

Traceability – How Effective Is Your System?

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By William R. Pape, AgInfoLink Global, Inc., Phaedra Culjak, Culjak Consulting and Mark Armentrout, AgInfoLink Global, Inc.

The cost to the U.S. bagged spinach industry for not being able to quickly pinpoint the source of the O157:H7 e coli contamination has been estimated to be at least \$150 million. And that cost doesn't include future PR costs to counter the extreme, adverse publicity specifically for California spinach. Another question is industry; how many dollars of positive publicity does it take to counter \$1 of negative publicity, and what dollar value would you put on the negative publicity the bagged spinach industry has received to date?. And it doesn't count the cost of defending against the class action lawsuits that seem to be sprouting up.

Would traceability have prevented the outbreak? Maybe, but probably not. What's certain to us, though, is that a solid traceability system would have dramatically shortened the investigation and solution cycle for this latest food safety outbreak. Instead of this problem continuing to loom over the entire industry for almost a month, effective information and traceability systems for both the FDA and private companies could have reduced to hours or days the time this problem was on the front page. A shorter investigation and resolution cycle would certainly lessen damage to the category, the brands, and the companies ultimately found to be involved.

So, how effective is your company's traceability system? In this column we're going to share some lessons from recent traceability installations at medium-sized meat plants to assist you evaluate your company's current traceability system and what, if anything, can be done differently.

But Aren't I Covered Today?

Much confusion surrounds traceability. Most companies in today's regulatory and commercial environment believe they have a handle on traceability. We're sure the California produce companies most recently in the news believed they were covered. Unfortunately, events have proven otherwise.

Here are some key questions;

So, how do you go about evaluating how good your current traceability system is?

And if you find it lacking, how do you cost-effectively fix it?

What are the right solutions for your organization?

If you want to beef up your system, do you start with a pilot project or scale the system up very quickly?

Do you wait until the technology works itself out or become an early adopter that may reap much of the reward and possibly some of the growing pains?

Start Within Your Four-Walls

In addition to discussion about the role of traceability in food safety, there has been much discussion about the importance of traceability for improving supply chain visibility and adding value to individual companies and an entire supply chain. We're certainly one of these voices. However, after nearly a decade implementing traceability solutions, we've become convinced that when a company wants to either review their existing traceability systems or begin to put an effective system in place for the first time, the place to start is by focusing exclusively on your own operation – to stay within the four walls of your operation.

Select the Right Guide

Once this limited scope has been set, the next step is to have an experienced business and technology analyst that specializes in traceability solutions review your systems. Finding the right expert is critical. The Agri-Food industry has enough distinct characteristics that distinguish it from other manufacturing chains,

Ask questions.

So you want to make sure you select an expert who understands both the agronomic process and possibilities, as well as the food processing, distribution and retail side.

Can this person be in-house? Possibly, but you want someone who understands the new regulations as well as the potential opportunities traceability can create.

You'll also need to identify the traceability champion within your operation to whom the third-party traceability expert will report. It's unlikely that your company has a VP of Traceability, so selecting the right reporting point is critical. This isn't just about quality control, either as traceability systems, as discussed below, has a major corporate, strategic impact. So, think carefully about the reporting point for this third-party. A possible entry point is either the VP of Operations or even possibly the CEO or CFO themselves.

During the traceability review, the third-party traceability experts will study your farming, your logistical, and your manufacturing facilities to "take inventory" of your physical and business processes within your four walls, as well as how those processes interact with your technology systems. They'll be looking at how identity is maintained across major transformations (e.g., wheat to flour to dough to buns) as well as transformations within the plant's four walls (e.g., from large field bin through sortation to various accumulation bins and ultimately into cartons). They'll be looking not only for potential gaps in your current traceability procedures and also for opportunities to enhance your company's operation by utilizing the traceability methodology as a corporate problem solving tool. Each of these reviews we've done has unearthed areas of improvement and areas of opportunity.

Understand How Traceability Can Truly Help

Traceability is a methodology, not a single solution. It delivers a wide range of benefits to a company. The first benefit from traceability is bolstering a company's food safety program and speeding-up recalls. Although the spinach industry might disagree, we believe limiting traceability to this role sells traceability short. Traceability in this food safety role will allow a company to meet the record-keeping requirements in the new FDA bio-terrorism regulations that have just come into effect (FTR June, July and August Traceability Toolbox columns). And it will be a very cost-effective insurance policy for the company in speeding up food safety investigations. However, traceability can be much, much more.

The second traceability role is to assist provide the information needed to better manage product flow. Once there is a system in place within a company to reliably track the movement of product from the receiving dock, through sorting, binning, processing and packout, then the company has a very powerful and very straight-forward method of solving a wide range of corporate problems.

By automating data collection, making data collection an automatic by-product of daily operations, inter-connecting previously unconnected data systems, and by linking the information from different systems across product transformations, a clear picture can be generated of the company's true operations.

For example, when we install a traceability system in a meat processing plant, the typical, initial objective is to ensure the tracking of animals, from the entry into the plant, through initial break-down into primals, to the fabrication of individual cuts, packaging and to the point of shipment. This type of traceability installation is designed to provide an inventory management decision support system, tracking the sources of products, the products, their age and location. The immediate benefits can be significant.; better management for pricing of inventory that is aging, better overstock identification, and knowing in near real-time which products are in high-demand

and low quantities. A manager now has better visibility on production schedules and tools to manage more efficiently and less loss of perishable product.

This isn't the end to the benefits a company can realize once they have this "traceability highway" in place. By measuring production and sales outcomes within the four walls of the plant and connecting these results with different incoming product lots, answers can be found to such questions as "Which of my suppliers give me the most profitable yields?", "Which suppliers are creating the equipment setup logjams?", and "How can I improve my Return on Net Assets (RONA) for the plant by improving plant throughput?". Answering these more strategic corporate questions is traceability's third role.

Moving beyond the Four Walls

There are greater benefits over time when the opportunity search is expanded and a company's broader supply chain is analyzed. The same meat plant can now provide private branding, label claim validation and quality information back to producers on specific animals so they can improve their animal management practices. Sharing production outcome information back to producers serve the interest of the plant provide producers with the information they need to effectively manage the upstream process with the result the plant gets more consistent incoming product. Plant managers can even generate a P&L on each incoming animal to identify where the most (and least) profit occurs.

Begin With the End in Mind

Even though traceability can be used as a methodology to solve a wide range of corporate issues, a company must pick one specific area/issue to begin their traceability journey. While this first project will create the highway upon which future projects can be based, it must stand-alone on its own economic merits. Given the costs of recent food safety incidents and given the new FDA regulations, it may even be sufficient to use these objectives as the initial traceability focus. We urge you to not stop there. Once the basic system objectives are met, it is time to leverage the same infrastructure and investment to improve overall operations by integrating more information sources to generate actionable information.

Make Sure You Have Flexibility

A good traceability system will be flexible enough to allow for collection of new and/or changing data types, the ability to expand for the future and capabilities to integrate with other systems including accounting, back office and ERP systems, as well as new hardware technologies such as RFID, Bluetooth, Zigby and other technologies.

But Don't Get Bugged Down With Technology

The last thing any company should be doing today is getting bogged down in a technology argument about which auto-identification technology is "the best". As we've noted many times, each auto-ID technology (barcode, passive RFID, active RFID, etc.) has its own strengths and weaknesses and needs to be evaluated on the basis of the type of cost-effective traceability highway you need for your company. What you want to encourage is selecting technology in a way that makes economic sense. Avoid at all costs the "all or nothing" game (either we do a full RFID implementation or do nothing). Sometimes it makes sense to roll out a complete system with RFID but in other instances when the cost/benefit ratio is analyzed, it can make sense to utilize existing technology within the facility such as barcodes that can work effectively or can be part of the initial integrated system. Remember, the different types of technology are tools and can be put together in such a way that would allow a migration path to a full RFID traceability system rather than an initial roll-out that would require a considerable capital investment.

What Are Your Next Steps?

Given recent events, the time for planning and implementing traceability systems is now not later if your company is to remain competitive in a global economy. We liken the recent spinach incident to a high-stakes game of musical chairs. Last month, the music stopped and this time it

was the spinach industry's turn to be left standing and take the hit. The music has now started once again. Who will be left without a chair when it next stops?

Further information can be found at www.aginfo.com, www.culjakconsulting.com or other organizations working in the traceability field
