

# Introduction to Lean Thinking

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# E-learning materials delivered under R4D

## Lean Management



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Welcome to this e-learning module on Introduction to Lean Thinking. This module will provide a high level introduction to the lean management/lean manufacturing methodology. You will learn about Lean in dairy farming and how this proven management methodology can help your farm to improve its productivity, reduce waste and costs, build a high performing team and culture and achieve better results and profitability.

Key learning objectives:

- Understand what Lean management is at a high level
- Understand the purpose of Lean
- Introduction of the concept of Waste
- Learn about the evolution of Lean
- Understand why Lean is relevant to farming
- Gain understanding of what Lean looks like on a farm
- Understand the benefits that Lean can bring to your farm

**Lean is a Management/Production/ Operational System for your farm.  
It's a way of working or a philosophy to running a business and it forces a fundamental shift in how you operate your farm. Lean makes you focus on:**

- Eliminating waste in all its forms
- Doing only things that add value in the eyes of the customer
- Working smarter not harder (through better processes & systems)
- Doing more with less through better work practices, systems & processes
- Continuous Improvement everywhere, everyday, by everyone
- The pursuit of perfection
- **PROFIT**

**Ultimately lean aims to:**

**“Produce the best product, that the customer wants, with the highest quality,  
just in time and at the lowest cost”**

*(lean will improve quality, cost, safety, people/animal welfare, environment, sustainability, profit)*

There is another definition of what Lean is:

**the relentless pursuit of IDENTIFYING & ELIMINATING WASTE in all of it's forms in order to improve business performance and customer satisfaction.**

The concept of Waste in a lean business can be challenging to understand as it is Waste seen in the eyes of the customer. It is something we as farmers need to learn to see.

# Lean is not new

Lean management or lean manufacturing has evolved from various methodologies that have been used over the last century or more. Lean comes from the Toyota Production System which was developed predominantly over the late 1940's and 1950's post WWII as a response to the dire situation that Japan was in. Many of the concepts in the Toyota Production System such as Jidoka (Built in Quality) however were developed prior to that for Toyota's automatic looms by Sakichi Toyoda and his son Kiichiro Toyoda.

The fact that this philosophy or approach to business has been used for decades across all industries, with many still introducing it today, suggests that it is proven, and it works.



**It's proven .... It works .... In every business**

# Cows are not cars..... why lean for farmers?

Obviously making cars is not the same as making milk..... or is it? Why should a farmer implement this type of management approach to their farm?

The key reason that Lean is implemented by companies globally is to help them overcome challenges that they are facing. These challenges could be economic, competitiveness, technical, profitability, quality or response to changing customer needs. Companies need to be more agile and responsive, as well as productive, cost effective and profitable in order to stay in business. This is not dissimilar to our farms. While our farming businesses are often much smaller, we also have many challenges that we are facing and we need to overcome. Lean helps us to do this.



Some of the challenges that farmers face include:

- Government policies and regulations
- Economic downturns
- Market demand vs supply often impacting milk prices
- Consumer expectations
- Competitiveness
- Profitability and sustainability
- Environmental impact
- Mental well being
- Employability – attracting people to the industry
- Rising costs
- Productivity

As farmers we need to address all of these challenges in our business and to do this we often need to change how we operate our farms. We need to become more systemised and process driven. While Lean can't change these challenges, it can help us to navigate and mitigate some of these challenges in a better way.

Think about the following questions in relation to your own farm. By answering these questions you will quickly identify some of the reasons why your farm business would benefit from the implementation of lean:



1. What are your current frustrations on farm?
2. What is your burning platform?
3. What challenges are you currently facing?
4. What does the “perfect” farm look like to you?

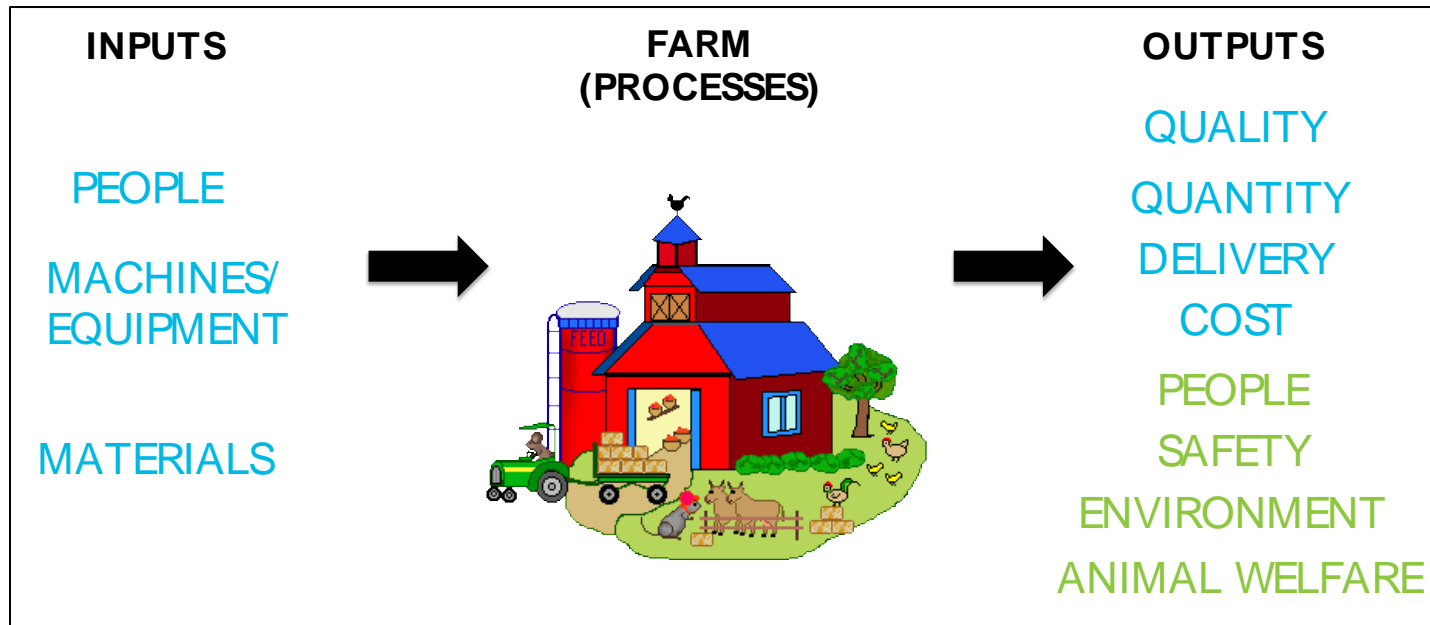
# Why is lean relevant to a dairy farm?

Our farms are just like many other manufacturing businesses – we in fact are a production business. We are in the business of producing a product that is milk. Our milking parlors or dairy sheds are basically mini manufacturing facilities. There are several other similarities between farming and car making and these are all reasons why Lean works in farming.

**FARMING =**

- 👉 Producing product
- 👉 Everything we do is a process
- 👉 Labour intensive
- 👉 Repetitive processes
- 👉 Everything in our heads

# Our farm is like other businesses



Just like other businesses, our farms consist of inputs, processes and desired outputs. These inputs and outputs are quite similar to other manufacturing businesses too.

Lean helps us convert our farm inputs through the most efficient and effective processes, into the right outputs that we want. Don't we all want to do this? Isn't this relevant to our farms then?

**ABSOLUTELY!**

While we often think farming is a highly variable industry where things often change and are unpredictable, the reality is that our farms have many repetitive processes. Whether we do the task every day, or every week, or every month or every season. Most of what we do on farm is in fact a repetitive process. This makes our farms the perfect environment for continuous improvement. We know that we need to do that same process again and again, and therefore we can continually identify opportunities to improve the process over time in small steps. Some of the repetitive processes that exist on our dairy farms include:

- Milking
- Plant Wash/ cleaning
- Hosing yards
- Fixing troughs
- Feeding out
- Preparing supplement
- Animal treatments
- Mating/ AI
- Dry off
- Calving
- Planting/ cultivating crops
- Pasture management
- Changing liners/ rubberware

What other repetitive processes do you have on farm?

# How to implement Lean on farm?

Lean is a management system for your farm business. The lean tools and principles provide a way to establish good, streamlined and efficient processes and systems for your farm that help to improve productivity and performance by eliminating waste. There are a number of Lean tools and principles that work together as a management system to help you to implement lean on your farm. Some of these Lean tools and principles include:

- 5S – creating a well-organised workplace
- Standard Work – developing standard processes for all key tasks
- Visualisation – making your farm visual so that things are easy to understand
- Visual Management – managing your farm through visual communication and information systems
- Transparency of information
- Team engagement and accountability
- Practical problem solving
- Clear metrics
- Data capture, monitoring and reporting
- Building in quality into every process
- Kaizen

# Examples of Lean implementation on farm



Standard work (SOPs)



Visual Management Boards



Visual instructions



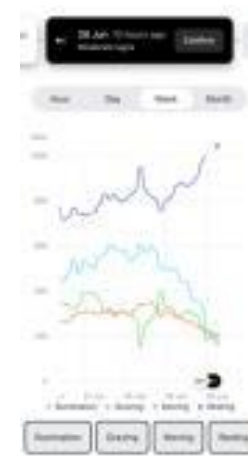
Shadow boards for tools



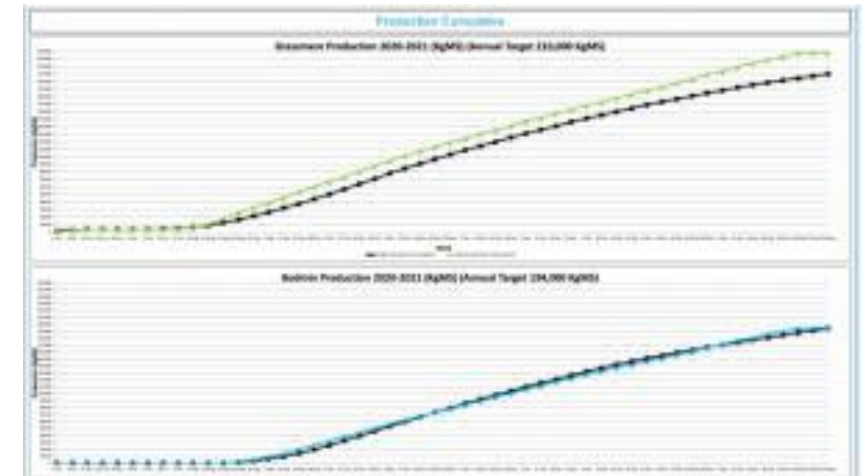
Farm audits



Team empowerment



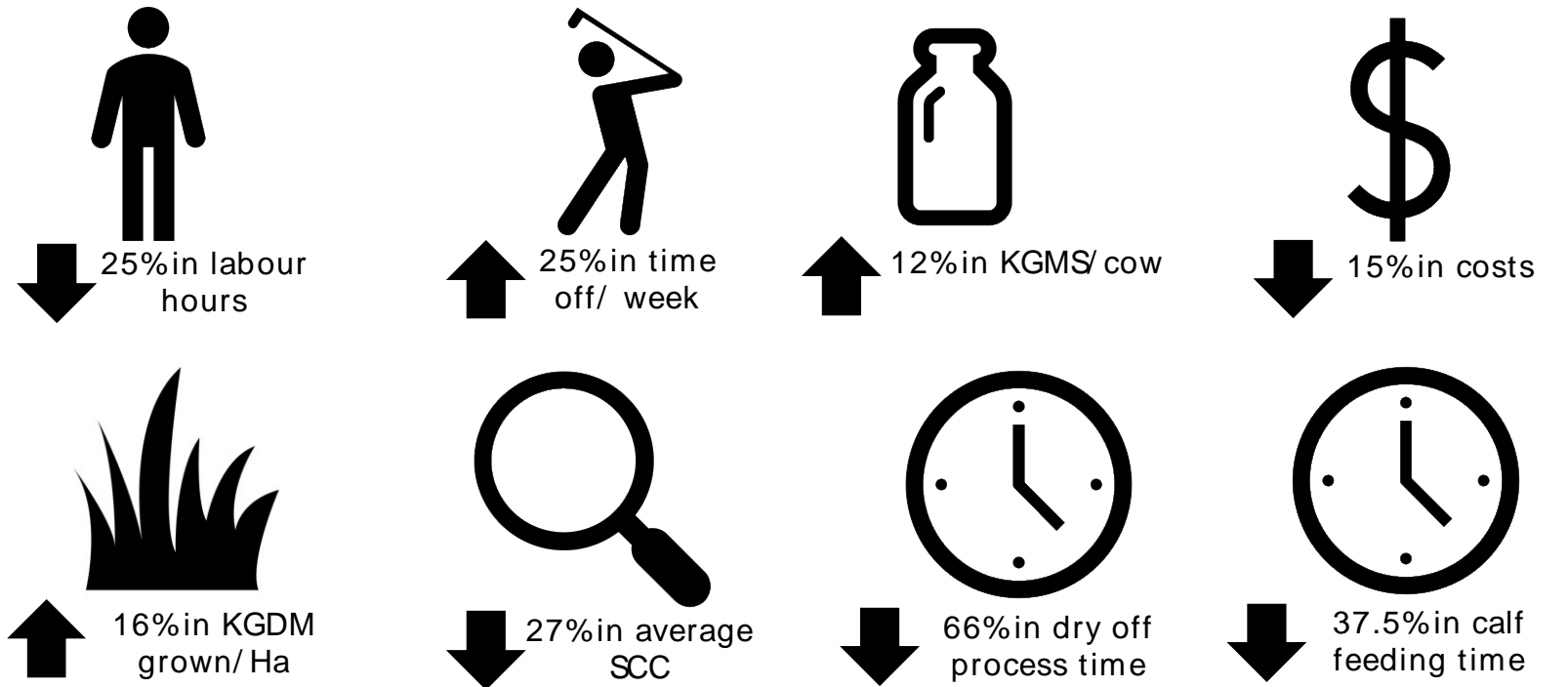
Real time data



Reporting & monitoring metrics

Our farm has seen some impressive results from implementing lean management over the last few years.

These are just some of the improvements we have seen.





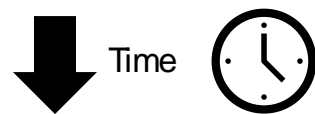
# Benefits to your farm

Lean will benefit your overall farm business. Here are just some of the benefits.

Customer benefits	Business benefits	Employee benefits	Animal Benefits
<ul style="list-style-type: none"><li>• Better quality</li><li>• More reliable</li><li>• Meet customer expectations</li><li>• Consistent product</li><li>• Ethical and sustainable farm practices</li></ul>	<ul style="list-style-type: none"><li>• Increases people's engagement</li><li>• Helps meet business targets (cost, quality, production, profitability etc)</li><li>• Reduces staff turnover</li><li>• Encourages people to question the status quo and identify better ways of doing things (innovation)</li><li>• Ability to work ON the business not just IN the business</li><li>• Improved quality = less rework = less waste = less cost</li><li>• Increased profit</li></ul>	<ul style="list-style-type: none"><li>• Increases job satisfaction</li><li>• Removes frustrating elements of work</li><li>• Empowers people to take action to improve the farm</li><li>• Making work more efficient helps support improved work/ life balance</li><li>• Better place to work</li></ul>	<ul style="list-style-type: none"><li>• Happier cows</li><li>• Healthier cows</li><li>• Correct Animal handling</li><li>• Better animal care</li><li>• Prompt &amp; Accurate diagnosis</li></ul>



Waste



Time



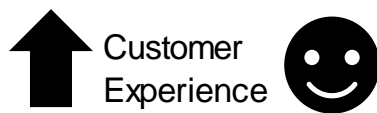
Cost



Animal  
welfare



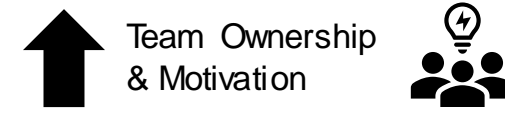
Quality



Customer  
Experience



Safety



Team Ownership  
& Motivation



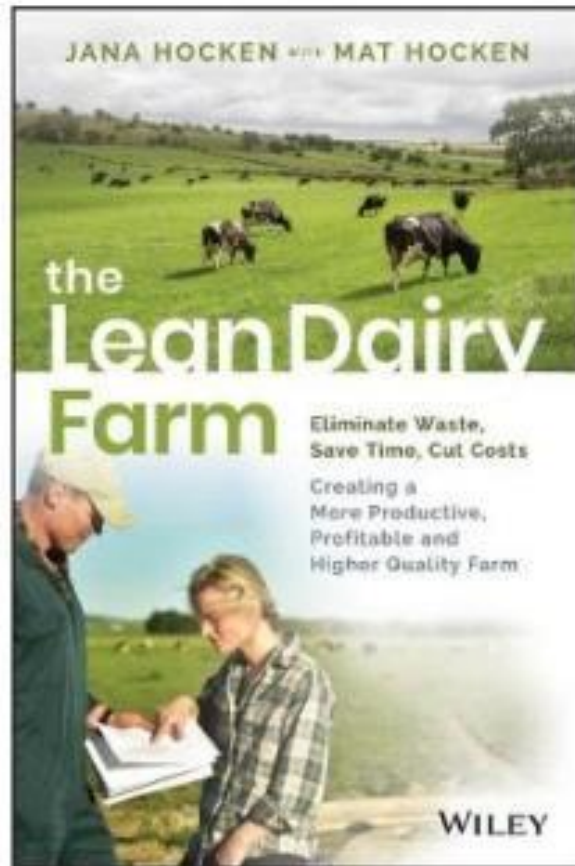
**All of this ensures we are a productive, profitable and sustainable farm business.**

- **Lean is a business strategy, not a one-off activity**
  - It's the relentless **elimination of WASTE** in all forms
  - It focuses on a culture of continuous improvement
  - It focuses on the customer (both immediate processor and end consumer)
  - It focuses on doing only what is value adding
  - It creates an empowered & accountable team
  - Its ultimate purpose is to create profitable, sustainable businesses
- **Lean is a huge push for **simplicity and common sense** focused on improving process in all areas**
- **You will not be Lean overnight – it is a journey!**



1. Discuss Lean with your family or staff
2. Identify 3 benefits Lean could have on your farm
3. How good is your farm at continuous improvement?
4. Brainstorm what are your inputs and desired outputs
5. What are 5 key metrics that are important to your farm?
6. How do you measure, monitor and report on these metrics and how often?
7. Brainstorm what "Perfect" would look like on your farm
8. What things do you need to change to achieve "Perfect"?

# Do you want to know more?



If you are inspired to implement Lean management on your farm, there are many additional resources you can use including our book *The Lean Dairy Farm* which is a practical step by step guide to implementation of several key lean tools. You can also visit our website for more comprehensive online training, videos, examples and other helpful resources.

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Thank you