

# Canadian Grocery Pilot Finds ROI in RFID

By implementing RFID, retailers and suppliers should markedly reduce out-of-stocks and improve promotional execution, according to a seven-month project involving Loblaw and four of its suppliers.

By Claire Swedberg

June 20, 2007—Canadian grocery retailers and suppliers can expect to see a return on investment in reduced out-of-stocks and better promotional management from the implementation of radio frequency identification, according to findings from a seven-month RFID pilot involving Canadian grocery distributor and retailer Loblaw. The pilot also involved several of Loblaw's suppliers: Maple Leaf Foods, General Mills Canada, Kruger Products Ltd. (formerly Scott Paper Ltd.) and Unilever Canada.

Other pilot participants included the Canadian Council of Grocery Distributors (CCGD) and Food & Consumer Products of Canada (FCPC), as well as RFID technology vendors Motorola and Intermec.

The authors of a white paper based on the pilot stress that retailers and suppliers, if they haven't already done so, need to start preparing for their RFID implementation. "Now is the time to look hard at the depth of impact RFID will have, and begin to plan for an RFID-enabled supply chain," says David Wilkes, CCGD's senior vice president of trade and business development, and chairman of the Canadian RFID Center steering committee. For retailers building a new store or starting a new supplier partnership, Wilkes states, it's essential to ensure that RFID technology be worked into future planning.

Grocery suppliers can come to a similar conclusion from the study, says Elaine Smith, senior vice president of FCPC. "For an initiative as large as RFID, there's a huge learning curve," Smith says. What the pilot has illustrated for suppliers, she explains, "is that the big news is not going to be the cost of hardware—it's the integration piece." Smith urges suppliers to begin what could be a three- to five-year process for planning and installing an RFID system. "The suppliers' message is to get the systems integration piece in place," she says. "As you look at upgrading systems, you need to look at integrating the RFID [into your existing inventory or warehouse management system] and build RFID into your systems integration planning," so that the system is in place when the supplier is ready to purchase hardware.

According to the white paper, retailers will see the earliest payback from RFID in the supply chain. However, both suppliers and retailers can ultimately expect to see benefits from the technology. The greatest return on investment for retailers, says Wilkes, will come from reductions in store out-of-stocks and improvements in promotional-display management.

During the pilot, RFID reduced out-of-stocks by increasing receiving accuracy and stock visibility in the back room, resulting in more efficient replenishment, both in the back room and on shelves. For example, the researchers found that when a product showed no sales for a five-day period, they could determine the items were unavailable on the floor and were, in fact, stored in the back room. With RFID, they were also able to locate those backroom items so they could be moved to the front of the store.

Tag data can likewise be used to determine if promotional items were delivered from the back room to the sales floor by the required date—and, if they weren't, to discern whether the product is available in the back room.

For suppliers, the results were less definitive. Payback on RFID investments was less pronounced for companies that had to pay for additional labor to attach tags to cartons and pallets, as well as for the cost of RFID hardware and software. Work-in-progress and raw-material tracking, which could benefit manufacturers, were not part of this study.

The collaborative pilot began in May 2006 (see [Canadian Retailer, Suppliers Begin RFID Trial](#)), with research, installation and testing of RFID hardware and integration. By July 2006, says Shai Verma, [IBM Canada](#)'s practice leader for RFID, the first products were fitted with RFID tags. IBM provided the program management, systems integration and hosting of the pilot, which was completed at the end of 2006.

Each of the four suppliers manually applied tags to at least two stock-keeping units (SKUs) at the case and pallet level, with a total of 10 SKUs tagged during the trial. Some tagged cases were destined for promotional displays in both stores as a pilot of RFID in promotional scenarios. The products were shipped to a retail distribution center, then forwarded to two retail stores. Tags were read by fixed readers at a supplier's factory or warehouse at the point of shipping, at the retail distribution center during receiving and shipping, and at the retail store during receiving, as well as upon movement to the sales floor. They were then interrogated one final time at a store's trash compactor.

The group focused on several SKUs, including canned food products, fresh and processed meat, dry goods and frozen foods. "We deliberately picked products that would have challenging read rates" with metal packaging and liquids, Verma explains.

Over the course of the pilot, Wilkes says, researchers were able to increase the read rate on all SKUs from 71 percent to 89 percent. They accomplished this through improving tag placement and the packing of cartons onto pallets.

The white paper will be available free to the public at the [FCPC Web site](#), and is intended to provide a template for retailers and suppliers to understand how RFID could benefit their supply chain. Members of the two grocery associations will have access to a more detailed report.

According to Verma, the pilot "was not undertaken under the guise that RFID was the solution. There was no such hypothesis. Everybody, including the retailer, was there not to prove that dry goods moving slowly would have good read rates." Instead, Verma says, the participants designed real-life scenarios with items that posed challenges to RFID, and moved them quickly past interrogators.

**RELATED\_ARTICLES** The pilot was the second stage in the group's RFID efforts. Two years ago, several Canadian grocer organizations, together with IBM and global standards organization [GS1 Canada](#), opened the RFID Centre in Toronto so retailers and suppliers could see RFID at work in a lab setting (see [Canadian RFID Center Debuts](#)).

The third stage, says Smith, will be in the hands of retailers and suppliers, who must educate themselves and begin planning their own RFID deployments.