



Whether by increasing inventory turns or compressing order cycle time, food companies are looking for ways to reach maximum speed.

FAST FOOD

SCM FEEDS THE NEED



by Leslie Hansen Harps

The food business today “is a bigger, faster, quicker business,” notes Keith Pittman, senior vice president of operations for Ben E. Keith Foods, Forth Worth, Texas, an innovator in food wholesaling and distribution. The full-line foodservice distributor was founded in 1906 to bring fresh produce items to frontier Texas.

Ever since then, Ben E. Keith Foods has leveraged new ideas and technology to improve service to its customers in Arkansas, Kansas, Louisiana, Missouri, Tennessee, New Mexico, Colorado, Oklahoma, and Texas.

“Customers today seek suppliers that can rapidly respond to such things as menu cycle changes, increasing consumer demands, and new product introductions,” Pittman says. In addition, customers — particularly large ones — who decide to change suppliers want to be able to seamlessly make the switch in less than two weeks.

Take the multi-unit customer that recently transferred its business to Ben E. Keith. Using a template that enables it to swiftly transition business from other distributors, the company was able to set up, source, obtain, and transport 100 proprietary items for its customer in 15 days.

Customers are also looking for speedy and timely deliveries. “Our restaurant customers are holding inventories down to a minimum level,” Pittman points out. They expect products to be delivered on time, every time.

Ben E. Keith, in turn, expects its suppliers to deliver on time, as expected. “We must be confident that the day our last case ships out, our vendor will arrive with replacements,” Pittman says. Such reliability is crucial in Ben E. Keith’s just-in-time world.

“It’s not unusual for us to receive a product at 4 p.m. and pick and ship it by 5:30 the same day,” he explains. To handle its current and expected growth, the company is growing its distribution network.

Ben E. Keith operates six distribution centers — three in Texas, and one each in Arkansas, New Mexico, and Oklahoma. The company’s new Arkansas DC opened in September 2002, and one of the Texas facilities, located in San Antonio, was recently expanded from 120,000 to 250,000 square feet.

The distributor’s largest facility, located in Fort Worth, was built five years ago to consolidate three other facilities. “Those DCs were landlocked and pretty much obsolete as far as technology was concerned,” Pittman recalls. They had also been added on to several times, and looked “like patchwork quilts,” he says.

“We knew we needed a more robust warehouse management system to help drive efficiencies within the building, control the inventory within the four walls of the warehouse, track every case in the warehouse — and do it fast.”



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Ben E. Keith Foods

Ben E. Keith turned to Kom International, a supply chain and logistics consulting firm based in Montreal, to design the new 400,000-square-foot state-of-the-art facility. It features an advanced warehouse management system (WMS) and slotting tool, and radio frequency-directed putaway and replenishment. “We’re also currently developing a labor standards management system,” Pittman says.

The Ft. Worth DC has very narrow aisle areas where small cube, slow-moving items are stored. “They’re picked in waves of routes, rather than by each individual route, which is much more effective,” Pittman says.

The facility is designed according to velocity, with higher volume items located at the beginning of the order picking path. For maximum efficiency, the warehouse is re-slotted on an ongoing basis.

“We look at the movement, cube, and velocity of items and rearrange items almost on a weekly basis,” he says, cutting travel time and keeping productivity high.

The DC uses a WMS from Manhattan Associates, Atlanta. “We didn’t have

time to develop our own WMS for this facility,” Pittman notes, “so we decided to buy an outside package.” Since the DC opened in 1999, Ben E. Keith’s MIS department has developed its own warehouse management system, KWCS (pronounced “quicks”), which is being rolled out to the distributor’s other DCs.

Both the proprietary and packaged WMS are achieving great results. “Inbound receiving and putaway has tripled, replenishment is handled on time and more accurately, and cases per hour have doubled,” Pittman says.

More new distribution centers are in the works, with new facilities planned for Oklahoma City and Amarillo. They’re all part of Ben E. Keith’s strategic plan, which was developed about a year ago when the company’s top executives met with a consultant to design a strategic plan for the next seven years.

“We felt that all we did was put out fires and react to changes instead of initiating them,” Pittman explains. The new strategic plan “gives us a road map for the future, and it’s working very well.”



FRESHER, FASTER, AND FEWER

Food companies are using increased delivery frequencies, smaller orders, and faster order cycle times to keep costs low while meeting customer and consumer demand for fresh food, says Allan Kohl, managing partner of Kom International, a Montreal-based global logistics and supply chain consulting firm. Kohl identifies the following key trends in food logistics today:

- **Increased focus on freshness** in fruits, vegetables, and meat cooler items, which must be turned over quickly to maintain quality.
- **Proliferation in fruit and vegetable product variety**, with increased demand for "organic" product. This requires proper segregation in the DC as contamination between product types is a consideration.
- **Increased attention to maintaining the "cold" chain.** "Many coolers are re-introducing the 45-degree room in addition to the 55-degree and 35-degree wet and dry storage areas," Kohl notes.
- **Impact of country of origin labeling and segregation** on storage and handling of perishables. Meat is also affected by country of origin labeling, with proper control and segregation required in the distribution center.
- **Emphasis on "picking to zero" on product received the same day.** This may be achieved through dock distribution or cross-docking or through the "reverse line pick" concept, where product is received and distributed directly into store staging locations on the shipping dock. "Handling is minimized, and inventory turns are excellent," Kohl notes.
- **Increase in specialty meat cuts.** Often the picking requirements are ordered from the supplier to arrive just in time for the selection shift, and are picked to zero the same day, Kohl says. He cites the case of one company whose specialty meat vendor backs up to the DC trailers of product required for the evening shift, and order selectors pick directly from the trailers to begin their order.
- **Increased centralization of product distribution** to retail, through the main DC. "A growing number of companies now handle product that was previously handled via

Direct Store Delivery," Kohl says. "This typically reduces store level inventory and simplifies accounts payable reconciliation." In addition, store scheduling activities are simplified, as there are far fewer

trucks competing for unloading during the course of the day. The key to efficient integration is receiving the DSD product in a crossdock mode so that it moves directly to a store staging area and bypasses the materials handling and storage system in the box. Supplier compliance with delivery schedules and order quantities are a key factor for successful operations. "With DSD volumes added, fewer stops per trailer are achieved, and in many instances it becomes economical to deliver to stores more frequently," Kohl says. This, in turn, may result in smaller order quantities for products on a more frequent basis, further driving down store shelf inventory levels.

- **Changes in food distribution centers.** Physical layouts and materials handling concepts are evolving to reduce labor and improve throughput. "Storage heights of 40 feet are now considered conventional systems," Kohl says. Inventory can be maintained in close proximity to the pick locations for faster replenishment. European-style moving mast trucks are being adopted to achieve load capacity at the higher lifts. In addition, aisle widths are becoming larger in order to reduce the congestion that can occur as pick labor hours become more concentrated, requiring more operators in the aisles at the same time. Triple pallet jacks are beginning to be used to pick larger quantities before a return trip to the dock is required. This improves productivity and speed. Layout and dock clearances, however, must be adjusted accordingly.
- **Increase in outsourcing.** "Many companies are closely evaluating and outsourcing part or all of their distribution activities to 3PL operators or wholesalers," Kohl says. While the justifications for doing so generally are strictly financial in nature, "the more sophisticated service providers may also be able to offer faster cycle times and responsiveness due to their economies of scale and handling systems," he says.

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STEPHANE PICARD, Vice President, Minerva U.S.A.

MINERVA BRINGS IT TOGETHER

Minerva U.S.A. Inc., the North American subsidiary of a leading olive oil manufacturing and trading company, had to move quickly when it landed a major club account at the end of last year. The new account is expected to triple the volume of Fort Lee, N.J.-based Minerva, a subsidiary of Minerva S.p.A., Genoa, Italy.

The company had six months to procure the raw materials, manufacture the product, finalize packaging and labels, make all logistical arrangements, import the product, and begin shipping it to the new account.

Recognizing that its customer was taking a risk by using a single supplier to produce and deliver a large volume of private-label olive oil, Minerva sought to design a logistical solution that would deliver the highest levels of service at the lowest possible cost. “We knew we could not find ourselves in an out-of-stock situation,” says Minerva vice president Stephane Picard. “Yet we could not spend a lot of money on logistics.”

The company examined all logistical possibilities, including shipping product direct to the club account’s distribution centers, and evaluated a range of distribution networks with different DC combinations. Minerva, which had historically worked with a freight forwarder, carrier, and multiple warehousing providers, “knew we had to get organized in a totally different way, and began thinking about an integrated solution,” Picard explains.

After evaluating several logistics providers, Minerva selected USCO Logistics, a subsidiary of Kuehne & Nagel International AG, to manage storage, shipping, and delivery to the club account’s facilities via truckload and LTL distribution. Kuehne & Nagel manages all aspects of the import transportation, U.S. customs brokerage, and container delivery to the USCO distribution centers. All products arrive for storage at the USCO DCs in ocean freight containers.

Minerva’s outsourced distribution

network includes one distribution center each in Miami and Portland, Ore., plus two DCs in California. The four DCs, which serve nine customer warehouses, will soon be joined by a fifth facility, located in New Jersey.

Working with a single provider has helped streamline Minerva’s logistics process. “Instead of talking to five companies with five systems and five cultures, I talk to one,” Picard says. “It’s very harmonized, and has saved us a lot of time and hassle.”

7-ELEVEN GETS FRESH

Known for its Big Gulp® and Slurpee® beverages, 7-Eleven Inc. has expanded its food offerings to include a proprietary line of daily-prepared and daily-delivered deli items and baked goods. 7-Eleven’s new sandwich line, introduced last year, was recognized by the American Tasting Institute, earning the 2002 Gold Medal Taste Award in the pre-made cold sandwiches category.

“We see fresh food as a key differentiator between us and other convenience stores,” notes Simon Osborn, managing director of logistics for 7-Eleven. “Anybody can sell cigarettes and beer, but not everyone has the necessary infrastructure to successfully sell fresh food.”

Dallas-based 7-Eleven considers fresh food to be bakery, grill products, sandwiches, dairy, and bread. In addition, the company uses its fresh daily delivery infrastructure, which includes 22 Combined Distribution Centers (CDCs) to deliver non-food products when it provides value to the stores, according to Osborn. CDCs are strategically located to be an hour or less away from the stores they serve.

“Our locations tend to be urban, so the CDCs are centrally located in urban areas,” he explains.

Before it established the CDC network, 7-Eleven had two main ways to get product to stores: use a food wholesale distributor — Texas-based McLane Company Inc., which continues today to deliver grocery items and cigarettes

directly to the stores — and a direct-store-delivery (DSD) network. Packaged products came through the national DSD network. Local DSD suppliers provided fresh product to small groups of stores, delivering sandwiches to 15 or 20 stores in a market two or three times a week.

To improve service, quality, and control, 7-Eleven developed its own fresh food network nearly 10 years ago. Today, in addition to the CDCs, this distribution network includes 10 bakeries and 11 commissaries, which make sandwiches, breakfast sandwiches, and salads. The network services 4,700 stores with 365 deliveries a year. Replenishment is based solely on demand from the stores, which place individual orders by 10:30 every morning.

“The orders are consolidated and brought into the host system, then sent out to our suppliers,” Osborn says. Commissaries, bakeries, dairy and bread suppliers have already started preproduction by 11 a.m., when they receive their daily orders. Orders are manufactured and delivered to CDCs between 3 and 6 p.m. each evening.

12-MINUTE DELIVERIES

At the CDCs, orders are broken down by store, piece-picked at the store level, then loaded onto trucks for delivery between 9 p.m. and 5 a.m. To minimize disruption to customers, “we deliver to our stores at off-peak hours,” Osborn says, when there are fewer customers in the store. “We use 20- to 24-foot vehicles so a large vehicle doesn’t fill up a small parking lot.” The average delivery takes just 12 minutes.

“Because we operate with a 10- to 18-hour lead time in a pull environment, we need 100-percent in-stock performance,” Osborn says. “In addition, we have to be on time with each delivery. When the morning coffee rush starts at 4 a.m., we don’t want to deliver at 5:30 a.m. We don’t want customers to feel they can’t rely on 7-Eleven for their morning coffee and doughnut.”



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SIMON OSBORN
Managing Director of Logistics
7-Eleven

All CDCs are operated by third-party logistics providers. “As an organization, we believe in outsourcing,” Osborn notes, in part because the company doesn’t want to own the assets, but also because 7-Eleven believes that suppliers provide significant value through creativity and innovation. Seven third-party logistics providers operate 7-Eleven’s 22 CDCs.

To tap their expertise, the company sets up teams of CDC operators, 7-Eleven staff and others to address specific opportunity areas. The process is modeled on product enhancement theory, according to Osborn, and may involve assembling a team of staff and representatives from multiple 3PLs to look at ways to improve handling or delivery of product.

While the concept underlying its fresh distribution network hasn’t changed much over the past decade, 7-Eleven and its providers continually look for improvements in service, quality, and productivity.

For example, Cardinal Logistics

Management recently opened a new 100,000-square-foot CDC in Fullerton, Calif. This CDC services 700 locations in the Los Angeles and San Diego areas. The facility uses voice-directed technology in the dry and chilled areas to sort and distribute products.

TAKING THE TEMPERATURE

The Fullerton CDC also uses Cold Chain Control technology from FreshLoc Technologies of Dallas to monitor temperatures. Each fresh item that enters the distribution facility is monitored via a network of wireless sensors, which check to make sure that the perishable items are kept to within a degree or two of their optimal temperature. Cardinal’s trucks, which deliver fresh food to 7-Eleven stores throughout South Carolina, are equipped with sensors that continuously monitor and record temperatures in the vehicle.

“It allows us to proactively manage the temperature, take temperature readings, and receive a report if the

system measures any temperatures outside preset boundaries deemed to be unacceptable," Osborn explains.

7-Eleven continues to expand its food offerings. For example, stores in Austin, Texas, are expanding into casual dining, offering customers restaurant-quality barbecue ribs, sandwiches, and chicken strips from Tony Roma's.

The company continues to fine-tune its distribution network as well. In the works are CDCs to serve the Seattle, Portland, and Detroit markets. And all the CDCs and 7-Eleven will continue to strive to deliver fresh foods 100-percent in stock and on time, every time.

SYSCO SERVES UP A NEW SUPPLY CHAIN

SYSCO — an acronym for Systems and Services Company — is a major North American marketer and distributor of foodservice products, generating sales of more than \$23 billion last year. To serve 400,000-plus customers that include restaurants, hotels, schools, hospitals, retirement homes, and other locations where meals are prepared away from home, SYSCO operates nearly 150 distribution facilities.

The company has enjoyed significant growth, and expects sales to more than double over the next five years. To handle such growth, SYSCO realized "we had to bring a little more rationalization into our supply chain, and stave off the increase in footprint of its distribution facilities," notes Bo Wright, director of supply chain for the Houston-based distributor.

Today, each SYSCO operating company orders independently and autonomously. Suppliers ship 90 percent of product flow directly to operating company distribution facilities.

With the new supply chain model now being phased in, high velocity (A) items continue to flow directly from suppliers to the operating companies, while a network of new regional distribution centers (known as Regional Cooperatives) carry B and C items.

The Regional Cooperative concept has been in the works for several years, according to Wright. "It's a huge investment, from a cultural and financial perspective," he says. "We're talking about far-reaching changes in

the way we do business on the supply chain side." Operating companies that have functioned autonomously for decades now work together in a collaborative environment.

Under the new model, the operating companies' orders go to the regional DC, which aggregates the demand against all the operating companies. Instead of each operating company holding safety stock in its distribution facilities, the safety stock is centralized and positioned at the regional DC.

The feasibility phase of the project, which required extensive modeling,

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BO WRIGHT

Director of Supply Chain
SYSCO

took nearly a year. "The foodservice industry is about excellence in delivery," Wright observes. Recognizing that "we keep a customer if we deliver the perfect order," SYSCO has extremely high fill rates, providing next-day delivery for a broad range of SKUs.

"When you start making changes and fiddling with a system that has worked so well in order to increase efficiency and profitability, you have to make sure you don't disturb the value proposition you give to customers," Wright says. So the company has done extensive homework to ensure that the new supply chain model enhances, rather than detracts from, SYSCO's value proposition.

SYSCO has also been very aware of the new model's impact on its suppliers, who have been asked to cut lead time from a week or more to just a day.

"We're the largest customer for most of our suppliers, so we have to be very careful that the changes we push work for them, too," Wright says. The company has an extensive supplier adoption team working to bring suppliers on board with the new process.

SEAMLESS TRANSITION

To ensure a seamless transition, SYSCO is phasing in its first regional DC, scheduled to open in August 2004. "We'll ramp up from one operating company with a few suppliers to all 14 companies with about 50 percent of our volume," Wright says. Additional regional DCs will be implemented once the pilot DC is up and running.

D items — the remaining 10 percent of product flow — will continue to be handled by SYSCO's 10-facility Forward Warehouse Network. Forward warehouses are case pick operations operated by third-party providers. Take SYSCO's warehouse in Fond du Lac, Wisc., which is operated by Ozburn-Hessey Logistics, Nashville.

"The facility acts as a supplier consolidation facility — dry and refrigerated — that brings under one roof the products of more than 100 suppliers (8,000 SKUs)," explains Eugene M. Klein, general manager logistics warehousing for SYSCO. The shipping accuracy as reported by SYSCO is 99.941 percent, Klein says.

All SYSCO operating companies pick up at Fond du Lac, often multiple times a week. "When a SYSCO operating company brings in a full truckload from our facility, it might have several hundred SKUs from many suppliers," says Ozburn-Hessey's Dave Greening.

"This allows the SYSCO operating company to really manage its inventory velocity," he notes. "Some operating companies pull five truckloads a week from our facility, so theoretically they could turn any given item daily."

"Our operating companies realize they have to become extremely adept at increasing the velocity of inventory through their facilities," Wright says.

"We can't continue to grow our footprint. We have to increase productivity and the efficiency we get out of our assets, and take steps to leverage our assets and our people," Wright says. In short, he says, "productivity has to increase faster than sales growth." ■