

## Kiwis crush Aussies ....Again! How do they do it? Constancy of purpose shines through.



At CTPM's 2014 Annual TPM & Lean Forum specialising in "Operations Excellence in Action", New Zealand Sugar has once again won the "Aussie Cup". NZ Sugar has now won four of the past six yearly team competitions and has placed second in the others, giving them an enviable record, not easy to forget.

The New Area Management (NAM) Team called Rack 'n' Stack has over 103 years of service between them at the Chelsea site. The team was charged with designing and implementing an effective plan for storing, picking and loading Equal, a product brand of artificial sweeteners that NZ Sugar took over the agency for in 2007. Since then, all importing, storage and dispatch was contracted out to a third party logistics (3PL) company. The business was described as, "Small boxes, Small amounts, Small customers". NZ Sugar operates an extensive national supply chain and many sugar customers also purchase Equal products.

Figure 1: Rack 'n' Stack Team Photo

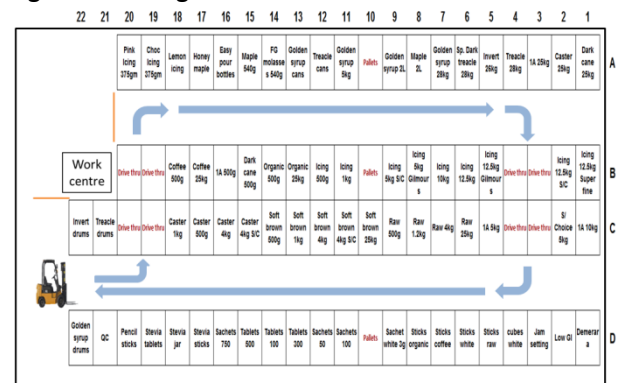


**L to R:** Mike Quizon – Load-out Operator, Russell Fisher – Packing & Warehouse Manager, Richard Houghton – Production Planner, Ray Hutchings – Area Leading Hand, Jason Midgley – Logistics Team Leader, Rob King – Load-out Operator, Jonaree McIntyre – Area Team Leader and David Boyd – Customer Services Administrator.

It was proposed that savings could be made by bringing storage and handling on site and that transport savings could also be realised by

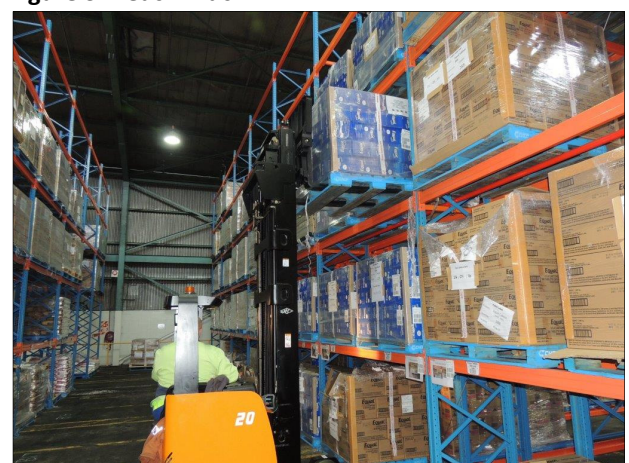
combining orders with sugar deliveries. Layout of the proposed area and all work activities were considered by the team.

Figure 2: Picking Locations



Additionally, many other issues needed to be addressed such as the handling of glass on site (not done before), product ID for storage at high levels and stock rotation, and location position identity. Use, training and charging of a Reach Truck and its safe operation also needed attention.

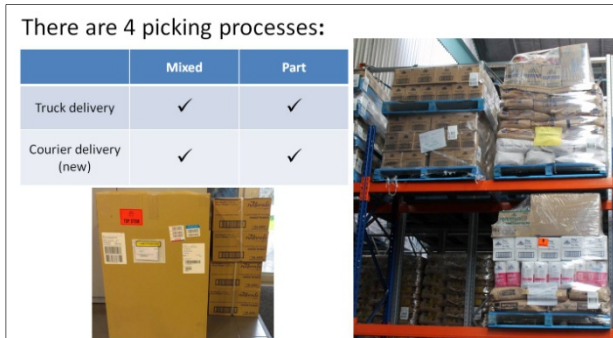
Figure 3: Reach Truck



A new picking process was established after studying customer order patterns and their product mix, which led to system changes being introduced. Paperwork, invoicing, scanning, delivery options and product mix selections were all considered and mapping of those processes

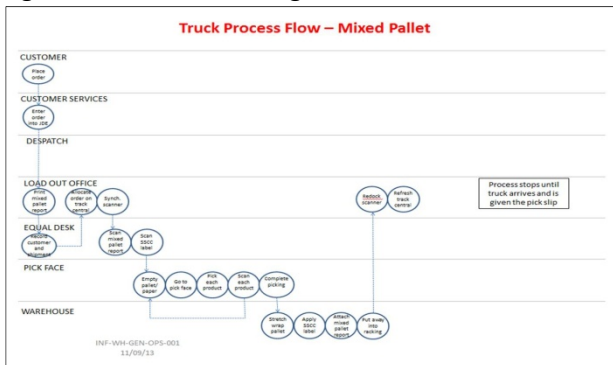
were performed by the team. Standard Operating Procedures were established as well as all packaging, labelling, scanning and loading activities.

**Figure 4: Picking Processes**



Process mapping consisted of reviewing their truck flow processes for mixed and part pallets and their courier flow processes for mixed and part pallets. All flows were presented using the swimming lanes approach for easy understanding, as shown in Figure 5 below. These were then used as training documents.

**Figure 5: Process Flow Diagram**

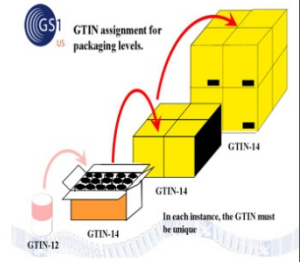


The results achieved by the team were exactly as planned. Significant savings flowed from onsite storage and transport harmonisation, better workflows, full traceability from in-house scanning and importantly customer satisfaction and DIFOTIS was maintained. There was a seamless transition to on-site distribution.

Many lessons were learnt along the way but in great team spirit they announced that they had achieved their mission, *"We continue to deliver the right product in the right quantity to the right customer on the right day in pristine condition at significantly reduced costs."*

**Figure 6: Key Lessons Learnt**

- Ordering priority
- Stock rotation
- Setting up for next day
- Professional training
- User friendly equipment
- Team work
- Communication



Intangible results came in the form of improved staff engagement, high morale and pride in their area. Communication between departments was enhanced and product knowledge of Equal was much greater due to in-house training. Equal and Sugar are now a fully integrated sweetener business.

**Figure 7: Tangible Benefits – Consolidation of orders**



CTPM Congratulates NZ Sugar once again on winning the 2014 "Aussie Cup" Team Competition and commends them on their improvement journey and their determination for excellence.

We look forward to seeing another NZ Sugar team at next year's Forum fighting to take the cup back!

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