

Produce Distribution Is Entering The Information Age



Mobile technology and hand-held devices will bring transactions and traceability into real-time.

BY BOB JOHNSON

The demand for quick and accurate traceability to contain food safety threats opened the door for greater use of computer technology in produce distribution. With that door ajar, the information revolution is on the verge of bringing change to produce distribution so quickly, it's difficult to estimate the impact technology will have even a few years from now.

"I would be hesitant to make any predictions," says Ron Myers, executive vice president of LinkFresh, Ventura, CA. "Technology moves so fast it's hard to say what will be available in five years, or even in 18 months."

New software is expected to bring greater control over produce inventory, more reliability in filling orders, an increased ability to forecast consumer demand, unprecedented information about how the fruits and vegetables are grown, and the ability to see how all this information fits together.

"There will be better communication between producers, packers, and wholesalers, so they will know the stage of the produce," says Myers. "There will be better whole chain traceability."

But the great change in produce distribution begins with the development and use of portable devices and software that take technology out of the office and into the places where the action really happens — terminal market stalls, distribution centers, sales' smart-

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— Charles Waud, Waudware

phones and farmers' fields.

NO LONGER TIED TO A DESK

A new generation of mobile devices promises to put the most sophisticated distribution software in the hands of not just the main office and sales staff but also truck drivers and warehouse workers.

“We’re doing a lot more with warehouse management,” says Dave Donat, president of Produce Pro, Woodridge, IL. “You will see more automated traceability in the warehouse.”

A dazzling assortment of sturdy, user-friendly devices will support entry of high technology into the world of eighteen-wheelers, produce coolers and distribution centers.

“There are scan guns, but there are also wrist-mounted devices and even ring-finger scanners,” says Donat. “Voice activated is also becoming more popular. The devices are getting better. They are more durable and more ergonomic.”

Everyone in the supply chain will be able to access the same information about where you can find how much of a particular produce item, *without* having to go to or call the office.

“You won’t be tied to a desk,” says Donat. “People want to be able to use their phones or tablets. You will see a lot of the new things

in the area of mobility.”

Voice recognition hardware and software, in particular, lend themselves to maintaining up-to-the-second inventory information that is accessible to everyone in the supply chain.

“Voice recognition software is not prevalent in the produce industry,” says Carl Davies, chief executive at Prophet, Bakersfield, CA. “It gives you live, up-to-the-second inventory management.”

Without a system that records changes in inventory as they occur, the information can easily be enough out of date to make a difference.

“We found there are very few live systems,” says Mick Heatherington, vice president for sales and marketing at Prophet. “There might be a one-day lag on the information, or it might even be until the end of the week.”

Mobile technology should allow everyone from farm to fork to record and access information instantaneously, without ever having to print a document.

“Handheld devices allow transactions to be made in real time,” says Charles Waud, president of WaudWare, Brampton, Ontario. “This means users making inquiries have more accurate and up-to-date information. Hence decisions can be made faster, and with more

precise information. Posting transactions after the fact, for example by printing paper forms, filling them out, keying them later when there is time is going to be replaced by real-time data entry because of mobile devices.”

Shippers, wholesalers and distributors are becoming aware that a new world is about to be opened up by portable technology. “People know they need to do it, but they don’t know *what* they need to do, says John Carpenter, president of Silver Creek Software, Boise, ID. “There will be more use of iPad applications, so sales people will be able to pull up information in the field.”

DO YOU KNOW WHERE YOUR PRODUCE IS?

Traceability in the case of recalls is the most immediate benefit from produce distribution software, but next in line could be easy access to information about inventory, including produce that hasn’t even been harvested.

“Software can help produce companies obtain accurate information on what has been purchased, packed and sold, as well as up-to-the-second inventory information that can be beneficial in many ways,” says Waud.

One advantage from this inventory information should be fewer mistakes filling orders.

“It will pay off in greater accuracy,” says Donat. “You’ll be sending the order to the right place. Inventory flow will be better.”

Not only will produce go to the right place, but distribution should also be in greater synch with consumer demand when shippers, wholesalers, and retailers all have access to the same big data about sales trends.

“Planning what to purchase by studying purchase history and sales information allows companies to know what they need to keep in stock,” says Waud.

Big data might also help distributors know what alternatives consumers are likely to buy when a certain produce item is in short supply.

“Tracking substitutions allows the software to make suggestions when you are low or out of items in demand,” says Waud. “Accurate quantity information allows you to prevent overselling, and to know when to suggest substitutions.”

But distribution software programs will also be integrated with programs that detect subtle changes in consumer preferences.

“We’re going to see more use of big data,” says Myers. “There will be information on what consumers are buying and on the trends.”

This information will help identify the produce items consumers are buying, and in what form, in order to integrate produce distri-

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duction with the entire business plan.

“They will be much more connected to their customers’ needs,” says Carpenter. “They will be able to predict the products, sales trends, and how much [product] will be organic or conventional. There will be a lot more integration of Enterprise Management Programs with the warehouse management systems that have delivery tracking programs.”

Software that helps follow produce from field to fork should also let consumers use their smartphones to know more about where and how their fruits and vegetables are grown.

“There will be more information on outputs from the harvest to the wholesalers or packing lines,” says LinkFresh’s Myers. “We will be able to see the water and fertilizer that was used, the way it was grown.”

The day may not be far off when consumers can gather this information for themselves with their smartphones as they walk through the produce department.

“We will see more wireless connectivity of devices,” says Myers. “We’ll see more smart labels and smart tags.”

Bulk produce will always be more difficult to follow in this way than product that is packaged close to the field.

“I can put a sticker on a box of cucumbers, but when they dump that box of cucumbers into a bin, I can’t follow it,” says Steve Dean, owner of ProWare Services, Plant City, FL. “If you get into packaged products like bagged salads, it’s easier to do. With bulk products it’s not practical. I don’t think we will ever be able to do it, because retailers like to display produce in bulk. A clamshell of strawberries in a cooler works really well, but a clamshell of apples in a cooler isn’t going to go very well.”

The future could still hold the promise, however, of being able to access more information about where and how produce was grown, when it was harvested, and where it has been in transit.

“The biggest thing is going to be following the produce from where it is grown to where it is now,” says Dean. “You have to be able to gather information at the time of harvest that has to be followed from the first handler of

the product. If I had to guess —we’re 10 or 15 years from a simple system that can do that.”

THE PAYOFF MAY BE SURVIVAL

For some mom-and-pop businesses in the produce distribution chain, the efficiency that comes with using the right software could pay off in survival.

There are many third- and fourth-generation family operations in the business of produce distribution with a couple trucks and a modest stall at the terminal market facing the prospect of competing with some of the largest corporations in the world.

“The Amazons and Googles are spending millions on their wholesaling technology,” says Myers. “The small family businesses are seeing increased competition with smaller margins.”

Access to cloud-based technology that is rented by the month, with a financing model the same as with utilities like the electric company or the water and sewer agency, may be the only way these smaller companies will survive.

“The secret weapon is deploying the technology,” says Myers. “There is more employment of cloud-based technology. People will buy use of the technology like they do electricity.”

Because mom-and-pop operations do not have an IT department, or vast sums to invest in distribution software, financing of the technology will have to be suited to use by small businesses.

It is all but impossible to avoid inefficiencies without a modern system of inventory management.

“You might be sending the highest quality product to a customer who doesn’t need it,” says Prophet’s chief executive Davies. “Everyone in the supply chain is finding a more competitive environment. You need to find a good match up of the product and the orders.”

The new age of produce distribution may not have room for the kind of supply chain sloppiness that makes it easy to send produce that is a little riper or of slightly higher quality than a customer needs.

“Ten years ago in the produce industry,



This can be complex, which makes it essential to know and be able to trust the software provider.

“Anyone who is trying to achieve accurate lot control will need to look at their software and processes,” says Waud. “They should look for systems from companies with strong industry knowledge who have worked with other produce companies.”

The right system should begin with the ability in recall situations to identify only the lots that are potentially contaminated.

“Recalls are becoming more common, and if you have automated traceability, you can be more targeted,” says Produce Pro’s Donat.

Produce distribution software has its roots in the need to do recalls quickly and efficiently, but the supplier should be able to guide users to all of the new possibilities.

“Working with technology companies that sell, support, and, of utmost importance, understand computers and software in the produce industry,” says Waud, “will play a big role in helping realize these improvements.” **pb**

wholesalers were making good enough margins that if inefficiency in inventory management cost them 2 or 3 percent it didn’t really matter,” says Prophet’s Heatherington. “Now, with the squeeze on the margins coming from the retailers, you have to be efficient. With the information available you can make better decisions, and that means better margins. You can add two, three or even five percent to your margin.”

Much of tomorrow’s distribution software is already available and waiting for shippers and wholesalers to use it.

“There are very few holes in the systems,” says Myers. “What is missing is the adoption rate. A lot of the farms are multi-generational family operations.”

Even fairly large shippers or wholesalers generally have information systems that were put in place decades ago.

“A lot of produce companies have legacy systems that have been in place a long time,” says Heatherington. “When you try to make change it breaks down empires within the company. People’s jobs change, or go away. Chief executives try to avoid the disruption. The change must be driven from the executive level.”

Pressure on wholesalers and shippers to enter the computer age will probably come from retailers who are concerned about traceability and food safety concerns.

“We think the retailers are going to do what they did in Europe, which is to force traceability and food safety,” says Heatherington.

One of the side effects of this European change, according to Heatherington, is that 70 to 80 percent of the produce is packaged, and a similar change could be coming to the United States.

“There are costs involved in adopting the technology; there are disruptions in your system,” says Davies. “The payoff time depends on the level of inefficiency you have. We’ve seen businesses that have paid it off in 12 months.”