

2019

## GLENELG CASE STUDY: ECONOMIC REPORT

Prepared by



### Introduction

Glenelg is a 4000Ha grazing property located near Mungallala in Queensland with its primary income derived from the sale of wool. The property is stocked with approximately 4,100 sheep (2,000 breeding ewes), 180 breeding cattle and 60-100 wild goats. Cattle are sold regularly, sheep are sold once they reach a certain age and the wild goats found on the property are sold once they reach critical mass and become a nuisance on the farm.

The Chambers have implemented a number of regenerative practices in order to improve the productivity and sustainability of the property. In particular, control of woody regrowth and the establishment of an exclusion / predator fence has significantly improved productivity and profitability.

This economic report will illustrate the positive effects that regenerative practices have on the profitability and productivity of the property, by comparing current financial and production figures to historical figures and industry benchmarks.

Please note – in the interests of privacy the data throughout this economic report has been 'de-identified'. That is, the data has been reported so that it does not represent the owner's actual financial position, rather it proportionally highlights the changes brought about by incorporating regenerative farming practices. In particular, we have used an index to proportionally represent the financial figures. Where two datasets are compared, we index both sets of data to the benchmark data.

All data in this analysis is presented on the basis of the financial year.

Due to data availability, some years may be missing throughout our analysis.

#### Report Data Sources:

Industry Benchmarks – MLA Farm Survey Data  
(<http://apps.agriculture.gov.au/mla/>)

Financial Data – GST & JL Chambers Financial Accounts

Seasonal Conditions and Rainfall Data – Australian Government Bureau of Meteorology

Industry Insights – Published Industry Reports by:

- Meat and Livestock Australia
- Australian Bureau of Agricultural and Resource Economics
- Department of Agriculture
- Department of Primary Industries
- Rural Bank Australia
- Australian Wool Innovation Limited
- Making More From Sheep

## Key Findings

We have compared the financial accounts and production data for the Chambers' sheep enterprise to specialist sheep producer benchmark data ('the Average Farm'). The flock size for the Average Farm is 2,500 to 5,000 sheep. This benchmark has been sourced from MLA Farm Surveys.

### Productivity

Glenelg's high business performance results from the Chambers' conservative stocking rate. Rather than stocking to capacity, the Chambers have made a deliberate decision to maintain a consistent level of productivity, reducing the variability of poor seasonal conditions. This in turn has allowed the Chambers to preserve ground cover, soil and enhance pasture growth, and achieve consistent revenues year on year.

This highlights the productivity of the pastures allowing the Chambers to produce and sell consistently over the years, regardless of seasonal conditions.

The Chambers completed the construction of an exclusion fence in 2016 to reduce the number of pest species, preserve pasture and improve livestock welfare. This further improved productivity on Glenelg and in addition, the exclusion fence has allowed labour hours to be reduced.

### Profitability

In terms of profitability, Glenelg performs significantly better than that of the Average Farm. The analysis shows that the Chambers' improved productivity has allowed them to achieve a higher income whilst lowering their expenses. Due to the enterprise management employed by the Chambers, they have been able to continue minimising expenses despite prolonged drought and poor seasonal conditions.

The Chambers' experience significantly lower expenses than the Average Farm. We have compared the following key expense items for Glenelg with the benchmark; Livestock Materials; Seed, Fodder and Fertilizer; Repairs and Maintenance; Fuel and Oil; and Chemicals.

Key takeaways from expense analysis:

- Livestock Materials expenses are consistently lower than the Average Farm, despite experiencing lower than average rainfall.
- Seed, Fodder and Fertilizer expenses are much lower than the Average Farm due to the Chambers' management practices such as erosion prevention and the maintenance of ecological health of the landscape
- Repairs and Maintenance expenses continue to remain significantly lower than the Average Farm, even while implementing the treatment of woody weeds which require heavy machinery use.
- Fuel and Oil expenses are high during years where the Chambers treat woody vegetation. However, on average Glenelg experienced lower Fuel and Oil expenses than the Average Farm during 2013 to 2018.
- The Chambers use their chemical expenses to remove trees and increase the size of water storage, however this expenditure remains significantly lower than that of the Average Farm.

## Benchmarking

In order to illustrate the success of the Chambers' enterprise, we have compared their financials and productivity data to relevant industry benchmarks. In particular, we refer to the 'Average Farm' as the main indicator for our analysis.

The Average Farm is a Specialist Sheep Producer with a flock size of 2,500 to 5,000. This benchmark has been sourced from MLA Farm Surveys.

Where appropriate, we have used other industry benchmarks to indicate Glenelg's performance.

## Glenelg Timeline

Figure 1 outlines a timeline of major events that have occurred at Glenelg over the period analysed throughout this report. The events outlined are those that had major impacts on Glenelg's financial performance and productivity. The consequences of these events will be explained further in our analysis.

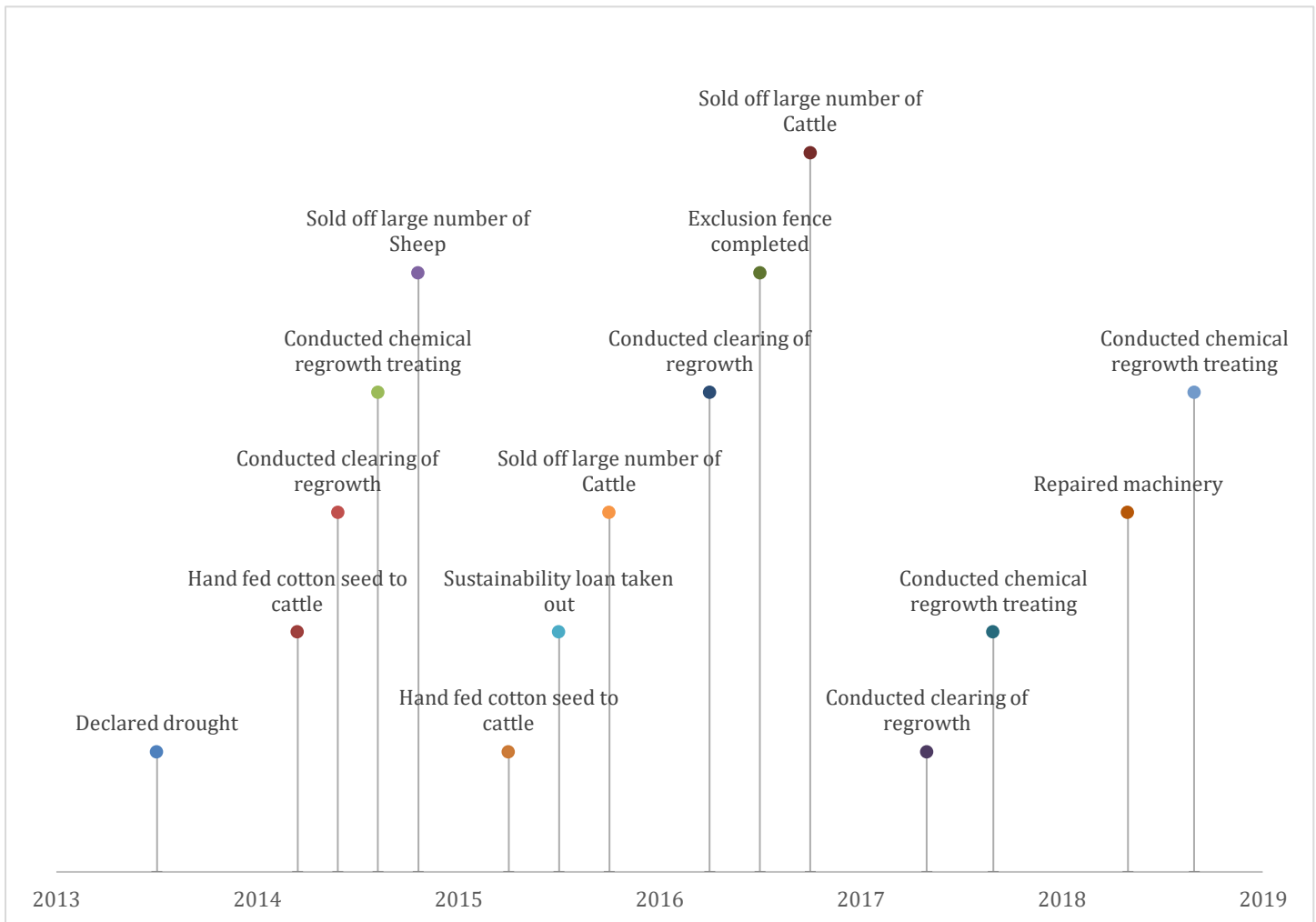


Figure 1 Glenelg Major Events Timeline

## Productivity

### Consistency

The Glenelg property is not stocked to capacity although they could potentially double their current stocking rate. This is a deliberate decision to maintain a consistent level of productivity and reduce the variability of poor seasonal conditions. Glenelg's consistent high performance is a result of this enterprise management.

By not stocking to capacity, the Chambers preserve ground cover and soil, and enhance pasture growth by minimising overgrazing. This in turn reduces stress on land-owners during difficult seasons. This practice allows the Chambers to set stocking rates every year reducing the risk of overgrazing in dry seasons. Stocking the property in this way has allowed the Chambers to achieve consistent revenues year on year, with little need to rely on debt financing. The Chambers also have the capacity to diversify their production to limit the effect market forces (such as wool prices) have on yearly revenue.

### Expense per Kg Wool Produced

Figure 2 outlines the total expenses per kg of wool produced by Glenelg and the Average Farm. As can be seen, Glenelg consistently experiences a lower expense per kilogram of wool produced than that of the Average Farm.

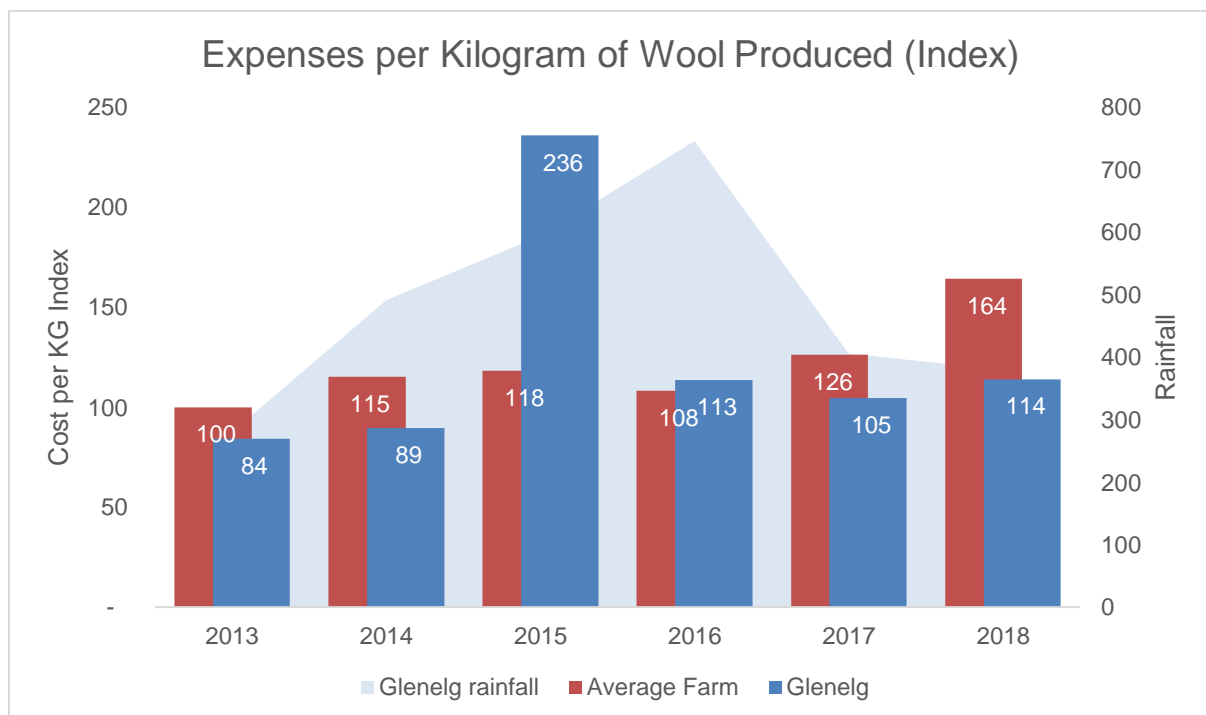


Figure 2 Expense Per Kilogram of Wool Produced (Index)

#### Data Insights:

- In 2015, Glenelg experienced a high expense per kg of wool produced. This is resulting from a drop in wool sales due to a large sale of sheep in 2014.

### Diversified Productivity

As well as wool sales, the Chambers generate income through livestock trading. Typically, small numbers of sheep and cattle are sold each year. Wild goats are sold as required.

Livestock trading is an important income source to Glenelg facilitating a steady revenue stream across variable seasons

Figure 3 below outlines the cattle sales for Glenelg and that of the Average Farm. As can be seen, Glenelg’s cattle sales are fairly consistent throughout most years. However, in 2015 and 2016 Glenelg experienced a significant increase in cattle sales. This is in part due to the fall in wool sales (as noted previously).

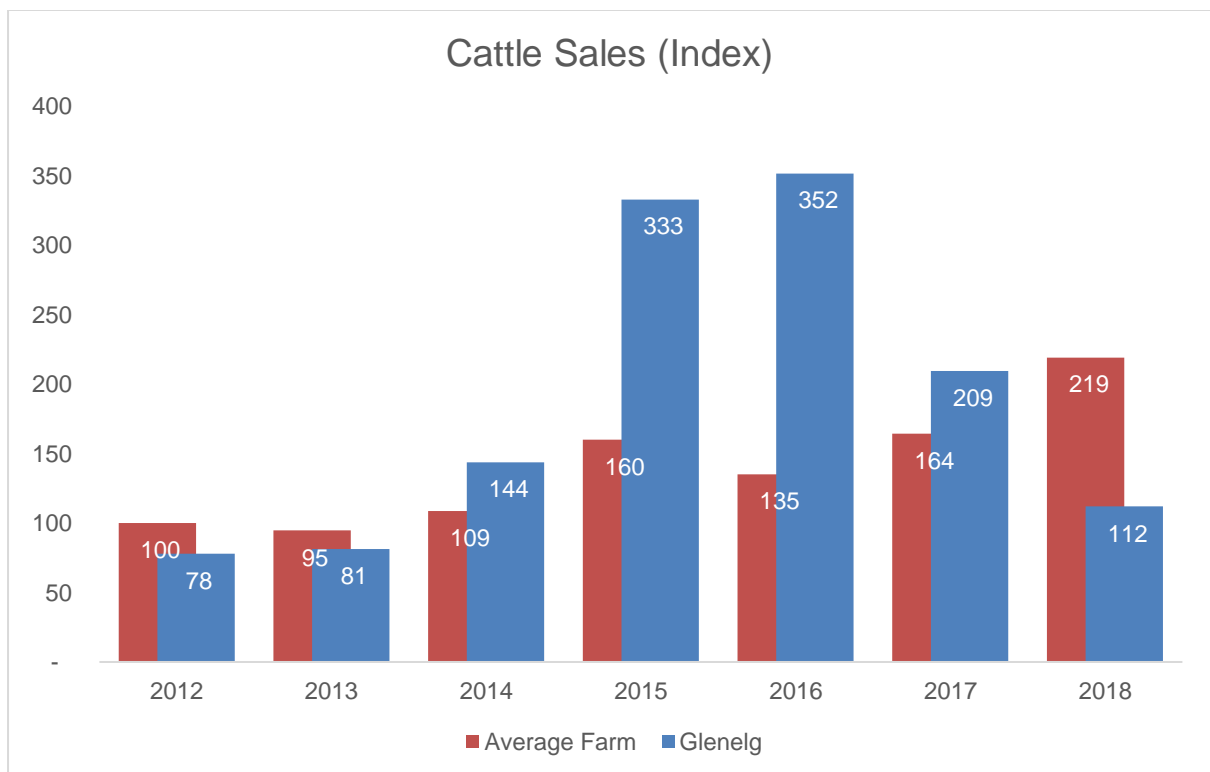


Figure 3 Cattle Sales (Index)

## Exclusion Fence

In mid-2016, the Chambers completed the construction of an exclusion / predator fence. This fence was established to reduce the number of pest species in an effort to preserve pasture and improve livestock welfare.

The establishment of the exclusion / predator fence also reduced the labour hours (whether it be by the Chambers themselves or through hired professionals) associated with pest and predator control.

Figure 4 below illustrates the annual sheep losses and mortality rate for Glenelg. This is compared to possible Glenelg losses at an industry benchmark of a 15% mortality rate.

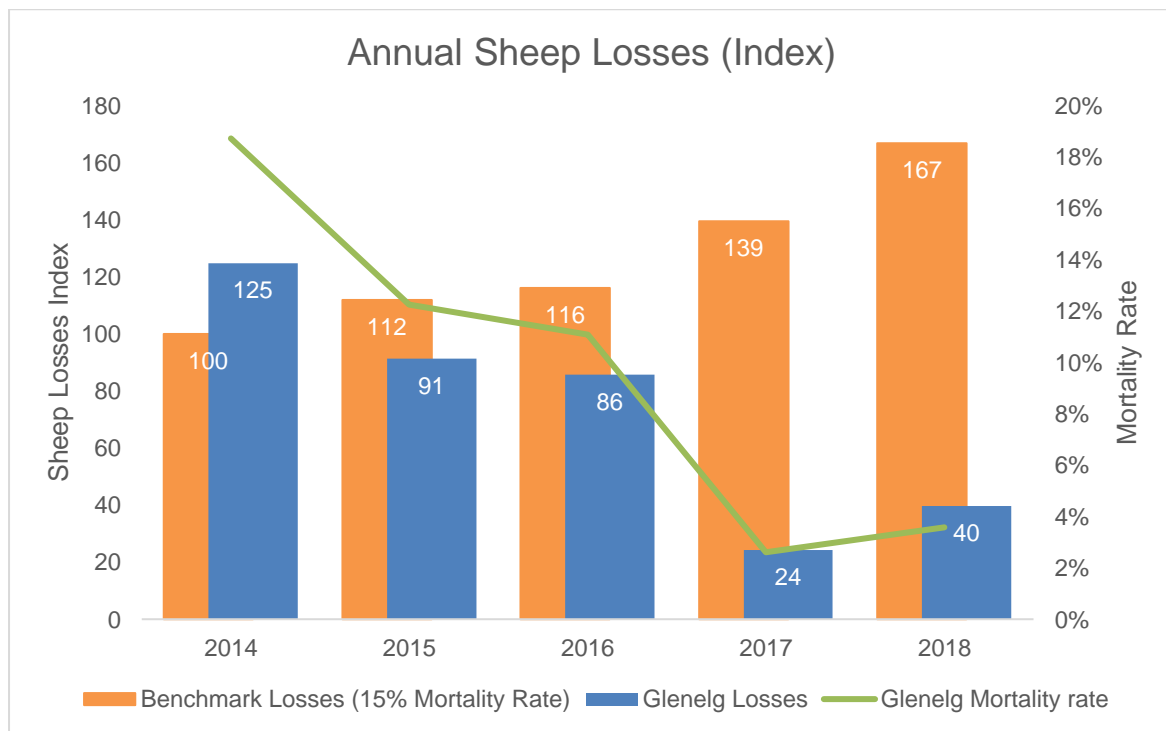


Figure 4 Annual Sheep Losses (Index)

### Data Insights:

- The exclusion fence was completed in mid-2016, resulting in a significant fall in sheep losses in 2017 and 2018.

## Profitability

### Business Profit

Figure 5 below illustrates the business profit for Glenelg and the Average Farm. Glenelg consistently achieves higher profit each year than other farms in the industry.

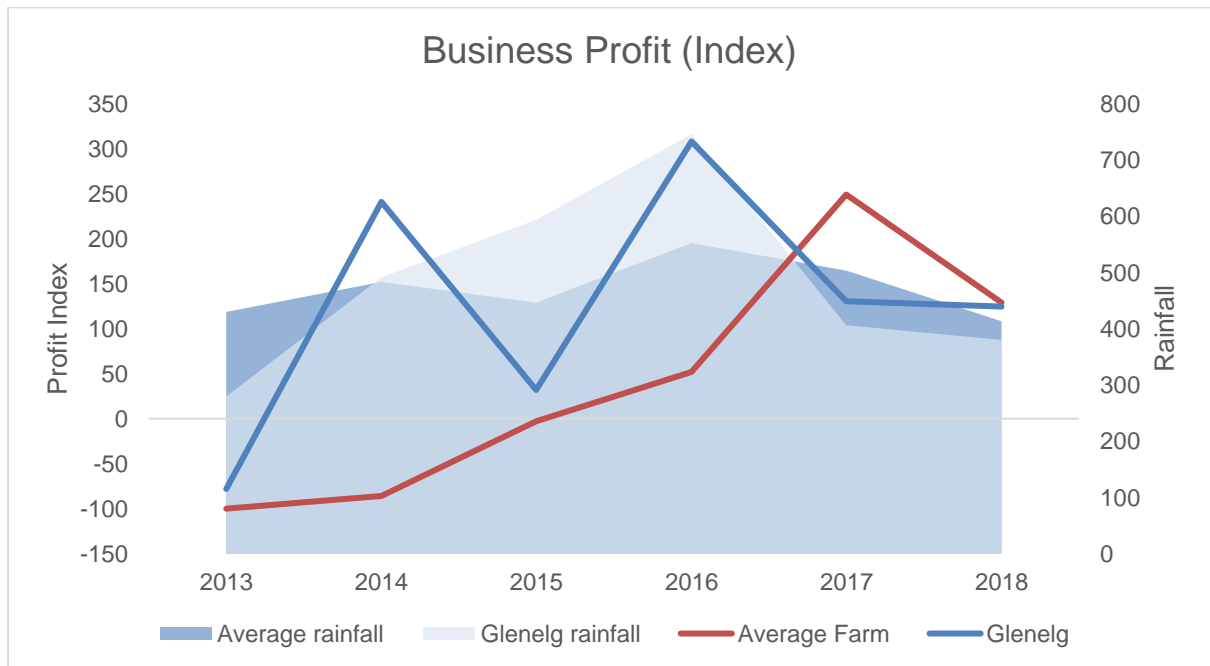


Figure 5 Business Profit (Index)

#### Data Insights:

- In 2015, Glenelg experienced a fall in profit. This was due to a decrease in wool sales resulting from a large sale of sheep the previous year.
- There was a fall in profit in 2017 and 2018 due to increased depreciation expenses resulting from the completion of the exclusion fence.

## Expenses

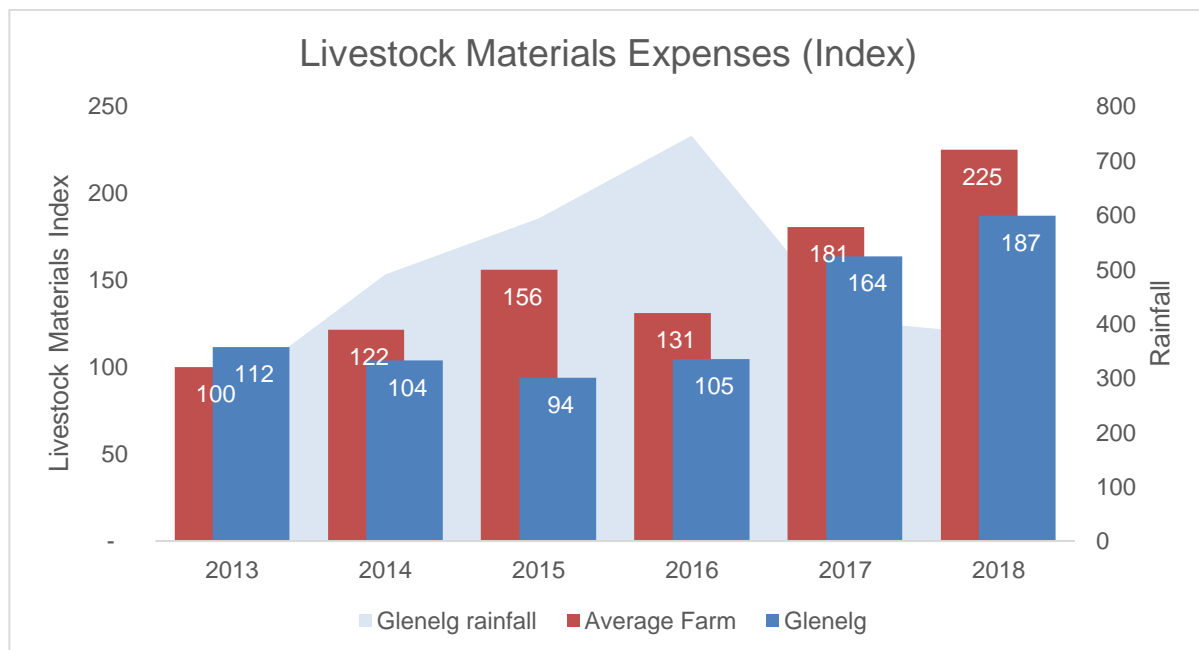
Glenelg's key expense items since 2013 have been compared to the Average Farm benchmark. It was found that Glenelg has significantly lower expenses than the Average Farm. The following graphs outline detailed expenditure year-on-year since 2013, where data was available. The following are the key relevant expense items assessed in this report:

- Livestock Materials
- Seed, Fodder and Fertilizer
- Fuel and Oil
- Repairs and Maintenance
- Chemicals
- Interest

### Livestock Materials

Figure 6 below outlines the comparison between Glenelg's livestock materials expense and that of the Average Farm. Livestock materials include; dips, drenches and other similar materials.

Over the period of 2014 to 2018, the livestock materials expense for the Average Farm is higher compared to Glenelg. However, in 2013 the livestock materials expense for Glenelg was marginally higher to that of the Average Farm.



*Figure 6 Livestock Materials Expenses (Index)*

#### Data Insights:

- Glenelg experienced higher livestock materials expenses than the Average Farm in 2013 due to the significant drought they experienced.
- Since 2013 Glenelg has consistently experienced over 20% lower livestock materials than the Average Farm – even in 2017 and 2018 when there was lower rainfall.



### Seed, Fodder and Fertilizer

Figure 7 below illustrates the difference between the seed, fodder and fertilizer expenses for Glenelg and the Average Farm. Glenelg's expenses from 2013 to 2018 remained significantly lower than the Average Farm.

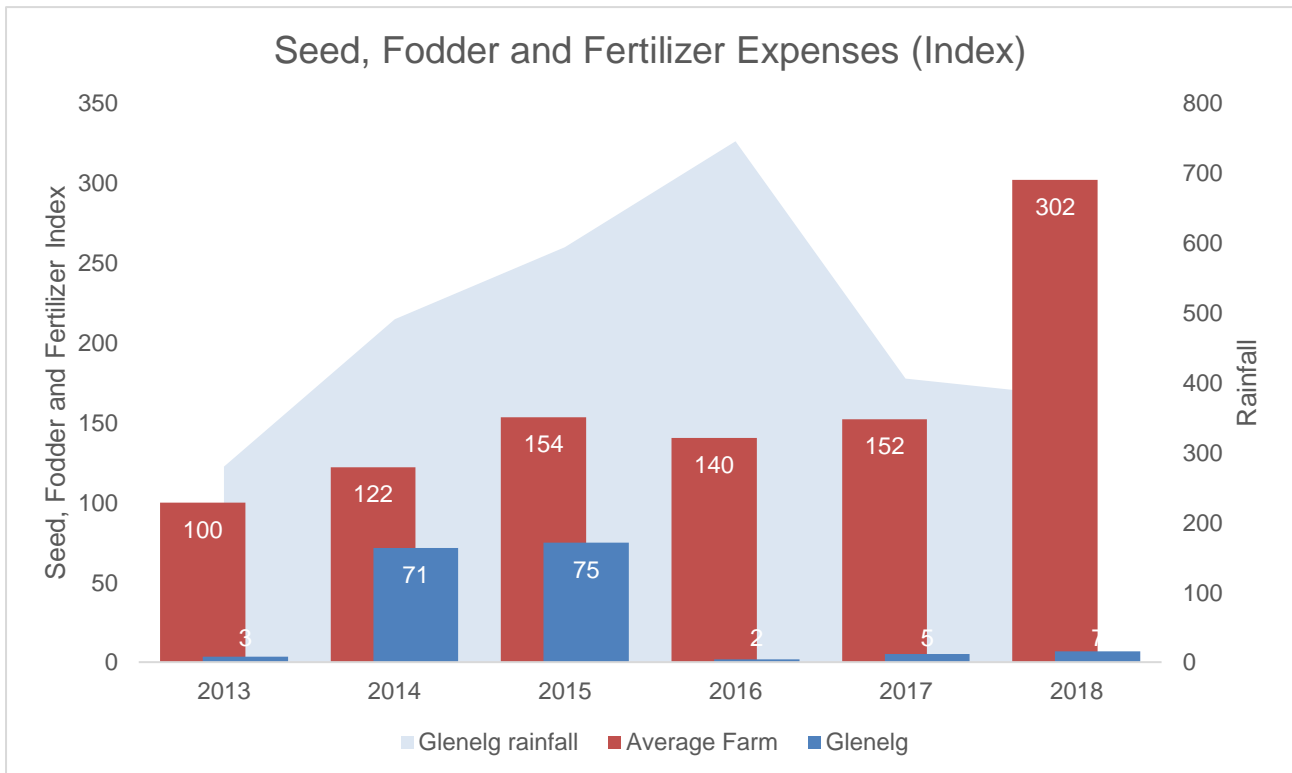


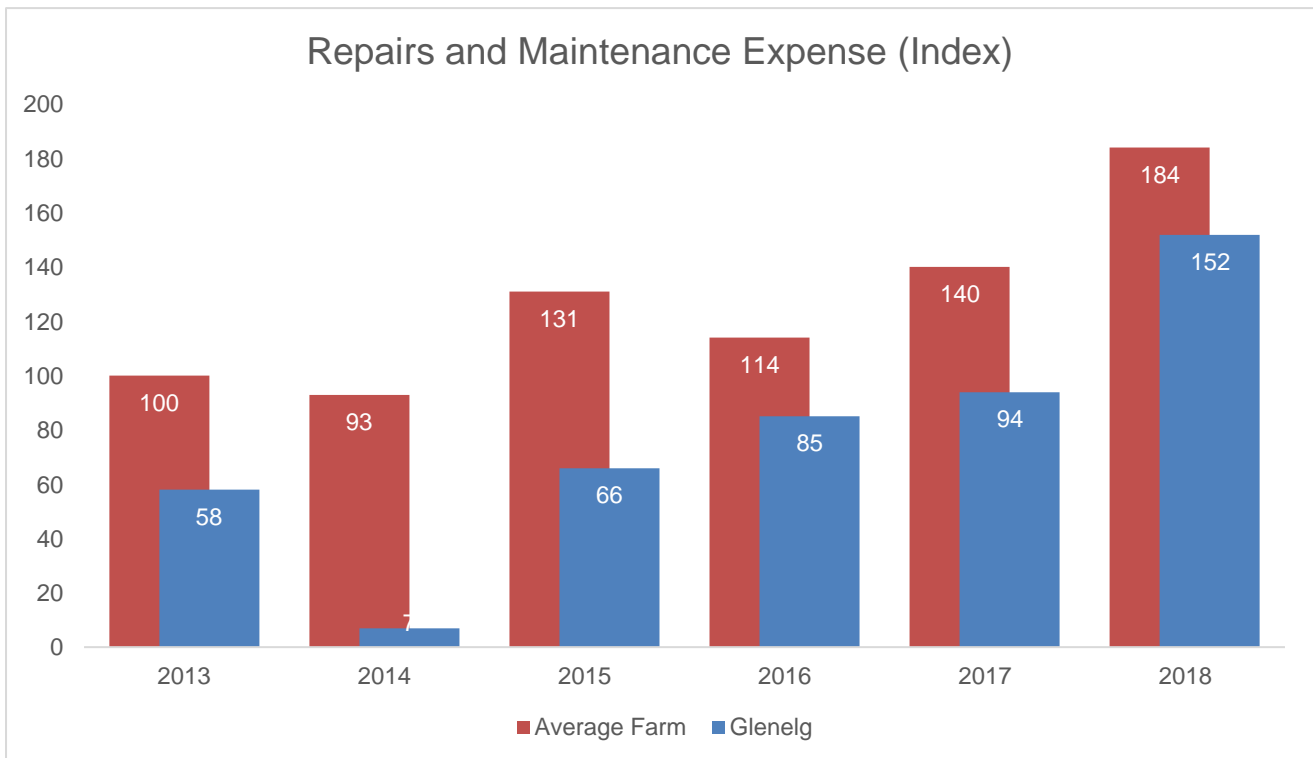
Figure 7 Seed, Fodder and Fertilizer Expenses (Index)

#### Data Insights:

- Glenelg experienced low seed, fodder and fertilizer expense in 2013, 2016, 2017 and 2018. This is a result of the management practices undertaken by the Chambers which focused on preventing erosion, restoring eroded areas and improving ecological health in an effort to maintain pasture levels.
- In 2014 and 2015, Glenelg experienced high seed, fodder and fertilizer expenses due to the Chambers feeding cotton seed to cattle during the summer of these years.

### Repairs and Maintenance

Figure 8 below outlines the difference between the repairs and maintenance expense for Glenelg and the Average Farm. Glenelg’s repair and maintenance expense from 2013 to 2018 remain significantly lower than the Average Farm.



*Figure 8 Repairs and Maintenance Expense (Index)*

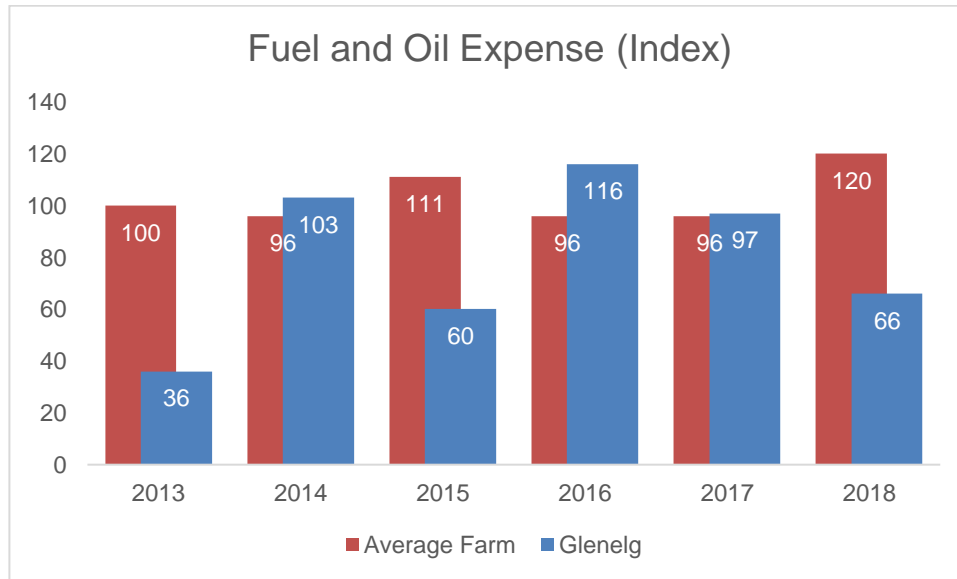
**Data Insights:**

- In 2018, Glenelg incurred high repairs and maintenance expense due to repairs to machinery used for the treatment of the woody weeds.

## Fuel and Oil

Figure 9 below illustrates the comparison between Glenelg's fuel and oil expense and that of the Average Farm.

Over the period of 2013 to 2018, the fuel and oil expenses for Glenelg vary in comparison to the Average Farm.



*Figure 9 Fuel and Oil Expense (Index)*

### Data Insights:

- In 2014, 2016 and 2017 Glenelg had relatively high fuel and oil expense which exceed the Average Farm. This resulted from the treatment of woody weeds primarily done by pulling with a chain and bulldozers, leading to higher fuel consumption.
- Glenelg achieved a lower than average fuel and oil expense during those years when woody weeds were not treated - 2013, 2015 and 2018.

Table 1 below summarises the average fuel and oil expense as an index, for Glenelg and the Average Farm, over 2013 - 2018. It shows Glenelg's average expenditure over this period is lower than the Average Farm.

Farm	Average Fuel and Oil Expense 2013-2018 (Index)
Glenelg	80
The Average Farm	100

*Table 1 Average Fuel and Oil Expense 2013-2018 (Index)*

## Chemicals

Figure 10 below illustrates Glenelg’s chemical expense compared to that of the Average Farm.

Over the period of 2014 to 2018, Glenelg’s chemical expense is significantly lower when compared to the Average Farm. In 2013, Glenelg significantly exceeds the Average Farm’s chemical expense.

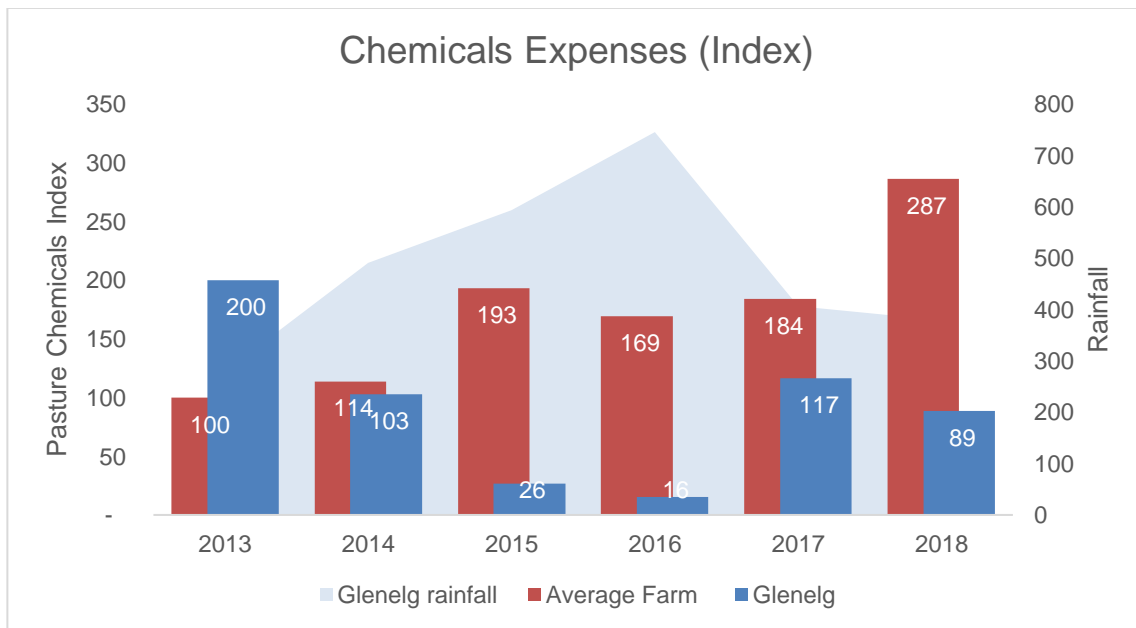


Figure 8 Chemicals Expenses (Index)

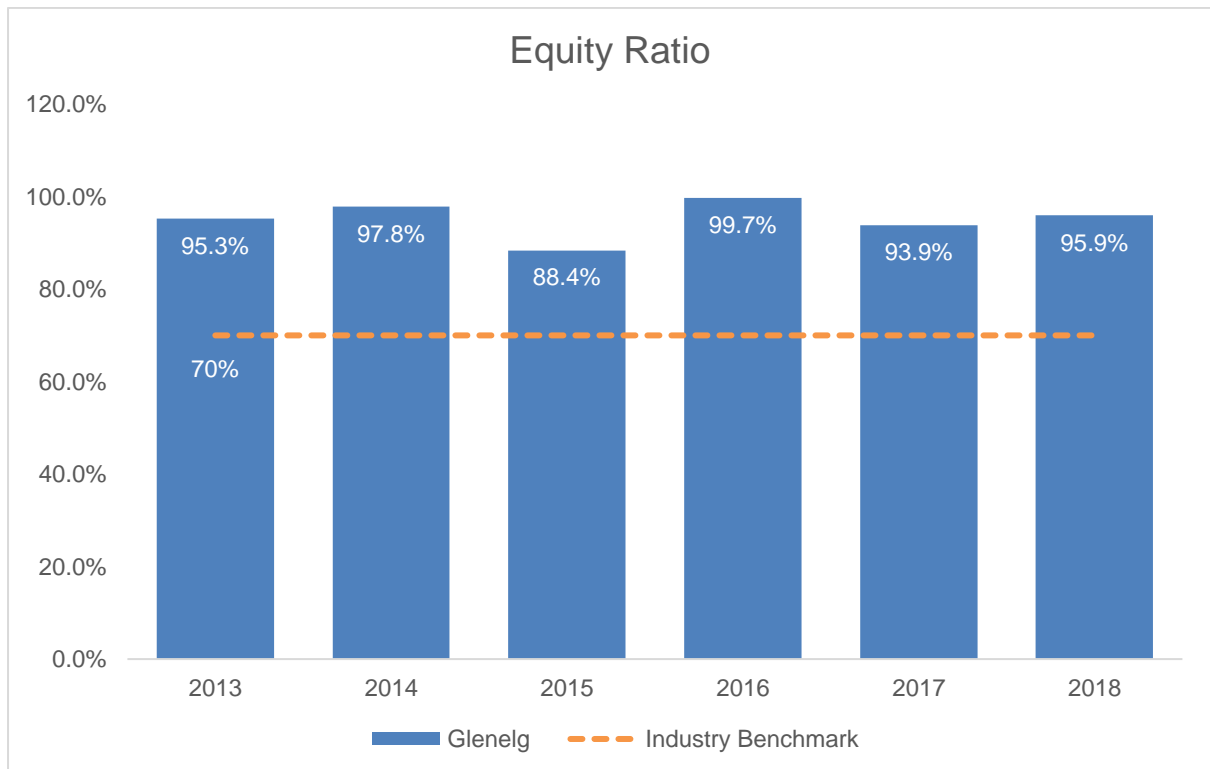
### Data Insights:

- In 2013 Glenelg experienced a drought. In order to mitigate future drought situations, the Chambers used chemicals such as torden or grazon to remove trees to increase the size of water storage and hence increase water supply.
- In 2014, 2017 and 2018, there were relatively high chemicals expenses due to treating regrowth.

## Debt Minimisation

Figure 11 below outlines the equity ratio for Glenelg compared to an industry benchmark for performance. The equity ratio illustrates the proportion of assets fully owned by the entity. When interpreting the equity ratio, a higher percentage shows that the entity has used less debt to fund assets, while a lower percentage indicates higher levels of debt used to fund assets.

As seen below, Glenelg's equity ratio significantly exceeds the performance indicator of 70%. This figure of 70% is an indication of a high performing farming enterprise – illustrating how well Glenelg is performing when compared to other enterprises in the industry.



*Figure 9 Equity Ratio*

### Data Insights:

- The equity ratio fell in 2015 resulting from the addition of a small loan taken out that year. The loan was repaid by the end of the 2016 financial year.
- The Chambers took out a chattel mortgage for a work vehicle in 2017. As such there is a slight reduction in the equity ratio for 2017 and 2018.
- In 2013, 2014, 2015 and 2016, the Chambers used small loans to purchase motor vehicles.

A key point to take from this analysis of Glenelg's balance sheet is that the Chambers incur little to no debt when funding assets and operations. For most years included in our analysis, the Chambers had no current liabilities and minimal non-current liabilities. The way the Chambers have managed Glenelg allowed them to make large improvements without incurring much debt. Improvements include regrowth control and the pest exclusion fence.

## Interest Expenses

As they have little reliance on debt, the Chambers experience very small interest expenses each year. Figure 12 illustrates Glenelg’s minimal interest expenses as compared to the Average Farm.

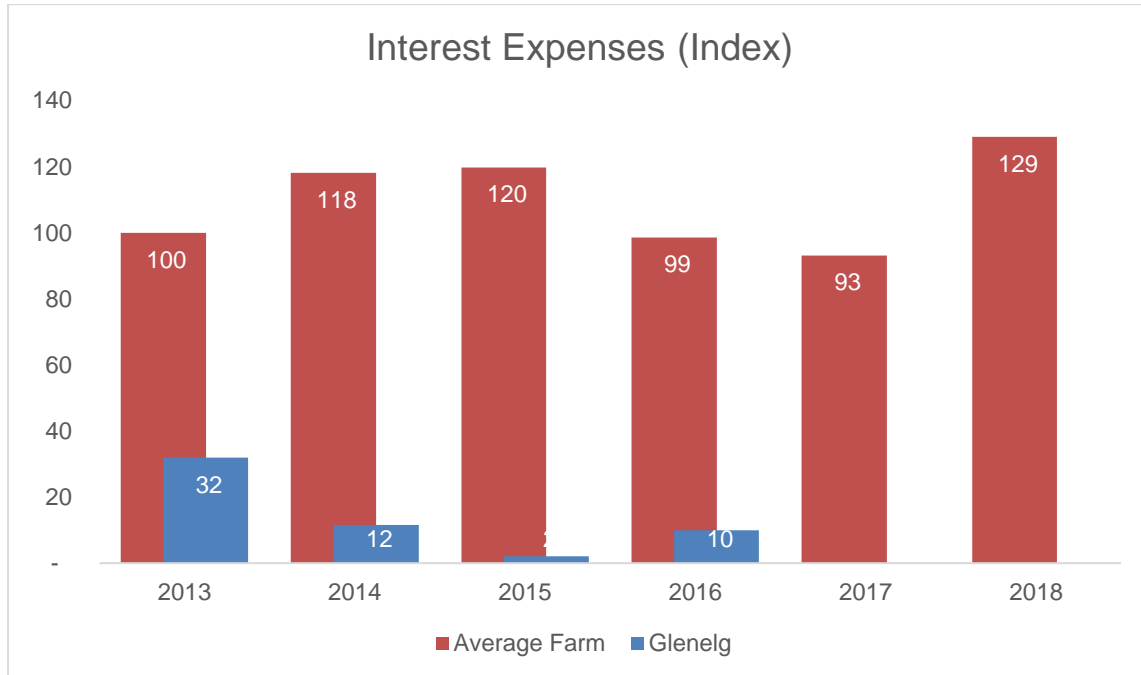


Figure 10 Equity Ratio Data Insights:

The Chambers’ business model allows them to fund and manage their enterprise with little need for debt financing. Even in periods of drought, such as 2013, there is little to no reliance on loans to continue farm operations. This is due to both the farm management practices and conservative stocking rates, as well as the regenerative measures implemented to maintain quality pastures and soil health.