Fast Growing Fresh Supply Chains Require New Approaches to Delivery

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Consumer demand for more fresh, ready-to-eat products is driving development of new replenishment models based on smaller, more-frequent deliveries, versatile truck drivers and the latest temperature-controlled trailer technology.

The fresh supply chain is one of the fastest-growing sectors of the food industry, driven by consumer demands for grab-and-go, ready-to-eat meals and snacks as well as for fresher and healthier food options. Today, such fresh offerings are sold at a variety of retailers, from convenience stores and coffee shops to special sections within large grocery chains.

Similarly, the market for fresh produce is being impacted by the organic and "locavore" movements. At least during local growing seasons, more of these products are sourced closer to consumption, eliminating some long-haul truck loads.

"Grocery retailers and their logistics partners are leveraging existing capabilities and developing new solutions to respond to these market changes," says Joe Carlier, senior vice president, Penske Logistics. "The goals always are to keep fresh foods fresh in transit and to maximize shelf life with fast and efficient deliveries."

"The consistency with which a product is delivered is incredibly important to food distribution companies, and it is becoming a greater challenge as those in the food and beverage sector move to expand their fresh product offerings," says Andy Moses, senior vice president of global products at Penske Logistics. "The fresh channel has different challenges around fulfillment."

Penske Logistics uses a mix of equipment, technology, and expertise to meet those challenges and to provide reliable, consistent service to its fresh supply chain clients. This begins with selecting the right equipment for each job, which often means switching from over-the-road trailers to smaller, more agile combinations.

Given the short shelf-life of fresh products, having a tractor-trailer deliver every few days "is no longer good enough," says Moses. "Customers want daily or more frequent replenishment."

Smaller trucks are often better suited to such deliveries and provide clients the benefit of lowering fuel spends, adds Tom Scollard, Penske Logistics' vice president of dedicated contract carriage. They also are easier to maneuver in congested, urban areas where many retailers are located. "I believe the days of frequently shipping small quantities over long distances in large vehicles are pretty much coming to an end," Scollard says.

Whatever the vehicle size, customers in the grocery industry demand reliability and consistency, says Chuck Taylor, product

line manager at Penske Logistics. Because Penske engineers and specs trucks for customized usage and follows a rigorous preventive maintenance schedule, truck breakdowns are rare, he says. And real-time communications keep customers informed of any delays caused by traffic or weather. "Drivers report such issues to dispatch using the truck's on-board CellComm wireless device, and customers are immediately notified," he says.

A huge measure of reliability in the fresh supply chain is food quality and safety, which means temperatures in the trailer must be carefully controlled and documented during transit. Penske Logistics equips trucks with on-board, real-time, GPS-enabled temperature tracking technology that monitors and records temperatures throughout a route. These readings are captured and sent via CellComm to Penske Logistics' internal system, and dispatch receives an alert if the numbers start to go out of range. Additionally, drivers check and record trailer temperatures at each stop.

Temperature tracking will become even more important as the Food and Drug Administration (FDA) moves forward with its implementation of the Food Safety Modernization Act (FSMA), says Moses. "FDA is required to issue regulations for the Sanitary Food Transportation Act that will prescribe transportation practices to ensure that food transported by motor vehicle or rail remains safe," he says. "While a final rule is not expected until early next year, the proposed regulations include requirements for maintaining temperature control records."

Penske Logistics in some applications employs 38-foot trailers with two temperature zones for these operations. To gain more flexibility and efficiency in loading, bulkheads are used to separate and adjust zone sizes. For example, one customer that operates a chain of convenience stores has fresh deliveries consisting of such products as pre-made salads, sandwiches and fruit cups. Fresh items are picked up from a cross-dock in bins labeled for each store and loaded into the front half of the trailer, which is cooled to 36 degrees. A bulkhead with an access door is positioned to separate that zone from the rest of the trailer, which is maintained at 60 degrees. Nonperishable shelf products and fresh bakery items like rolls, pretzels and doughnuts are loaded into that area.



Space management on these trailers can be a real challenge because drivers also pick up empty totes and trays from the prior day's delivery, says Taylor. This is especially true early in the route, he says. "Room within the trailer doesn't begin to free up until after several deliveries."

To minimize miles and maximize stops on delivery runs, route optimization software is used. An algorithm sequences the driver's stops, taking into account such factors as traffic patterns, specific delivery windows and curfews. Additionally, many trucks are equipped with geo-fencing technology, which enables a truck's onboard computer to send an email alert to a store when a driver is within a certain range. "This alerts the store personnel to get organized and be ready for the delivery, adding

efficiencies all around," says Scollard. "With the emphasis on freshness, building efficient routes with more stops is the name of the game."

At the beginning of a driver's shift, daily routes and manifests for each stop are pushed to the CellCom device in the truck cab. This device also is used to communicate such status updates as the driver's location, completion of deliveries, and any issues that require noting.

"A driver will use his mobile device to let us know, for example, that a store on his route had been too busy to get empty trays ready for return," says Taylor. "We then inform the next driver that he will have extra trays to collect." This open dialog also is valuable in the case of an emergency, such as a store losing power, Taylor adds. "The driver could respond by delaying that store's delivery until later in his route or temporarily leaving chilled goods in the refrigerated unit of a nearby store," he says.

Such instances point to the need for drivers making fresh deliveries to be flexible and resilient. Drivers also need to have strong people skills, since many clients are requiring drivers to do much more than back a truck up to the dock. In numerous situations, drivers actually deliver through the front door rather than the rear. They wear uniforms and drive vehicles bearing the name and logo of Penske Logistics' customer. This makes them responsible not only for the goods on the truck, but also for the brand reputation of the customer represented.

"This is a new layer of responsibility for delivery drivers and requires a set of "soft skills" that must be incorporated into the driver recruitment and selection process as well as into training programs," says Scollard.

Additionally, stores may have special delivery requirements that the driver is required to meet. In the case of the convenience store chain mentioned earlier, drivers must place fresh products in the store's refrigerated area and arrange bakery goods in a display case, following the customer's planogram. Moreover, drivers often are performing these duties during store hours. Bringing deliveries in through the same door where customers are entering and leaving, and placing product in cases while consumers are shopping, "requires a whole other level of care and attentiveness," says Scollard.

That attentiveness extends to the environment outside the store as well. The restricted confines of a busy retail parking lot are something of a minefield for drivers, who must be cognizant not only of navigational hazards but of shoppers who may be annoyed by blocked parking spaces. "The training we give our drivers in the Smith System of defensive driving is needed in the parking lot every bit as much as on the busy city streets these drivers traverse between stops," says Scollard. "Given what's required, hiring standards for these jobs go well beyond our norm, which already is among the industry's highest."

Scollard says Penske Logistics hand picks only safe, professional drivers with outstanding experience, who have demonstrated the technical skills, safety consciousness, maturity and personality these jobs demand. In-depth personal interviews are a primary screening tool, and provide an opportunity to explain all the job requirements to driver candidates as well as answer their questions. "This process helps us identify drivers with the right personality to deal with such potential challenges as complaints from a consumer in



the store," says Scollard. "Remaining calm and resilient in such situations actually is the type of temperament that would be an advantage in any driving job, but is particularly important when a driver is dealing with our customer's customers."

Once selected, drivers go through a rigorous training program. If a driver is joining an existing operation, the most useful form of training is to pair him or her with a mentor driver, who knows the routes and the customer's requirements. When it is a new customer and a new contract, comprehensive training is required for a full staff of drivers. In these instances, Penske Logistics actually sets up a "practice" environment that mimics delivery conditions at the customer's stores. Drivers come in for multiple sessions to learn how to handle the product during loading and unloading, where to place it in the stores and how to execute any other customer requirement. They also are trained on such issues as monitoring the temperature of chilled products to make sure the quality and safety of food products are never compromised.

"Thorough training ensures that drivers will be prepared on day one to establish a good relationship with store managers and, through them, with the customer," Taylor says. "One of the driver's roles is to improve and maintain that customer relationship. If the driver and the store associate get along, the whole process is a better experience."

Eric Hepburn, vice president of distribution center management for Penske Logistics, agrees. "The driver has a relationship with the store manager that is basically customer service with a delivery attached," he says.

Because of the nature of fresh products, most spend little time in a warehouse, typically being cross-docked for faster handling. However, that does not lessen the key role of warehouse operations in maintaining the integrity of fresh supply chains.

State-of-the-art warehouse management software (WMS) and scanning technology play a key role in traceability and compliance with FSMA regulations. "The FSMA regulations require food warehouses to have a food safety plan in place, while monitoring and tracking temperature and any aberrant events that could cause contamination," says Hepburn. "Increasing demand from both the government and consumers for product traceability and process transparency make the implementation of sophisticated WMS a necessity."

This is particularly critical during the rare event of a food recall. "To prevent consumers from getting sick and to protect their brands, food suppliers need to be able to pull products off of the shelf quickly," says Moses. "The ability to track products throughout the supply chain enables food distribution companies to intercept recalled items before they are delivered, or quickly thereafter."

"Getting cold foods where they need to go in a timely, cost-effective and safe manner requires creating a supply chain where every link is secure and efficient," says Scollard. "The more we establish a system of reliable checks and balances, the better our outcomes will be—and the more satisfied and confident our customers will become."

"There's no doubt that consumers will continue to demand fresher offerings and more grab-and-go options, and that grocers and foodservice providers, in turn, will require greater flexibility and service levels from their logistics and transportation providers," says Scollard. "With years of experience in the food and beverage industries, Penske Logistics is more than ready for the challenge."

