GS1 New Zealand

■ ■ ▌ ■ New Zealand's first major commercial rollout of Electronic Product Code RFID was in 2008 in the kiwifruit industry. GS1 New Zealand Professional Services designed, and gave close ongoing support to the implementation of a system that enables EastPack Ltd, one of New Zealand's largest post-harvest operators, to track and trace every pallet across 5 packaging lines and 49 cool stores.

Each year, EastPack Ltd sorts, packs, stores and forwards to export a significant share of New Zealand's $1 billion-plus kiwifruit crop. The kiwifruit supply chain presents major logistical challenges. Significant bonuses and penalties from ZESPRI, the industry's exporting arm, are attributed to pack houses that can (or cannot) respond to hour-by-hour orders for kiwifruit with specific attributes. Pack house operation involves fruit going into cool storage, sometimes for weeks, then being retrieved to meet the requirements of particular orders, sometimes only hours before it is due on board a ship. Industry insiders say the height-of-season 24/7 logistics of tracking and retrieving particular pallets in tightly-packed cool stores are "nightmarish."

In early 2007, EastPack turned to GS1 New Zealand for a better way to meet these challenges.

In broad terms, the solution GS1 recommended was simple: place EPC/RFID tags on pallets and RFID readers on forklifts; capture data electronically whenever a forklift picks up or drops off a pallet; identify where in the store these activities are occurring; and instantly transmit the data back to the inventory management system – and all this without any manual intervention.

Innovative components include a high-resolution digital camera mounted to the roof of the forklift that can determine its location from special ceiling-mounted DataMatrix bar codes. At every pick-up and drop-off of a pallet, the location is matched to cool store coordinates (room, row and position) and combined with the pallet identity (SSCC) and a time-stamp into a business event that is transmitted wirelessly back to the management system in real time.

The results of an initial pilot were impressive. The accuracy rate for data capture exceeded 95% and the forklift-mounted cameras enabled pallets to be located to within 20cm of their exact positions. These results led to EastPack's decision to proceed to full rollout before the start of the next season – a very tight timeline of only a few months.

EastPack have now implemented the solution throughout their 49 cool stores, processing 80,000 pallets in a season.. Data in the first season showed the contribution that the EPC/RFID solution has made to increased sales, cost savings, increased operational efficiency and more motivated workforce. EastPack also confirmed return on investment within their first EPC-enabled (2008) season.

The value of the solution lives in EastPack's vastly improved ability to locate particular pallets in a store, and to quickly retrieve them for export at optimum times and with minimum reshuffling of other pallets. Their management system already held data on all fruit received for packing; now it also holds real-time information on the location and status of that fruit by pallet. Data mining promises further optimisation, and there are also opportunities for wider EPC application in the entire New Zealand kiwifruit supply chain.

For more information about GS1 New Zealand, visit their website at www.gs1nz.org

GS1 Peru

■ ■ ▌ ■ In the global world in which we work, traceability and best practices are key issues to developing value-added services and helping companies both large and small be more competitive. This is particularly true in Peru, which is signing free trade agreements with many economies around world, making competitiveness a key element to sales success. Peru is experiencing an export "boom": total exports increased more than 30% per year between 2001 and 2007.

The social and economic role of SMEs in Peru is very important; indeed, they represent 46% of GDP, 70% of employment and 98% of total enterprises. Yet, according to local statistics, small and medium sized Peruvian companies often have low productivity and suffer from information and technology gaps and infrastructure inequalities. This, in turn, leads to problems with competitiveness.

To help combat this problem, GS1 Peru strives to develop solutions adapted to SMEs.

For example, in the second half of 2007, GS1 Peru oversaw a project and provided technical assistance in Arequipa, a region in the southern portion of the country. The project benefitted an association of 615 aromatic herb producers who live and work some 3,000 to 4,000 meters above sea level, producing 300 tons of herbs such as thyme, rosemary, mint, oregano, and others for export to Europe.

GS1 Peru helped this group to identify the strengths, weaknesses, opportunities and threats behind implementing traceability best practices using global standards. GS1 Peru then helped establish a traceability process map for the aromatic herbs supply chain, including points of control, registries of information and responsibilities; as well as a set of traceability templates and guidelines for each point of their supply chain. GS1 Peru also oversaw the training of the growers and producers, not only on traceability processes, agricultural best practices and standards concepts but also on using the traceability templates.

The main benefit was certainly the 80% time savings seen when retrieving upstream batch information.

Furthermore, in 2008, the system passed a critical test with flying colours when a European client's quality control laboratory identified a problem that caused the export process to be halted. Immediately, teams in Peru carried out their own analyses, testing all the processes along the exact path that the flagged batch had travelled, using the standardised traceability registries filled in at each point of the supply chain; they quickly ruled out the possibility of any local contamination. With this information, the client launched another analysis that came back negative: it turned out the source of contamination was their own quality control laboratory. This concrete business case boosted the sense of trust the client felt toward the producers; they recently renewed their commercial agreement through 2013.

GS1 Peru oversaw a similar traceability and logistics best practices project in 2008 in Piura, a region in the north of the country, with producers of organic coffee and brown sugar (called panela). This panela organic brown sugar process is, in fact, the first Peruvian traceability process to be granted the official GS1 Peru Global Traceability Conformance Seal.

For more information about GS1 Peru, visit their website at www.gs1pe.org