

July | 08



Item-Level Traceability

Leger & Son Watermelon Case Study

YottaMark Knowledge Paper #2/08

Abstract

HarvestMark® is the fresh food traceability solution from YottaMark®. The successful implementation of HarvestMark by Leger & Son, a leading watermelon grower/shipper in the Southeast, enabled them to provide instant trace-back and to deliver new levels of product information to their retail produce buyers and consumers. This case study describes how Leger & Son implemented the HarvestMark solution and its experience with item-level traceability.

Copyright © 2008 by YottaMark, Inc. All rights reserved.

No part of this publication may be reproduced in any form, in an electronic retrieval system or otherwise, without prior written permission of YottaMark, Inc.

While every possible effort has been made to ensure that the information herein is correct, YottaMark, Inc. disclaims all liability for any errors or omissions, and is offered without warranty as to fitness for a particular purpose or any other matter.

Trademarks belong to their respective owners.

Introduction

The increased attention to food safety practices in the produce industry, and a recent recall of Honduran cantaloupe melons, has led the melon industry to look for enhanced traceability solutions and an improved way to communicate effectively with buyers and consumers. The desired solution must be easy to deploy across multiple growing locations. The solution must be cost effective for large and small operations alike, and be easy to operate so that reliable operation can be achieved without extensive, recurring training.

In this paper we share the learning of Leger & Son, a grower/shipper, who implemented HarvestMark item-level traceability on its watermelons in May 2008 for its '08 harvest.

When deployed for melons, the HarvestMark solution gives every individual melon a unique identity code, provides the grower a simple way to attribute harvest information to that code, and creates an online portal for access to that harvest information in a controlled fashion. For growers and packer/shippers considering traceability options, this case study provides unique insight into a real deployment.

The Industry Problem

Traceability – the ability to determine the harvest and important food safety information for a product – has received a great deal of attention in the produce industry recently, and will attract greater scrutiny as industry and regulatory agencies urgently look for improved ways to prevent, respond to and minimize the impact of produce recall events. Implementing traceability beyond a single enterprise, however, has often been considered complex, expensive, and overly burdensome for the produce supply chain in general.

The challenge for melon growers, in particular, is that harvest seasons are short, harvests can span multiple operations, and packing facilities are often low-capital operations. Installing large numbers of case labelers or scanners and training operators in their use is financially impractical. Furthermore, the product is often co-mingled or removed from the case before the point of purchase – potentially undermining case identification-based solutions.

Leger & Son's Solution

A family business, Leger & Son was built from hard work and dedication. C.M. (Buddy) Leger started growing and shipping watermelons throughout Georgia and Florida in 1965. Learning the business from the ground up, Greg Leger, the current president, grew up picking and packing. His years of experience and dedication led to the company becoming one of the leading grower/shippers in the southeast with seasonal offices in Immokalee, FL, Arcadia, FL, Cordele, GA, and Butler, GA – and a

Red Book Business Character Award Winner. They continue to expand, recently adding shipping points in both Texas and Indiana.

Greg Leger planned to implement item-level traceability. As a member of US Senator Isakson's Agriculture Advisory Committee and director on the Georgia Fruit and Vegetable Growers Association Board, he had a deep understanding of the challenges the produce industry faced in enhancing food safety and building consumer confidence. Greg felt a solution should not only solve his traceability problem – but also enhance his brand and communicate the passion he has for growing safe, tasty, healthy melons. With seven growers spread across two states, Leger & Son also needed a solution that would be simple to deploy – and cost effective.



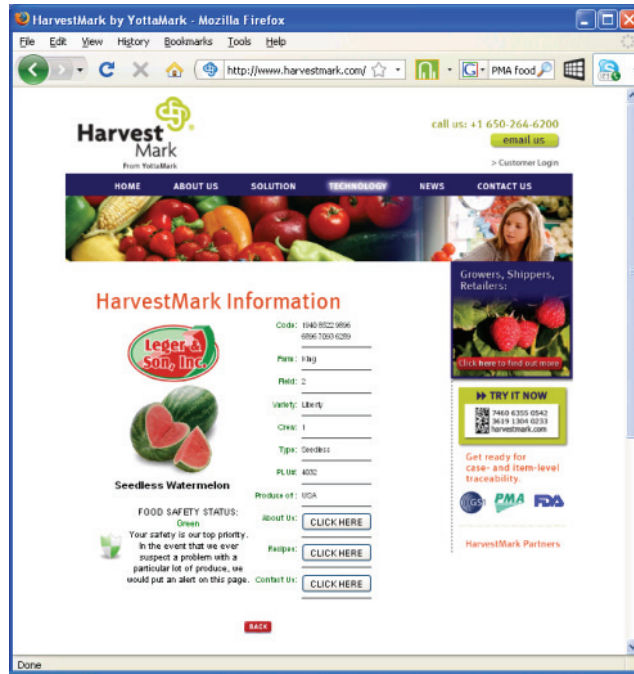
Leger & Son turned to Label Technique Southeast, Inc. for a solution. Florida-based Label Technique Southeast is a long time supplier of labels to the produce industry, and a reseller of the HarvestMark traceability solution.

“Enhancing the connection with the end customer is a key priority for any brand owner,” said Joan Wallace, president, Label Technique Southeast, Inc. “HarvestMark can offer a produce brand owner a unique, competitive edge in the market, and we were thrilled to work with YottaMark to bring HarvestMark to Leger & Son, and provide them the benefits and opportunities of unit-level traceability.”

Label Technique Southeast modified Leger's PLU labels so that each carried a unique HarvestMark code. The code is printed in human readable text, and also as a machine readable 2D datamatrix, and includes a website address (www.HarvestMark.com) for checking the code.

Leger & Son setup a PC with the HarvestMark software used to upload harvest data for the coded labels, printed out HarvestMark Harvest Forms, and plugged in a flatbed scanner. That was it. Greg now had the item-level traceability he wanted. The implementation of the traceability system was a matter of hours.

When a produce buyer or consumer enters a code from a label at the HarvestMark.com website they are led directly to information about that specific watermelon including variety, where it was harvested, food safety notices, and other valuable product information. Whatever data the grower chooses to collect is securely stored in the HarvestMark datacenter, and can be delivered and formatted to the user, based on who they are. For example, an end consumer will see a different view of the data than a food service buyer or a USDA inspector. This way grower/shippers can release commercially confidential information on a strictly need-to-know basis.



“The integration of HarvestMark augments our ongoing food safety program and opens new channels of communication with our retail partners and consumers,” said Greg Leger, “Providing the ability for each of our watermelons to be instantly traced back to source of origin, as well as deliver marketing information to consumers is of tremendous value in educating the public on the health benefits of watermelons and continuing to raise awareness of our brands.”

Easy to Implement

One of the benefits of the HarvestMark solution was how easy it was to deploy. As an on-demand hosted solution, Leger & Son got started on day one without installing and supporting costly hardware and complex enterprise software. All they needed was a supply of HarvestMark coded PLU labels from Label Technique Southeast, HarvestMark Harvest Forms, and a standard flatbed scanner plugged into a web-connected PC.

Leger & Son implemented the HarvestMark software on a couple of laptops, enabling them to move it between its seven packing sheds in the Southeast U.S., following the harvest season. The system was quick to install and required only minutes to train workers at each packing facility. The solution integrated with Leger’s current packaging process with no negative impact to packer productivity, and without the need to add technology in the field. The patent pending Harvest Form meant that Leger & Son did not need to deploy scanners, printers or computers in the field or packing sheds.

And consumers did connect with the brand. Soon after deployment, with no additional marketing, Leger & Sons customers began entering codes to trace produce – some providing quality feedback that could be matched with harvest data.

What's So Special about HarvestMark?

Superficially, putting a code on a label and associating it to harvest data doesn't sound that difficult. Why are growers like Leger & Son choosing the HarvestMark solution? The HarvestMark solution has been built over four years of focused research, development, and customer dialog to provide:

1. *Ease of implementation.* We discussed above how the Harvest Forms and mobile systems made it so simple for Leger & Son to cost-effectively deploy item-level traceability across their seven packing facilities in just one day. The HarvestMark solution comes with significant 'back end' intelligence so that operator training is kept to a minimum. HarvestMark is ready to go on day one.
2. *Resistance to errors.* HarvestMark codes are not sequential. In fact, if you looked at a roll of HarvestMark coded labels, you'd see they appear completely random. This provides two important benefits. First, it makes label deployment in the field simpler, as the grower doesn't need to keep track of label rolls or worry about using rolls in a particular order. Second, it dramatically reduces the chance of an end user getting what's called a 'false negative'- where they get the wrong harvest data if they mistype a code. Because HarvestMark codes are not sequential it is very unlikely that a mistyped code will result in a valid response ... instead the system prompts the user to check that they didn't make an error.
3. *Reliability and security.* YottaMark, the company that developed and built the HarvestMark system, has years of experience in developing and deploying very large scale, highly secure item-level identification solutions. YottaMark has issued well over a hundred million secure codes, and has had solutions running continuously for over 2 years without a hiccup and maintenance free. YottaMark builds and maintains the datacenters that ensure that growers' data is securely held and instantly available, 7 by 24.

Conclusion

Traceability is critical to narrowing the scope (and hence financial impact) of a food safety event. The efforts of industry and trade associations have greatly improved the accuracy and speed of trace back and recall.

The HarvestMark solution has proven itself simple to deploy, quick to implement, and extremely cost effective. This makes it ideal for everyone from large scale brand owners with multiple sites to small independent grower/shippers.

In the event of a recall, item level traceability can result in faster, more-precise trace back, and can allow unaffected growers to communicate their product's safety to the consumer or purchaser - placing the commodity on a rapid road to restored consumer confidence. It is practically impossible to eradicate contamination of fresh produce in a globalized system. However, a combination of improved preventative methods, standards, widespread adoption of traceability, and instant access to relevant data will reduce their frequency and impact; and will restore consumer confidence across the whole industry.

Several leading solution providers to the produce industry have invested in becoming HarvestMark solution providers – combining HarvestMark with high-speed variable data printing, label delivery and logistics, and in-field support to deliver traceability to their customers. Label Technique Southeast, Inc. is a HarvestMark partner and is well positioned to deliver HarvestMark item-level traceability for a wide range of applications.

“HarvestMark just makes good sense”, wrote Greg Leger in an email to us. “If there is any issue with our product, either quality or health we can trace almost immediately. My opinion is: the sooner the industry embraces this technology the better for all. Doesn't matter if there is an issue with my product, my neighbor's product, or my competitor's product, the sooner we can isolate the issue the less devastation we will see as an industry.”

“It is ... highly recommended that the entire watermelon supply chain be completely traceable by instituting item-level traceability.”
Bob Morrissey, Executive Director National Watermelon Association, Inc.

About HarvestMark

More than ever before, consumers want to know that their food is safe and fresh, and where it comes from. Produce buyers choose suppliers who have strong food safety and traceability programs. We believe that when your brand demonstrates the connection between freshness, safety and trust, everyone wins. HarvestMark provides solutions for case- and item-level produce traceability, whether field packed or line packed.

HarvestMark is the food traceability solution from YottaMark, Inc. YottaMark provides the most secure and simple to deploy unit-level brand security and real-time channel intelligence solution in the market. YottaMark's powerful technology platform delivers effective product authentication and unit-level traceability to help brand owners increase consumer trust, build new levels of channel intelligence, and drive sales.

YottaMark's security codes are now protecting millions of dollars of branded goods. Leading companies in the fresh produce, electronics, and consumers packaged goods industries rely on YottaMark to increase security in the channel and inspire trust in their brands.

YottaMark is a privately held company headquartered in Redwood City, Calif. More information can be found at www.YottaMark.com.

About the Author

Dr. Elliott Grant is the Chief Marketing Officer at YottaMark. He is frequently invited to speak on traceability and product security, and sits on the standards setting committee for product security in the semiconductor industry. He was recently recognized as one of the 'Top 40 Under Forty' in the produce industry by Produce Business magazine.