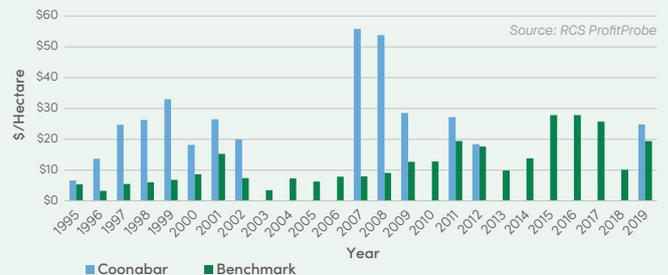
"There is absolutely no emotion associated with this process, we enter honest figures and receive an honest answer."

This means the Gibsons buy and sell a wide variety of stock, from cows and calves to bulls and steers, which are sold into the most profitable market, be that a feedlot, processor or heading back to a paddock.

To ensure the accuracy of input of figures, the family weigh cattle every six to eight weeks using a digital system which tracks weight gains through the animal's electronic ear tag. On average 25,000 head walk across the scales each year.

To track the economic performance of the business, the Gibson's have periodically undertaken financial analysis using RCS's benchmarking tool ProfitProbe™ which has given them important oversight into the key drivers of profitability.

Earnings before interest and tax per hectare in years ProfitProbe was completed on Coonabar



STRONG PERFORMER: RCS's ProfitProbe™ benchmarking system examines the Earnings Before Interest and Tax (EBIT), which is a thorough measurement of a business's profitability. The graph demonstrates Coonabar has consistently outperformed comparable operations.

ProfitProbe is a suite of analytic tools that thoroughly examines every facet of a business and uses industry data to benchmark an enterprise's earnings against comparable operations.

Within ProfitProbe, Earnings Before Interest and Tax (EBIT) is used as a key indicator of performance and has allowed the Gibson's to break down their economic productivity on a per hectare basis.

According to Coonabar's EBIT figures, the business has continually outperformed the benchmarking average.

Cameron noted it was heartening to know Coonabar was ahead of the industry curve, however the main driver in his use of ProfitProbe was its ability to provide a robust and thorough snapshot of the enterprise for strategic planning.

"There is always room to improve, and ProfitProbe gives the clear insight into any areas needing that betterment and has indicated where there are opportunities for further expansion," he said.

"Again, this comes down to honesty and being honest with yourself on where the business is heading."

In 2006, findings from ProfitProbe spearheaded the business's transition away from breeding and backgrounding.





“You can clearly see the change in the business during 2007, this is when we stopped breeding and fattening and became traders. The figures are chalk and cheese.”

Land

When they reflect on their time at Coonabar, the transformation of the landscape is not lost on the Gibson family, and Cameron said it is not just production, but the entire ecosystem, that has benefited from regenerative grazing.

“The birds we have around here are just incredible. If you stop your motorbike or turn the vehicle off anywhere on the property all you can hear is birds chirping,” he said.

In fact, the thriving wildlife habitat at Coonabar has piqued the interest of the Capricornia branch of BirdLife Australia. The group conducted a two-day study of the property and have since verified there are 110 species of birds.

This healthy landscape is synonymous with a productive landscape and the Gibsons have also increased ground cover and grass varieties right across the property.

Data from the Queensland Government’s Department of Environment and Science (DES) The Long Paddock report for July 2020, shows Coonabar has never been in better shape, with 97.4 per cent of the property recording ground coverage of 70pc or higher.

This is a significant increase over time given between 1990 and 2016 more than 73pc of the property had ground coverage of between 50-70pc.

However, regenerative agriculture offers more opportunities than just greater production and a healthier ecosystem.

The increased carbon sequestration potential presented by greater groundcover, and reduced run off and erosion, means the Gibsons are now exploring carbon farming.

While there is no doubt regenerative practices have made Coonabar carbon rich, the storage of this carbon predates the emergence of the current schemes available for landholders to participate in, thus making it ineligible to be sold as carbon credits.

“If we had bought Coonabar today, carbon farming would have been a part of this business. Carbon farming works hand in hand with regenerative farming, and it means you can create an additional income stream from implementing practices which are already good for the land and profitability,” he said.

Coonabar does, however, have 40 to 50 metre-wide strips of regrowth from the initial clearing in the 1990s across the property nestled between native species of Brigalow, Box and Eucalypt trees which not only hold great ecological value to the grazing business, but also have the potential to be monetised through biodiversity offset programs. The Gibson family are currently exploring these options.

“People have heard about our carbon success here at Coonabar and I am receiving phone calls from businesses wanting to explore if there are different methods in capturing what we have, be that the vintage carbon we store, or for myself to share our methods so others can implement them on their own properties,” he said.

People

Perhaps one of the most powerful results delivered by working with RCS and regenerative grazing is stronger human relationships, with clearer roles and responsibilities creating stronger lines of communication.

"Our daughter-in-law says we work quietly, efficiently and independently," Wendy said.

"When we get to the yards, there is no need for giving orders to each other, we all go our own directions because each of us know exactly what the other is doing.

"It's rewarding to know how well we work together. There is certainly no yelling or shouting."

Their solid family relationships are built on working towards a common goal and being on the same page with cattle and property management, which has given Cameron and Kristy peace of mind that when the family does embark on succession planning it will be a smooth transition period.

Creating a profitable enterprise has also supported the lifestyle of both generations, including allowing for off-farm investments to give Murray and Wendy security for their future retirement.

"When Mum and Dad want to leave Coonabar, they can, but they are content being here, just as we are to have them here," Cameron said.

"Collectively, we have been running the business to make a good profit, but also to ensure there is a good lifestyle for all of us. When succession planning occurs, my next focus will be on further developing our back country, as I believe there is more potential, and more productivity, to be gained."

Reflecting back on the RCS journey, Wendy said she was so grateful she listened to the advice of a friend who encouraged her and Murray to attend their first RCS workshop back in the early 1990s.

"We said we couldn't afford to do it, but they said we couldn't afford not to do it, and they were completely right," she said.



Soil

Prioritising soil and vegetative health helps to ensure reduced runoff and that an operation’s most basic, yet vital asset – its soil - is not washed away. This is critical to improving the quality of the water that flows into the surrounding waterways.

Project Pioneer participants were taught to monitor soil health to gain line of sight over what lies beneath the ground’s surface by paying close attention to the behaviour of vegetation and measuring water quality.

Important factors in improving soil health include providing sufficient rest and developing robust root systems. These factors are at the heart of regenerative agriculture management.

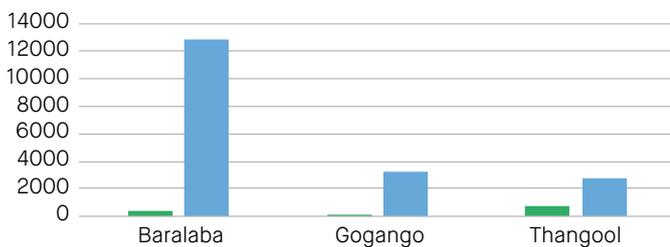
A key measurement of soil health is water quality. This graph demonstrates the water quality in waterways on Project Pioneer participants’ properties versus those who are not practicing regenerative management.



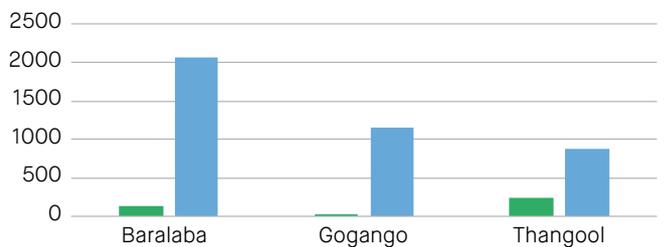
Rainfall run-off from a property managed under regenerative grazing principles (left) versus that of a neighbouring property that is not yet subject to regenerative land management.

Water quality graph from the 2019-2020 Project Pioneer Water Quality Surveys

Total Suspended Solids (mg/L)



Turbidity (NTU)



● Treatment ● Control

Initial overland flow results for the 2019–2020 water quality surveys. These measurements were taken on three Project Pioneer properties in the Fitzroy catchment. The treatment properties have implemented RCS principles such as those adopted through Project Pioneer, while the control properties have not.

Trish and Barry Christie

Producer
Story

Property name: Wavily and Woodlea

Location: Burrandowan and Cooranga North, South Burnett

Property size: 2795ha

Type of operation: Beef Breeding and Backgrounding Operation

Trish and Barry Christie manage two properties in the Burrandowan and Cooranga North districts in the South Burnett. As a multi-generational business, they run a commercial beef breeding and backgrounding operation over almost 2500 hectares across their properties "Wavily" and "Woodlea".

Through Project Pioneer, Trish identified the areas of their business which were in need of improvement and proactively addressed their land management problems.

"We weren't concentrating on land condition, and importantly soil health," Trish said.

"We had a profitable business with healthy cattle, but Project Pioneer turned around the entire focus of our business. We now have a clearer focus on land and soil condition, as well as the other elements of our operation."

Barry said while it would take years to reap the full benefits of the regenerative practices implemented through the Project, they know already there had been positive change.

"Land condition and pasture quality and diversity are a big part of every decision we make. We are constantly monitoring the progress in the paddock and now always have a shovel with us to take a better look at what's happening in our soils. We never would have done that before!" he said.

"Previously we have grown single species pastures, but this winter we will plant a multi species pasture under irrigation over rested country to improve soil health."

Kerrie Sagnol, RCS Soil Health and Carbon Advisor

Inspired to transform grazing businesses and safeguard the reef through soil health.

Kerrie Sagnol grew up in Mortlake, a small farming community in south-west Victoria, but it wasn't until she began working for RCS that she discovered her life passion, soil biology.

"I was out on a two-week road trip visiting some client properties with RCS' Terry McCosker and Dr David Johnson, a molecular biologist from the US well known for his research in soil biology and production systems," Kerrie said.

"It just blew my mind.

"Putting soil biology into the picture with how it helps production and health of the system was the missing piece for me. And I thought, 'this is how we start working with nature instead of battling against her and manhandling her'. We end up with better profitability and environmental results this way."

Since starting with RCS in 2017, Kerrie has concentrated on north-east Australia, where she has witnessed many clients experience the rollercoaster of ongoing drought conditions, floods and bushfires.

"I've seen some positives come out of the drought, namely those who have implemented the principles that we teach through the RCS schools and training have found their business has been much more resilient. They're focusing on what they can manage and less on what they can't," she said.

"They're understanding the tools that they've got at their disposal to help them make decisions based on when they should be offloading cattle and getting a jump on the market. We're also very aware of how drought is impacting their landscapes and helping them manage it to become 'rain ready'."

One of the key focuses of Project Pioneer is giving producers in the Great Barrier Reef catchments the skills to understand the impact they have on their soils and outlying environments, and how to improve it in a profitable way for their businesses.



"As the saying goes, there's no point being green if you're in the red," Kerrie said.

"If we can show people ways of being profitably regenerative and the neighbours can look over the fence and see that happening, it's a snowball effect. It's about giving them the tools to be able to go and do it themselves."

After enrolling in a Bachelor of Applied Biology, Kerrie Sagnol is now determined to be the role model for female agriculturalists that she never had.

"I always thought that agriculture wasn't a career for girls, but only because I didn't see it when I was growing up," she said.

"I really want to show them there are careers in agriculture that are as smart as they are diverse."

Bristow and Ureisha Hughes

Strathalbyn Station, Bowen



Production gains and Reef benefits go hand-in-hand in North Queensland

Improving the condition of grazing land has been at the heart of an ambitious five-year plan from a young and focused Queensland couple which has transformed the management and culture of a sweeping 33,200ha beef cattle operation.

Bristow and Ureisha Hughes manage 'Strathalbyn Station' near Bowen, grazing around 6500 head of breeding stock with Wagyu, Brahman and Red Poll genetics. The cattle are a major regenerative tool across a mix of soil types and diversity of grasses and legumes.

Close to the Great Barrier Reef, Strathalbyn acts almost as a catchment of its own, with Bonnie Doon and King Creeks running through the property, along with 28 kilometres of winding Burdekin River frontage, all of which is bordered by mountain ranges.

The station makes up part of a broader grazing operation 'Wentworth Cattle Co', working in conjunction with three other properties across Central Queensland owned by Bristow's parents.

Management reimagined

As a young farming family, Bristow and Ureisha, along with their two small children, brought to Strathalbyn an eagerness to learn and a willingness to question traditional on-farm practices. Bristow's parents had successfully worked with Resource Consulting Group (RCS) for 25 years, and in 2016 Bristow and Ureisha signed on to Project Pioneer to further value add these strong foundations.

The new approach built on strategic watering point placement which had been underway since 2004,

Strathalbyn at a glance:

Location: near Bowen, Burdekin region

Property size: 33,200ha

Type of operation: Wagyu, Brahman and Red Poll breeders.



while a new fencing regime provided the ingredient needed to transform land utilisation and grazing.

“The big turning point for us was putting together a five-year plan allowing us to implement large-scale development strategies that have completely changed the way we graze, the type of animals we graze – it’s a whole new way of looking at things,” Bristow said.

These far-reaching changes included the construction of 150km of fencelines, laying 90km of 75, 90 and 110mm pipe, the installation of 60 troughs, and 25 tanks to create a super-charged network of watering points, the core benefits of which have been reduced grazing ‘hot spots’ and more even distribution of grazing pressure.

“There was so much under-utilisation of parts of the property before and over-use in other areas, so we’ve basically been able to even out how we use the country, and this has allowed us to better care for the topsoil and the animals,” Bristow said.

Changes in the breed composition of the cattle run on Strathalbyn, high demand for Wagyu beef, good

seasonal conditions up until 2017, and a strong cattle market in general has further facilitated the fast tracking of on-farm development.

“Also of great benefit to our progress has been using all resources available, including working more closely with scientists and accessing external grants to help us access more knowledge and benchmarking information, which has helped to facilitate evidence-based decision making,” Bristow said.



“It’s critical as graziers we work together with all stakeholders, and take a holistic approach to everything we do.

“In doing this, we’ve also been able to protect the Great Barrier Reef. I think in the past, agriculture has been given a bad rap for its impact on the environment, but this shows we are closing the gap on that perception through these types of results.”

Undisputable results through a new mindset

The impact of the changes on Strathalbyn has also shown environmental outcomes need not come at the expense of business objectives. Only two years into the five-year implementation plan, production has increased by more than a quarter, with significantly greater gains ahead as the on-property transformation continues.

"We've gone from branding 3500 calves to, in the last two years, branding 4300 calves with significantly lower rainfall, and have increased the carrying capacity of the property by 1500 head per year," Bristow said.

"But at the same time, we are having a positive impact on the Reef by boosting the ground cover of the whole property, and this has been achieved by increasing the number of paddocks and water points to allow us to better utilise some areas while resting others.

"Greater ground cover has also allowed us to heal small gullies and reduce run off dramatically, and we have significantly less sediment leaving the property which is very rewarding."

In only the early stages of the overarching strategy, the Hughes say there is no foreseeable cap on the gains that can be made to both production and environmental outcomes.

"In terms of the long-term benefits, I just don't know where the ceiling is, but I can't see there ever being a point where you stop looking for more ways to improve – it's been a complete change of mindset," Bristow said.

"We're also now more resilient in the dry times and make better use of what we have in the good seasons, so we're able to better look after our land."

This change of mindset is evident across the entire business, and it's reflected in all measures of performance.

"We have better financial literacy, a better understanding of how a business should be operated, better land, grass and animal management, an increase in branding rates and breeder retention through increased conception rates, and better use of nutritional insights," Bristow said.



"We're growing more grass and retaining ground cover, and for us that means making more money.

"The better we can look after our land the better it will look after us."

A human story

One of the surprising off shoots of Project Pioneer, and working with RCS, has been the growth of staff capacity and their personal connection to the business as progress has unfolded before them. A clear plan has allowed employees and contractors to feel part of the process, and allowed them to celebrate in the positive changes and results.



"Our new management plan has really given people something to look forward to, and everyone feels a sense of accomplishment when we meet an end goal," Bristow said.

"I believe we are definitely achieving more buy-in from employees, they're excited to see how the land and animals have improved through the hard work they have contributed to the infrastructure improvements."

A big future

As Bristow reflects on the fast-paced changes achieved over the last three years, he can only see further ambitious development targets being hit over the next five, by tapping into the key themes of managing and balancing grazing pressure, and increasing water efficiency.

"Three years ago, we had 14 main paddocks and four holding paddocks – now we have 49!" he said.

"Over the next five years I would expect to at least double that and, as a result, increase carrying capacity by 1500 head through better grazing management and land utilisation.

"Our personal long-term plan is to have 500,000 head by the time I am 50, so that obviously includes expansion beyond Strathalbyn. Our strategy to achieve this is to invest in places that are under-developed and underutilised, and to implement our learnings and hands-on experience here to help the country realise its full potential."

George Stacey, RCS Project Officer

An honour improving grazing businesses and protecting the Reef.

RCS Project Officer, George Stacey, believes he will look back on Project Pioneer and feel a sense of great pride.

As a man who has lived experience in seeing the success of RCS practices in action, having watched his parents implement holistic management on Ranmoor, a 18,210 ha (45,000 acre) cattle property outside of Richmond in North West Queensland, he is honoured to be helping not only multiple graziers, but the cattle industry at large through The Project.

“All the work of RCS, which simultaneously helps farming businesses become more profitable while creating ecological benefits, is worthwhile but there is something remarkable about also supporting The Great Barrier Reef,” George said.

“The Reef is an absolute wonder of the world, and I feel it’s a part of our Australian identity so we should be doing all we can to protect it.”

“For RCS, our primary business is to assist farmers and graziers to run the best business they possibly can, and by doing that, there is always an improved ecological outcome.”

George said Project Pioneer also worked on a broader scale as it helped provoke thought on the flow-on impacts farming practices had on the environment.

“There is no silver bullet a grazier can apply to ensure they are protecting the Reef and there never is with these things, as when you are dealing with an ecosystem it’s always complex,” George said.

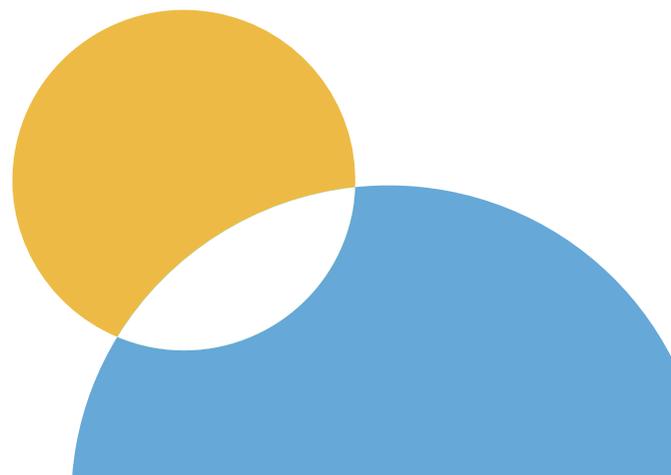
“But, I do think it’s important for anyone working in agriculture to think about the impact their farming practices are having on the world around them.”



George stressed, in his experience working with RCS, the most difficult change to make was a shift in thinking, not making physical changes to farm practices.



“Before you can make any change in the paddock, you need to change what’s happening between your ears. It was extremely rewarding to watch graziers make the paradigm shift over the course of The Project for the benefit of their business and The Great Barrier Reef.”





Karen Smoothy

Tipperary, Theodore

A chemical-free solution for tick and weed control set Central Queensland producer Karen Smoothy on her regenerative agriculture path.



Tipperary at a glance:

Location: Theodore, Central Queensland

Property size: 1800ha

Type of operation: Simmental-cross breeders.



For Central Queensland beef producer, Karen Smoothy, the tragic loss of her husband, Wayne, to a toxic overload was the driving force to drastically cut down chemical use from her Simmental-cross breeding business, and to seek out a sustainable approach to control weeds, significantly reduce ticks and confidently navigate drought.

“When I first found out about Project Pioneer I knew it would be beneficial to my operation, not just to the ecological system and to regenerative grazing, but to help me control ticks and weeds with much less reliance on chemicals,” Karen said.

Project Pioneer, which Karen joined in 2019, was not Karen’s first exposure to RCS’ regenerative management practices which occurred in late 2017 at an RCS Grazing Clinic. While Project Pioneer has since expanded her regenerative knowledge vastly, the initial insights she gained three years ago were enough to help her work through an extremely dry period and to make key production gains across the 1800ha of Brigalow softwood country which make up her property Tipperary, 18km from Theodore.

While Karen and son, Billy, started implementing regenerative practices such as rotational grazing immediately following that initial clinic, drought was settling in and Tipperary received little rainfall from early 2019 to early 2020, forcing the Smoothys to make some tough decisions within their breeding enterprise.

“By October 2019, we had destocked by 50 per cent, so our herd size was around 300,” Karen said.

It wasn’t all bad. The Smoothys strategically used the dry period to sell off their late breeders, allowing them to achieve an optimal mating window of three months, and made strides towards tackling a weed problem.

“One of the added benefits of having destocked due to the drought, and resting our paddocks was, when we did get rain, the grass grew quickly. As an added result, our Parthenium problem was minimised.”

A well-known invasive weed, Parthenium had reduced the Smoothys’ carrying capacity on Tipperary. However, since introducing regenerative management and receiving much-needed rain, its hold on the property has been significantly weakened.

“By mid-January 2020, we were rain ready and received around 340 millimetres over a month, which brought our pasture back to life,” Karen said.

“Normally we would have been worried Parthenium would overpower the grass, but because we hadn’t undermined the grass roots by over grazing, the weeds weren’t able to take root.”

Now, a healthy amount of ground cover has been achieved, the Smoothys moved into the process of rebuilding herd numbers and are currently running 430 head, with a goal to build to 800. Karen is also proud knowing the increased ground cover has reduced sediment run-off.

“We are doing our part to protect the Reef,” she said.



“Project Pioneer has given my son and me the opportunity to learn so much. We now know how important it is to understand ecological indicators, such as soil health, biodiversity, and water cycles.

“We look forward to the future, as we know we have so much more we can learn to improve Tipperary.”

Angus working for both sides of the fence

An unassuming star picket boundary fence west of Rockhampton stood out as a pivotal memory in a year of transformative highlights for Queensland Farmers' Federation (QFF) Agricultural Extension Work Placement Program graduate, Angus Dunne.

For Angus, the scene brought together everything he had learned throughout the year: the value of data, the cumulative impact of a multitude of decisions, the power of stories. But most of all, it prompted a question Angus was yet to solve: how can we support both sides of the fence to change and benefit from improved ecological function and business profitability?

Traineeship delivering dividends

The QFF program was funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation, and the

Queensland Government Reef Water Quality Program. In 2019, it supported 14 graduates to build their skills in businesses across Queensland that are improving farmer profitability, improving environmental outcomes, and ultimately reducing runoff to the irreplaceable treasure that is the Great Barrier Reef.

After completing a Bachelor of Ecological Agricultural Systems at Charles Sturt University, Angus was employed as a Project Officer with Resource Consulting Services (RCS) under the QFF traineeship program and went on to stay with the organisation until the completion of Project Pioneer.



The location of an overland flow measurement site, the fenceline starkly showing the difference in land condition between a regeneratively managed property on the left and a more conventionally managed property on the right.



Selection for the traineeship gave Angus a career path and allowed him to see first-hand how ecological outcomes, financial outcomes and resilient communities are all intrinsically linked.

“The program highlighted the role producers have to play in the future of the planet and our industry,” Angus said. “It’s an amazing program, and I’m humbled to have been a part of it.”



with are grounded, open, and excited to be making a change,” Angus explained. “It was inspiring to be surrounded by people taking action and sharing their story.”

In addition to a host of formal training sessions during the year, Angus’ main focus was to support the delivery of Project Pioneer. Since 2016, Project Pioneer helped more than 100 family grazing businesses throughout the Great Barrier Reef catchment increase and maintain ground cover and improve water quality entering the Great Barrier Reef, while fostering profitable and resilient production systems.

Throughout the program Angus was involved in on-ground extension activities, delivering professional guidance, mentoring and facilitation with senior advisors from RCS and partner organisations like WWF, Central Queensland University and NRM groups.

With Project Pioneer emphasising the systems-based nature of agriculture and how everything is interlinked, this meant a dramatic learning curve for Angus. Farm management software, satellite mapping, profit benchmarking, management accounting, monitoring points, soil tests, and matching stocking rate to carrying were just some of the skills delivered to producers in Project Pioneer.

Everything’s linked, but the strongest link is people

Angus’ experience has emphasised that despite farmers’ affinity for the land, animals or crops, the biggest driver of economically and ecologically successful farms is people.

“Not coming from a farming background, I’ve was surprised by how passionate and diverse the agriculture and extension industry is. The producers and professionals I’ve been lucky enough to work

“Working with people was a real highlight of the year. I was able to build valuable skills in communication, organisation and working collaboratively, and none of this would have been possible without the enthusiasm of the professionals I worked with from a diverse range of backgrounds who were so generous in sharing their knowledge.”

While Angus was inspired to work with people, it’s what’s under their feet that he was just as excited about.

“I would love to see every Australian dig a hole and get curious about soil,” Angus enthused. “Soil holds the wealth of our nation and is the key to our future. Soil is an area for everyone to get curious about and start discussing and sharing their stories and what they’re learning.”

Which brings us back to that question. How do we support both sides of the fence?



“What makes us change is a question behind a lot of extension work and was brought to the forefront with Project Pioneer. There is no single answer, but through RCS I found setting visions and goals and putting together a plan is a huge part of it. Project Pioneer did an excellent job to support the skills, confidence and networks to turn that plan into action,” Angus said.

“What really drives it home is a picture like that fence line. I think Project Pioneer was a great success and I hope the wider community, funders, and other graziers in the reef catchment can see the impacts.”

FUNDING PARTNER



Great Barrier
Reef Foundation

Great Barrier Reef Foundation

Coral reefs need clean, clear water if they are to withstand the impacts of climate change, but every year millions of tonnes of sediment runs off land into marine ecosystems.

For the Great Barrier Reef, run-off from adjacent catchments is a major cause of declining water quality. Sediment run-off clouds water and reduces the light available to plants and corals, restricting growth and affecting marine life.

The Reef Trust Partnership between the Great Barrier Reef Foundation and the Australian Government includes \$201 million for projects aimed at improving water quality on the Reef in line with the Reef 2050 Water Quality Improvement Plan.

The Foundation selected Project Pioneer in our first round of water quality grants because of its proven methods of increasing ground cover in grazing lands and reducing fine sediment run-off onto the Reef.

Project Pioneer has successfully reduced fine sediment pollution within very high, high and moderate priority catchments. It has worked with 150 grazing businesses to improve land management practices, covering a total area of more than 1.3 million hectares. This fantastic result exceeds the targets set by the project.

RESEARCH PARTNER



Central Queensland University

Central Queensland University's (CQUni) Coastal Marine Research Ecosystems Centre contributed research in the area of measuring sediment run-off from paired properties, to compare the difference between regenerative grazing and traditional grazing methods on sediment and water quality.

SCIENCE AND PROGRAM PARTNER



WWF

WWF Australia has a strong interest in promoting and supporting sustainable beef production in Australia and has been an active partner throughout the delivery of Project Pioneer.

WWF's support began with assistance with the production of case studies and a video showcasing innovative grazing families participating in the Project.

In later years, WWF Australia and RCS Australia embarked on field surveys to quantify the impact of Project Pioneer on land condition, ground cover and water quality in Great Barrier Reef catchments. The results of our comparative surveys to date have shown how dramatic the impact of good land management can be on land condition, ground cover and the quality of storm water run-off into Great Barrier Reef catchments. The correlation of these factors to productivity and resilience is also evident.

There are many rewarding aspects for WWF as a result of its involvement in Project Pioneer. In addition to the significant contributions beef producers are making to improving the health of the Great Barrier Reef through improved water quality, Project Pioneer has been rewarding for WWF Australia in the depth and strength of relationships that have been forged.

CQUni worked with WWF and RCS in delivering this project. Trial results were provided in a detailed report. The Project aligns with CQUni's ethos of working with community and industry groups to develop practical solutions to real-world problems.

What has been the most rewarding part has been the tangible evidence obtained by the research and its potential to encourage more landholders to adopt regenerative grazing practices.

The Reef and its health is central to the communities which CQUni serves along the Queensland coast. There is clear evidence of the connection between land management and sediment loads reaching the reef catchment. CQUni is committed to working with primary producers to identify innovative solutions to improve land management without impacting productivity.

TECHNOLOGY PARTNER



Maia Grazing

Maia Grazing’s purpose is to help farmers produce high quality food for a good return, while improving their land, through adoption of improved grazing management across the livestock industry.

We provided access to MaiaGrazing automated grazing management decision support tool and associated support services, together with product training webinars and engagement workshops. We also undertook extensive data analysis to report on the level of engagement of participants, the degree of adoption of rotational grazing principles, and production outcomes as a result of adoption in terms of gross production and carrying capacity.

We believe that Project Pioneer is an exemplar that leads the way in how to achieve mainstream industry adoption of improved grazing management, and we seek to use it as a template for future initiatives and to assist our customers to get the most out of the MaiaGrazing tool.

The most rewarding part of our involvement was seeing the “light bulb moments” when participants gain insight into what improved grazing management means for them and how valuable it can be for their business.

There is an enormous shift in capacity to make confident decisions around land management when Project Pioneer participants build a relationship between the physical domain they see and interact with daily, and their grazing data within the MaiaGrazing tool.

TECHNOLOGY PARTNER



FarmMap4D

FarmMap4D partnered with Project Pioneer by offering participants access to its online mapping and property planning tools, and assisting RCS with project and sustainability reporting.

Recognising the important role producers can play in influencing the health of the Reef, FarmMap4D collaborated with Project Pioneer to assist producers objectively analyse and report groundcover growth and to demonstrate how management decisions can impact the ecological system of their property.

For FarmMap4D, the most rewarding part of the Project has been the opportunity to work as part of an integrated program and partner with producers to achieve better ecological and business outcomes for their grazing operations.

COMMUNICATIONS PARTNER



Blue Hill PR

Blue Hill PR is deeply connected to the communities that Project Pioneer has had such a strong and positive impact on.

Its founder, Stacey Wordsworth, grew up on a cattle property in the Fitzroy Basin of Central Queensland, very similar to many of those which have been transformed through the work of the Project.

As a communication agency, Blue Hill PR combined its farming heritage and deep understanding of agribusiness with extensive experience across public relations, content creation, and strategy to tell the rich and triumphant stories of Project Pioneer participants.

Blue Hill PR’s belief that a thriving agriculture industry is good for people, good for business and good for the world, strongly aligned with Project Pioneer’s mission to support profitable and ecologically prosperous grazing businesses.



PROJECT Pioneer

There's more to the story. Visit: www.projectpioneer.com.au



Great Barrier
Reef Foundation



Project Pioneer is funded by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation. The Project is delivered by RCS with support from WWF, Maia Grazing, FarmMap4D, Central Queensland University and Blue Hill PR.