



Centre for Land and Water



Winter Lectures 2011

Eight informative lunchtime lectures in the
Green Shed: Fridays at 12 noon

Lecture 6

**Lean Production –
taking the waste out of what we do**

Glenn Manahi



smarter, better, faster!

Winter Lectures 2011

REGISTRATIONS REQUIRED

Phone: 06 650-4532 or Email greenshed@claw.net.nz

Small charge to cover expenses: \$25 inc GST per lecture
(\$150 inc GST for a Series Registration*)

You will receive a light lunch (if you register on time), a lecture and an invitation to stay and discuss the topic in more depth should you wish.

ACKNOWLEDGEMENTS:

The Centre for Land and Water thanks the Winter Lecturers who have generously given their time:



*Berry
Beekeeping*



NOTES:

- * We may cancel or vary presentations if speakers become unavailable or if registrations fail to meet minimum numbers.
- * If a speaker becomes unavailable, we may arrange a suitable replacement to cover the same or a similar topic.
- * Holders of a Series registration will be refunded for any cancelled lectures at \$20 inc GST per cancellation, up to \$150 inc GST total

Lean Thinking Overview

Introduction to 'Lean' concepts.

- I spend all my time at work fighting fires!
- Staff just won't treat this business as their own!
- We need to increase our output!
- So many quality complaints... what can we do?
- We have a whole bunch of raw material left over...why?
- Why are we running so inefficiently?
- We are so short of space!
- Our office systems are not working!
- We spend so much time looking for stuff!
- Competitors always seem to have the jump on us!
- Constant breakdowns are the biggest pain in my life!
- We are spending 40% of our available time making waste!
- Our suppliers are constantly letting us down?

Do any of these sound familiar?



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M: 0274445593

Lean Manufacturing

Lean manufacturing or Lean production is a generic process management philosophy derived mainly from the Toyota Production System (TPS). Often known simply as "Lean", is a production methodology that aims to identify any excess activity, process or task, other than the creation of value for the end customer, to be wasteful and therefore a target for minimisation or elimination.

Lean is renowned for its focus on reduction of the original Toyota seven wastes in order to improve overall customer value through the identification and elimination of all forms of waste; improving process flow and efficiency; establishing customer pull systems and striving for perfection... While delivering value, what the customer wants, when they want it.

Lean is also about doing more with less: Less time, inventory, space and money; getting the process right the first time. The goal: Pure Value with Zero Waste!

History – Timeline

1800s: Toyoda invents the automatic defect detector to prevent quality issues reaching his customers

1910s: Ford's automated assembly line rolls out a Model T every three minutes

1940s: Deming helps rebuild Japan's post-war economy

1950s: Toyota develops the Toyota Production System, now known as Lean

1980s: Toyota is now the greatest car manufacturer in the world. Other companies outside Japan take notice

1990s: The term "Lean" is coined referring to Toyota's ability to cut the "fat" from their processes

2000s: The service sector finally starts to catch on

The 7 Wastes

Waste is the use of resources over and above what is actually required to produce the product as defined by the customer. If the customer does not need it or will not pay for it then it is waste, this includes material, machines and labour.

The 7 wastes are:

1. Overproduction and early production producing over customer orders, producing unordered materials / goods.
2. Waiting hanging around, idle time (time when no value is added to the product).
3. Transportation handling more than once, delays in moving materials, unnecessary moving or handling.
4. Inventory - unnecessary raw materials in stores, work in process (WIP), & finished stocks.
5. Motion - movement of equipment or people that add no value to the product.
6. Over-processing - unnecessary processing or procedures (work carried out on the product which adds no value).
7. Defective units producing or reworking scrap.

Others have included additional categories, which include:

- Untapped human potential
- Energy and water
- Inappropriate systems
- Pollution etc.

Take a look at your own business; look at a particular activity going on there. Question in your mind all the steps going on.

- Why is that stuff sitting in the middle of the aisle?
- Why is that person walking all over the place looking for stuff?
- Why is that equipment not available all the time?
- Why is the stock hidden from view and difficult to get at?
- What are they waiting for now?
- Where is that material I ordered?
- How do they know they are producing quality?

There are so many things to see and questions to ask....

You'll be amazed at how much WASTE you can see just by looking.



LEAN LEADERSHIP

Why is leadership such an important topic in Lean transformation?

Because Lean is not something you engineer. When done right, Lean changes the way you think, talk, see, act, and react. It's a battle for employee minds and hearts, and such battles require leadership.

Perfection isn't a goal to conquer; it's a compass indicating in what direction to advance.

Daily pursuit toward perfection is vital to successful Lean transformation. A vision of True North, and a clear view of current reality, creates a tension in the organization that, in turn, feeds creativity.

We usually relieve that tension in one of two ways.

Option one is we lower the vision: "We don't have to be that good—no one else is."

Option two is to artificially raise our perception of current reality: "You know we really are pretty good."

But neither of these helps us move forward as much as a clear view of current reality, and a vision of the ideal state.

There are five leadership actions, a leader can perform to provide leadership on the Lean journey:

Leadership Key 1: Leaders Must Be Trainers/Facilitators.

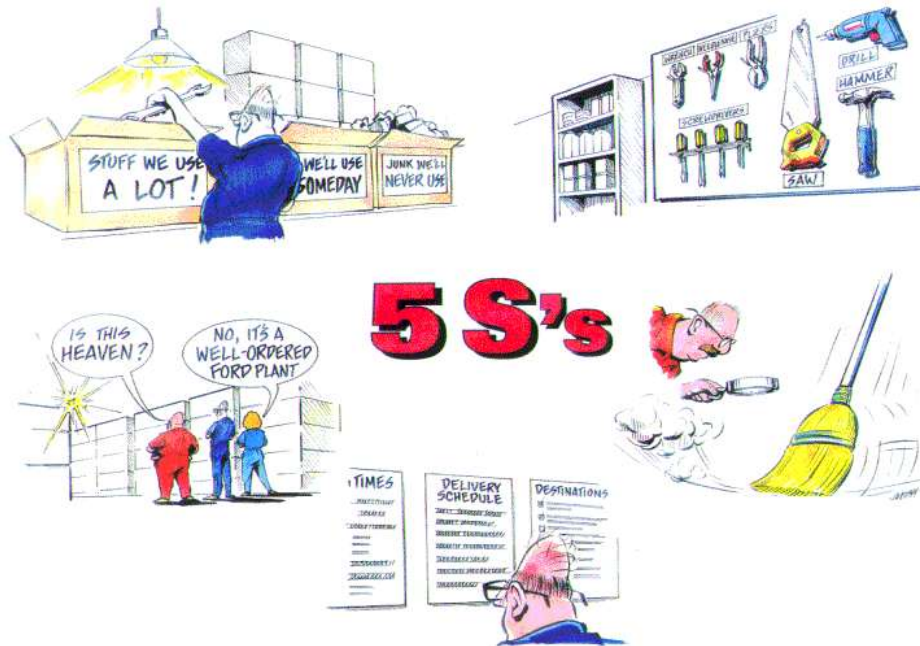
Leadership Key 2: Build Positive Participation, Not Stress.

Leadership Key 3: Eliminate the Fear Factor and Create Confidence to have a go!

Leadership Key 4: Lead by example, not by Proclamation

Leadership Key 5: Proactively Build Lean into Daily Practices and Habits

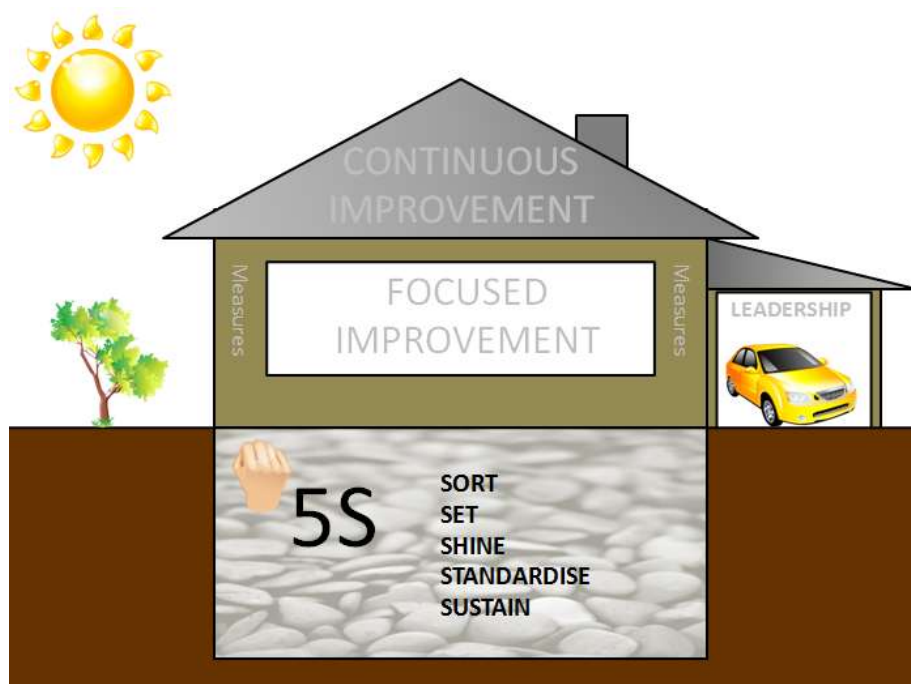
Getting Started – 5S OVERVIEW



WHAT IS 5S, AND WHY DO WE WANT TO DO IT?

5S represents 5 disciplines for developing and maintaining a visual workplace. 5S provides a launching pad for Kaizen (lots and lots of low/no cost focused improvements) and is the foundation tool for initiating a "Lean Thinking" business.

5S is the starting point of continuous improvement activities that ensure a company's future survival.



The 5 disciplines are:

1. SORT - Remove all items from the workplace that are not needed for current operations.

Leave only the bare essentials.

Targets excess inventory, obsolete items, quality defects, and unneeded tools/equipment

Will use red tags, local and central red tag holding areas; Account for discarded items

Take before and after pictures

2. SET IN ORDER – Arrange needed items so that they are easy to find, use and put away.

Consider motion economy

Use painting, outlining and signboard strategies, Visual 5S

3. SHINE – Sweeping, wiping-off equipment, painting and assuring everything stays clean.

Create 5S schedules for painting

Must create cleaning inspection checklists

Create current and future shine targets

4. STANDARDISE – Method to maintain the first 3 disciplines (sort, set-in-order, shine)

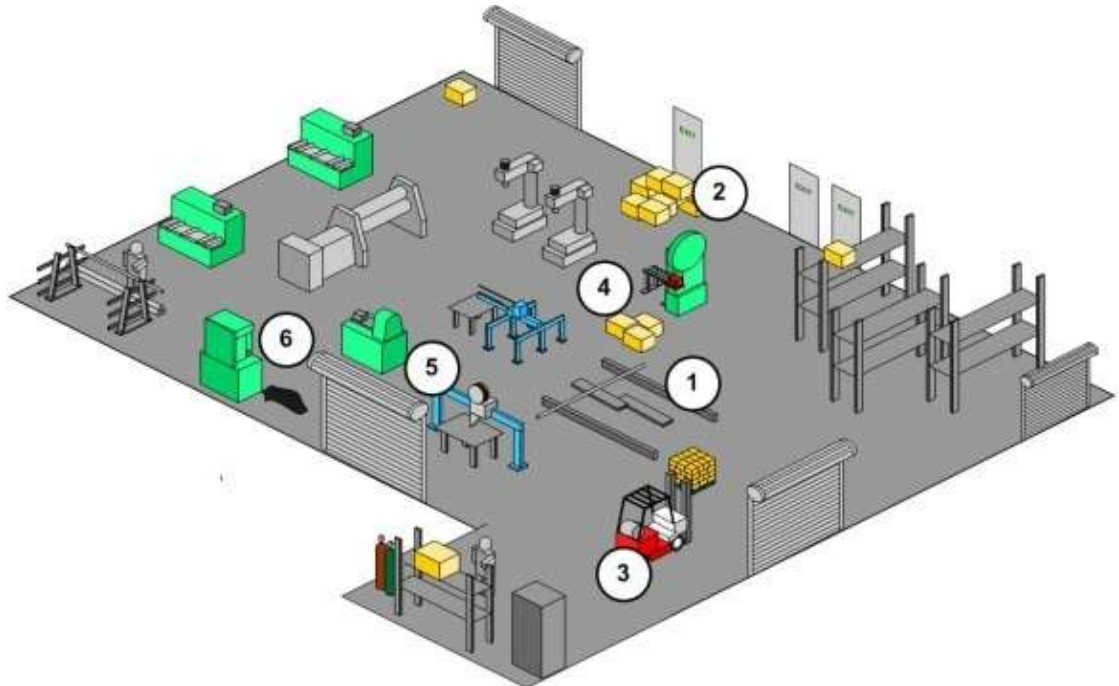
Prevention steps for clutter- minimisation, elimination

Integrate 3S duties into regular work with 5S job cycle charts, 5 minute 5S, and visual 5S activities

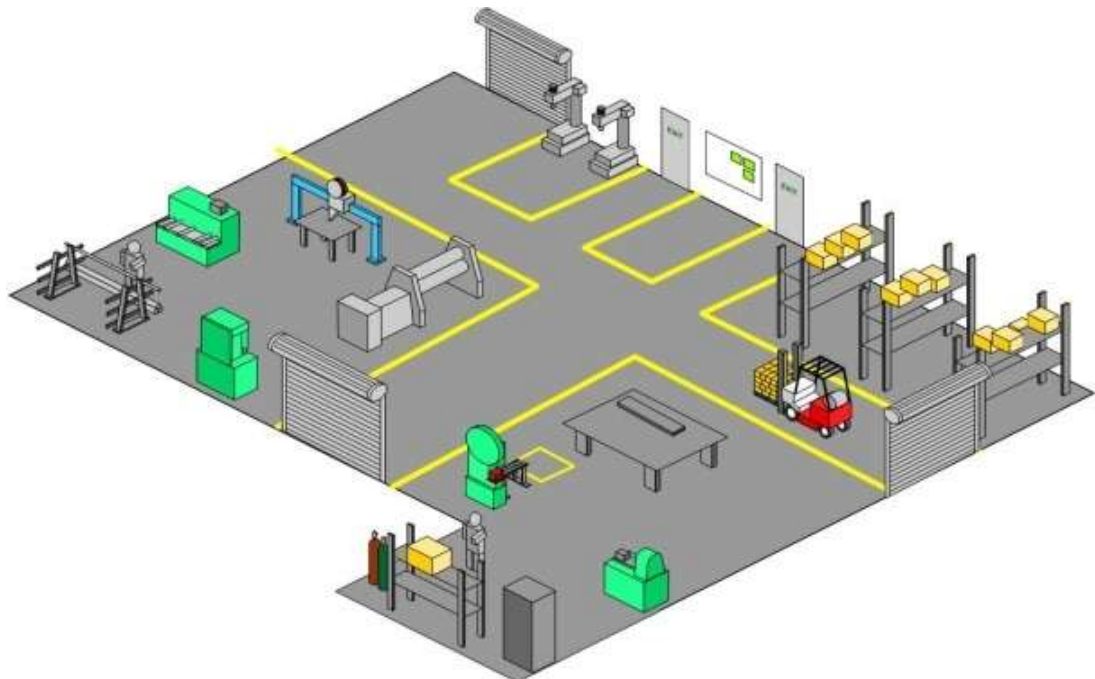
5. SUSTAIN – A top-down support of the ongoing 5S process.

- Create the conditions to support 5S
- Allocate time
- Create awareness
- Provide a structure
- Show support
- Offer rewards and recognition
- Encourage training/participation

Work area before 5S



Work area after 5S



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SBF Methodology

Informative, fun, visual and interactive, with simulations that reinforce concepts and methods
Takeaway simple strategies which can be deployed **immediately** to achieve quick wins
Strategy into Action – Planning template that captures intention to implement

Glenn Manahi. Director: **SBF**

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Who is **SBF**?

Experience of Glenn Manahi:

Unilever Australasia - Skills Training Manager

- Developed & tailored programmes for process and performance improvement.
- Total Productive Maintenance (TPM) Pillar 4 Training Champion.
- Certified TPM Instructor.
- Developed and implemented Continuous Improvement training for managers, team leaders, and operators.
- Co-developed and facilitated the first Australasian Total Productive Manufacturing Instructors Course sanctioned by JIPM (Japanese Institute of Plant Maintenance) in New Zealand.

Heinz Wattie's – New Zealand Training and Development Manager

- Developed strategies for people development, training processes and business development for the New Zealand Business.
- Skills assessment and benchmarking.
- Implemented a 'keep it real' Continuous Improvement 'C.I.' Programme involving:
 - Balanced Scorecard / KPI's
 - 5S
 - Measurement Systems / Data Capture
 - Problem Solving (Root Cause Analysis)
 - Structured Business Improvement Teams
 - Focused Improvement Projects (Managing Mini Projects focused on process improvement and cost utilisation)
 - Continuous Improvement Leader Development (Managers and Supervisors)
 - Team Skills and Training
 - Strategic Planning and Team Charters

SBF

- We develop, tailor and facilitate business improvement projects, learning programmes, coaching and mentoring for large, medium or small businesses; working with CEO's, GM's, Business Owners, Production Managers and Supervisors in Strategic Planning, Productivity Improvement (Lean Thinking), Project Management, Leadership, Management and Team Building, Creativity and Innovation, Self improvement.
- We will introduce, motivate and engage shop floor staff with practical, fun improvement examples.
- We offer 1:1 or groups follow up coaching.
- Flexibility: we currently offer our services in Northland, Auckland, Bay of Plenty, Eastern Bay of Plenty, Gisborne, Hawke's Bay and Otago regions.
- We have worked with **Manufacturing Companies** ranging from heavy engineering, light engineering, printing, saw milling and timber processing, joinery, horticulture, textiles, food manufacturing, general process manufacturing...
- We have worked with **Service Organisations** ranging from hospitality and tourism, arts, clerical, retail, education, consultancy, IT (infrastructure and design), beauty (hair, nails etc)...
- We develop, coach and mentor a selected champion/s in parallel to business improvement projects.
- We will build your training systems, capability planning, skill gap analysis and individual skill assessment.
- We offer NZQA related training and assessment systems; for example: National Certificate in First Line Management, National Certificate in Competitive Manufacturing.
- Visual Media Training – interactive software that delivers specific solutions; for example Company Inductions; Health and Safety etc. that reduce your time, cost and resource required to deliver these functions; while increasing repeatability, reliability, accuracy and retention of knowledge. We also offer Seasonal Induction and Orientation Programmes.



Centre for Land and Water

WELCOME

Welcome to the Centre for Land and Water, a venue supporting sustainable agriculture through training, research and consultancy.

The Centre provides professional offices, meeting and seminar facilities and land for research and training.

We currently have rental offices available. Terms by agreement - phone, fax, copy and print facilities available on-site.

The Green Shed seminar venue is available for training, meetings or for general event hire. Contact us: Phone: 06 650-4532 or Email greenshed@claw.net.nz

The Centre is located on a 4 ha site with easy access and plentiful parking. Entry is from Ruahapia Road, accessed from Karamu Road (SH2) at Waipatu or Pakowhai Road at Chesterhope. It is 4 km (8 minutes) from the Hastings CBD, 17 km (20 minutes) from Napier CBD and 18 km (20 minutes) from Hawke's Bay Airport.

COMING SOON

CLAW Short Seminars:

Communications: Preparing a media release

Communications: Writing popular articles

Communications: Writing technical reports and manuals

Communications: Preparing and delivering public presentations

Irrigation: System calibration theory and practice

Irrigation: How much water do I really need?

CLAW Short Courses

NZQA Certified Irrigation Evaluator



Centre for Land and Water

- 1. Rural New Zealand Biofuels - the future could arrive any time:** **July 8th**
Speaker: Rocky Renquist, Plant and Food Research
Rocky is a crop research scientist. Bio-energy can replace ¼ of all energy use by 2050 and reduce the footprint of ag products. Having identified better conversion technologies, Rocky has worked on crops and crop residues to supply fuel plants. His focus is on bio-energy for rural New Zealand.
- 2. Ground Water Resources – beginners guide to hydrology:** **July 15th**
Speaker: Tony Davoren, HydroServices
Tony is a hydrologist with extensive experience in irrigation, soil water, surface and groundwater water resources. He will explain key hydrology concepts so you can make sense of well tests and groundwater science. What does an aquifer report tell me? How do we know if current take levels are sustainable?
- 3. Bees - what's happening in the hive:** **July 22nd**
Speaker: Peter Berry, Berry Beekeeping
Fresh from the National Beekeepers Association Conference, Peter will update us on the latest developments. He is a conservationist, tramper, hunter, fisherman, farm forester, muso and playwright. He is also passionate about bees, with lifelong beekeeping experience.
- 4. Managing and making sense of data:** **July 29th**
Speaker: Mark Rodgers, "Datatamer"/ Hilltop Software
Mark is a data management specialist and developer of Datatamer software which is used by regional councils and irrigation schemes. He will explain how data from water meters, river monitoring, soil moisture and other sensors can be captured, cleaned, stored and made available. What is this data for and how can it help me?
- 5. Employment Matters - getting it right:** **August 5th**
Speaker: Gill Riley, Grow Human Resources
Gill is an HR specialist with experience in management and operational HR across many sectors. She presents a common sense approach to people issues, good employment structures, and ways to de-escalate issues. Her focus is excellence and optimal results through integration of all business operations.
- 6. Lean Production - taking the waste out of what we do:** **August 12th**
Speaker: Glenn Manahi, SBF
Glenn is the director of SBF, a company facilitating businesses into "lean" ways of thinking and doing. Lean is about doing more with less: less time, inventory, space and money; getting the process right the first time. Glenn promises a fun interactive session looking at systems - what works and what doesn't.
- 7. Social Media - business in the online era for Rural Communities:** **August 19th**
Speaker: Matthew Miller, Mogul
Matt has a wealth of experience in digital marketing and web development. He will enlighten us on social media including Facebook and Twitter – what role do they have in keeping rural communities connected with each other, their markets and the rest of the world.
- 8. Interpreting leaf and petiole test results:** **August 26th**
Speakers: Mike White, Analytical Research Laboratories and Andre Lubbe, Ravensdown
Mike and Andre will co-present this session on testing plant material and turning results into fertiliser recommendations. They will use grapes as a case study to explain what your tests tell you about your crop. Mike and Andre are happy to answer questions about other crops that have particular interest to attendees.