

The Goodman Fielder Dairy Minions Deliver \$175,000 in Savings

Progressing with their Continuous Improvement Journey, the **Goodman Fielder Dairy in Palmerston North, New Zealand** identified a further opportunity to reduce waste product and effluent (liquid waste) going down the drains. Due to the cost of lost product and the cost of treating the fat and protein in the effluent, this opportunity had a double edge cost impact on the Site.



To tackle this head on, the **"Despicable Wayste"** Team was formed to identify the current losses and to develop root cause solutions to reduce fat, protein and total effluent volumes going down the drains. Always on the lookout for opportunities to improve, the Minions were on the case from the start.

The Team analysed the current situation and identified three key strategies to tackle the problem:

1. Reduce water usage by reducing excessive CIP (Clean-in-place) flush times;
2. Reduce water usage by re-circulating cooling water, rather than sending it to the drain (refer to Figure 2); and
3. Reclaim product during the initial end of run flushes that occur on changeovers.

Figure 1: Ecolab CIPTraxx monitors CIP flushing conductivity to verify reduced CIP times



Figure 2: Puhoi Yogurt cooling water redirected from drain to re-circulate

Team Name: Despicable Wayste	Location: Processing	Initiated Date: 10 June 2015
Initiator: Kevin E	Item: Yoghurt cooler water recirculation	Completed Date:
Team Leader: Les Faint		
1. Problem Effluent volumes are exceeding the allowable levels		
2. Current Situation (Plan) When transferring the Puhoi yoghurt the process cooling water runs direct to drain		
3. Proposed Change / Approved Improvement (Do) Sketch/Photo: The process cooling water to be recycled through the existing cooling system		
Improvement Target: Reduce water use/effluent volume by 3.7% (16,744,000 ltrs/year)	Expected Cost: \$2450	Expected Completion Date: 28/8/15
		Expected Saving:

The Team has identified over a dozen significant projects that will reduce water usage, improve product recovery and reduce fat and protein going down the drain. Of those opportunities the Team has already implemented four improvements that resulted in:

- **Reduction in Water usage on Site**, of over 8% of total usage. The CIP reduction alone amounted to **62,000 litres/day reduction and released 214 minutes of CIP lost time** throughout the plant.
- Recovery of product by **reclaiming \$140,000/year of usable milk products**.
- **Effluent treatment cost reduction of \$36,000/year** through a 5% reduction in fat and 5% reduction of protein going down the drains.

We at CTPM wish to congratulate the Despicable Minions at the Goodman Fielder Dairy in Palmerston North for their thorough analysis of the situation and the implementation of root cause solutions to deliver fantastic savings.

For further information please contact:



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