ARE YOU READY FOR THE NEW REGULATORY LANDSCAPE FOR GLOBAL FOOD SUPPLY CHAINS?

The U.S. Food and Drug Administration’s Food Safety Modernization Act (FSMA) is fundamentally changing the operations of food shippers and the logistics providers that support them. Our special report examines industry best practices and expert tips to help organizations better understand the new requirements for enhancing food safety throughout the global food chain.

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Follow Your Vegetables
From Source to Shelf

For food growers, harvest begins in late June and ends in the middle of October. After a long, intense couple of months, Ryder plays a vital role in collecting, processing, packaging and transporting those vegetables from source to shelf. It requires accountability at every step to ensure safety and quality—and Ryder has a solution for every stage of the process.

1. On the Farm
Vegetables are harvested and then transported to the packaging facility.

2. Preparation
At the facility, vegetables are cleaned, graded and sorted according to specific quality requirements.

3. Cooking
Clean vegetables are blanched in hot water.

4. Quick Freeze
Cooked vegetables are individually quick frozen and stored.

5. Packaging
High speed equipment bags vegetables or blends as many as 7 ingredients into entire meals. Packages range from small (8 oz) to large (5 lb) bags. The packaged product is palletized using robots and stretch wrapped prior to shipment.

6. Safety First
Inspection checkpoints take place throughout the entire process. Final inspection by a food safety specialist takes place before shipment leaves.

7. Loading
Packaged vegetables are stacked and loaded onto temperature controlled trucks.

8. On the Road
Chilled, quality vegetables are delivered to grocery and food distributor warehouses; from there to the grocery store shelf and restaurant kitchen.

9. On the Shelf
Ultimately, vegetables processed at our facilities become the cornerstone of healthy meals for consumers.

Dedicated food safety specialists at every Ryder facility!

Ryder facilities meet or exceed all food handling standards set forth by the FDA, FSMA, EPA and other regulatory bodies.

Ryder operates more than 235 facilities with 35+ million square feet of warehousing space.

Ryder’s fleet includes 210,000 vehicles and 3,000 reefers.

1,000 certified refrigeration technicians keep trucks on the road.

5,000+ professional drivers for dedicated fleets

Specialized handling at point of delivery with 99% on-time delivery

Storage temperature at Ryder facilities range from -20°F to ambient
Among the most significant changes under the FSMA is the shift towards preventing food safety problems rather than reacting to problems after they occur. Therefore, tracking and tracing capabilities are more important than ever under the FSMA.

Ultimately, the food supply chain is responsible for ensuring that food is safe for consumers. It’s a responsibility that begins at the farm level and ends at the point of consumption. Maintaining food safety throughout the supply chain therefore involves compliance with numerous regulations, implementing the latest technology tools for tracking and tracing, and applying advanced supply chain strategies in transportation, warehousing and packing to support a safe and secure food supply chain.

The U.S. Food and Drug Administration’s Food Safety Modernization Act (FSMA) was signed into law on Jan. 4, 2011 and represents the most sweeping reform of the FDA’s food safety authority in over 70 years. Among the most significant changes under the FSMA is the shift towards preventing food safety problems rather than reacting to problems after they occur. The FSMA gives the FDA new enforcement authority designed to achieve higher rates of compliance with prevention- and risk-based food safety standards and to better respond to and contain problems when they occur. The law also gives the FDA new tools to hold imported foods to the same standards as domestic foods and directs the FDA to build an integrated national food safety system in partnership with state and local authorities.

Tracking and tracing capabilities are more important than ever under the FSMA. Hardware and software for manufacturing, warehousing, transportation, recordkeeping and monitoring give supply chain professionals better ways to improve food safety. Innovations such as robotic manufacturing, robotic inventory management, Internet cloud-enabled transportation management, automatic guided vehicles and bio-illumination-based pathogen detection are just some of the innovative technologies available today.

Yet, supply chain practitioners are forced to temper their excitement about these innovations by the need to perform a cost/benefit analysis before investing in technology. The rate of scientific progress far outpaces the supply chain’s ability to deploy “best in class” capabilities in restricted time frames. In order to balance state-of-the-art capabilities with economic realities, companies are allocating resources, developing long-range investment plans and collaborating with leading supply chain partners.

The transportation and logistics aspects of any food supply chain are among the most critical functions for supporting and enhancing food safety. Investments in modern, fuel efficient, temperature-controlled equipment and fleets; warehousing and packing facilities; software and technology; and highly-trained personnel are mandatory and sizeable, which is all the more reason to collaborate with the right supply chain partner whose capabilities and network can support and scale with the ever changing needs of the marketplace and your organization.
TAKING A HOLISTIC VIEW OF SAFE FOOD DISTRIBUTION

“Many companies are being proactive and implementing more robust temperature monitoring programs in anticipation of this rule, but also simply as part of their ongoing efforts to ensure the safety and freshness of their products.”

Jeff Leshuk, vice president of strategic marketing and business development for food at Sensitech Inc.

The multi-faceted Food Safety and Modernization Act (FSMA) gives the FDA expanded power to ensure food safety throughout the supply chain. While some aspects of the FSMA are not yet final, many companies are re-evaluating their processes to meet current requirements and be more prepared to incorporate the next wave of regulations. In addition to governmental regulations, suggested Good Manufacturing Practice (GMP) procedures and Hazard Analysis Critical Control Point (HACCP) plans have been developed to help businesses re-evaluate their operations.

For the first time, the FDA has a legislative mandate to require comprehensive, preventive-based controls across the food supply chain. Preventive controls include steps that a food facility would take to prevent or significantly minimize the likelihood of problems occurring. The new law also significantly enhances the FDA’s ability to achieve greater oversight of the millions of food products coming into the U.S. from other countries each year.

Barbara Rasco, Ph.D., director of the School of Food Science at Washington State University and the University of Idaho, thinks there’s a good chance that more players in the supply chain will need to follow the FDA’s HACCP. HACCP, a system of assuring food safety from harvest to consumption, is already required for manufacturers of meat and poultry, seafood, and juice products. Companies must have a written preventive controls plan, according to FSMA guidelines. HACCP addresses food safety through the analysis and control of biological, chemical and physical hazards from raw material production, procurement and handling, to manufacturing, distribution and consumption of the finished product.

“That’s going to reach the (distribution) warehouses as well,” Rasco says. “There’s a huge amount of training that’s going to have to be conducted so companies can comply with these new requirements.”

In addition, U.S. importers will have to show that foreign suppliers are in compliance with FSMA’s requirements. “Importers are going to have to make more trips to foreign suppliers to audit their activities or have people that are going to do that for them,” Rasco says.

According to Jeff Leshuk, vice president of strategic marketing and business development for food at Sensitech Inc., a manufacturer of temperature monitoring systems, “While we will not know the exact details of the final rule until it is released, based on the proposed rule, we can expect requirements for expanded temperature monitoring during transportation and new responsibilities for shippers in specifying transit temperature and in-transit temperature performance recordkeeping.”

He advises that, “Perhaps the most important issue to keep in mind is that with the rapid evolution of both the technology and the regulatory environment, the users of temperature monitoring now are essentially investing in a system and services, not simply a device.”

Temperature monitors use a variety of methods for downloading data via the Internet, Leshuk says. These include USB interfaces that connect to a PC; short- and medium-range radio frequency technologies like WiFi, Bluetooth and NFC, and long-range RF technologies like cellular and satellite communications. When used in the context of a cold chain monitoring program, all of these technologies can...
ARE YOU READY FOR FSMA?
SPECIAL REPORT: FOOD SAFETY & THE SUPPLY CHAIN

Food companies will have to be able to validate, with records, their safe operating procedures. Recordkeeping requirements are going to be more extensive... There's a huge amount of training that's going to have to be conducted so that companies can comply with these new requirements.”

Barbara Rasco, Ph.D., director of the School of Food Science at Washington State University and the University of Idaho

THE FSMA FOCUSES ON FIVE KEY AREAS:

1. Preventive Controls. For the first time, the FDA has a legislative mandate to require comprehensive, prevention-based controls across the food supply chain.

2. Inspection and Compliance. The legislation recognizes that inspection is an important means of holding industry accountable for its responsibility to produce safe food; thus, the law specifies how often the FDA should inspect food producers. The FDA is committed to applying its inspection resources in a risk-based manner and adopting innovative inspection approaches.

3. Imported Food Safety. The FDA has new tools to ensure that imported foods meet U.S. standards and are safe for consumers. As an example, for the first time, importers must verify that their foreign suppliers have adequate preventive controls in place to ensure safety, and FDA will be able to accredit qualified third-party auditors to certify that foreign food facilities are complying with U.S. food safety standards.

4. Response. The FSMA gives the FDA mandatory recall authority for all food products. However, the FDA expects that it will only need to invoke this authority infrequently since the food industry largely honors requests for voluntary recalls.

5. Enhanced Partnerships. The legislation recognizes the importance of strengthening collaboration among all food safety agencies—U.S. federal, state, local, territorial, tribal and foreign—to achieve public health goals, and it directs the FDA to improve training for food safety officials at each of these agencies.
According to the Centers for Disease Control (CDC), foodborne outbreaks cause 48 million illnesses, 128,000 hospitalizations and 3,000 deaths each year. “Those are scary-big numbers,” says Steve Alberda, director of food safety at Ryder. “And, cases of food-borne illness are almost always under-reported,” he adds.

Fortunately, traceability has made significant strides in recent years, allowing shippers to respond to product recalls faster and help prevent the spread of contaminated food. While the motivation for many shippers is to minimize losses caused by contaminated product, many are also finding that traceability improves the efficiencies of managing inventory throughout the supply chain. Good business practices today demand that producers, processors, distributors, transportation companies and retailers go beyond simply providing the minimum accountability. For its part, Ryder provides traceability for every action and event within warehouse operations, leading to comprehensive management reporting and metrics integral to today’s demands within the supply chain. Shippers can keep products flowing smoothly by knowing where stock is coming from, how long it has been in the warehouse and when it expires.

“A good food traceability system not only protects the consumer but also benefits companies throughout the entire food chain because it reduces

Carol Golsch, division product manager at Redline Solutions.
“Temperature monitoring is a big part of our cold chain assurance. We set our refrigerated trailers at the designated set points and lock the controls so the set point is locked in while the products are en route,” McFaul continues. “We have the capabilities to verify what the temp was on many of our trailers but a ‘ride-along’ temperature control device is quickly approaching being common practice.”

The produce industry took a pioneering role with traceability management in response to widely publicized recalls. A 2006 spinach recall forced many produce companies to take a closer look at their traceability capabilities, says Angela Fernandez, vice president of retail grocery and foodservice at GS1, a global organization that develops and maintains supply chain standards.

Prior to that, the perishable segment of the food industry had lagged in adopting GS1 standards, which are designed to secure and provide continuous synchronization of accurate data between businesses.

In 2008, the produce industry used GS1 standards as the basis for its Produce Traceability Initiative (PTI), providing case-level, lot and batch information that can be traced electronically, Fernandez says. Major food retailers, including Walmart, quickly mandated PTI for their supply chains.

Retailers, wholesalers and manufacturers have all benefitted from PTI, Fernandez says. By giving a company the means to trace a specific product in the supply chain, the shipper can pull a product without having to remove more products than necessary. Because the GS1 standard provides identification for each individual case, it is not necessary to remove other cases in the event of a recall.

Since the produce industry has embraced GS1 standards, other food sectors such as meat and poultry have followed suit, Fernandez says. “It’s the perimeter of the grocery store that has been among the last area to adopt GS1 standards,” she says, referring to the section of the grocery store that merchandises perishable products.

Oftentimes, recalls are caused by mislabeling of packages, she says.

Traceability has become more important as the number of products has expanded, Fernandez says. “There’s a lot more globalization today than there used to be,” she added. ◆
Pair the burden of regulatory compliance with the ongoing driver shortage, and it’s no surprise that many food shippers are taking a closer look at outsourcing their transportation to professionals who are laser-focused on keeping up to date on the latest regulatory requirements and fleet management technologies.

Still unknown for many shippers are the requirements under the FSMA’s sanitary transport rules. Even as they prepare for adjustments they’ll need to make when updates to FSMA become finalized, they also face emerging regulatory changes in the transportation arena as well.

In fact, regulations are among the most challenging aspects of managing a fleet. Complying with the Federal Motor Carrier Safety Administration’s (FMCSA) Hours of Service (HOS) regulations are one example. Furthermore, fleet managers are gearing up to comply with the FMCSA’s Electronic Logging Device (ELD) mandate, set to take effect in late 2017. The mandate limits a driver’s working hours to 70 hours per week in order to lessen the risk of fatigue-related incidents.

What’s more, the FMCSA’s Compliance, Safety, Accountability (CSA) program continues to generate controversy, despite its attempts to improve truck safety and reduce accidents. A recent report by the U.S. Government Accountability Office (GAO) bolsters the trucking industry’s claims that the Safety Measurement System (SMS)—a key component of the CSA—does not provide sufficient information to identify high-risk carriers.

Pair the burden of regulatory compliance with the ongoing driver shortage, and it’s no surprise that many food shippers are taking a closer look at outsourcing their transportation to professionals who are laser-focused on keeping up to date on the latest regulatory requirements and fleet management technologies.
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“As food manufacturers contemplate the mounting list of new technology and features that will be required for their commercial fleets—everything from onboard driver monitoring technology to temperature sensors—they are turning to companies like Ryder to help them gain access,” notes Adriano Melluzzo, vice president of fleet management solutions at Ryder. “These technologies can be expensive, and it can take months or even years to retrofit your existing vehicles with the latest systems.”

To get ahead and do so cost effectively, food companies are considering creative options like leasing their fleets to expedite access to the newest equipment on the market, and even converting their fleets to a dedicated transportation solution. Large leasing organizations, such as Ryder, in particular, have strong relationships with vehicle and engine manufacturers and therefore, access to the newest technologies. Many of these technologies, such as telematics and remote diagnostics—are designed to save fuel and decrease downtime. They allow trucks to “talk” to service managers and diagnose problems before the vehicle enters the shop for repair. In addition, safety advancements, such as collision avoidance systems or anti-rollover brake systems, are also available on leased vehicles.

Shippers find that leasing from a company like Ryder provides a better cost option, explains Melluzzo. Ryder buys more than 20,000 vehicles every year, which provides a volume-based capital savings that benefits our customers. “Volume makes acquisition costs lower,” he says.

“Key to making the fleet outsourcing decision, is to first understand your Total Cost of Ownership (TCO) for acquiring, maintaining and ultimately, disposing of your vehicles at the end of their useful life,” continues Melluzzo. An important consideration regarding TCO for food shippers is to think about what else they could do with the capital they can free up by not owning their own fleet. Could they be investing those dollars in other more strategic areas of their business, such as new product development or entering new markets? (For a closer look at what you should be considering for your fleet’s TCO, see diagram on this page).

“We find that our customers in the food industry need solutions that streamline operations and lower costs, avoid non-compliance issues, and keep drivers safe and consumers happy,” says Steve Alberda, director of food safety for Ryder.

A professional logistics firm takes a customized approach to every company’s unique needs, Alberda says. Requirements can vary among food shippers, but a well-qualified logistics partner should be able to review your company’s product recall procedures to ensure they are capable of addressing an issue in a timely and efficient manner, for example.

In addition to enhancing a company’s ability to execute a product recall, shippers that outsource transportation can also gain access to the latest systems that find openings on carrier routes as they become available, analyze the economics of shipments, review carrier ratings, schedule shipments and keep track of deliveries. Food shippers are especially keen on achieving maximum route density as a way to manage transportation costs.

The cost of owning and maintaining refrigerated equipment is even higher, while breakdowns make this fact all the more apparent. As any food shipper can attest, a vehicle breakdown when a temperature-controlled shipment is in transit can be disastrous and costly, especially if the shipment is high-value meat or seafood, for instance. For this reason, maintenance is often the single most critical aspect of managing a fleet. Ryder, with its portfolio of managed maintenance solutions, provides shippers access to 800 fuel and maintenance facilities in North America and more than 5,000 certified technicians to handle all types of maintenance needs, especially as it relates to keeping refrigerated trucks up and running.

Not only do food shippers require well-maintained equipment, but skilled technicians to provide that service. Yet, similar to the shortage of drivers plaguing the industry, service technicians are also in short supply. The American Trucking Associations (ATA) estimates the industry will need as many as 200,000 technicians over the next 10 years just to keep up with current demands. Indeed, the ATA is predicting a shortage of between 5,000 and 10,000 heavy duty diesel technicians in the next five years.

“Ryder serves 10 out of the Top 10 Food and Beverage companies,” says Adriano Melluzzo, vice president of fleet management solutions, citing statistics from the 2014 FORTUNE Datastore.1

“That experience has helped us develop deep knowledge on our team of 1,000+ technicians trained in the highly specialized nature of servicing temperature-controlled systems and vehicle engines at large,” he concludes.

Food safety is the responsibility of every party in the global food supply chain, from growers and manufacturers to shippers, logistics providers, distributors and retailers. New regulations intended to improve foods safety, including the monumental Food Safety Modernization Act (FSMA), require comprehensive analysis of an organization’s supply chain to assure compliance and mitigate risk. Increasingly, food producers and shippers are partnering with logistics professionals that offer expertise in food safety to meet these new and evolving demands. ◆

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With everything a food and beverage shippers are challenged with in today’s modern food supply chain, one thing is clear: they need solutions that give them more flexibility. Nowhere is this need greater than in operating a delivery fleet, one of the biggest capital investments for shippers. Shippers are taking a closer look at the advantages of leasing their delivery vehicles.

The main benefit to fleet leasing is the cash that becomes available to the business. With leasing, a lower upfront investment is required compared to owning a fleet. A proper lease agreement reduces fleet costs to a monthly operating expense, while keeping credit lines clear and cash on hand to reinvest in other areas.

An operating lease allows the company to expense the cost of the vehicle monthly rather than carry the liability on their balance sheets. That means more credit flexibility so they can put capital elsewhere in their business.

Ownership, on the other hand, incurs costs associated with ongoing maintenance, staffing, repairs and replacement to keep the vehicles properly running. In today’s market, changes in vehicle technology, regulations, and the challenge of recruiting, retaining, and managing skilled staff weigh heavily on shippers.

Shipping requirements often can change rapidly. Leasing allows a company to respond to changing needs fairly quickly without tying up a lot of capital. A company might find they need a tractor trailer for longer deliveries. Buying a tractor trailer can be a big expense for a company.

Shippers can get new and late model trucks that meet new federal and state emission requirements without the headache of having to maintain the new technology. This is especially important in light of the engine technology changes that have been introduced to commercial vehicles in recent years. The new engines bring a lot of power and efficiencies to the delivery vehicles, but they add a lot of costs and require more specialized maintenance, which in turn adds still more costs. Computerized diagnostics is just one technology that has become mainstream in vehicle maintenance and repair.

Leasing also saves the hassle of worrying about how market conditions affect used truck values when it comes time to replace vehicles. It (leasing) gets a lot of attention at the c-suite.

Natural gas vehicles have entered the playing field. While not yet widespread, compressed natural gas powered trucks help companies meet sustainability goals, but they require a large initial investment. Companies that want to utilize “green” delivery will find leasing a more economical option than owning.

By partnering with a company like Ryder that provides the most state-of-the-art technology, vehicles will be reliable and offer drivers more comfort and ease of use. This, in turn, helps retain drivers who prefer newer, easier-to-manage equipment. “It helps with driver shortage, by enticing driver employees with an added perk of a new vehicle” says Melluzzo.

Food and beverage shippers should seriously consider the fact that the larger players they compete against have invested large sums of money in fleets. Medium-tier players stand to benefit from the improved cash flow that leasing can provide them while at the same time, leveraging the purchasing power of Ryder as if they were a large player. “Because of this, we’re seeing more (fleets) ownership conversions lately than in any time in the last 30 years,” Melluzzo says.◆
According to the 2014 FORTUNE Datastore, all ten of the top ten food and beverage companies use Ryder to streamline their supply chains, unlock efficiencies, and bring more value to the table. Discover how outsourcing with us can improve your fleet management and supply chain performance at ryder.com.