



Looking to the cloud for real-time produce visibility

As consumer demand for fresh produce grows, so do the distribution challenges for suppliers and retailers. Third-party logistics specialists with advanced produce monitoring and tracking capabilities can help ease the pain.

BY JIM MCMAHON

CONSUMER DEMAND FOR MORE WHOLESOME, NUTRITIOUS, AND convenient foods continues to fuel the expansion of fresh-food options at retailers. Witness the explosive growth of prepared chilled foods, encompassing soups, salads, sandwiches, entrées, sauces, and beverages, with food retailers supporting this trend by providing an ever-widening array of new selections. But as popular as these chilled prepared foods are, it is fresh produce that is the biggest draw for consumers both in stores and in foodservice venues.

According to the 2018 *U.S. Grocery Shopper Trends Report*, sponsored by the Food Marketing Institute (FMI), 80% of respondents ranked high-quality fruits and vegetables as the most important attribute when selecting a primary grocery store. Compare this with 53% of respondents who indicated that freshly prepared deli foods were their prime draw.

Clearly, fresh, quality produce is top of mind with health-conscious consumers. And particularly with millennials who, according to the USDA's Economic Research Service, devote a larger percentage of their grocery bills to fruits and vegetables than Generation X and baby boomers. Indeed, fruits and vegetables are not only healthy options, they can often be consumed with minimal to no preparation, which fits into the lifestyle of all age groups.

Food retailers and foodservice providers, in response to the growing



demand for fresh foods, have expanded their fruit and vegetable offerings to provide a higher-quality product, with a particular focus on organic and locally grown produce.

This market trend is supported by the recently released *Power of Produce 2019*, sponsored by FMI. According to Rick Stein, vice president of fresh foods at FMI, “The study suggests a need for a renewed focus on strategies for continued growth, including organic, locally grown produce; value-added produce for time-starved customers; produce-based beverages; and private-branded produce.”

But prioritizing quality in produce extends beyond offering organic and locally grown options. Food safety and the ability to track and trace fresh produce lots in the supply chain is more critical than ever in maintaining produce quality.

As expressed by Ed Treacy, vice president of supply chain and sustainability at Produce Marketing Association, “I don’t care if you’re shipping to a small convenience store, a one-store grocery chain, or to Walmart, everybody growing and packaging fresh produce should be doing it properly from a food-safety perspective. Traceability is part of all food-safety programs and practices.”

PRIORITIZING QUALITY ASSURANCE IN PRODUCE INSPECTION

Providing this higher quality of produce within retail stores is necessary to remain competitive in retail food markets, but maintaining this requires prioritizing quality-assurance inspections at the retailers’ receiving distribution centers.

Most produce inspections within distribution facilities are still conducted with paper and spreadsheets, with workers manually recording lot and case numbers, temperatures, and product damage, and taking photographs with cell phones. All of which is then manually entered into a database and emailed, or otherwise transferred between interested parties (suppliers, retail and foodservice operators, and distributors). The process is labor intensive and time consuming. Produce has, by its very nature, a short shelf life. Anything that delays fresh fruits and vegetables from reaching retailers’ shelves quickly adds to the “spoils.”

Produce suppliers and retailers are finding it necessary to interact with new technology in the supply chain. Compliance with food-safety regulations, an increasing need to manage produce quality in the supply chain, and demands for tracking product movements in real time are driving them to seek new solutions. These include embracing real-time cloud-based visibility of the produce quality,

inventory, and movement, from producer to final delivery at the retailer. Automating the inspection process, accordingly, affords a higher guarantee of produce quality.

REAL-TIME CLOUD-BASED PRODUCE INSPECTION IS KEY

To meet these heightened requirements, retailers are increasingly turning to third-party logistics service providers (3PLs) that offer temperature-controlled distribution services. However, not all 3PLs have the facility, experience, or operational agility to track the movement of produce in the supply chain with real-time cloud-based visibility. Of those that do, even fewer have the facilities to provide quality inspections of produce shipments in real time, directly linking the visibility of the product quality with the supplier and retailer.

One 3PL that is uniquely equipped to provide the latest technology in real-time cloud-based produce inspection is Burris Logistics. A fifth-generation family-owned enterprise, Burris operates a network of temperature-controlled warehouses and distribution centers from Massachusetts to Oklahoma, and as far south as Florida. The company provides logistics, transportation, and supply chain solutions, coast to coast, encompassing custom distribution, refrigerated warehousing, freight management, and foodservice redistribution.

In brief, Burris focuses on highly customized services for retailers and club stores. It is continually expanding its suite of custom services to support its temperature-controlled offering to food-industry retailers. Supporting this is Burris’ commitment to cloud access to its analytics at all points within the ordering, fulfillment, and delivery functions. These “edge input” points integrate with the company’s ERP (enterprise resource planning system), WMS (warehouse management systems), and shipping programs to deliver an Industrial Internet of Things (IIoT) cloud-enabled capability for its customers. This capability enables it to access ordering, fulfillment, and shipping information anytime, anywhere.

When integrated with produce inspections for its retail customers, this highly connected capability permits a level of flexibility and outcomes that exceed industry benchmarks for supply chain visibility and retailer control over the inspection process. Providing clear product-quality insights to both vendor and buyer in real time simplifies and speeds up an already complex and time-consuming process. Informed and documented business decisions on produce quality, and its acceptance or rejection, can be made quickly

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between retailer and supplier, resolving perishable quality issues before the produce reaches the retail stores.

SUPPLY CHAIN VISIBILITY

Quality assurance in produce inspection starts well before the load arrives at the distribution center.

“From the supplier to the buyer, and ultimately to the recipient of the produce at the retail level, our customers are able to see, track, and trace the product by case as it comes through the supply chain,” said Ed Krupka, chief information officer at Burris Logistics. “If a load of strawberries is coming from California to one of our distribution centers on the East Coast, in real time the supplier can see exactly what we are seeing as we are unloading the truck and capturing data relating to temperature, quality, and quantity of product. At the same time, the intended recipient of the load, the retailer at the other end of the supply chain portal, can see exactly what we are seeing.”

Although complete supply chain visibility via the cloud is a capability shared by many temperature-controlled distribution facilities handling produce, making this information available to its retail customers in real time is not. Burris, however, provides a comprehensive supply chain portal to help retailers manage their inbound and outbound shipments, and do demand planning.

“The company recently developed a customer-specific produce inspection application within its supply chain portal to help with the processing of inbound produce inspection for its customers,” added Krupka. “This allows for real-time sharing of information, pictures, grading, and feedback for all fresh produce being brought into its buildings and facilitates clear, concise, and immediate feedback between shippers and receivers.”

MULTIMODAL FLEXIBILITY SIMPLIFIES PRODUCE INSPECTIONS

Produce distributors are beginning to employ software applications that permit product data to be manually input into a mobile device as the produce is being inspected in the distribution center, with cloud connectivity for real-time sharing between parties. Although this is an obvious

improvement over clipboards and Excel spreadsheets, it still requires manual data entry and independent uploading of produce images (photographs) from an external device, like a cell phone, all of which is time consuming.

State-of-the-art systems like the one deployed by Burris do away with all that. “The platform that Burris chose for our produce inspections is one that Honeywell developed specifically around inspection types of applications,” Krupka said. “It is a multimodal platform that permits interaction with the system via voice, touchscreen, and typing. This data is being uploaded to the cloud as it is being entered in real time.

“As the inspectors are going through the produce inspection process, they can use a headset to listen to options but also tap on the screen to input information,” Krupka explained. “Or they can speak something, then read the screen to see what they have just recorded. The system permits a tremendous amount of flexibility for inspectors to input and verify inspection data.”

The device used by inspectors to record information is like a miniaturized tablet that has an onboard camera that syncs directly with the recorded data. So the photographed images are time/date stamped in direct reference to the produce item being inspected.

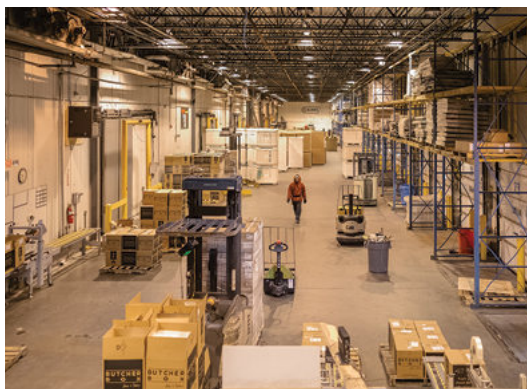
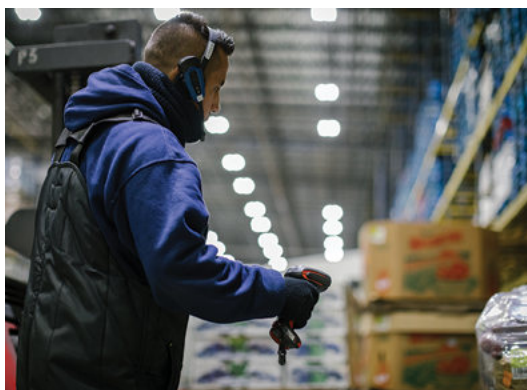
Off-color produce, bruising, damaged packaging, stacking shifts during transport, mold decay, temperature, serial number, other electronic data on the temperature recorder ... all of this information becomes immediate-

ly visible to interested parties that have access to that particular purchase order in real time.

ENSURING AVAILABILITY OF QUALITY PRODUCE

Logistics technology transforms not only the way Burris manages temperature-sensitive products, but also the way it fulfills the needs of its customers, company leaders say.

The sooner an inspector knows about the quality of a produce load and the issues that need to be resolved, the more latitude he has to seek out alternative solutions. That extra time gained may be just enough to source product from another supplier, keep his inventory stocked, and stay one step ahead of his competition. □



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