Rothex

Traceability of eggs has never been easier than with GS1 standards

Challenge
Though Rothex had a traceability system in place, it did not help solve for the determination of batch sizes when receiving eggs from supply farms. There were neither standardised spreadsheets, records nor labels.

Solution
Rothex now has a traceability system that leverages GS1 standards to uniquely identify the eggs by lot/farm and pallet. Each pallet of multiple lots of eggs is identified with a GS1 Serial Shipping Container Code (SSCC) that in encoded with the lot identifiers in a GS1-128 barcode. By扫描ing the barcode, the company can easily identify the different lots or farms from which they came.

Challenging distribution of eggs
Rothex is an Argentinian company that produces, packages and distributes eggs. With several of its own points of sale in the country, the company wanted to develop a significantly improved traceability system for its storage and distribution processes. Yet, a major challenge was how to determine the batch size. Many farms supply Rothex with eggs that tend to be in heterogeneous quantities that generate a mixed distribution of eggs in differently sized trays.

To solve this issue and improve its stock handling system, Rothex turned to GS1 standards to help track and trace its egg products with an accurate and real-time methodology. They learned about GS1 standards by attending a regional Traceability Workshop in 2020.

Benefits
- New work culture and methodology
- Exchange and integration of knowledge of several areas that encouraged global teamwork in the company
- Lower administrative costs because of reduced time searching for information
- Knowledge of the location of products
- Improved stock management system

Implementing GS1 standards
The project started with a review of the receiving, packaging, storage and expedite processes. As part of this review, the Rothex team implemented the accurate identification of all traceable items, which was possible through the collaboration of several departments such as Production and Quality Assurance. Next, the team uniquely identified lots by using serial numbers that allowed them to know which batches were “mixed” based on the origin of each egg.

Rothex assigned Global Trade Item Number (GTINs) encoded in EAN-13 barcodes and ITF-14 barcodes to uniquely identify their egg products. As they were packed in pallets, a GS1 SSCC encoded in a GS1-128 barcode was applied on dispatch units.

The team also incorporated Excel-based registration forms at critical points in their traceability system, developed a recall procedure and established a risk committee.
**SSCC: Key to the solution**

Here’s how the SSCC identifier helps to trace batches of eggs back to their different production locations. Consider that there are three farms (called “lots”) that supply eggs.

- Lot 1 supplies 10,000 eggs, Lot 2 supplies 9,860 eggs and Lot 3 supplies 12,340 eggs—all in heterogeneous quantities.

- Lot 1 eggs enter the process first and begin to fill the boxes. There are 35 eggs in each box and every pallet can handle 240 boxes. So, every pallet contains 8,400 eggs.

- Pallet 1 consists of 8,400 eggs, all of them are from Lot 1; there are 1,600 eggs of the 10,000 total eggs remaining.

- Pallet 2 collects these 1,600 eggs plus 6,800 eggs from Lot 2 to complete the 8,400 egg pallet, and so on.

- Each pallet is identified with an SSCC code that contains the different lot numbers making up the pallet.

Depending on the entrance sequence to the process, a register of how lots are used can be created. If a recall procedure is needed, Rothex knows from which SCCCs the pallets that contained the eggs from certain farms were created.

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**About the organisation**

Rothex is an Argentinian company that produces and distributes high-quality food. Currently, its main business is the production and commercialisation of fresh table eggs, using the highest quality raw materials and advanced technology. [www.rothex.com.ar](http://www.rothex.com.ar)

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**Teamwork and efficiencies**

By exchanging ideas and integrating knowledge, Rothex’s teamwork has set a precedent for further work in future projects. The company has a new work culture and methodologies.

With the adoption of GS1 standards, Rothex also has an improved stock management system, which has resulted in lower administrative costs due to a reduction in time searching for information.

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