



The National Diploma in Wood Manufacturing Level 5

Diploma Optimisation projects: The Benefits

Each student must be able to identify optimisation potential in the processes operated by their employer. The student targets the problem, measures variables and develops a plan to deliver results. Projects can yield high potential cost benefits.

Example 1	Defilleting Line
Problem	Throughput only 6m ³ to 9m ³ , against design target 10m ³
Chosen Actions	Modify defilleter infeed at cost of \$43,000
Results	Average production of 8m ³ raised to 10m ³ , payback less than 2 years

Example 2	Bandmill Productivity
Problem	Excess down grade from MSG into remanufacturing grade
Chosen Actions	New saw pattern control computer. Operator training. Cost \$300,000
Results	Edger near 100% on grade, extra return over \$8/m ³ For 100,000 output over \$800,000 per year. Pay back under 5 months, ROI 283%. (expected 15 months, 86% !)

Example 3	Planer mill throughput
Problem	Not keeping up with sawmill volumes
Chosen Actions	Adjust planer speed by size, no stops. Communication and teamwork.
Results	Productivity up 7.5%, saving \$40,000 overtime per year. No cost.

Example 4	Pruned log value recovery
Problem	High cost pruned logs need improved recovery to export
Chosen Actions	Slower saw patterns for large higher quality logs. Smaller lower quality logs at maximum speed.
Results	Clear recovery up 4% with revenue up \$500,000. Productivity loss \$180,000 net gain \$320,000.



National Centre of Excellence for the Forest and Wood Industry located at Waiariki Institute of Technology, Mokoia Campus, Rotorua



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Training and Advancement for Emerging Leaders

2009 Timetable	Block	Duration	Module
23 - 28 February 2009	One	6 days	Leadership
2 - 5 March 2009	Two	4 days	Business Management
6 - 7 March 2009	Intro	2 days	Project Introduction ** (This 2 day should be attended by all new students to set up the optimisation project)
27 April - 2 May 2009	Three	6 days	Enhancing Wood Products
4 - 9 May 2009	Four	6 days	Process Analysis
15 - 27 June 2009	Five	12 days	Manufactured Products Costing
10 - 22 August 2009	Six	12 days	Operations Management
14 - 19 September 2009	Seven	6 days	Maintenance Management
21 - 26 September 2009	Eight	6 days	Quality Improvement
2 - 7 November 2009	Nine	6 days	Wood Manufacturing Processes
9 - 14 November 2009	Ten	6 days	Optimisation Project Presentations

There is flexibility for students to enrol on a full-year programme or a block-by-block basis over a number of years using the timetable as a guide.

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