

Comiskeys see the potential to improve at 'Melton'

Bec and Dave Comiskey are focusing on grazing management to produce high quality, organic grassfed beef.



'Melton' is an organic grassfed beef cattle business located near Alpha in Central West Queensland. The management philosophy at 'Melton' is to use cattle to improve soil health and water infiltration, creating a healthier environment and profitable business.

Bec and Dave Comiskey have been managing 'Melton' together since 2007 when they purchased the property from Dave's family. Since then they have made many innovative improvements to the business such as converting to niche grass fed markets and introducing time controlled grazing.

The Comiskeys have created a sustainable operation that is resilient through changing climatic conditions, and they are looking forward to realising the future potential at 'Melton'.



Case Study Snapshot



Location: Alpha, 450 km West of Rockhampton, Central West QLD

Property size: 8,524 hectares

Currently runs: 2,000 LSU

Average annual rainfall: 500mm

'Melton' is a family owned grassfed beef cattle business that aims to nurture the full, healthy lifecycle of all animals and plants.

Enterprises: Beef cattle breeding, growing and fattening.

Achievements:

- ✓ Progress in business profitability
- ✓ Improved ecosystem health
- ✓ Improved meat eating quality
- ✓ Several niche beef certifications and now in conversion to organic

Drivers of success:

- ✓ Gaining business, livestock and ecosystem literacy
- ✓ Striving for annual improvement in all areas

Ideas for future innovations:

- ✓ Non-invasive pregnancy scanner
- ✓ Removal of horn gene
- ✓ Drones to check land condition
- ✓ Growing protein supplement i.e. algae on property
- ✓ Telemetry

What makes this business sustainable?

Since 2007 the couple have been focusing on developing the property into a resilient ecosystem and business. A key strategy at 'Melton' is to breed high quality cattle that produce quality organic grassfed beef, in a system that provides animals with a healthy, content life from birth to slaughter.



What allows 'Melton' to be a sustainable business?

- ✓ Increased ground cover and resilient ecosystem
- ✓ Improvements in meat quality due to improved grass quality and cattle management changes
- ✓ Adaptable business model suited to a variety of climate and market conditions
- ✓ Control over business direction by having a plan
- ✓ Thorough understanding of business drivers

The choice to adopt organic status aligns with the business vision; to work with the environment and run a low input grazing business.

The cattle on 'Melton' are purebred red Brahman cows crossed with either purebred red Brahman, Simmental or Angus bulls. The target market for these cattle is predominantly European Union (EU) and Pasturefed Cattle Assurance System (PCAS). If seasons are consistently poor then cattle can be sold as stores or to feedlots to prevent overgrazing on 'Melton'. Dave and Bec are excited to know they are currently producing cattle that are destined to the organic grassfed market in coming years. The herd is managed under a controlled mating system. The transition to this system has proved to be a valuable decision for the business, as it gives the couple greater control over their breeding operation and they are seeing improved animal production as a result.

The cattle are grazed in a system that incorporates time controlled grazing, rotational grazing and traditional continuous grazing. The cattle enterprises are breeding, growing and fattening. The Comiskeys have great pleasure in this system of management, as they are in full control of the animals' health and welfare throughout their life, and can select genetics to deliver a high quality end product.

The couple have installed significant fencing and water development in recent years, including a fully reticulated stock watering system - where wind and solar power pump water to troughs and tanks via poly pipe, with a suitable flow rate for livestock numbers. The benefit is a higher drinking water quality for cattle, in comparison to drinking out of dams. By way of fencing development, paddocks have been fenced using a combination of single wire electric and traditional 4-strand barbed wire fencing.

The pasture species at 'Melton' is predominantly Buffel grass with a number of native grasses including Blue-grass, Kangaroo, Black spear and White spear grass. Also present throughout the property are native and sown introduced legumes.

In recent years the Comiskeys have observed the following ecosystem changes:

- ✓ Increase in ground cover
- ✓ Reduced number of annuals / weeds
- ✓ Increase in desirable pasture species
- ✓ Greater water infiltration
- ✓ Increased biodiversity

“We want to be a positive influence on our soil, livestock, ecosystem and community.”

These observations show that land condition has improved under the current management system and Dave and Bec are expecting further ecosystem changes to occur as their management builds momentum. There is a long lag period between capital outlay for property development and ecosystem improvements, so the future at 'Melton' is exciting.

Despite the below average rainfall of 186mm in 2013 the Comiskeys have noticed an increase in ecosystem health and meat quality. Their definition of a successful business is resilience in changing seasons and market conditions, as well as year to year improvements in the business benchmarking, environment, animals and people. They are proud to run an operation that works with their natural resources to create a profitable business.



Motivations for Change

Primarily, the Comiskeys were motivated to change their business and grazing practices due to their passion for looking after the environment and working with animals. They agreed that if they were to make a living on the land, they needed it to match their vision of a profitable business, a renewing ecosystem and healthy, content animals and people. Dave and Bec wanted to take proactive steps to improve their business every year.

Prior to 2007, Dave's family had owned the property for 14 years. When the family purchased the property there was minimal water or fencing development, resulting in grass in close proximity to water to be overgrazed and underutilised a few kilometres away. Dave was motivated to find and implement strategies to improve grass utilisation and saw potential in developing the property to optimally utilise the natural resources.

In the initial stages of management, Dave and Bec embraced a steep learning curve as they built up their knowledge about managing grass, debt and themselves. Bec states "Our first step towards meeting our vision of a resilient, profitable business, was drafting a 20 year Holistic Property Development Plan, which was guided by NQ Dry Tropics – a Natural Resource Management (NRM) group. It encouraged us to develop a long term infrastructure plan for the business. In this plan we aimed to reduce walking distance to water to less than 1 kilometre. We also wanted to implement the fencing structure necessary to manage the landscape effectively." Dave and Bec have utilised funding from NRM groups for land type fencing and added water distribution in the form of poly, troughs and tanks. This funding provided them with education and momentum, to improve their land much faster than they would have without support.

To see the business improve, Dave and Bec understood they needed a high level of financial literacy. This came from obtaining education, namely; Certificate IV in Small Business Management and completing the RCS GrazingforProfit School. They also enrolled in the three year RCS ExecutiveLink program which has provided them with confidence and motivation to keep pushing boundaries in all aspects of their business.



Bottle tree with a wedge-tailed eagle nest



The biggest challenge for the couple so far has been managing land debt and the cost of infrastructure to make improvements. Dave states “The time period between capital outlay and production improvements can be a long process, and this has been challenging in these primary years.” However the advances they have already observed in their pasture quality and animal production has given them confidence they are on the right track. They understand that improving their ground cover and protecting valuable top soil is highly beneficial to their operation can see they are having a positive effect on the wider environment and the Great Barrier Reef. Maintaining healthy, stable soil is the key to future productivity at ‘Melton’. “We want our topsoil to stay on farm; not on the reef.”

A real achievement for the pair has been managing through a drought and maintaining effective ground cover without needing to transport water, seek agistment or purchase feed. They achieved this by focusing on matching stocking rate to carrying capacity through rigorous feed budgeting and monitoring, then taking strategic action to reduce livestock numbers. Dave and Bec know that long term business profitability is underpinned by ecosystem health, so they are not willing to damage their pastures for the sake of a short term financial gain.

“We want our topsoil to stay on farm, not on the reef.”

In addition to their desire to improve the ecosystem and financial management at ‘Melton’ Dave and Bec wanted a more balanced lifestyle. Looking back now the couple can see

they have made improvements in this area, as they can now afford to employ staff and take holidays.

The Comiskeys ability to manage debt while maintaining a focus on ecosystem health is critical to sustainable management. Recently a backpacker left a quote in Dave and Bec’s visitor’s book, stating that life at ‘Melton’ involved “Nurturing the entire lifecycle of all plants and animals alike.” With many years still ahead of them the Comiskeys are excited to see further improvement in the ecosystem.

Measured Success at 'Melton'

One of the fundamental aspects to business success at 'Melton' has been developing professional holistic management skills, enabling the Comiskeys to have control over all aspects of their business, such as grazing management, livestock performance, business profitability and general communication. The Comiskeys are careful to create systems in their business that are both effective and provide value for time. While decision-making in the office is crucial, Bec also states that paddock observations and office decisions go hand in hand.

"Paddock observations and office decisions go hand in hand."

The tools used to measure the ecosystem changes at 'Melton' include:

- ✓ Grazing Charts
- ✓ Rest Period calculator
- ✓ Visual assessment
- ✓ Grass budgets
- ✓ Photo monitoring
- ✓ Land condition scoring
- ✓

Figure 1 shows the significant increase in ground cover since Dave and Bec took over management in 2007 also aided by good rainfall. This is most obvious in the increase in the lowest 10th percentile line, highlighting that areas with the lowest groundcover have improved up to 90%.

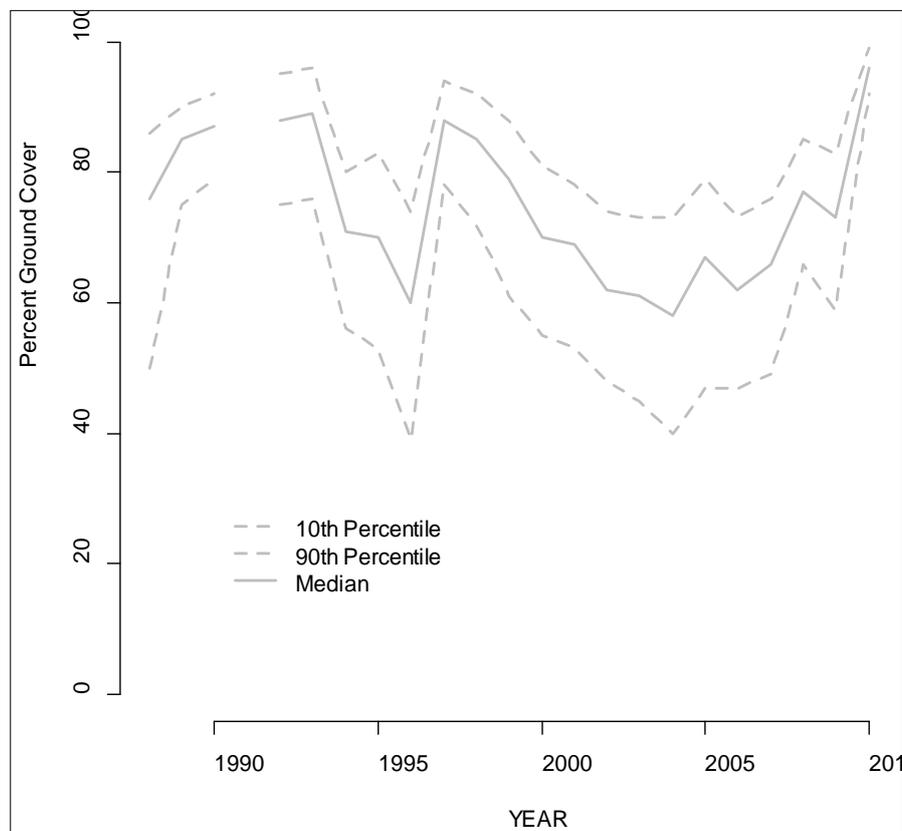


Figure 1 Trends in ground cover at 'Melton'

Source: Daniel Gregg, CQ University

Meat quality is underpinned by nutritional management and the biggest factor influencing animal nutrition is grazing management. At 'Melton' matching stocking rate to carrying capacity, and using rotational grazing ensures cattle are consuming the highest quality pasture. This is particularly challenging in dry years. 'Melton' is managing as an organic operation, so cattle are not fed urea which heightens the importance of having nutritious pastures. Figures 2 and 3 show the improvements in meat quality. This information along with improvements in groundcover seen in Figure 1 shows the **clear link between improving ecosystem health and improved business profitability**.

The Meat Standards Australia (MSA) Index is a score that determines the potential eating quality of the carcass. This unit of measurement allows graziers to track how changes to their production systems impact the eating quality of their cattle. **A high index represents good eating quality**. Figure 2 shows that since 2010 there have been major improvements in the potential eating quality of beef produced at 'Melton'.

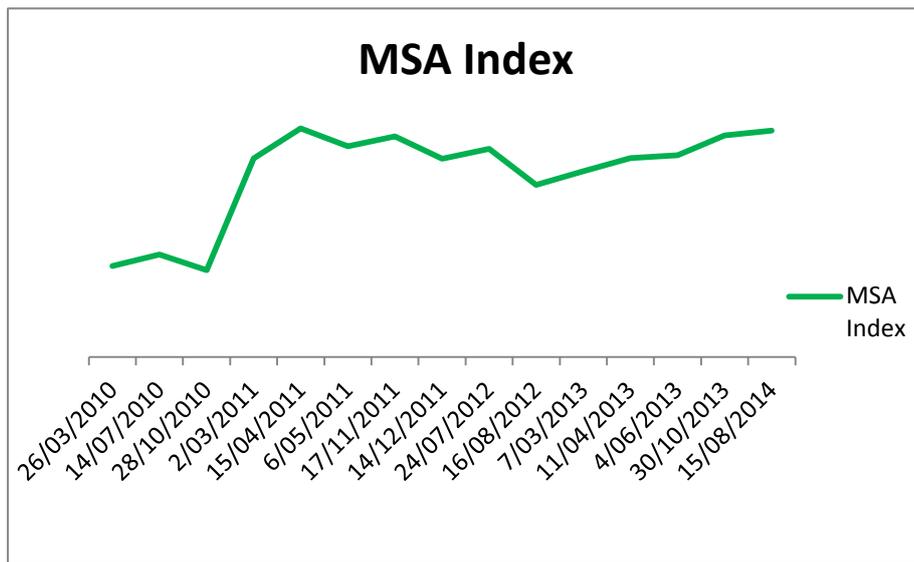


Figure 2 Trends in Meat Standards Australia (MSA) Index

Ossification is a measure of maturity of the carcass. It relates to the animal's physiological age and is strongly influenced by nutrition and subsequent development. Stress and poor nutrition can contribute to higher ossification. **The lower the ossification score, the higher the eating quality**. Figure 3 shows that ossification has progressively reduced over the last four years.

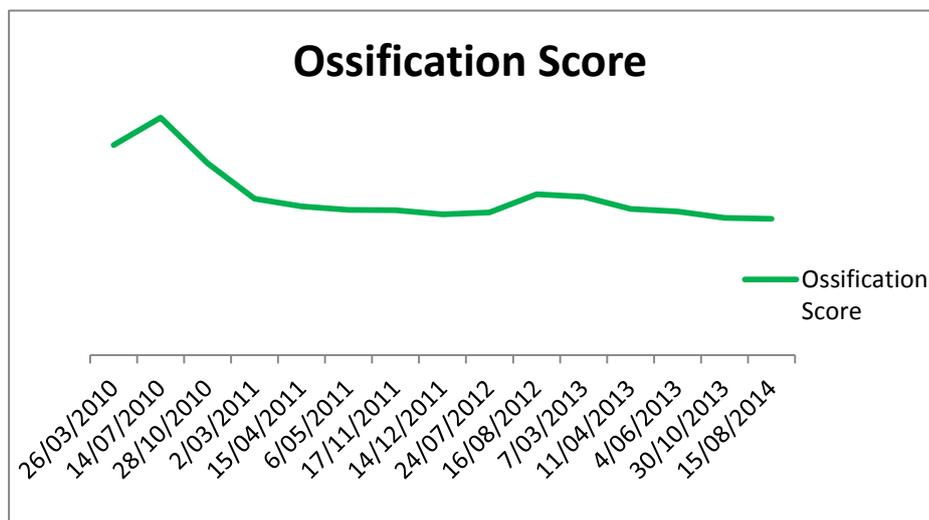


Figure 3 Trends in Ossification Score

The following maps highlight the infrastructure installed at 'Melton'. There have been 44 kilometres of poly pipe, 38 troughs, 7 dams and 1 bore installed. 45 kilometres of fencing has been erected, increasing the number of paddocks from 5 to 30. This investment is proving to be a profitable decision as ecosystem health improves.

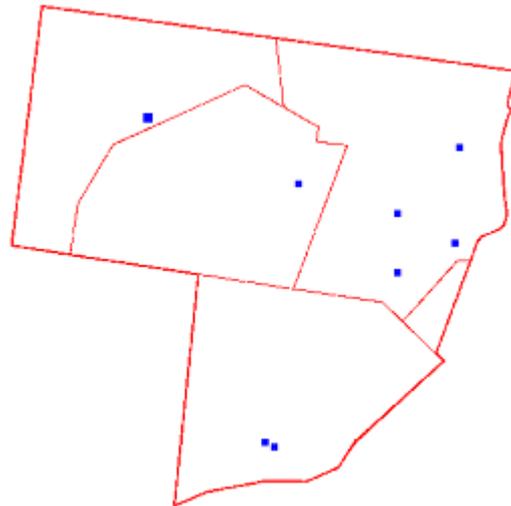


Figure 4 The water points and paddocks on 'Melton' in 1993, when purchased by the Comiskey family.

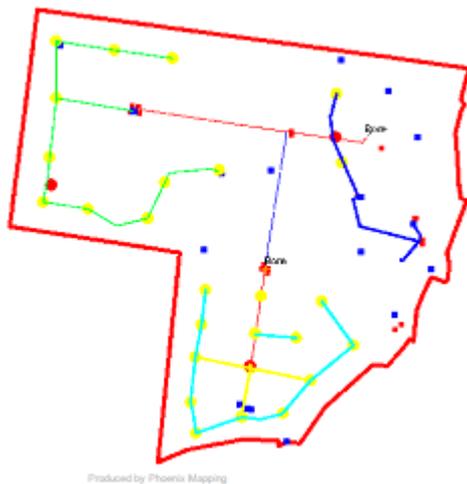


Figure 5 Water development (poly pipe, troughs, bores, dams)

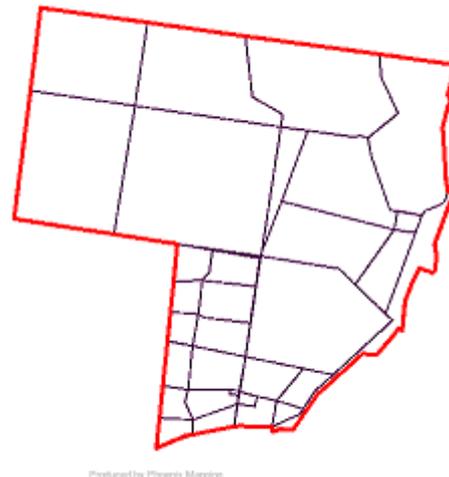


Figure 6 Fencing development (both permanent and electric)

Innovations

Over the last seven years the Comiskeys have trialled a number of innovations at 'Melton' with the aim of improving business productivity. The innovations adopted at 'Melton' include

- ✓ Added water points to reduce walk to water and create even pasture utilisation
- ✓ Converting the business to access markets such as Meat Standards Australia (MSA), European Union (EU), Pasturefed Cattle Assurance System (PCAS) and now organic certification
- ✓ Solar powered water facilities
- ✓ Using mealey bugs (*Hypogeococcus festerianus*) instead of chemical to control Harrisia cactus (*Harrisia martinii*). This biological control reduces the cost of herbicides and prevents damage to soil microbiology
- ✓ Time controlled grazing
- ✓ Low stress stock handling
- ✓ Single wire electric fencing
- ✓ Telemetry
- ✓ Directional 'elbows' to circulate trough water, increase quality and avoid cattle damaging floats



Solar power saves costs for pumping water



A right-angle piece of pipe is put on the water outlet, allowing the freshest water to circulate around the trough.

Each innovation was adopted to save time and money in the business. They also match the vision and direction for 'Melton' - to create an efficient, low maintenance business with a healthy diverse ecosystem.



Telemetry

What's next?

Dave and Bec are looking to tap into the full potential of their business. The Comiskeys specific production targets include:

- ✓ Cattle walk less than one kilometre to water
- ✓ Increasing carrying capacity benchmark to 40 Stock Days per Hectare per 100mm rainfall (SDH/100mm) which equates to growing more grass
- ✓ Cows maintain a body condition score of 3+ (on a scale of 1-5, with 1 = emaciated and 5 = obese)
- ✓ Breeding stock on a rising plane of nutrition during mating
- ✓ 90% pregnancy rate with 85% weaning rate
- ✓ Improving production to 50kg beef per hectare annually

They will measure these parameters by monitoring changes to carrying capacity (SDH/100mm), land condition score and animal performance records. Additionally, business benchmarking and calculating Earnings Before Interest and Tax (EBIT) would indicate if the business is moving forward.

Tools and technologies the Comiskeys feel would assist graziers achieve sustainable production goals include:

- ✓ Walk-over-weighing and automatic drafting
- ✓ Telemetry for water and feed monitoring
- ✓ Crush side non-invasive pregnancy scanner
- ✓ Drones to check animals, paddock and land condition
- ✓ Rumen bugs to assist cattle in digesting lignin
- ✓ Easy measurement of soil carbon
- ✓ Removal of horn gene
- ✓ On-property grown protein supplement suitable for organic market such as algae

The Comiskeys consider that another beneficial practice for the industry is granting graziers with subsidies or tax deductions after receiving education, to implement practices to improve the land. Also instead of drought funding for feed, graziers could be subsidised when re-stocking. This would make it easier for graziers to de-stock if they do not fear significant financial loss when they need to re-enter the market after drought.

Dave and Bec suggested if there were any external parties or philanthropic donors outside the rural industry with an interest in protecting the Great Barrier Reef, they could develop a partnership with graziers to assist in financing regenerative grazing practices. Another way to encourage graziers to improve their land could be through low interest finance schemes. Overall, any subsidies or deductions that reward proactive management and directly increase ecosystem health would be beneficial for the industry.

Education was the biggest catalyst for land improvement at 'Melton'. Farmbiz was enormously helpful for the Comiskeys to develop professional management skills. Further funding in this area would be highly beneficial for graziers aspiring to improve their management.

Market trends suggest that consumers are looking for ethical, sustainable Australian beef. Education for consumers would bridge the gap between rural and urban populations, and emphasize the importance of sustainable food production, ultimately helping to fund local healthy ecosystems.

Some advice the Comiskeys would pass onto other graziers wanting create a resilient business is as follows: "Get educated and learn about the ecosystem. Create a support network with positive likeminded peers. Have good professional partners such as solicitors, bank managers, and accountants. Develop a specific five year plan and monitor this plan over time. It is amazing how much more powerful a written plan is! And above all else, look after your topsoil."

