Case Study

GS1 DataBar applications from around the world

GS1 DataBar is a new bar code that can deliver enhanced product identification at retail point-of-sale (POS). It has unique features that open up new opportunities for retailers and manufacturers today:

- It is smaller – up to half the size of the existing standard GS1 bar codes used at POS in the retail sector globally. Many smaller consumer products which previously could not be bar coded, such as fresh produce, cosmetics and pharmaceuticals, can now enjoy the same benefits from bar coding as the majority of products do today. It also allows more space on packaging for branding and regulatory requirements.

OR

- It is able to encode additional product information such as weights, expiry dates and prices. Currently, only basic product identification can be encoded in a bar code scanned at retail POS.

It is currently being trialled and implemented by retailers and manufacturers throughout the world as demonstrated in the following case studies.

1. Implementing GS1 DataBar with fresh produce in Canada

Introduction

Loblaw Companies Limited is Canada's largest retailer with more than 1,000 corporate and franchised stores. The company ships on average 26,662,929 kg (1,900 truck loads) of fresh produce per week.

In 2007, Loblaw engaged in a limited implementation of GS1 DataBar with specific suppliers of apples and bananas. Following the success of its initial implementation, the company decided to expand the use of GS1 DataBar to all of its fresh produce.

Significant benefits

The company has recognised the following benefits from using GS1 DataBar on fresh produce:

- Improved accuracy and speed at the retail POS for fresh produce by eliminating Price Look-Up (PLU) number entry errors by cashiers
- Improved accuracy and speed at self-checkout
- Reduced shrinkage
- Improved stock control by better differentiation of organic and conventional produce
- More accurate product replenishment
- Improved supplier identification.

During the implementation, Loblaw found that the scanning of GS1 DataBar had not been an issue for its cashiers provided the codes were printed within specification and the produce bags that were used did not impair the ability to read the new bar code. Self check-out customers also preferred the process of scanning fruit and vegetables using GS1 DataBar labels.

Traceability of fresh produce within the company has also been enhanced following the implementation. The company achieved improved supply chain efficiency through the use of GS1 DataBar labels on its fresh produce.

Conclusion

"*The benefits of implementing GS1 DataBar will truly be achieved when all trading partners are aligned to a single solution for fresh produce. This is why it's so important that all retailers engage in a GS1 DataBar implementation program*," says Eric Biddiscombe, Senior Director Planning, Produce Business Unit, Loblaw Companies Ltd.

2. Keeping sushi fresh by the hour in Japan with GS1 DataBar

Introduction

In Japan consumers are generally frequent food shoppers and are therefore very particular about freshness and quality of fresh produce. As a result, retailers have been encoding additional data, such as expiry dates, in bar codes for some years, often using different carriers such as GS1-128 or additional EAN-13 symbols.

In 2008, two leading Japanese retailers, Bunkado and Beisia, conducted GS1 DataBar pilots to take advantage of its ability to encode additional data such as expiry dates and hours in a single bar code symbol using the existing GS1 Application Identifier (AI) standard. Both retailers used similar data in the pilot: the GTIN (Global Trade Item Number) or internal product identification numbers, mark down pricing information and the *expiry date and time* AI.

Freshness check at the shelf

Sushi carrying sell-by hour

Yogurt with GTIN and markdown

Significant benefits

During the pilot, staff prepared take-away meals in-store with lunch boxes and side dishes such as sushi and sashimi prepared two or three times a day. Many of the items had a short shelf life with some kept for less than 24 hours. The freshness of the products were checked regularly so that discounts could be given to products that were approaching the end of their shelf life in order to promote sales. This discounts were done by printing and applying a new GS1 DataBar Expanded label to the product. The discount information, either as a percentage or fixed amount, was encoded into the symbol. Cashiers were then able to scan the discounted product quickly and accurately at POS instead of manually keying in the information.

Staff were also able to easily remove any products that had passed the expiry hour or date whilst they were checking the product freshness. The retailers also configured their POS systems so that any products which were scanned after their expiry hour or date were rejected. The checkout staff would then be alerted to sell a fresh replacement product instead.

Conclusion

Following the success of the trial, Bunkado and Beisia have started implementing a similar mark-down process using GS1 DataBar on other products, such as milk, yogurt and tofu (products with relatively short-shelf lives).

3. The Dutch DIY and gardening sector find potential benefits in GS1 DataBar

The Do-It-Yourself (DIY) and gardening retail sectors in The Netherlands have been quick to see the potential of GS1 DataBar. Following the initial focus on getting ready to scan GS1 DataBar across the supply chain, strong interest has been shown in specific applications areas where significant benefits could be achieved.

The two largest DIY retailers in the Netherlands (and Belgium where they also operate) have been researching the possibility of using GS1 DataBar on loyalty cards.

In addition, gardening retailers and nurseries have been exploring the use of GS1 DataBar to identify flowers and plants and their cutting or release date from the nursery. Plants from different dates are usually sold together at the same price, yet different cutting dates mean they grow and then wither at different times. By encoding the cutting or release date within GS1 DataBar on plants using the *production date* AI, retailers will be able to offer discounted prices on older items. This will ensure improved customer satisfaction and could encourage the sale of older plants.

4. Tracing fresh produce in Chile with GS1 DataBar

Introduction

The requirement for product identification and traceability in the food industry has become essential, particularly for a leading exporter such as Chile. Major international buyers of food, especially fruit and vegetables, are now insisting on the use of GS1 DataBar to identify and trace produce throughout the global supply chain. At the same time, the arrival of new international retailers into Chile has caused the domestic retail industry to become increasingly concerned about international standards, fuelling further interest in all GS1 standards.

Implementing GS1 DataBar on fresh produce

Many exporting fresh produce companies in Chile including Del Monte, Greenvic, Tuniche, Geofrut, Magna, Rucaray, San Clemente, Frusan and CyD y Copefrut are now printing and applying GS1 DataBar labels as part of their normal production processes. As with other fresh produce companies throughout the world, they are using the GS1 DataBar Stacked Omnidirectional symbols to encode a product's GTIN (Global Trade Item Number), together with a human readable PLU (Price Look-Up) number. Many of the Chilean exporters have been working with Sinclair International, one of the world's largest suppliers of machinery for labelling fruits.

The two leading grocery retailers in Chile, Cencosud and DyS, are currently involved in advanced GS1 DataBar trials with their suppliers and preparing their POS scanners to be ready for GS1 DataBar.

Conclusion

The initial interest in GS1 DataBar has been in enhanced identification of fresh produce. However, Chile's retailers have also recognised that GS1 DataBar could be used to provide the sector with far greater traceability of all food products. Retailers have also expressed strong interest in the identification of variable measure produce such as meat, chicken and fish.

5. GS1 DataBar coupons and fresh produce identification lead the way in the US

The US was an early adopter of GS1 DataBar, with two particular applications taking off – coupons and fresh produce.

Growing uptake of GS1 DataBar coupons

The Joint Industry Coupon Council (JICC) which includes leading manufacturers, retailers and trade associations continues to support the move to GS1 DataBar and estimates that more than 75% of manufacturer coupons issued now have both the UPC-A and GS1 DataBar symbols.

As different manufacturers determine that enough of their retailers' systems are ready to scan GS1 DataBar on coupons, the manufacturers will remove the UPC-A symbol and rely solely on the GS1 DataBar Expanded symbol for POS and clearing house scanning. The UPC-A bar code is expected to be removed by January 1, 2011.

Retailers and their solution providers are currently modifying POS software to process data from GS1 DataBar on coupons and will perform extensive testing before deploying the software and going live at the store level.

Implementing GS1 DataBar on fresh produce

The implementation and use of GS1 DataBar with fresh produce continues to expand in the US with leading supermarkets such as Wal-Mart, Kroger, Winn-Dixie and Publix either scanning fresh produce items with GS1 DataBar or notifying their suppliers to be ready to provide products with GS1 DataBar soon. According to Sinclair International, 60% of loose apples and pears and 50% of all loose tomatoes are now bar coded with GS1 DataBar in North America.

While the initial applications were with loose produce such as apples, pears, peaches, tomatoes and nectarines, there has been recent interest from grape and cherry suppliers to apply GS1 DataBar symbols on their bags to meet retailer requirements.

Conclusion

US retailers that have not implemented GS1 DataBar yet are in the process of researching its use on fresh produce. It is expected that they will begin upgrading their systems and advising their suppliers to use GS1 DataBar before it becomes a global, open standard in 2014.

For more information on GS1 UK log on to
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