How RFID Can Impact Food Companies

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Making sure food items arrive on time and unspoiled in their final destinations - grocery stores and, eventually, consumers' refrigerators - is a key part of the food production industry. Preventing recalls due to expired or damaged products should be a foremost goal of distribution managers. Mobile data can help companies streamline inventory management processes so their products arrive safely and unspoiled in consumers' homes.

How is RFID Useful?
Companies can benefit from implementing a strategy that includes radio frequency identification devices. RFID works by placing sensors on products and relaying information back to a company's enterprise resource planning software. These types of devices can help companies get the data they need to ensure proper delivery of all products.

For instance, RFID can alert warehouse managers when dangerous temperature spikes occur. According to a study published in the Journal of Food Science in 2009, RFID can be used to monitor temperatures and ensure food safety. Dairy products

like ice cream and milk need to remain cool, obviously, and the hot summer months can wreak havoc on a business if temperatures aren't monitored.

Implementing RFID in the warehouse allows managers to view where products are in real time. According to Supply Chain Brain, data collected by sensors can be accessed when items are still on the shelves and also when a shipment reaches its destination. The status of the shipment can be known by all parts of the supply chain, helping to ensure products get to where they need to go with little question as to the quality upon arrival.

Prevent Illness

Spoiled food can be dangerous for human consumption. Numerous recalls due to listeria or salmonella contamination have plagued the market of late. According to an RFgen white paper titled "The Food Traceability Survival Guide," a recent survey by Red Prairie indicated that 81 percent of companies were using paper-based or only partially automated systems for tracking and tracing their products through the supply chain. The result was only 52 percent of food companies could execute a recall within hours, leading to problems remaining compliant with current traceability regulations.

In 2011, President Obama signed off on the Food Safety Modernization Act, a piece of legislation affecting the FDA's focus on new food traceability rules, according to eWeek. The act's goal was to help prevent food contamination so that instances of food-borne illness would decrease by establishing a standardized way to trace food items.

That's where RFID comes in, according to Bill Arnold, principal analyst for RFID and barcode scanning at ABI Research.

"RFID has the ability to play a data-gathering role in the whole area of food safety and in the prevention of disease outbreak," Arnold told eWeek.

Temperature-detecting sensors allow grocers to see whether items from a whole shipment or only certain pallets are up to industry standards. For instance, if a single pallet of berries gets too cold and freezes rather than remaining at the industry-acceptable 34 to 36 degrees Fahrenheit, but the rest of the shipment is

fine, a grocer has the option to only reject that particular pallet based on data collected from the sensors.

Warehouse and Shipping Automation

Making some processes automatic can have incredible effects on how products move through the warehouse and the supply chain, and automated data collection can help streamline the distribution process. RFID reports directly back to ERP software without having to physically enter values, resulting in an increase in productivity for warehouse employees who no longer need to input numbers manually. This means they have more time to check products and ensure quality.