

Profitability is paramount for Pownall family

Brian and Judy Pownall focus on using regenerative grazing management to run a profitable business.



'Leichhardt' is a Central Queensland beef cattle business owned by Brian, Judy and John Pownall. The management strategy at 'Leichhardt' is to use livestock to stimulate pasture growth. As the pastures improve, so does animal nutrition and business profitability.

Since Brian and Judy took over management from Brian's family in 1995 they have made many improvements in their land and business. The Pownalls have developed their land strategically and are one of the few profitable businesses in agriculture today.

A key driver to their business success is their motivation and discipline to keep learning which has given them a solid foundation of financial and grazing management. This is resulting in a resilient and profitable business with many opportunities for the future.



Case Study Snapshot



Location: Dysart, 340km North West of Rockhampton, Central QLD

Property size: 12,672 hectares

Currently runs: 3 - 4000 LSU, 2000 ha cropping

Average annual rainfall: 600mm

Enterprises: Beef cattle breeding, fattening and trading, cropping

'Leichhardt' is a profitable family operated beef cattle breeding, fattening and trading business in central Queensland.

Achievements:

- ✓ Profitable, resilient business
- ✓ Improved land and animal performance
- ✓ Increased utilisation of natural resources
- ✓ Healthy productive ecosystem

Drivers of success:

- ✓ Business management skills
- ✓ Goal setting and measuring progress
- ✓ Strategic property development
- ✓ Ongoing education

Ideas for future innovations:

- ✓ Walk-over weighing and automatic drafting
- ✓ Digital elevation mapping for planning water development
- ✓ Virtual fencing through satellite technology

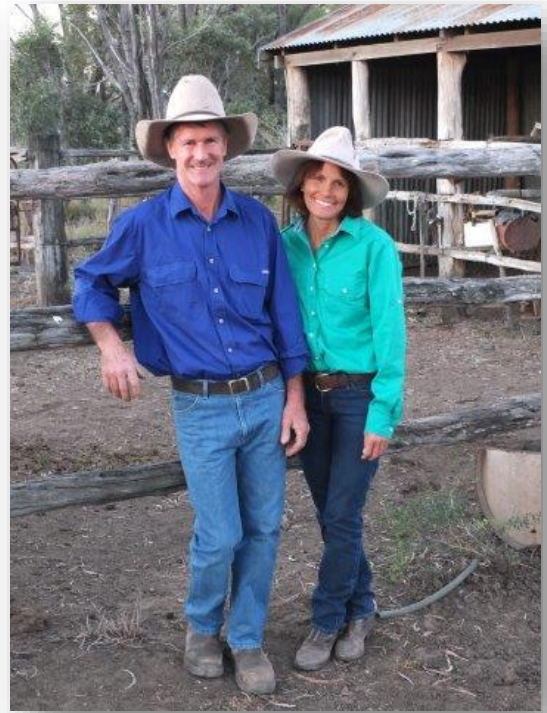
What makes this business sustainable?

Since 1995 the Pownall family have worked strategically to create a business that is profitable and a landscape that is improving. Brian and Judy state their underlying driver to make these changes is “We want to leave our country better than we found it.”

Brian and Judy manage 'Leichhardt' with Brian's brother John. They also employ a livestock manager, Peter Collins. Brian and Judy's three daughters are involved when on holiday from school and university.

What makes 'Leichhardt' a sustainable business?

- ✓ Business benchmarking shows they are a viable, profitable operation
- ✓ Data and visual assessment show that land condition has improved
- ✓ Increased long term carrying capacity shows that the ecosystem is more resilient and pasture quality and quantity has improved
- ✓ People in the business are happy, educated, and achieving goals



On 'Leichhardt' there is currently beef cattle breeding, fattening and trading as well as a cropping enterprise. The Pownalls concentrate on the beef enterprises of their business and have a sharefarmer to manage the cropping. "We did do some of the cropping ourselves but it wasn't a passion and we found that we weren't managing all the enterprises to their full potential, so decided to sharefarm all of the cropping country" explained Brian. Business benchmarking indicates that both cattle breeding and trading enterprises are profitable for the property in different years. This choice of enterprise allows the family to adapt to the conditions and spreads risk, lowering their exposure to market fluctuations. The main breeds of cattle used are Droughtmaster, Brangus and Charbray.

“We want to leave our country better than we found it.”

The cattle are managed under a time controlled grazing system that has been adapted to the level of development on 'Leichhardt'. This is based on the RCS Regenerative Grazing Principles, where animal impact for a short period of time is followed by adequate plant rest. The time cattle spend in each paddock is dependent on the length of rest period for the plants.

This can vary from a few days up to two weeks. Another important management practice at 'Leichhardt' is Low Stress Stockhandling. The family strongly support this livestock handling method as it ensures mustering or processing cattle is easy, efficient and enjoyable for both people and animals.

The land types on 'Leichhardt' are predominantly Brigalow or Coolabah downs. The Coolabah downs land type has an abundance of native grasses such as Blackspear grass, Bluegrasses and Mitchell grasses and the Brigalow land type has mostly improved grasses such as Buffel, Rhodes, Bambatsi panic and Green panic. Desirable legumes have also been sown, such as Butterfly pea, Burgundy bean and Seca stylo. The

Pownalls are noticing an increase in desirable grass species biodiversity as their land productivity improves.

The improvement in land condition on 'Leichhardt' is due to the strategic development of stock water and fencing, enabling improved effectiveness of the time controlled grazing. The family have installed a reticulated system that pumps water out of dams into troughs, giving stock higher quality drinking water. This system also protects the soil around the dam. Increasing the number of water points has promoted more uniform grazing pressure across the property. The paddocks on 'Leichhardt' are still large in comparison to most time controlled grazing systems. As further paddock subdivision occurs the Pownalls expect to see more ecological change from the increase in animal impact.

“It’s a great feeling when we achieve goals a year earlier than we thought we would.”

Prior to Brian and Judy’s management, the land was not overgrazed but showed symptoms of patch grazing and underutilisation which is typical of continuous grazing systems and conservative stocking rates. Prior to any property development 'Leichhardt' consisted of large paddocks and limited water points. Since introducing the time controlled grazing system the family have noticed the following changes in their ecosystem:

- ✓ Reduction in the number of weeds, particularly parthenium and fireweed.
- ✓ More even pasture utilisation and less patch grazing
- ✓ Increases in desirable species with native grasses appearing in previous Buffel dominated landscapes
- ✓ Increase in long term carrying capacity
- ✓ Prolonged plant growth period from increased water infiltration

These improvements have been beneficial for the business’ bottom line, mostly due to the increase in sustainable carrying capacity. In the initial stages of implementing time controlled grazing, the Pownalls found that animal performance decreased but as their knowledge and level of development increased, animal performance has equalled and surpassed the results they achieved before. As grazing management improved, cattle received higher quality nutrition which increased overall animal performance. This demonstrates the relationship between healthy, well-utilised ecosystems and overall business profitability.

The Pownalls are diligent with setting goals and monitoring their progress. The family feel that they have a long way to go before they achieve their ultimate goals but they are now observing that they are achieving some of their targets ahead of the schedule. “It’s a great feeling when we achieve a goal a year earlier than we thought we would.”

Brian and Judy remain motivated to improve their environment with a prevailing factor behind it - profitability is paramount. The Pownalls know that to have a viable and sustainable future on the land, the operation must be making money.



Low stress stockhandling is an important management tool at 'Leichhardt'

Motivations for change

The desire to improve the land and be profitable is the main motivating factor behind the Pownall family adopting a regenerative management system. The linkage between ecosystem health and business profitability was clear for the Pownalls – so there was no doubt which direction they wanted their business to be moving. Rather than describing their business as 'sustainable' the Pownalls prefer to use terminology such as 'regenerate', 'renew', and 'restore' as they aspire for their business to be continually moving forward. The family take great pride in improving their country. "We all have a piece of the pie to look after. If we all look after our piece, the whole pie (i.e. the reef) will be looked after." Judy shares.

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When Brian and Judy began managing 'Leichhardt' in 1995 they were optimistic but also aware there would be some trialling times ahead. Working long hours with no outside help was exhausting for the family. They did not feel their workload was sustainable and they were looking for new knowledge.

The point of change came when they made the decision to improve their knowledge and skillset. Brian completed the RCS GrazingforProfit School in 2007 and it opened his mind to what could be possible at 'Leichhardt'. Judy then completed the GrazingforProfit School in 2009 which opened her thinking up to what Brian had already learnt. Both Brian and Judy agree that the biggest catalyst for change came from completing education *together*. This inspired them to share ideas, future plans and enabled effective communication as a team. After the School, they organised for an RCS consultant to visit 'Leichhardt' and assist with completing their water and fencing plan. These two days of consulting were a key step in summoning the confidence to implement the goals and ideas they had formed earlier.

The couple then joined the three year RCS ExecutiveLink program from 2010 - 2012. They feel this is where they gained significant momentum in their business. They found the strong support network helped them stay on track and by drawing on their peer's knowledge the Pownalls were able to rectify some



unprofitable decisions. This prevented wastage, duplication and errors they may not have been aware of. During this time they learnt to 'plan for more than they needed now' which came from group experience. An example of this is water planning. The Pownalls didn't foresee the water flow rates that would be required at troughs as their carrying capacity and mob sizes significantly increased. Now this is a reality they are grateful they had peers and coaches to provide guidance during this decision making process.

One belief the couple had to overcome was the level of pasture utilisation required in the time controlled grazing system. When 'Leichhardt' was managed under a continuous grazing system they were firm advocates for maintaining a light stocking rate to maintain ground cover and look after the pasture. When changing to time controlled grazing they learnt they must apply greater stock numbers in order to utilise lignified, rank grass. Greater stock numbers followed by paddock rest stimulates root system activity and the plant reshoots into a more nutritious young plant. Given this added animal density is what allows the development to pay dividends, it was important to have this step right. The couple were able to draw on peer experience to make these changes in their grazing management.

One of the biggest challenges for the family over time has been juggling all aspects of business management. This includes the pressure of running their own business, completing a large amount of property development and raising and educating a family with no outside help. When times were challenging Brian and Judy were able to embrace change and receive new knowledge of how to manage strategically. Embracing change and the willingness to learn is what helps the Pownalls and their business to be continually improving and renewing.



Another challenge for all graziers is highly variable climatic conditions.

The Pownalls were motivated to take control and better manage through drought situations. When faced with drought, the priority is to look after their pastures. When below average rainfall is received the family's pre-formed drought policy comes into place. Livestock are sold until stocking rate matches carrying capacity based on the amount of rainfall received. This enables a body of feed to be maintained so when rainfall is received the pastures are in the position for maximum growth. The most important practice for the Pownalls is to plan for drought in advance and use information from their feed budgets.

Overall the Pownalls feel the most important management focus is to look after the land, as this underpins the future profitability of their business.

Measured success at 'Leichhardt'

An important skill in professional business management is measuring production data and using it to make meaningful business decisions. The tools used at 'Leichhardt' to collect production data include:

- ✓ Grazing Charts
- ✓ Feed budgeting using Stock Days per Hectare (SDH) and information from Grazing Charts
- ✓ RCS Benchmarking tool ProfitProbe
- ✓ Basal area monitoring
- ✓ Photo monitoring
- ✓ Animal production
- ✓ Anecdotal observations from knowledge and experience of the property

The Pownalls rely strongly on grass budgeting to determine the optimal stocking rate. This budget is monitored on an ongoing basis and changes are made according to the actual feed present in each paddock. The business can then adapt to changing conditions and match stocking rate to carrying capacity at all times. This budget is calculated in Stock Days per Hectare/100mm Rainfall (SDH/100mm), which is a function of rainfall, allowing the family to plan multiple scenarios depending on the season. The Pownalls know maintaining adequate feed throughout the seasons puts them in a strategic position and creates opportunities.

Figure 1 shows the kilograms of beef produced per hectare at 'Leichhardt'. This is the biggest factor underpinning long term business production. The trend line shows this is consistently increasing. Increasing beef produced per hectare is the fundamental way to improve business profitability, as more meat is produced on the same land area. For this to occur, animals must be receiving higher quality nutrition from pastures, resulting in greater animal performance. This graph also shows that in 2010/2011 more beef was produced. This is possibly due to a flood event and subsequent de-stocking following this due to reduced pasture availability. De-stocking at this time allowed pastures to recover quickly, resulting in greater long term productivity.

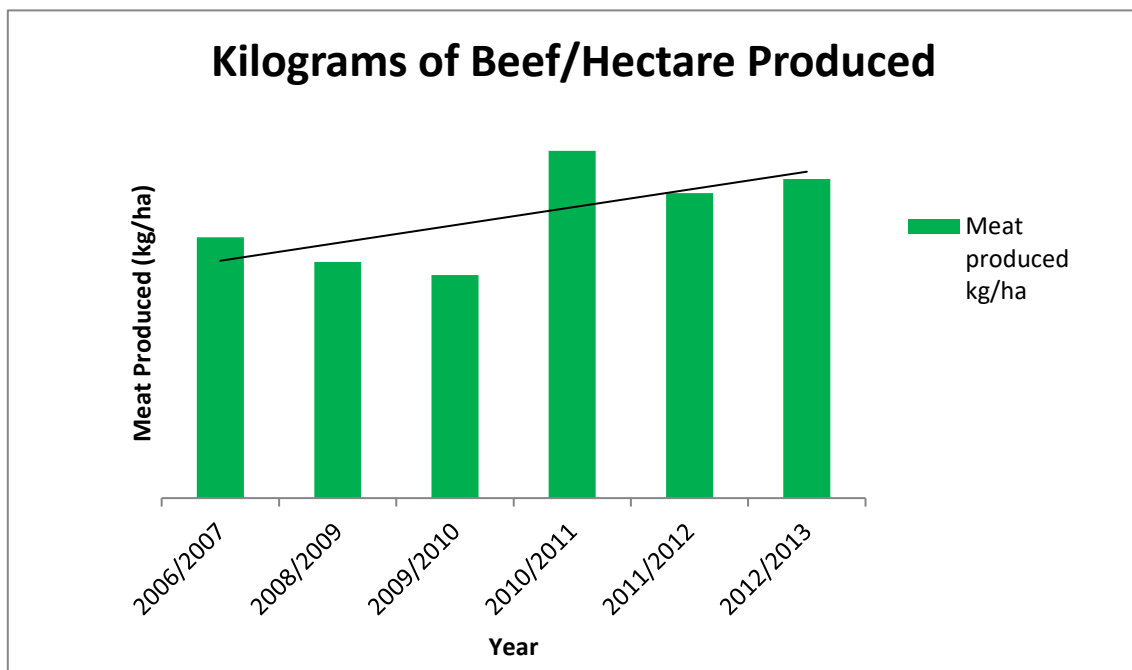


Figure 1 Kilograms of beef per hectare produced at 'Leichhardt'

Figure 2 indicates that three out of four monitoring sites have showed a significant increase in ground cover from 2010 to 2013.

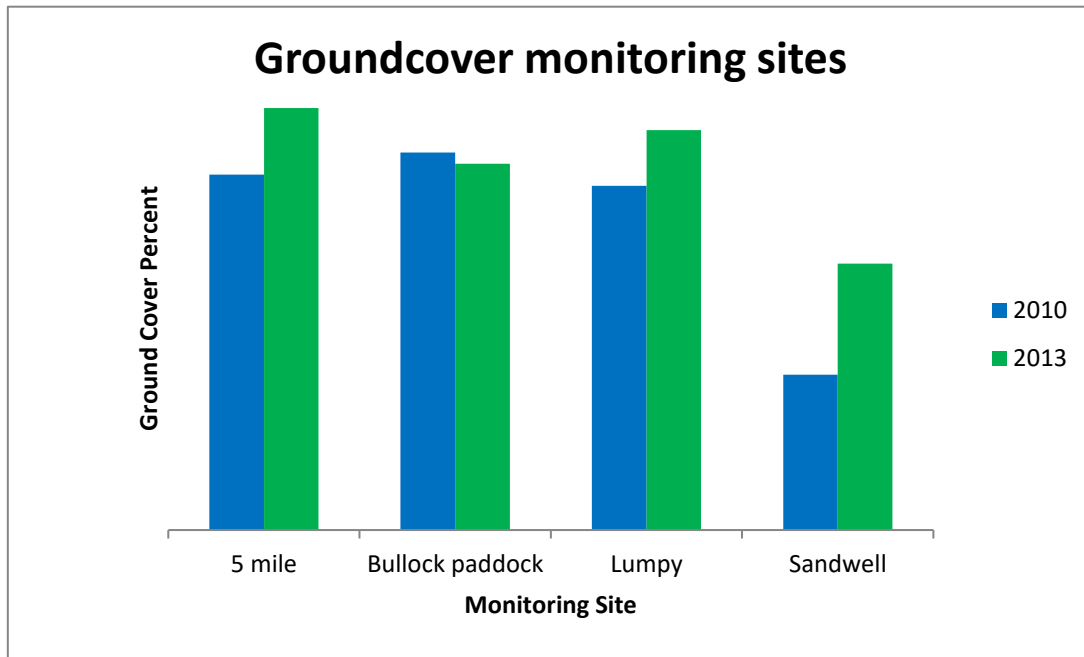


Figure 2 Ground cover percentages from 2010 and 2013

Figure 3 shows changes in ground cover over a ten year period. This data was obtained through Central Queensland University via satellite imagery. The convergence of the 10th percentile line indicates that the reduction in patch grazing over the property has positively impacted in areas with low ground cover. This data was recorded up until 2010. Figure 2 above shows that there has been significant improvements in groundcover recorded on-property since then.

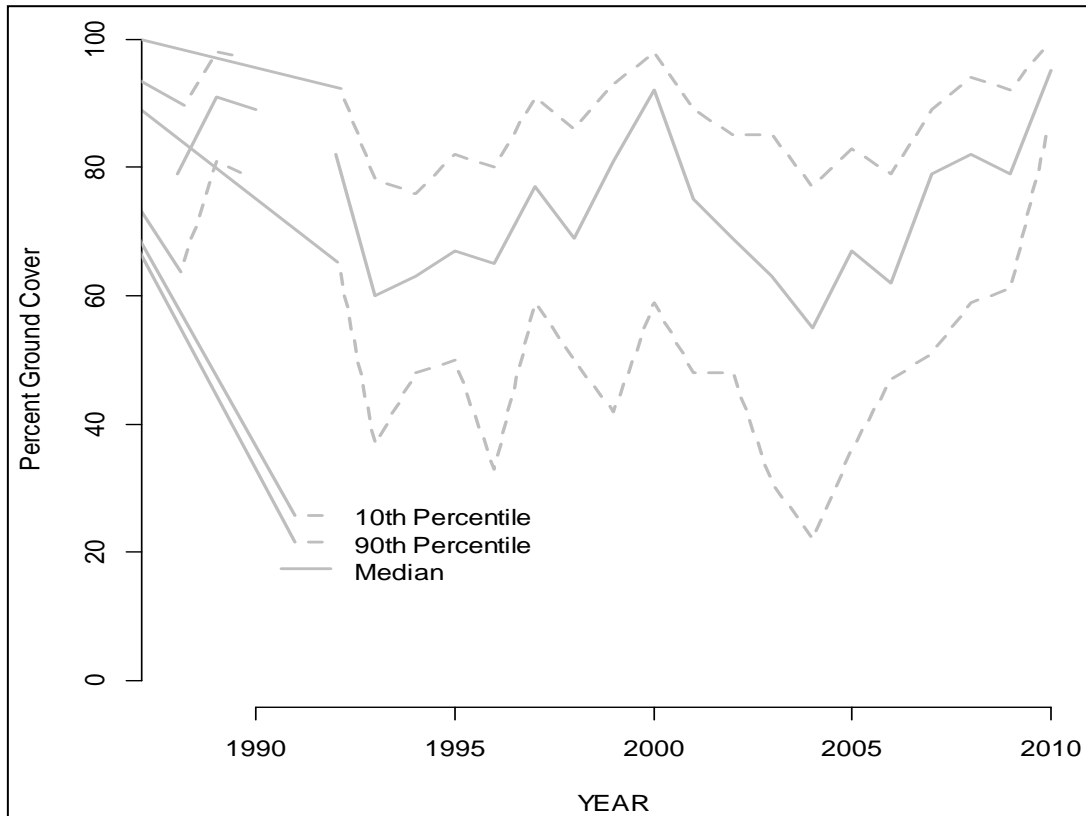


Figure 3 Groundcover trends at 'Leichhardt'

Source: Daniel Gregg CQ University

The key finding from Figures 1 to 3 is that as ground cover increases, so does kilograms of beef produced. This increase in groundcover emphasises that the increase in beef production per hectare is largely sustainable. This demonstrates the clear link between improved ecosystem health and business profitability. Regenerative grazing management is the tool that has allowed the Pownall family to increase kilograms of beef per hectare and groundcover simultaneously.

Figures 5 and 6 below illustrate the quantity of development that has occurred at 'Leichhardt' in recent years. The Pownalls received a 50% financial contribution for some fencing and water development from the Fitzroy Basin Association. This has enabled them to subdivide larger paddocks and install more water points more quickly than the family could have achieved on their own. This has resulted in faster ecological improvement, as cattle utilise grass evenly, reducing patch grazing and subsequent erosion. The even grazing pressure followed by rest due to the larger number of paddocks has assisted greatly in improving ground cover, which has underpinned the increase in production highlighted above.

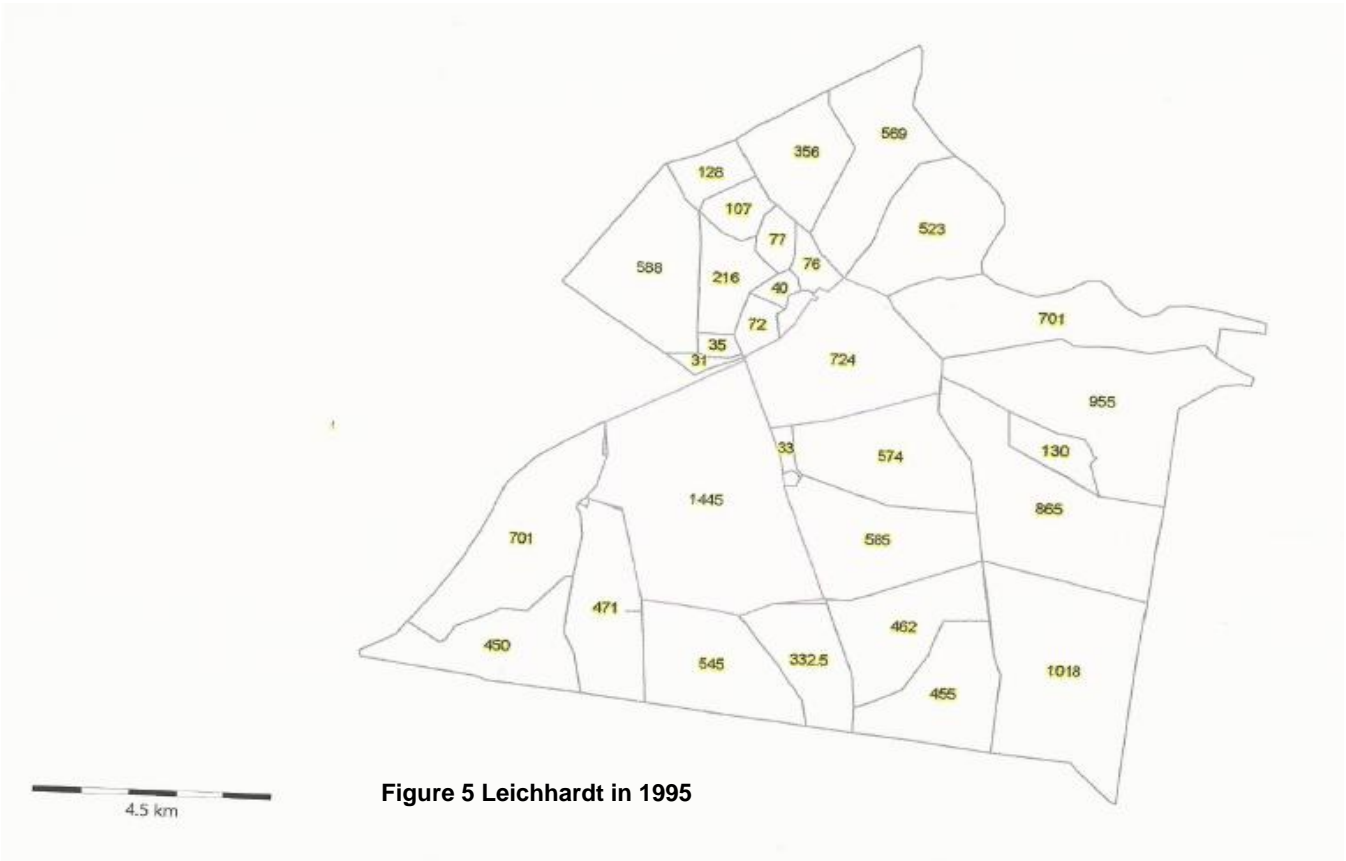


Figure 5 Leichhardt in 1995

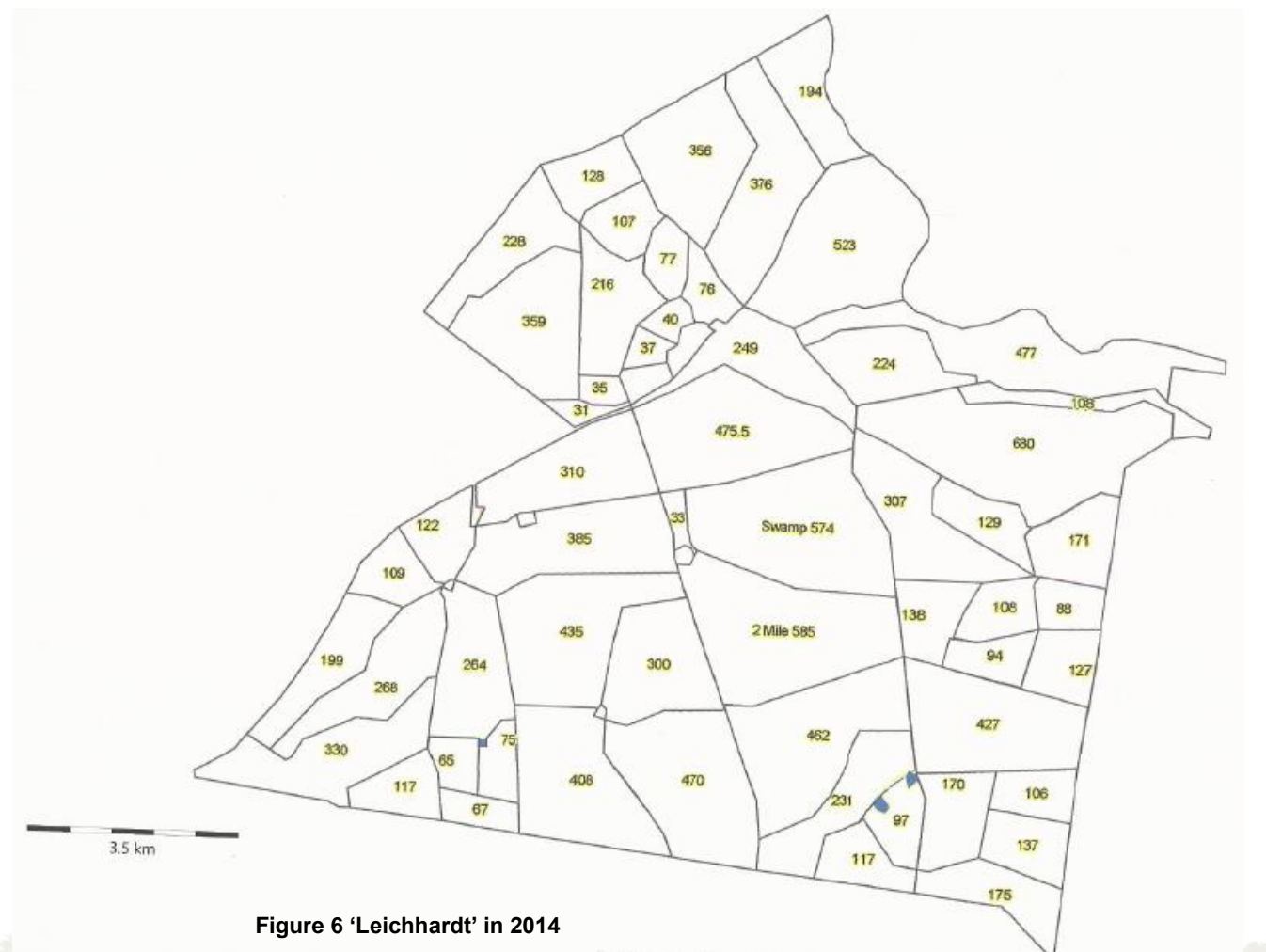


Figure 6 'Leichhardt' in 2014

Innovations

Throughout the last 19 years Brian and Judy have adopted a number of new ideas and innovations in their business. The biggest personal innovation was realising the importance of exposing themselves to new ideas through education. As they had both been raised on family owned properties, they had limited experience in other agricultural businesses and found they needed to step out of their comfort zone and experiment with new ideas, adapting their learnings to systems that worked for them. If they hadn't been willing to invest money into education, they wouldn't have the increase in profitability, production and a regenerating ecosystem which they currently have and hope to achieve in the future. Personal education is still a priority for the Pownalls, who work to ensure all staff and family members complete a course, school or training workshop each year. This keeps the people in the business learning and growing, and opens the business to new ideas, innovations and improvements.



Camels are used as biological control for weeds

On 'Leichhardt', the biggest production innovation to date is the implementation of time controlled grazing with a reticulated stock water system. This system was adopted because the family could see the merit in using animal impact to improve their land.

Another innovation at 'Leichhardt' is the use of camels to control woody weeds. Brian and Judy wanted to move away from using chemicals that can be

detrimental to soil microbial health. By doing so they plan to improve grazing biodiversity and reduce the significant costs of controlling weeds with herbicides.

The level of professional business planning and monitoring at 'Leichhardt' is innovative for the grazing industry. Each year the Pownalls review their goals; including personal, production and financial, allowing them to set time aside from the day to day management of their property to the 'big picture' plan. This management is what ensures the business is profitable and moving strategically towards their goals. These management practices include rigorous pasture budgeting and business benchmarking.

Their most important financial innovation is to have savings set aside as a buffer in case of drought. The Pownalls drought production policy is to match their carrying capacity to the feed available by selling cattle as needed. This has been effective; the financial buffer is there for peace of mind and to help ensure that the family can stay financially viable through tough times.

The fundamental reason the Pownalls have adopted these innovations is to increase efficiency, and profitability while improving the ecosystem.

Looking ahead...

In the future Brian and Judy aim to have a profitable business that continues to improve the ecosystem. They have a number of production goals they would like to achieve. These include:

- ✓ 100% groundcover (including plants, litter etc.)
- ✓ 30% plant basal area
- ✓ Subdivide grass paddocks to sizes of 200 hectares and leucaena paddocks to 90 hectares
- ✓ Increase carrying capacity to 30 SDH/100mm
- ✓ Cattle live weight gain of 0.7kg/day
- ✓ Improve cattle yard efficiency by adding a race draft.

The family aspire to achieve these goals by December 2015. The fundamental tool that will enable the Pownalls to achieve these targets is fencing and water development.

Technologies that would make a big difference in sustainable, efficient business management at 'Leichhardt' include:

- ✓ Walk over weighing and auto drafting. The system must be portable and time efficient
- ✓ Digital mapping with elevation to plan water development
- ✓ Virtual fencing through satellite technology. This innovation could make it easier to implement a time controlled grazing system if fewer infrastructures were required. It could also assist in fencing separate land types and excluding fragile or riparian areas

The Pownalls believe a big step forward for the industry would be using incentive based programs that encourage regenerative grazing management thereby rewarding graziers who are able to demonstrate they are improving the landscape. The family also feel that agricultural land needs to be protected for the future. This includes protection from mining and foreign ownership. Additionally, a system that allows graziers to receive a fair price for their product would benefit the industry, as it would alleviate some financial pressure on graziers and allow Australian beef to be more competitive within the global market.

Education was the biggest catalyst that motivated the couple to improve their land. Education has given them the tools to prevent management-incurred drought (i.e. running out of grass for the livestock carried). Managing for sufficient ground cover is the key to reducing loss of topsoil and subsequent runoff into the reef. Subsidized education made a big difference for the Pownall family when they were completing GrazingforProfit and ExecutiveLink. With Farmbiz funding no longer available, it is increasingly difficult for the agricultural industry in general to fund education.

In addition to this, the family believe the industry would benefit from significantly subsidised childcare for graziers when completing education. As parents, Brian and Judy found coordinating training and caring for their children challenging, especially when most available training was often a minimum of four hundred kilometres from their property. Judy believes access to onsite childcare at the training venue would make a big difference to the industry.

In summary, some advice Brian and Judy would give to other graziers wanting to make positive changes in their business is "get educated. Be open-minded and understand how to manage your business holistically." For rural businesses to be viable they must be profitable. The saying 'You can't be green if you're in the red' is a statement that Brian and Judy agree with. The clear link between ecosystem health and business profitability is the fundamental reason the Pownalls have adopted regenerative grazing management. By improving the land, they improve their business. They predict that if every grazier were

able to improve and protect the land on their 'piece of the pie' while remaining profitable, this would create a bright future for the industry.

