



RIPPLE EFFECT

End-of-line packaging upgrade gives Quebec potato-chip manufacturer a fresh start on the road to optimal plant efficiency

Based on the multitude of things you can do with it in a modern kitchen, the humble potato is arguably one of Mother Nature's most undersung miracles in terms of solid nourishment, culinary variety and 'good-for-you' nutritional value.

And for the more entrepreneurial types among us, it can be pretty good for the pocketbook to boot.

In 1959, a local businessman named Paul Jalbert and a partner purchased (Croustilles) Yum Yum Potato Chips—at that time a small three-year-old snack-food shop in Warwick, Que., struggling to overcome the limitations of some badly outdated machinery with strict attention to product quality and a handful of valuable recipes for cooking up great-tasting potato chips with remarkably crisp texture.



Jacques Breton,
Plant Manager,
Yum Yum Potato Chips.

"With a name like 'Yum Yum' the company really had to ensure that it would only sell the best-tasting chips they could make—rejecting those that didn't quite make the grade," explains Yum Yum's plant manager Jacques Breton.

"It was ultimately because of this sterling reputation for high quality, and great taste, that the company began to achieve success."

It also helped that by 1953 Jalbert had amassed enough capital from his Canadian importing and distribution rights for the packaged peanuts produced at the time by **Krispy Kernels** of Newark, N.J., to purchase the business outright—eventually combining it with Yum Yum inside a shared 9,000-square-foot production and warehousing facility.

The combination proved to be a winning recipe all around, as by 1984 the company was employing some 240 people at a modern, 100,000-square-foot plant that was already running out of space to accommodate the growing volumes.

"Business was booming so much that the volume of potatoes processed increased one hundredfold," Breton told *Canadian Packaging* in a recent interview, prompting Yum Yum to build an additional 25,000-square-foot facility

dedicated solely for potato storage in 1986.

The following year, Yum Yum spent over \$5 million to enlarge the space devoted to finished product—extending the plant by an additional 55,000 square feet—and to acquire more modern machinery to speed up the packaging process.

The upgrade also entailed installation of new inspection equipment for quality assurance of the finished product, Breton recounts, and an expansive conveyance system to transfer finished product to the packaging and shipping areas of the plant.

In 1989, Jalbert's son Denis became the sole owner of the company and quickly set about modernizing the plant further to ensure its long-term competitiveness.

"We purchased an automated packaging and labeling system in the 1990s, which helped us better manage our product inventory and quality," states Breton.

FULL CONTROL

"These improvements, combined with a better control of the quality processes, allowed Yum Yum to become the first chip manufacturer to achieve an ISO 9002 certification for quality management assurance in 1997.

"We also began to innovate with our product to come up with several new flavors and styles, such as a rippled chip, today offering five different flavors of our popular Ripples brand," Breton relates. "We also added a wide range of snack-foods to our product line, including popcorn, onion rings and French fries."

According to Breton, the company's long-nurtured tradition of putting the customer and the consumer first was in many ways behind its decision a few years back to begin manufacturing all of its potato chips without any trans-fats—becoming the first chip manufacturer to do so.

As part of its shift to making healthier products, the company also introduced the *Viva Veggies* brand of chips—produced in the pesto, tomato and basil, *herbes de Provence* and the original 'Yum Yum' flavors—featuring enhanced vegetable content.

Says Breton, "Yum Yum has always cared about its cus-

tomers, which is why, in 2004, we were up to our old innovative ways again and developed a new generation of chips—vegetable chips made of 100-percent natural ingredients."

Inspired by the success of the *Viva Veggies* brand, the company took it up another notch with the recent launch of the *Viva Omega 3!* chips—enriched with ground flax seeds and carefully cooked in canola oil, Breton reveals.

For any company expanding its product portfolio and taking on growing volumes of private-label work so rapidly, making sure that all the different products are shipped



The Yum Yum plant utilizes an innovative shuttle conveyance system, specifically manufactured for it by Wulftec/M.J. Maillis Group, that greatly increases its production flow.

out to the customers in the most efficient way becomes a key production issue, which Yum Yum addressed last spring with installation of the fully-automatic **Wulftec WCA-150** model stretchwrapper, and an innovative shuttle chain-transfer conveyance system, purchased through the Ste-Julie, Que.-based packaging equipment distributor **Techno Pak Packaging Systems**.

In addition to the Wulftec end-of-line equipment—manufactured by **Wulftec/M.J. Maillis Group** of Ayer's Cliff, Que.—Techno Pak also supplied Yum Yum



Purchased through Techno Pak Packaging Systems, a Wulftec WCA-150 stretchwrapper securely binds a pallet of Viva Veggies snack chips together.

with several other new packaging machines, including a case erector manufactured by **Wexxar Packaging, LLC**;

three vacuum-packers made by **BluePrint Automation Inc.**;

a metal detection system from **Fortress Technology Inc.**;

and a case labeler produced by **Nita Labeling Equipment**.

“While it is true that we are a distributor of some of the best packaging equipment in Canada, our relationship with Yum Yum goes beyond mere mechanicals,” relates Techno Pak sales manager Marcel Boutin.

“We’ve become more than a distributor for Yum Yum: we’ve become a partner,” Boutin asserts. “If they have a problem, they call us up and we do our best to help.

“Along with sales, we also have five roving technicians and engineers who install and service the equipment we sell and, if need be, even the equipment that we didn’t sell them.”

Earlier this year, for example, Yum Yum sought out Techno Pak’s advice on how to reduce the circulation of its forklifts after the palletizing of the product.

Because Yum Yum has five separate lines for palletizing boxes of private-label chips to a maximum height of 100 inches, the end-of-line department had problems getting each tall and shaky pallet over to the stretchwrapper without the boxes falling—delaying the production line and even damaging the product.

CHAIN REACTION

Techno Pak resolved the problem with the installation of Wulftec’s single chain-transfer mounted onto a shuttle-car with floor-mounted rails and overhead power transfer.

As for the actual palletizing, the plant uses a robotic palletizing workcell from Grimsby, Ont.-based **RMT Robotics Limited** that stacks cases of product onto the pallets sitting on conveyors upstream of the Wulftec shuttle, with the entire configuration carefully safeguarded via the **SICK AG Optics** safety scanners positioned on the front and rear of the shuttle chain-transfer system.

“This is a very good system,” says Breton. “We use it specifically for all of our private-label business.”

Breton says he’s been very impressed with the performance of the *WCA-150* automatic turntable stretchwrapper—boasting a patented cut-and-wipe film application treatment system and a 20-inch **No-Thread** powered pre-stretch carriage—since its installation.

With heavy-duty throughput capacity of up to 50 loads per hour and a 12-rpm (revolutions per minute) variable-speed turntable powered by a one-horsepower AC motor with a variable-frequency drive, the workhorse machine is outfitted with easy-to-use controls and value-added software capabilities such as on-screen wrapping performance analysis and an on-screen maintenance program.

“If a wooden pallet is riding along the shuttle system, the computer system can actually recognize the pallet and know—in this case—

not to allow the stretchwrapper to wrap the product,” says Breton, explaining that the company’s current distribution system allows the stretchwrapping of private-label products only.

“We ship our branded product to regional distributors who, in turn, deliver it via a delivery van,” Breton points out. “Because our distributors will actually break down each carton by hand, we don’t need to have stretched pallets for shipping our own Yum Yum brands.

“Of course, if we can increase our distribution to further locales across Canada,” he notes, “we may have to rethink that line of thinking, but thanks to Techno Pak and Wulftec, we know that we can handle any extra stretchwrapping should it be required.”

All in all, Breton says the comprehensive equipment overhaul executed at the Yum Yum plant in recent years has made the company a much more efficient and ‘leaner’ manufacturer.

“What’s given us a real competitive edge is that even

in the past eight years, Yum Yum has undergone a nearly complete revamping of its automation capabilities by adding new equipment and higher-functioning robots—enabling us to become a successful low-cost producer,” sums up Breton.

“As for the future, with the snack-food industry continuing to evolve, the way for Yum Yum to maintain its success comes down to us to continue doing what we have always done best—and that is to innovate.” ♦

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