Future Beef

Fact sheet

Business analysis from the Maranoa-Balonne region

Climate Clever Beef

The Climate Clever Beef (CCB) project in northern Australia aims to investigate methods to minimise methane emissions from livestock and increase carbon sequestration in the soil while focussing on those practices that also improve the productivity and profitability of the beef business. Beef producers in northern Australia are having to cope with climate extremes and are experiencing increased financial stress, due to rising input and financial costs and decreased returns—over the last few years in particular.

Image 1. Backgrounding steers on a property in the CCB group.

Business analysis in the Maranoa-Balonne group

In the Maranoa-Balonne region, to assist in better understanding current financial and production performance, businesses were given the opportunity to undertake a complete business analysis as a part of the CCB project. An industry consultant was engaged to assist producers with compiling the required business data and return reports detailing the following key performance indicators: kilograms of beef produced per adult equivalent, cost of production, operating margin and labour efficiency. Each business received their own report and an aggregated whole group report. The analysis assessed current business performance, identified shortfalls in the business and assisted with setting future directions and goals.

Queensland Government

Supported by funding from the Australian government

Imge 2. Producer meetings formed an integral part of the CCB project in the Maranoa-Balonne.

Results of the business analysis

The group data in the Maranoa-Balonne highlighted a number of common issues:

- Scale is an issue for many. Land area is often limiting the ability to carry the numbers of cattle required to offset overhead costs.
- Labour efficiency is low, meaning not enough cattle are managed for the number of labour units employed.
- Kilograms of beef produced per adult equivalent (AE) are low in some cases and this is also affecting cost of production.
- The use of off-farm income may be helpful for some businesses to improve labour efficiency and offset costs.

Image 3. Cows and calves on a property in the CCB group.

The group data showed on average that businesses with a mix of breeding and backgrounding in their operation performed better than businesses with only a breeding operation. Across all businesses over the four financial years 2009–2013, the average **operating margin** for the group was $0.10. This is the **income** ($/kg liveweight [LW] produced) **minus** the **cost of production** ($/kg LW produced). When finance costs were included the operating margin averaged -$0.27.

Cost of production in the group during the 2012–13 financial year ranged from $1.15–$2.99/kg LW produced, with the average across the nine properties over four financial years being $1.62/kg LW produced. Interestingly, the average price received did not vary greatly between the properties, ranging from $1.68/ kg LW sold to $1.92/ kg LW sold. Therefore, price received is not always a driver of profit, this is more usually driven by cost of production and kilograms of beef produced (output). This is sometimes due to a higher price bringing higher input costs, which may negate the benefits. The property receiving the lowest price also had one of the lowest costs of production, giving them an overall positive operating margin.

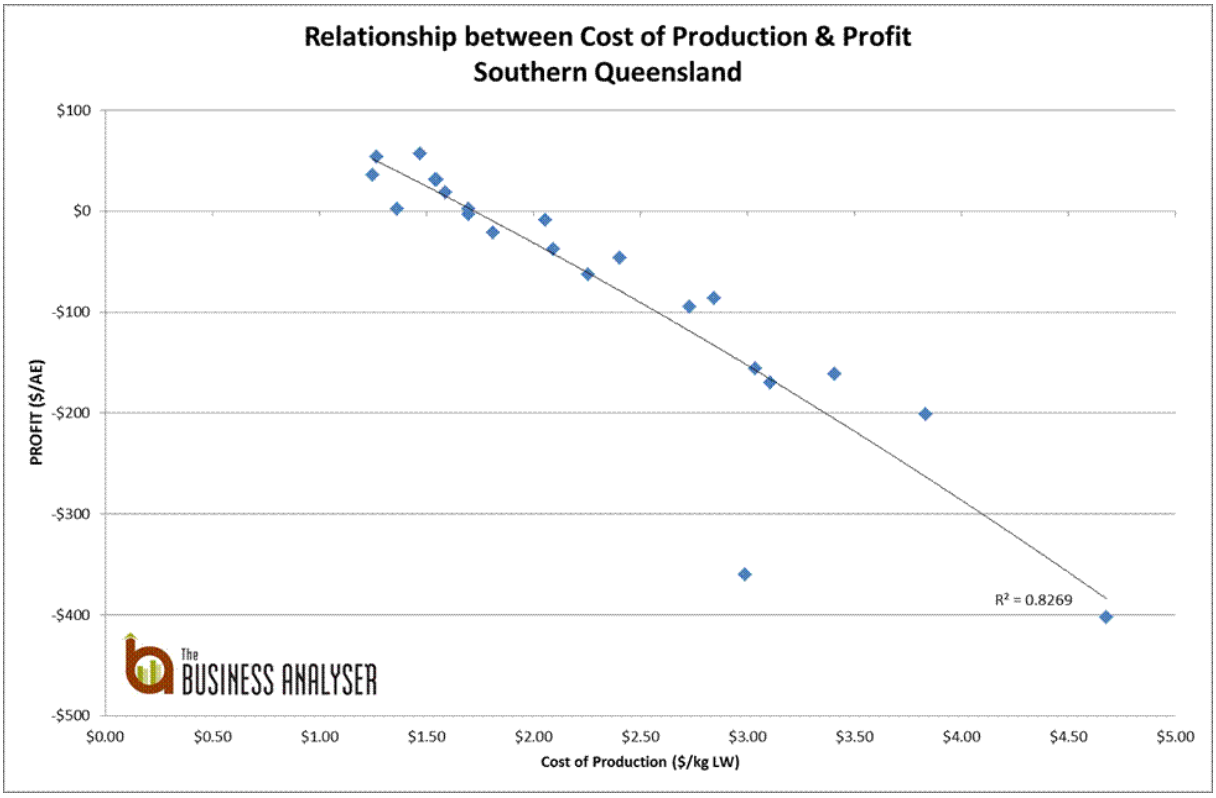

Image 4. There is a very strong relationship between cost of production and profit.

Imge 5. **Profit does not necessarily correlate well to price received.**

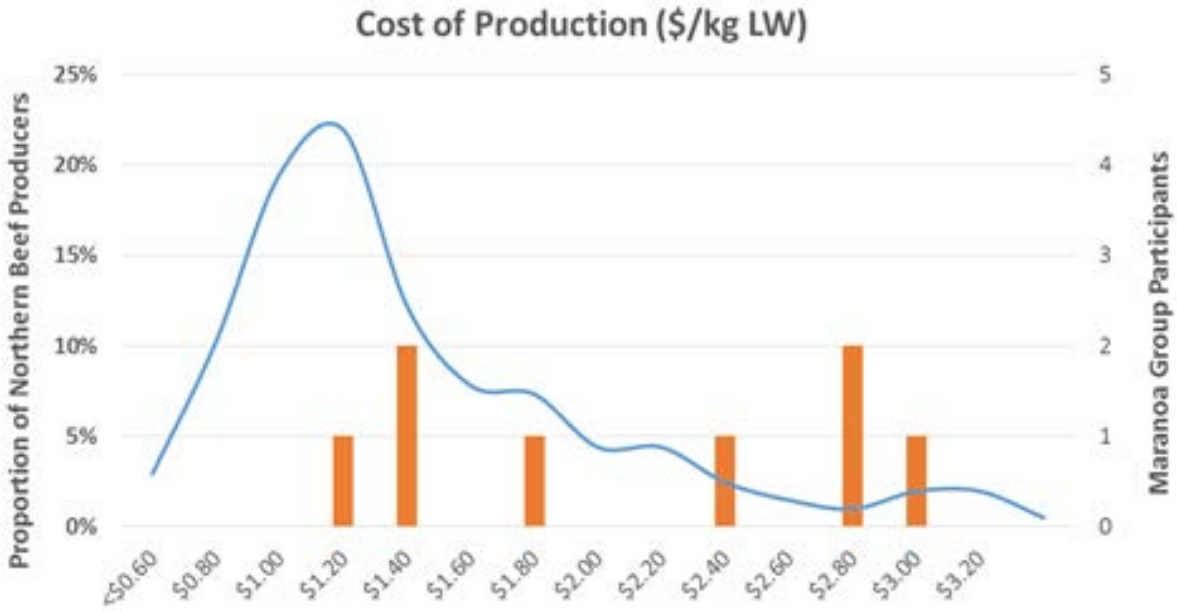

Image 6. **Cost of production figures for Climate Clever Beef group businesses vs average data for northern Australia.**

Across the four financial years the average enterprise size (total AE) was 1,631. In 2012–13 this number varied across the nine properties from 300 to 3,510 AE. There is a large difference in the operating scale of businesses within the group and this scale has an impact on profit, through the ability to offset overhead costs. As can be seen in Figure 4, those businesses with greater scale generally had lower overhead expenses/AE. However, it is not always possible to increase scale, especially in areas where properties are fully developed. In this case lowering the cost of production, especially through improving the kilograms of beef produced, can greatly assist with improving overall profits.

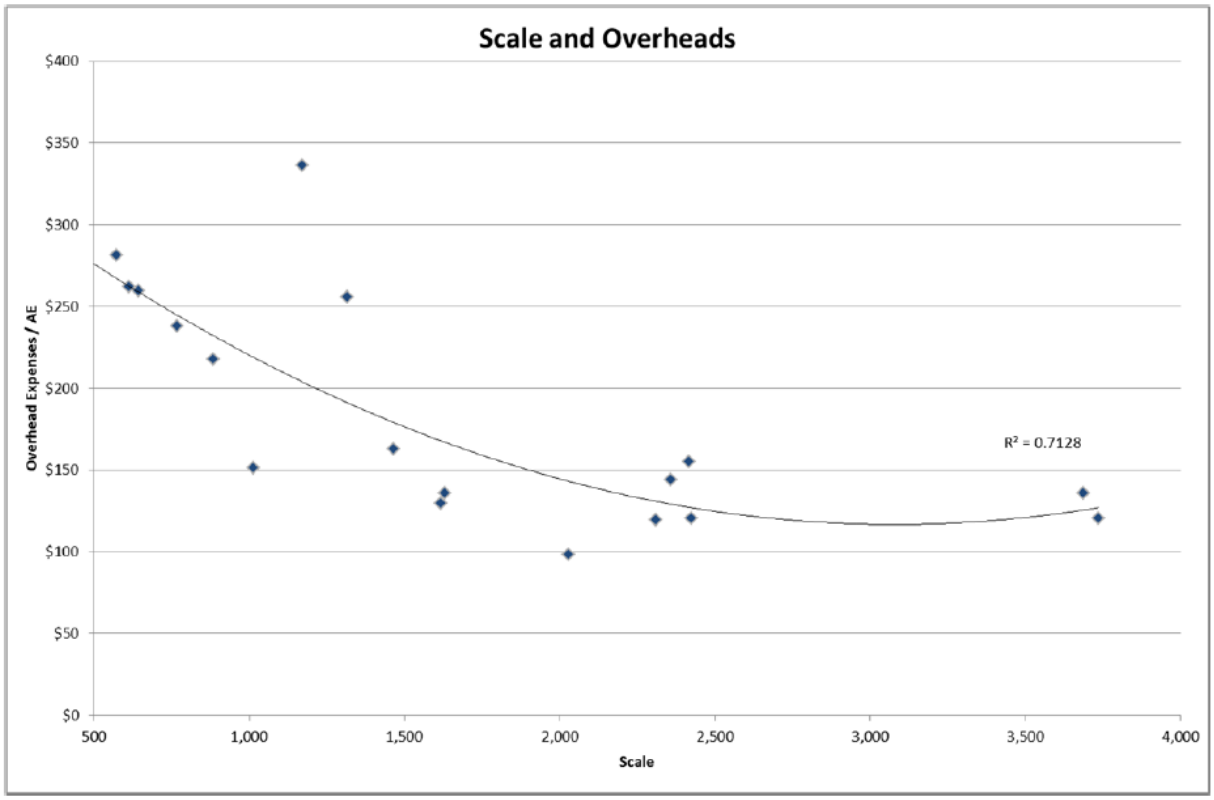

Image 7. Scale and related overheads of Climate Clever Beef group businesses. Scale impacts overheads.

Labour efficiency is also important as it is a measure of how efficiently the business is able to use labour, which is a major cost to the business. When scale is an issue improving the labour efficiency may also help to reduce expenses. Across the four financial years the average labour efficiency across the group was 887 adult equivalents (AE) managed per full-time employee (FTE). The top 25% in the region are managing 991 AE/FTE while across northern Australia the average are managing 863 AE/FTE and the top 25% are managing 1,306 AE/FTE. The highest efficiency in the Maranoa group in 2013 was 1,555 AE/FTE, with the lowest being 455 AE/FTE. The property with the highest labour efficiency had the third highest total AEs. Therefore, labour efficiency can be achieved without having the largest scale. Utilising off-farm income sources may also help to improve labour efficiency.

As mentioned above, improving beef production and the kilograms of beef turned off the property may assist to improve returns for some of the businesses in the group. Across the four years the average kilograms of beef produced per AE was 122 kg beef/AE, while the range was 115–149 kg beef/AE. Those with higher beef production did not always have a higher operating margin; however, improving this figure would help to offset their cost of production, which would in turn help to improve profit. This is as long as the extra kilograms of beef do not generate a significant extra cost to produce.

Assessing changes to management practices

Using the information provided to them through the business analysis producers were able to assess the current performance of their business and, at group meetings, benchmark their business against others in the region. This also enabled producers to pinpoint the areas of the business that were hindering financial or production performance the most.

Of all the information from the business analysis the lack of scale was the key limitation that many of the group took on board. In order to minimise the impact of lack of scale three properties have altered their management strategies and long-term plans. Changes to these businesses include: bringing in a second enterprise to achieve greater scale and profit returns, continuing to sell heavier cattle, improving the feedbase and animal liveweight gains to improve turnover, and moving further towards trading from breeding to assist turnover. Additionally, ensuring that animals held on the property were performing at optimum reproductive levels was also highlighted as key to achieving better scale. To ensure this two properties, that had previously not done so, pregnancy tested all females and culled empty breeders. This enabled them to remove unproductive breeders from the property and conserve valuable pasture for other stock during drought, also helping to improve their genetics and reproductive performance in the future.

In group discussion another point highlighted was the need to optimise kilograms of beef produced each year, to increase proceeds of sale and better offset overhead costs. In line with this a number of properties have assessed their current selling strategies by keeping or expanding, and in one case moving towards selling older trade or finished animals.

Proposed management strategies were also able to be modelled using BreedCow software to assess the potential economic benefits of changing these areas of weakness. There were a number of strategies and outcomes modelled for properties involved in the project and various outcomes from this were achieved. Table 1 shows the outcome for one business of selling older stock. Their current turnoff procedure is to sell all cull females, and all males as weaners at around 250–280 kg liveweight and approximately 9–12 months of age. Increasing the age of sale even one year can provide a greater income for this business and greater kilograms of beef produced per AE. This may help to offset the cost of production and improve their operating return.

Table 1. Scenario modelling of a beef business to assess impacts of changes in turnoff strategies.

	1. Current Management /Turnoff	2. Weaner Heifers, Bullocks	3. Weaner Heifers, Yearling Steers	4. Yearling Heifers, Bullocks	5. Yearling Heifers, Yearling Steers
Farm characteristics					
Total herd size (AE)	1,600	1,600	1,600	1,600	1,600
Farm area (ha)	14,000	14,000	14,000	14,000	14,000
Total turnoff (t liveweight sold)	281	327	332	318	321
Turnoff/breeding cows > 3 years (t liveweight sold)	0.41	0.55	0.49	0.58	0.52
Farm gross margin					
Gross margin before interest (% increase on current)	-	11%	14%	2%	3%
Gross margin after interest (% increase on current)	-	8%	13%	-4%	-2%

The impact of lack of scale was also shown for another business when modelling scenarios showed little difference in income for most scenarios, with the exception being increased herd numbers. In this case, shown in Table 2, increasing herd numbers by 100 head greatly improved the gross margin. Finding the opportunity to achieve this in reality though is currently difficult due to drought and grazing pressure from pests, mainly kangaroos. In this case other avenues for achieving better scale have been explored, including bringing in a secondary sheep enterprise to the business.

Table 2. Scenario modelling to assess impacts of changes to current management strategy.

Characteristics	1. Current Scenario	2. Extra 100 PTIC Cows	3. Sell Culls $1.40, Feed Grain	4. Steers to 3yo, $2/kg and Feed Grain
Total AE	720	870	720	720
Total cattle	763	921	763	794
Calves weaned	330	406	330	324
Total females sold	150	185	150	147
Av. female price	$408	$407	$452	$452
Total males sold	152	187	152	149
Av. male price	$718	$718	$718	$799
Direct costs	$11,315	$13,787	$12,040	$20,626
Gross margin	-	+ 22%	+ 3%	+ 3%
Gross margin/AE	-	+ 2%	+ 4%	+ 3%

Conclusion

Assessing the financial and production performance of a beef business is an important tool to assist with planning for the future and assessing the effectiveness of current management strategies. There are number of key performance indicators which can be used to identify potential shortfalls within the business. These areas can then be targeted for more thorough options analysis to assess the potential impacts of management changes in the business. Without knowing what is hindering the business, it is often difficult to move through management scenarios to address the problem.

Further information

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Or visit http://futurebeef.com.au/resources/projects/climate-clever-beef/