



**ZESPRI International Limited  
Implementation Case Study**



ZESPRI GROUP LIMITED

## ZESPRI – Introduction

When New Zealand Kiwifruit hits the shelves of Europe's supermarkets in 2005, ZESPRI International Limited will have completed a project spanning several years. A project to ensure they not only have the best Kiwifruit in the world, but the best Traceability of any Fresh Produce. This is achieved through application of the Fresh Produce Traceability Guidelines (FPTG), and UCC/EAN-128 labels on every carton of export kiwifruit and stringent processes throughout ZESPRI's supply chain.

The changes began in June 2001 when European customers began to focus on Fresh Produce logistics and traceability by asking for UCC/EAN-128 barcodes to pack level. With the European Food Safety requirements for Fresh Produce Traceability pending for 1 January 2005 it was clear that ZESPRI's exceptional traceability at pallet level needed further refinement. The resulting level of traceability also protected the investment growers were making in even better quality processes including Euro Retailer Produce Working Group (EUREPGAP) and British Retail Consortium (BRC) certification.

ZESPRI completed significant research with its suppliers in New Zealand and customers in Europe to maximise the benefits of UCC/EAN-128 labelling for all supply chain participants. The resources of EAN New Zealand, EAN International and EAN Member Organisations in significant markets around the world were invaluable in developing a win/win for ZESPRI and its supply chain partners.

ZESPRI shipped the first UCC/EAN-128 labelled fruit in 2002 and in 2004 over half of all export green and ZESPRI™ Gold kiwifruit were UCC/EAN-128 labelled. For 2005 all ZESPRI export kiwifruit will be included thereby meeting the European Union deadline and meeting ZESPRI's traceability goals.

## Why the EAN.UCC System?

In asking the industry to make the investment in bar-coding to pack level, ZESPRI needed to be sure they were using a standard acceptable to all their major customers including Europe and Asia. UCC/EAN-128 was that standard. The advice and support of EAN staff around the world helped ZESPRI implement UCC/EAN-128 in a practical manner without undue influence from any particular customer. The EAN standard and EAN staff became the impartial arbiter to resolve any differences of interpretation that occurred and continue to occur.



Figure 1: Creation of kiwi fruit cartons in the packhouse.

ZESPRI explored other technologies including RFID, magnetic strips and snowflakes. At the time, none of these had widely accepted standards in place, costs were high and most importantly there is no human readable component in the event of equipment failure. In adopting UCC/EAN-128 ZESPRI has ensured that its' processes are aligned to adopt RFID when that technology becomes commercially viable. The expectation within ZESPRI is that RFID will always be a complimentary technology rather than replacing barcodes.

ZESPRI had used CODE 39 barcodes at pallet level for many years but with the move to a single standard worldwide in EAN.UCC, fewer customers were utilising ZESPRI's barcodes in their supply chain. 2005 will see the change to UCC/EAN-128 extended to ZESPRI's pallet cards.

During their research ZESPRI focussed on a number of key objectives to be met using the UCC/EAN-128 barcodes:

- Full traceability of fruit from orchard to final customer through automated data capture.
- Enhanced supply chain processes internally and externally.
- To fully meet the ECC legislative requirements.
- To protect the industry and customers from traceability crises as seen with BSE, Foot and Mouth, Salmonella etc.
- To meet customer requirements as documented in the "Fresh Produce Traceability Guidelines" ( EUREPGAP FRESHFEL, CPMA/PMA).
- Leverage the barcode technology to provide additional information.
- Explore opportunities for e-commerce including electronic consignment notes etc.
- Efficient isolation of less stock in the event of a quality or food safety issue.
- Ensure alignment with upcoming technologies e.g. RFID/EPC.

### **How the EAN UCC System is Implemented**

In implementing UCC/EAN-128, ZESPRI issued a functional specification for the labels and included two simple business rules:

1. A supplier must be able to identify every orchard whose fruit may be in a pack.
2. Every pack shipped from New Zealand on a particular pallet must be identified against that pallet in electronic records.

The key to the whole process is that every pack of kiwifruit has its own individual batch identifier in the Application Identifier (AI) 10. This number is unique to a season and gives ZESPRI access to information on the orchard the fruit came from, the path through ZESPRI's supply chain and, where customers practice inventory management as per the European Food Safety legislation, right through the customers supply chain

**Figure 1 Label Key**

- A – Class and Class Code
- B – Variety and Variety Code
- C – Count and the actual number of fruit in this pack
- D – Grams and the weight range of fruit in this pack in grams
- E – Size and the size code for the fruit in this pack
- F – Grower Code
- G – Barcode
- H – Barcode Human Readable with Application Identifiers (AI's) indicate the following: AI 01 (county code, company code and pack code), AI 10 (unique pack batch identifier)
- I – Packhouse area
- J – Produce of New Zealand
- K – Barcode with AI 412 (location identifier)

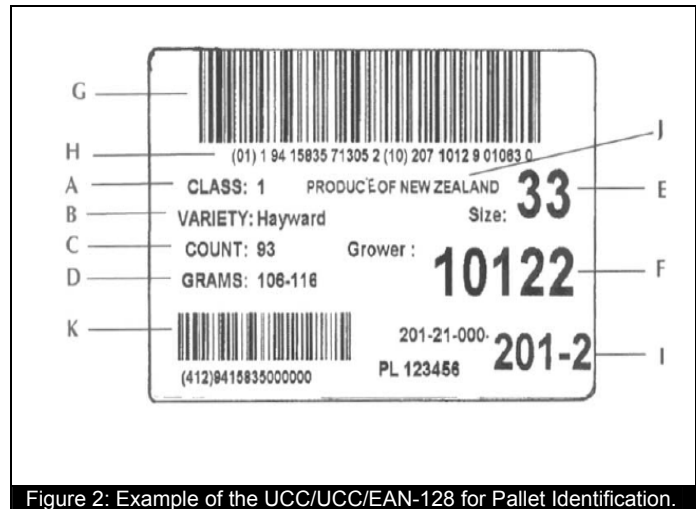


Figure 2: Example of the UCC/UCC/EAN-128 for Pallet Identification.



Figure 3: UCC/EAN-128 on Carton

While the solution may seem simple ZESPRI has gone through a complex consultation with stakeholders, and a number of trials both onshore and at its fruit handling operations in Europe. The formation of a steering committee, research, limited trials, a phased approach, site visits etc. have all contributed to the success of this project

### **Benefits of UCC/EAN-128**

ZESPRI is has already seen the benefits of implementing the EAN.UCC System in both its onshore and offshore operations. These include:

- Increased accuracy in labelling of product.
- Identification of product when pallet cards are lost or damaged.
- Improved responses to wholesale customer concerns on fruit quality.

### **Contact Information**

ZESPRI International Limited is the largest exporter of green and ZESPRI™ Gold kiwifruit in the world. The company consists is owned by its 2,500 New Zealand based growers. In 2004, the company recorded net sales of NZ\$911 million, up 6% from the previous year.

For more information on ZESPRI's UCC/EAN-128 project please contact [una.catley@zespri.com](mailto:una.catley@zespri.com). The EAN.UCC System serves over 1 million companies worldwide and 1 billion shoppers each day. For more information about Fresh Product Traceability in New Zealand, please contact EAN New Zealand at [ean.nz@ean.co.nz](mailto:ean.nz@ean.co.nz)