



Case study:  
Silver Fern Farms

**dsifer\_**

[dsifer.com](https://dsifer.com)

## Predictive analytics to drive yield gains

### The challenge

Optimising yield is one of the most important ways to maximise profit within the meat industry. Until recently, Silver Fern Farms would mainly forecast yields on an annual basis and set targets accordingly. But offal yield changes monthly or even daily. Silver Fern Farms found its yield models weren't sensitive enough to detect factors that could affect how much meat came into its plants, such as climatic conditions leading to drought or condition of animals.

Although the business was rich on data, it was poor on information and Silver Fern Farms found staff needed more support to draw actionable conclusions from the data.

“

We'd ask ourselves, why aren't we reaching our production targets? Our excuse was that the targets weren't accurate.”

**Mark Leslie**—  
General Manager of  
Operations, SFF

### Our approach & deliverables

Silver Fern Farms knew it needed a better solution and so teamed up with improvement and data specialists Dsifer to apply data analytics and machine learning to achieve more accurate yield forecasting.

Implementing our dynamic yield solution; 'Yielded', we took years' worth of internal, historical data and overlaid this with external data such as NIWA climate information and farm specific data. For the first time, the business consolidated silos of information, with algorithms considering multiple factors and predicting yield, allowing Silver Fern Farms to predict yield more accurately before processing.

This prediction was turned into a simple PowerBI dashboard displaying the accurate target yield for each item. Actual results were shown on the same dashboard with comparisons to the expected yield and to 'Best in Group'. This allowed each site to see how they are performing against their own expected target, together with what best practice is across the group.

Machine learning checks the accuracy of the forecast and identifies anomalies in the results for further investigation and refinement.

Providing these insights is only part of the solution, Dsifer also supported the design of the intervention process. Coaching the Leaders and staff to use these insights is the bit that delivers the bottom-line benefit. Daily and weekly routines were implemented to engage the team with how they were performing using accurate information, identify opportunities to improve and implement solutions.

Once proven, this approach was taken across all sites and is now being rolled out across Lamb internal products and Beef secondary butchery.

### Key outcomes

**Bespoke data-driven solution** developed, implemented and internalised to drive yield performance.

**\$3.3m**

**Opportunity identified** and being worked on currently across all beef internal products in the group.

**\$33,000**

**Increase in profit** on just one focus item (Thick Skirt) using the new process.

**1.5hrs/week**

**Time saving** for Business Analysts and Site Leaders per site, through automation of reporting, allowing people to focus on fixing the problem rather than time spent manipulating and analysing raw data.

**More engaged teams.** People now believe in the data and insights being presented and feel they can reach realistic targets.

0 0 1 1 0 0 1  
1 1 1 1 0 0 1 0 1 1  
1 0 1 1 0 1 0 1 0 1  
1 1 1 0 1 0 1 0  
1 0 0 0 1 1 0 1 -  
0 0 1 1 0 1 1 1 1 0  
1 1 0 1 0 0 0 1 0  
1 1 0 1 0 0 1  
1 1 1 1 1 0  
1 0 0 1 0 1  
- 1 0



Harnessing the power of data analytics is going to change the business and focus people on the real opportunities. We are now delivering meaningful insights to our people, enabling them to take the necessary interventions. This approach is now being applied to help improve attendance and health & safety.

**Mark Leslie**—General Manager of Operations, SFF