



# Managing natural assets for farm business growth

## Environmental management case study

### Summary

- With a strong focus on animal health and welfare, the Cowleys have grown their dairy business over the past 22 years while also enhancing and protecting the natural assets on their farm.
- By changing their calving pattern, increasing the area under irrigation and through the recent purchase of an out paddock, they can now manage wet winters and dry summers and are well on their way to achieving their business goals.
- A focus for the future is to keep trying to improve their business, while planting more trees and looking to carbon neutrality

**“We have made a conscious decision to cut off certain parts of the farm, to protect them. It would have been easier to cut everything down, but we didn’t. We felt they were marginal areas anyway, so there was more to be gained by fencing them off.”**

*Suzanne Cowley – South Forest, far North-west Tasmania*

### FARM SNAPSHOT – CHRIS AND SUZANNE COWLEY

#### Chris and Suzanne Cowley – South Forest, far North-west Tasmania

Chris and Suzanne Cowley purchased a 141 hectare (ha) South Forest dairy farm in 2004. Prior to this, they had been share farming and contract milking in the local area. In 2009, they purchased some adjacent land, increasing their farm size to 170 ha.

A pasture-based system milking 415 cross bred spring calving cows. Approximately 90 ha is under irrigation with a mixed system of K-lines, laterals and pivots.

They were leasing an out paddock that supported their main operation but mid last year purchased a 161 ha block, which includes approximately 40 ha of bush. This purchase has allowed them to reduce the risks associated with leasing and to expand their enterprise to run more young stock.

#### Farm features

- The annual average rainfall in the area is 910mm, which falls mostly over six months.
- The farm has wet conditions in winter and becomes dry in the summer months with very little rain falling from October to March.
- The main property has a mixed topography being flat to rolling undulating. It has a mix of soil types and includes a rocky ridge as well as some flat areas with springs and creeks.
- The property has areas of native vegetation (some of which is remnant) from which stock are excluded.
- The property also has several springs, small creeks and drains that lead into the Sedgy Creek.
- There is a large 80 million litre (ML) dam on the property, which is filled from paddock runoff. This water is used for irrigation and supplemented by bore water.

## Business purpose

The Cowleys overall business objective is to have a sustainable self-supporting farm system that maintains environmental and cow health on a year-in-year-out basis. To achieve this, they need to effectively manage the challenges of the climate and varying seasonal conditions.

They are about to achieve their goal to reach total annual production of 200,000 kilograms of milk solids (kgMS) per year with the current herd. Their recent purchase of a larger support block will help them to achieve this, while also ensuring they can maximise the benefits of increasing the number of young stock (dairy beef) that they rear.

Cow health and welfare is their number one priority, and they do everything they can to support this. The Cowleys believe that by creating a healthy farm, they will have healthy cows and good quality milk.

A longer term objective is to become carbon neutral. This is a new concept they are considering over the next five years. The additional bush block they have purchased may support this plan.

**"In relation to 'quick fixes' someone once said to me, "If I did everything that every salesman said I should do, my cows would be doing 90L a day on concrete!"**

*Suzanne Cowley*

## Practice change

### Issues identified

- 1 As the Cowleys looked to expand the number of milking cows, they were restricted by the availability of irrigation water. They were not able to increase the size of their dam due to overallocation of irrigation water in the catchment. This impacted the value of their land and their productivity.
- 2 Upgrading irrigation infrastructure to more centre pivots was challenging due to the topography and native vegetation on the farm.
- 3 Historically the farm had a split calving herd, which created many issues carrying milkers through the wet winter conditions. There were issues with access to feed, soil pugging, and getting cows in calf.
- 4 Cows had direct access to some waterways (the start of tributaries and springs) on the property. This created erosion problems and water quality issues.

### Changes made

- 1 Increased their irrigation water by accessing ground water from a newly dug bore. This was a 'game changer' for the Cowleys.
- 2 As a result of the increased access to water, the Cowleys then went on to expand their irrigation area. This occurred over three years as they established the bore, pipes, irrigators, power and pumps.
- 3 New pivots have been strategically placed so that existing pockets of bush and trees could be maintained. This was a challenging part of the change, but it was important to recognise the value of these restored areas of the farm which are an important part of the business.
- 4 The Cowleys received two rounds of funding from the 'Cows out of Creeks' project. With this, they were able to fence off areas where tributaries were starting on the property.
- 5 The calving pattern was changed to ease management of the herd through winter. A calving barn was built to assist with the management of springing cows and new born calves.



*Calving barn built on the Cowley farm*



*Irrigation accessing ground water enabled expansion*

## Benefits of the change

- By increasing the irrigation area on the farm, the Cowleys have increased their herd size and production. They are now on a path to achieve the production goal of the business.
- Animal health was improved using exiting trees as shelterbelts and by excluding cows from waterways and wet areas.
- Maintaining and enhancing native vegetation on the property has provided shade and shelter benefits to the herd, people and the pastures – enhancing health and welfare and production.
- Changing the calving pattern has had many benefits to the business and the operators. Although the wet winters are still challenging, the Cowleys believe their soils and pastures are healthier as well as the cows.
- The calving barn has improved animal health during this crucial period. The bedding from the barn is cleaned out and combined with other organic waste from the farm (including effluent solids), stockpiled, composted, and spread over paddocks sown to fodder crops.
- The farm is a good place to be. The workers have noticed the shelter that the trees provide during inclement weather.

## The future

- Plans to utilise soil moisture monitoring technology to help them increase their water use efficiencies. They know that overwatering can be worse than underwatering.
- Investigating the process they need to go through to reach Carbon Neutrality after purchasing the new property.
- Planting trees and topping up their shelterbelts with natives. In spring 2022, they planted a new shelterbelt with a diverse range of native species. This increases the biodiversity on their farm, adds shelter and improves the way it looks.



Enhancing native vegetation provides shade and shelterbelts for the herd

## Learnings

- Do the basics right, keep it simple and let things flow from there.
- Do your research, use the internet and books. There is plenty of information out there.
- Have a go and do it. Sometimes you need to take things in and have a think about it and then see how it fits in your system.
- Be open to new things, but remember to think through the application of them to your specific system.
- Be careful of people with quick fixes.



### FOR FURTHER INFORMATION

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