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CORPORATE CITIZEN of the YEAR MAX KOEUNE

WITH CLIMATE CHANGE WREAKING HAVOC ON CROPS, KOEUNE KNEW MCCAIN FOODS—WHICH RELIES ON A NETWORK OF 3,500 POTATO FARMERS WORLDWIDE—HAD TO DO SOMETHING DRASTIC. ENTER THE FARM OF THE FUTURE
BY JASON KIRBY

➤ Crispy on the outside, fluffy in the middle, the McDonald's french fry is an icon of American capitalism. The chain's shoestring fries are the salty vanguard of U.S. soft power abroad, selling in 100 countries, while their origin story is the very symbol of entrepreneurial zeal. It's now legend: Ray Kroc, a travelling salesman of milkshake mixers in the 1950s, fell in love with the fries sold by the McDonald brothers at their take-out restaurant in San Bernardino, Calif., and had the vision to perfect and automate the fry-making process to build that single location into an empire that now serves an estimated nine million pounds of fries each day. "The french fry," Kroc wrote years later, "would become almost sacrosanct for me, its preparation a ritual to be followed religiously."

Go into a McDonald's almost anywhere in the world today, though, and there's a good chance the fries you'll be served were made in a plant owned by McCain Foods, a company that—at least here at home—is still best known for its Superfries, Pizza Pockets and devilishly addictive frozen cakes.

McCain, founded in the small rural town of Florenceville, N.B., has quietly built itself into a global frozen-potato juggernaut, raking in \$16 billion this year from sales in 160 countries and employing more than 22,000. By the company's own mea-

sure, one out of every four french fries sold on the planet comes from McCain.

One in four.

It's that kind of clout that has rested in the hands of Max Koeune since 2017. And now, he's marshalling the company's vast reach for an ambitious mission that could be vital to McCain's future—not to mention the planet's.

Over the decades, McCain has built a farflung empire, with 54 factories on six continents churning out hundreds of frozen potato and appetizer products—from standards like fries (thick-cut, thin-cut, crinkles and Smiles) to items tailored to local tastes. At the same time, the world's largest frozen-fry maker has formed tight relationships with its network of 3,500 independent potato farmers, spread across 16 countries, who supply nearly seven million tons of potatoes annually to the company's production plants.

McCain is using those links to spread the gospel of regenerative farming, which loosely refers to more natural farming practices that help the soil hold on to more water and nutrients to boost plant growth. "If conventional farming continues, and we want to feed a planet of 10 billion people, that means all the things that are problematic today are going to be exponentially problematic in 10 or 15 years," says Koeune while showing off one of McCain's commercial-scale experimental Farms of the Future outside Florenceville, a picturesque spread of red barns that sits along the Saint John river. "That means more deforestation, more greenhouse gases, more water use in places where there are already deficiencies, more nitrogen or other fertilizers pumped into the ground. The simple facts tell you it's a dead end."

Modern industrial agricultural practices might boost yields, but they're hard on the land—contributing to water scarcity, loss of biodiversity and the spread of harmful chemicals—and agriculture accounts for roughly a tenth of global greenhouse gas emissions.

Granted, potato farming is on the low end of the emissions scale (those from eggs and especially beef are exponentially greater). Still, any strike against climate change is good news for Koeune's business, since growing spuds in a world of extreme weather becomes more precarious each year. "In the northern hemisphere, yields are declining despite more sophisticated and effective chemicals, and at some point there's only so much you can get out of the soil," he says. "Without potatoes, we don't have a business."

Koeune hopes McCain's experiment in sustainability—with the aim of implementing some level of regenerative practices across 100% of its acreage by 2030—will reverse some of the worst trends of large-scale agriculture and help growers fulfill their con-

tracts even when hit by extreme events.

But rarely has anyone attempted such a project at this scale and level of precision. And it's Koeune's job to pull it off while maintaining the rapid growth trajectory McCain has been on under his watch: a roughly 75% increase in sales since he took over in 2017. "We're not the largest food company in the world," he says, "but our size means we can have an impact."

Shortly after Koeune joined McCain as CFO in 2012, he found himself standing at a customs counter in Melbourne's airport, trying to justify to a confused border guard why he'd flown from Toronto to Australia. He was there, Koeune told the officer, to visit McCain's frozen french fry operations, a statement that left the man thoroughly confused. "Why would you need to come all the way from Canada to visit an Australian company?"

That's when it dawned on Koeune. McCain and its wide array of products—chunky beer-battered chips, frozen vegetable mixes, roast lamb meals and pizzas—are so ubiquitous that many Aussies believe it's a homegrown success, a domestic company with a half-century-long history of producing fries Down Under.

The same pattern played out in other countries Koeune visited. In the United Kingdom, where McCain has operated since 1968 selling frozen jacket potatoes and baby hasselbacks, alongside both fries and chips, the company often passes as a British brand. Likewise in India, where McCain set up shop in 1998 and offers aloo tikki potato patties and masala fries among its products, the company's Canadian roots aren't widely known.

McCain is about as Canadian as it gets, of course, founded in 1957 by brothers Wallace, Harrison, Robert and Andrew McCain in their tiny New Brunswick hometown. (The company's head office is now in Toronto, but it still employs more than 1,200 people in Florenceville—whose population is just 1,573—in tech and innovation, as well as at its factories.)

If most Canadians are oblivious to McCain's international frying status, even fewer will have heard of Koeune. That's partly by design. McCain is a private company, owned by the descendants of the founders, meaning its activities mostly fly under the radar. No quarterly conference calls. No public annual meetings.

The relative anonymity Koeune enjoys outside the food industry suits the quiet CEO, who is a bit of a shoestring fry himself—tall and lithe, and a hardcore road cyclist who regularly covers up to 180 kilometres on weekends with his riding club. He's comfortable sitting back and listening as others do the talking. "I've been around big CEOs at big companies in the U.S., and that's not Max," says Scott McCain, chair of the operating-company board and Wallace's son. "He's never the one to take the oxygen out of the room at board meetings. He leads by example."

Born in Luxembourg, Koeune, 52, has spent his entire life abroad. As a kid, he moved wherever his father's executive job in manufacturing took the family. In his early career, Koeune worked at French food giant Danone, where he became head of corporate development after a management stint in Mexico. While there, he taught himself Spanish—his fifth language after Luxembourgish, German, English and French—once he realized no one in his office spoke anything else. When he speaks, it's with an omni-European accent that's difficult to pin down.

The CFO offer came in 2012. It wasn't a complete surprise: McCain's CEO at the time, Dirk Van de Put, who'd been in the job for two years, had been his boss at Danone.

Five years later, the company was already grooming Koeune to be Van de Put's eventual successor when the latter left suddenly to take over snack giant Mondelez International.



In the previous decade, McCain's fortunes had slumped. It was still a giant, but rivals were chipping away at its market share—the Big Three of the potato world are McCain, privately owned J.R. Simplot Co. and publicly traded Lamb Weston, both based in Idaho. "When you are No. 1 in the world in french fries, which we'd been for a number of years, sometimes you can get full of yourself, but that's when you need to be most frightened," says McCain. "We weren't, and we were slipping."

Van de Put had already done a round of streamlining measures, including selling off the North American frozen pizza business in 2014 to Dr. Oetker. So, Koeune turned his attention to revamping many of McCain's aging factories, upgrading outdated IT systems and digitizing its operations. In early 2020, he and his team had just put the finishing touches on a five-year plan when the pandemic hit. "We went into firefight mode," he says.

Almost overnight, McCain's business shrank by more than half. As restaurants closed, potato stockpiles overflowed. Potatoes are 80% water, which means they don't travel well, and there's a limit to how long they can be stored without bruising or rotting. The company ended up donating massive quantities of raw and prepared potato products to food banks around the world.

At the same time, McCain's growers were depending on the fry maker living up to its contracts—which it did. "Everyone knew immediately we had to support our growers, which wasn't in the short-term financial interest of the company," says Koeune.

But McCain had a few things going for it. Perhaps most important was its ownership structure. Being private shielded the company, with what Scott McCain calls its conservative balance sheet, from the extreme swings pummeling publicly traded food makers. In most markets, McCain also caters to consumers whether

they're eating at restaurants or at home, and it quickly shifted to meet demand in the supermarket freezer aisle.

The restaurant take-out and delivery boom offered McCain another timely opportunity. Even before COVID-19, it had been tracking the growth of food delivery apps and knew it had a weakness: moisture in to-go containers. "The last thing you want is cold and soggy fries, so you need a batter that maintains that crispiness and heat 30 minutes later," says Koeune. R&D teams at McCain's various labs and test kitchens were already looking for an answer. The pandemic accelerated that effort, and the SureCrisp french fry was born, with a secret coating engineered to maximize crispiness longer. The new fry has proven popular with restaurant chains on several continents, even with a higher price point, says Koeune.

The company also seized on the pandemic disruption to accelerate its investment strategy. Last year, McCain said it would expand its factory near Lethbridge, Alta., at a cost of \$600 million, more than doubling the workforce to 485. The new plant will start churning out frozen potato products next spring. That's just one in a string of other big-ticket investments, including its first plant in Brazil, a second factory in China, and expansions or renovations in Grand Falls, N.B., Washington

state, the Netherlands, England and India.

Then there's France. In mid-May, French President Emmanuel Macron invited Koeune and other foreign execs to Versailles for his annual "Choose France" summit, which this year attracted nearly \$23 billion in deals, including a \$525-million plan to ramp up production at three McCain factories there. Days later, Macron joined Koeune for a tour of one.

Not all McCain's investments have panned out. Its first factory in Russia was about 40% complete when Russia attacked Ukraine in February 2022. Within two weeks, McCain had written off its investment and pulled out.

Regardless, under Koeune, McCain has grown rapidly. Some small acquisitions have helped diversify its sales, like last year's purchase of Strong Roots, a Dublin-based maker of vegetable-heavy appetizers and single-person frozen entrées for health-conscious consumers. But the majority of McCain's new sales have come from getting more out of its existing frozen potato and appetizer businesses—meaning what happens in the fields could hold the key to McCain's success.

Koeune's first year at McCain was a lesson in how easily climate disruption could leave the business exposed. That year, he watched as wet weather in Great Britain led to blight and the worst potato crop in nearly half a century. Other extreme events hit the company's growers in rapid succession: floods that brought harvests to a standstill, droughts and blazing temperatures that killed off large swaths of crops. "They became yearly events to the point that you're surprised when you have a normal crop," says Koeune.

After he became CEO, he knew he wanted

to make sustainability a priority. His team drafted a plan, which they took to a group of growers, customers, NGOs, academics and government officials. Their feedback: Aim higher. The team went back at it and returned with loftier targets.

Among them: a pledge that all the potatoes it buys will be grown using some regenerative practices by 2030. Those include planting potatoes on three- or four-year rotations with other crops like wheat and barley to interrupt pest and disease cycles, and using cover crops like alfalfa and clover to "armour" the soil. It also calls for a reduction in synthetic fertilizers and other chemicals.

The company also set a target of reducing CO₂ emissions from potato farming, storage and freight by 25% by 2030.

"For farmers, you're never going to convince them with nice speeches or articles—they need to see it on the ground," says Koeune. That was the impetus behind creating the Farm of the Future in New Brunswick. The farm itself was purchased from a former McCain grower who'd retired, and the operation now stretches over 700 acres. McCain has opened a second one in South Africa to test regenerative practices in drier southern regions, and it's in the process of scouting locations for a third.

The aim is to experiment with different combinations of regenerative techniques and potato varieties to see which best boost soil health and, ultimately, yields—how many healthy, usable spuds come out of each acre. For instance, the Russet Burbank is the most commonly grown variety in North America, but McCain has increasingly turned to the Caribou Russet and King Russet, which require less water and chemicals, and reach maturity faster.

So far, the results look promising. Compared to other farms around Florenceville, the Farm of the Future has cut the use of fertilizer and pesticides; nitrogen was 8% lower, while phosphorus and potassium were 40% and 53% lower, respectively. At the same time, yields and potato quality have remained strong.

Marion Gross, who oversees the McDonald's global supply chain from its head office in Chicago, has travelled to Florenceville twice, and the experience drove home the power of healthy soil in a way she hadn't yet appreciated.

One demonstration in particular stuck with her. Two clear bins are filled with sections of soil dug from the field—one from a well-cared-for area with plenty of cover crops and healthy, aerated soil, and the other from an area more representative of a conventional farm, with dry, clumpy, compressed dirt. Equal amounts of water are then poured over each, reflecting a heavy downpour. In the

HOT POTATOES

McCain partners with 3,500 growers in 16 countries and has 54 production facilities across the world. The company also sells its products in 160 countries. The map highlights the countries where McCain's factories operate, and shows some of the ways the company has tailored its business to local palates.



conventional soil box, muddy brown water rushes off the dirt into a trough, similar to how rain can wash topsoil and chemicals into rivers and streams. A dribble of mostly clear water spills off the regenerative sample, with most of the water sucked deep into the soil. "The regen work McCain is doing is a game-changer when it comes to greenhouse gas emissions, and what farmers and McDonald's can do to minimize our footprint," says Gross.

The aim isn't for all McCain growers to be fully switched over by 2030. "That would be great but not realistic," says Koeune. Instead, the company has created four categories for each of its regenerative initiatives. The first step—an onboarding process that comes with training and a soil assessment—has already been completed across 51% of its acreages. Farmers then move through engaged, advanced and leading categories, with the aim of 100% onboarded or higher by 2030, and half of its acreages at engaged or higher, meaning they'll have adopted several regenerative techniques.

Still, for many growers, particularly at smaller farms, making the switch when margins are tight is a hard sell. So McCain has begun to sweeten the pot. It's signing deals with lenders in several countries to provide discounted-interest loans to help cover transition costs. McCain is also offering incentives and premium pricing for regeneratively grown potatoes in certain regions. In Canada, it's been working with Farm Credit Canada, a crown corporation, since 2022, and has agreements with Rabobank in the Netherlands and Cr dit Agricole in France. In May, it teamed up with BNP Paribas Bank Polska to help Polish farmers.

That's the carrot approach. The stick is another option, though one Koeune prefers to hold back at this early stage. "We're trying to get people excited about regenerative agriculture," he says. "However, our target is to have 100% of our growers onboarded by 2030, so at some point, we'll have to make choices."

Some long-time McCain growers were already well down the regenerative path, including Harold Perry, a fourth-generation farmer with 5,000 acres west of Taber, Alta. The heat dome that hit in 2021 meant most farms in his area fell short of their contracts by 20% to 25%. But his crop was well within the 5% buffer. And he didn't need to use insecticide on most of his potato fields this year, since the destructive potato beetles that had been plaguing them vanished—likely the result of beneficial insects that live in natural habitats along the edges of his land eating the pest's eggs.

Perry hasn't necessarily seen an increase in yields, but that's not the point. To him, regenerative farming is about finding a balance between the biology in the soil, on the plant and inside the plant. "If the plant can regulate what it needs on its own, that removes us from the equation a lot more," he says. "The plant will have the resilience it needs to stand on its own against disease and insects."

Ultimately, though, for McCain's efforts to succeed, everything must be quantifiable and shareable, says Koeune, pointing to a \$100,000 yellow device, roughly the size of a guitar amp and on loan from Agriculture Canada, that measures fluctuations in gases like CO₂, methane and nitrous oxide.

It's that kind of information that has people like Royal Bank of Canada CEO Dave McKay excited. RBC, Loblaw and Maple Leaf Foods are some of the founding partners behind the Canadian Alliance for Net-Zero Agri-food, an organization set up to develop systems for measuring, reporting and incentivizing decarbonization initiatives in the agriculture sector. CANZA is also working on approaches that could form part of a voluntary carbon credit market, which could create a new income stream for growers. "I was amazed at how much progress McCain has made," says McKay. "You've got to have scientific proof that you're storing carbon in the soil, and Max has gone through that process now. And that's while they're continuing to operate in more than 150 countries."

Thousands of McDonald's employees, franchisees, suppliers and other members of the "Global McFamily" descended on Barcelona this past April for the biennial McDonald's Worldwide Convention, a massive trade show for all things Golden Arches. McDonald's even has its own version of the Academy Awards, where it hands out its coveted Top Global Supplier award. This year, the winner was McCain Foods, and Koeune got to jog up on stage to accept the honour.

Gross rhymes off a few reasons the fry maker took top spot: its sustainability push and willingness to share its findings with rivals; the fact that it has delivered millions in cost savings to the chain over the past two years; its quality performance score of 95, the highest in the french fry category.

Koeune's intense focus on customer relations is another factor. In September, Gross and Koeune were chatting about McDonald's focus on wooing back cash-strapped customers. Three days later, she received a text from Koeune. His team had come up with some ideas for how McDonald's could drive affordability and value for customers, and proposed a meeting to present them. "I didn't ask him for that," says Gross. "He could easily have just said, 'Nice chat,' and moved on. For us, that's what leadership looks like."

Strong relationships are likely to become even more important in the coming years. The recent bout of inflation and a shaky global economy could crimp growth. Lamb Weston shut down its fry factory in Connell, Wash., in October and laid off 4% of its global workforce, citing discount meal offers that translated into fewer fry orders. At the same time, activist investor Jana Partners has taken a 5% stake, pushing for a strategic review and possible sale.

Meanwhile, the landscape in large developing countries like India and China, where McCain hopes to accelerate growth, is changing fast. Upstarts are pouring in—a report by the U.S. Department of Agriculture found that as of 2022, China's frozen-fry exports now exceed imports. Just five years earlier, imports were 22 times exports.

Koeune doesn't seem overly worried, given McCain's cost competitiveness and other advantages. "We probably operate with higher requirements with regard to safety," he says. "That's part of our value."

Besides, McCain has weathered plenty of storms over nearly seven decades, and there's no reason to think it won't do so again. "We don't have many global champions like them in Canada," says RBC's McKay. "We need to create more McCains in this world."