Application Case Study – Wayne E. Bailey

Fourth-Generation Sweet Potato Supplier Incorporates Traceability System in its Packing Line for PTI Compliance

Produce Traceability Initiative (PTI) Picks Up Steam As Large Retailers Announce Adoption

The Produce Traceability Initiative, or PTI, is an industry-led effort to improve traceability throughout the produce supply chain in North America. Initiated in the late 2000s in an effort to enhance the safety and security of fresh produce, the PTI outlines the key steps that growers, packers, shippers, and retailers can take to implement case-level electronic traceability from the field to the grocery store.

The PTI draws from established GS1 standards to maximize the effectiveness of current traceback procedures while developing a standardized industry approach to enhance the speed and efficiency of traceability systems for the future. The voluntary initiative has been used as a model in the development of proposed traceability regulations for the U.S.'s Food Safety Modernization Act (FSMA), set to take effect in the next few years.

Recent announcements by several major U.S. retailers that they will require vendor compliance starting in 2014 sends a strong message to the industry that the PTI is gaining traction. More and more produce companies are taking steps to comply with the milestones of the initiative, which are intended to protect both consumers and vendors by limiting the scope and cost of recalls. By adopting the PTI, many of these producers are also realizing benefits ranging from improved inventory management, to higher process efficiency, to enhanced customer insight.

Pack codes are scanned with QX-830s to confirm product type. This data is used to generate PTI-compliant labels.

Fourth-Generation Sweet Potato Company Has Tradition of Innovation

The Wayne E. Bailey Produce Company, of Chadbourn, NC, has a long tradition of adopting new ideas and technologies. Started in 1935, the family-owned producer of sweet potatoes has played a key role in transforming the vegetable from a seasonal item to a year-round favorite through innovative marketing and new technologies to support the needs of its customers. The first to introduce electronic sizing to the sweet potato industry in the 1980s, the customer-focused company continues its legacy of innovation with a state-of-the-art facility that uses advanced technology to provide cleaner, safer sweet potatoes with longer shelf lives.

■ **Requirement:** Meet all requirements outlined in the Produce Traceability Initiative (PTI) for standardized labeling and electronic recordkeeping.

■ **Project:** Implementation of traceability system to meet current and future requirements of the PTI.

■ **Solution:** Microscan partner RedLine's Packing solution incorporating Microscan's QX-830 barcode reader.

■ **Result:** Increased labeling accuracy, traceability throughout the packing line, and compliance with the PTI.

MICROSCAN®

The Challenge

When a key retail customer adopted the PTI, Wayne E. Bailey (WEB) recognized the need to implement a system in its packing operation to ensure that it was in compliance. The sweet potatoes were already traceable by an internal process which utilized an ink roller to apply a lot number and product size to each box that was recorded in the company's inventory management system. However, compliance with the PTI required the company to adopt the standardized labeling format and electronic recordkeeping requirements outlined by the initiative. The solution would need to be able to accurately identify as many as 14 to 15 different product sizes during a production run without impacting the production rate or requiring major changes to the process.

Expertise Ensures Smooth Implementation Process

WEB turned to Todd Baggett, founder and CEO of RedLine Solutions for assistance with PTI implementation. Recognized as an expert in produce traceability, Baggett has been an active participant in the PTI for many years and serves as co-chair of the PTI Technology Working Group. A Microscan Partner, RedLine provides inventory control and supply chain traceability solutions for produce growers, packers, and shippers. "Todd was instrumental in the process," explained WEB Operations Manager, Adam Wooten. "He knows all about the PTI, about scanning technology, and how to solve the challenges that we had."

The RedLine Packing solution was integrated into the company's existing grower accounting and inventory management system - a key advantage, according to Wooten, over stand-alone systems. The solution included both software and hardware technology, including automated label applicators and barcode readers, to meet current and future requirements of the PTI while maintaining WEB's high production rate of more than 700 cases packed each hour.

The Packing Process

Sweet potatoes are delivered to the company's packing facility in wooden bins. A label on each bin describes the product variety, state, grower, and quantity in both human readable and barcode format. These bins are emptied into a conveyor system and conveyed onto a grading table where they are manually graded and then sorted by size before being boxed in 40 lb cartons.

More than 700 cases of sweet potatoes are packed each hour in Wayne E. Bailey's Chadbourn, NC facility.

Before each run, a "pack code" label is manually applied to the boxes, identifying the lane number that the box will be packed on. The product size is entered into the software system, associating a product to the lane. Once filled, the pack code on each box is scanned with a Microscan QX-830 laser barcode scanner to confirm the product type, ensuring that each box receives the correct label; if the QX-830 reads the wrong code, the incorrect product is removed from the line. This data is used to generate a PTI-compliant label, which identifies the product by both text and a GS1-128 formatted barcode with the company's GTIN (Global Trade Item Number). An automatic printer applicator prints and then applies a label to each case.

According to Baggett, the QX-830 was selected for the project for its ability to meet the speed requirements of the line and its industrial design that enables it to operate continuously in the dusty bin dumper environment. "It is also a very cost-effective scanning solution," states Baggett. The QX-830 features Ethernet connectivity, which facilitated integration into RedLine Packing's existing Ethernet TCP/IP architecture.

The cases are palletized based on grade and size and tagged with a run pack number, which is also generated by the RedLine Packing system, enabling traceability at the pallet level. At the end of each day, all labels from the wooden bins that the sweet potatoes arrived in are scanned into the system and associated with the day's run.

MICROSCAN®

The Result

Since the system was incorporated in January of 2012, Wayne E. Bailey has experienced the benefits of increased labeling accuracy, traceability throughout the packing line, and the assurance that the company is in compliance with the PTI. True to its forward-thinking legacy, the company is fully prepared as new customers adopt the initiative, and the flexible system ensures that it will continue to be as the company grows. WEB's next steps include plans to incorporate the RedLine software package into its cooler operation to achieve order fulfillment validation and real-time shipping transactions.

Wayne E. Bailey continues to lead the sweet potato revolution. "With the positive press sweet potatoes have been receiving (as a superfood)", states company President George Wooten, "we see tremendous growth ahead."

OVERVIEW

- **Customer:** Wayne E. Bailey
- **Industry:** Food & Beverage
- **Application:** High Speed Reading of Linear Barcodes to Meet PTI Traceability Requirements.
- **Product:** Microscan QX-830 Industrial Laser Scanner
- **Reseller/Integrator:** RedLine Solutions, Santa Clara, CA

Microscan's QX-830 Industrial Laser Scanner features high performance decode capabilities, a rugged housing, and Ethernet protocols.

MICROSCAN®