TPM Final Presentation

Yarraville Packing Operations
Cycle 6 – April 2010

Stitched Up Team

SUGAR Australia

RESPECT

Sugar Australia

- Joint Venture
  - Established in March 1998
  - 75 % CSR Limited
  - 25 % Mackay Sugar Cooperative

CSR SUGAR

Mackay Sugar

CSR 150 1855-2005

- CSR Brand was 150 years old in 2005

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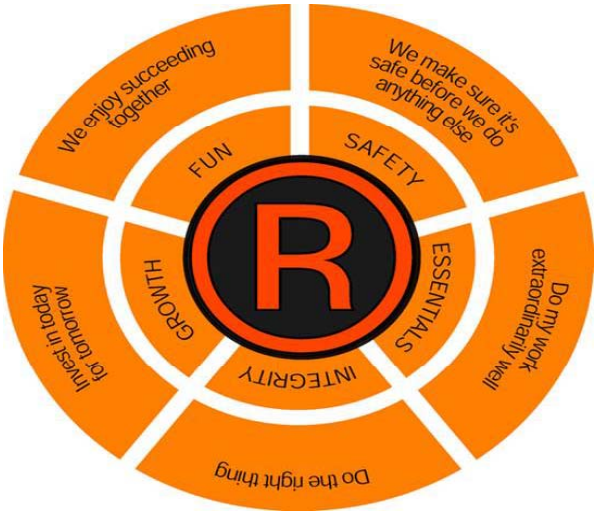
Sugar Australia Values



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Yarraville Operation – Key Statistics

- Currently producing 300'000 tonnes of sugar PA
- Refinery operates 24 hours 7 days per week
- Packing operates 24 hours 5 days per week
- 102 staff on site
- Operators, staff and Transfield maintenance employees

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Yarraville – Product Range

Bulk crystal sugar

Bulk liquid sugar

Industrial Sugar supply

Retail Sugar packs (white, brown, caster)

Retail and Industrial Golden Syrup

Export

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Customer Value Proposition

CONTINGENCY

RELIABILITY

QUALITY

INNOVATION

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TEAM SCOPE AND MANDATE

SCOPE

- Brown Packing Station
- Industrial Brown Line (25kg and 15kg industrial brown sugar bags)

MANDATE

- Reduce manual handling issues and product waste
- Initial ideas
  - Alignment of the line
  - Improve reliability of the sewing machine

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TEAM RULES

- Mobile phones on silent
- Be punctual
- Prior notice if intended absence
- Share the workload
- Respect each others opinions
- Decision by consensus
- Be proactive and engaging

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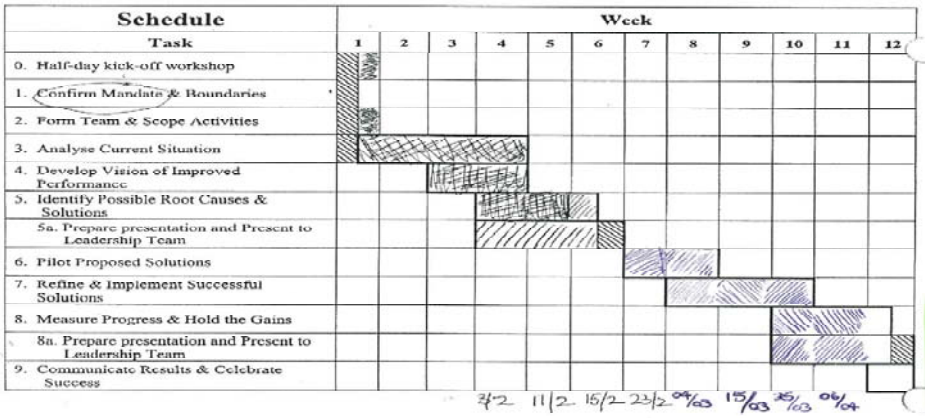
Team Schedule Sheet

- Team name wasn’t decided on until week 4.
- Very little activity happened until around week 5 when the team went to the place of work and observed.



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Attendance Sheet – Cycle 6

- Shaky start - not all team members present on the first few meetings.
- Two members left part way through and only one was replaced.

Team Members	Week 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Stuart Norton	✓	✓	/	A	A	A	✓	✓	A	✓	✓							
Peter Whitmore	✓	✓	/	✓	X	✓	✓	✓	✓	✓	✓							
Wayne Carter	✓	✓	/	A	✓	✓	✓	A	✓	✓	✓							
Jagnesh Modi	X	✓	/	✓	✓	Transferred to Syrup TPM Team.												
John Simcock	✓	✓	/	✓	✓	✓	✓	A	A	A	✓							
Steve Rayner	A	✓	/	✓	✓	✓	✓	✓	✓	✓	✓							
Daisy Saunder	A	A	/	A	A	Transferred to Dispatch 2nd Store.												
Norm Coverdale	X	A	/	✓	X	A	✓	✓	A	✓	✓							
Jason Rexter	A	✓	/	✓	A	✓	✓	✓	✓	✓	✓							
Time of Meeting	2 pm	2 pm	2 pm	1 pm	1 pm	2 pm	1 pm	1 pm	1 pm	1 pm								
Date of Meeting	Tues 24 Jan	Tues 24 Jan	Mon 30 Jan	Tue 3 Feb	Tue 17 Feb	Tue 17 Feb	Mon 23 Feb	Tues 24 Feb	Tues 10 March	Tues 31 March								

✓= Attended x = Unnotified Absence A = Notified Absence

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Noticeboard Based on Site Scoreboard

Yarraville CI Vision	Team Agenda	History Sheet
Team Mandate	Attendance	Current CI Teams (Opportunity Sheet for DPA's)
Photo & Roles Sheet	Task Sheet	Team Rules
Team Schedule	Team Minutes	Car Park (YLT NB Guidelines)

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SN

Team Analysis

- Initial survey showed an average of 30% wastage on Brown Industrial Product Line.
- Of this 30% wastage, 25% is associated with line alignment.

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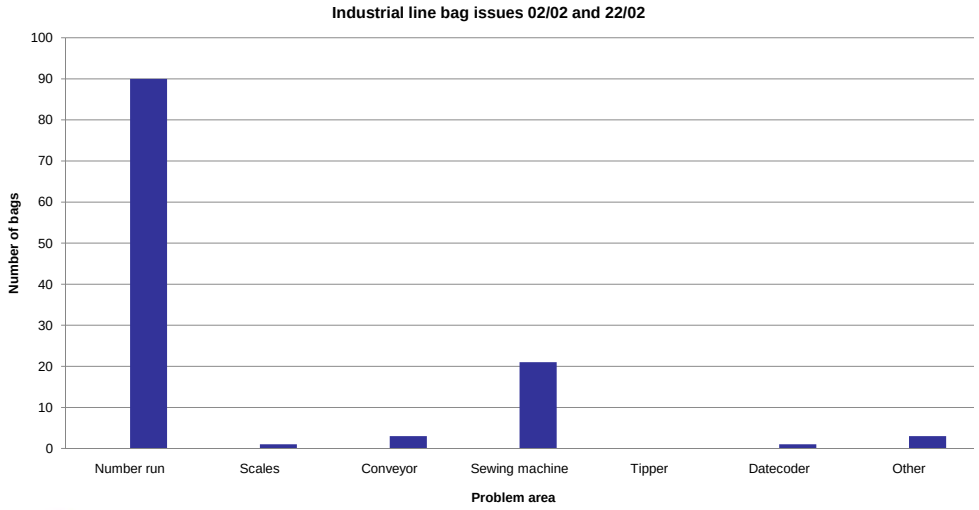
Raw Data Analysis

Brown Industrial
First pass rsults for trial run on the 22/02/2010

| | | |

Graphical representation showed focus on sewing machine



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Team Analysis

An annual loss of

$362,900

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Team Analysis

- Currently 36.5 % of all units produced require a manual lift.
- This is mainly driven by the process lines alignment.
- This equates to 390kg of material being lifted every hour on a standard run.

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Team Analysis

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Team Analysis

- Our Risk assessment score came out at 150 which is classified as Substantial.
- The improvements being made will reduce the number of units requiring a manual lift to 8%.
- Volume required to be lifted on hourly basis 71kg.
- Reducing the risk classification to Low.

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Improvements to the Line

- Re-aligned and levelled the Process Line.
- Overhauled the sewing machine and made slight modifications.
- Modified and moved the bag tipper.
- GMO raised for these improvements (<20k capital).
- Guide rails still to be installed.
- Sewing Machine waste bin purchased, instead of using large plastic bag tapped to the equipment.

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Improvements to the Line

- Improvements to the Brown IPL after the commissioning trial.
- Altered the arm on the bag tipper.
- Increased the back plate on the bag tipper.
- Trimmed the guide rods on the sewing machine to eliminate hand strike on them.
- Adjusted the belt running speeds on the sewing machine so that they ran at the same speed as the conveyors.
- Adjusted the crepe knives.

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Before & After Photos

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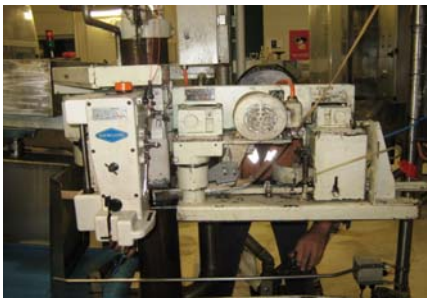
Before & After Photos



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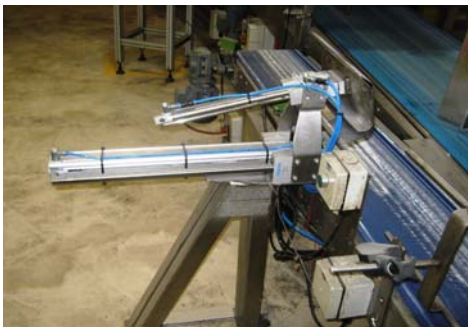
Before & After Photos



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After Photos

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Improvements Made

Waste improvements – waste reduced from 30% to 6% average.

Safety Improvements – Lifting 390kg per hours -> 71kg per hour

Morale – operators morale has improved with the safety improvements, less manual handling, less waste.

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Key Learnings

- How data collection can help to put a justification together.
- Exposure to Why-Why methodolgy and usefulness to understand the root cause.
- Get out of the office and go to place of work.
- Have the data in the workplace so that it is visual and communicated to everyone.

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Happy Customers

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Yarraville Cup & Final Presentation

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Sustainability

- 4 months later there is still a similar level of defects and satisfaction.
- Reduced variability by >50%
- Same output in 2 days as previously 4
- Higher level of PM attainment as higher line availability

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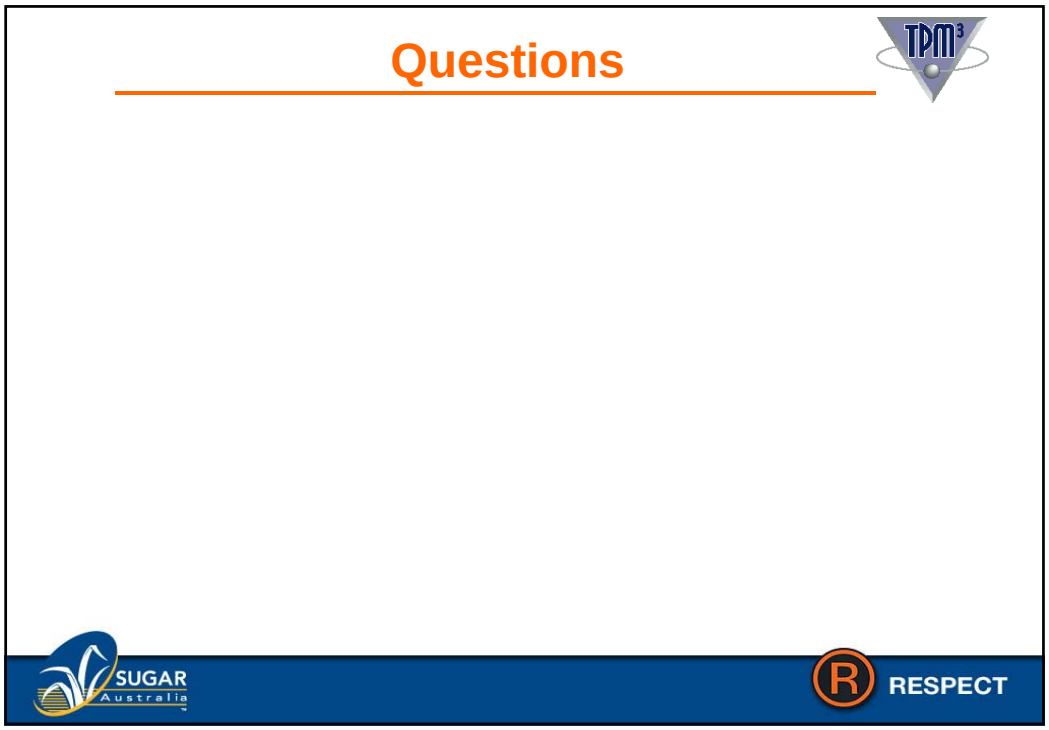
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