

LOVIN' IT, NATURALLY

You want brussels sprouts with that?

A team of former McDonald's honchos is transforming what fast food can be—responsible, healthy, sustainable, and delicious.

BY FREDERICK KAUFMAN PHOTOGRAPHS BY JAMES WOJCIK







THE BIG DUDE WITH THE TATTOOS and a bad case of five o'clock shadow served up a plate of roasted kabocha squash, organic brussels sprouts, and free-range chicken breast. None of this would have been worth noting had the dish been just another locavore delicacy, prepared by just another hipster chef, during just another lunch hour here among the food-obsessed in Palo Alto, California.

But this artfully arranged plate—the chicken breaded and “unfried,” the veggies tossed with parsley and chives in a Dijon vinaigrette, all sprinkled with dried cranberries—was something else. It was the future.

I had come to the artisanally fed vale of Facebook and Tesla to

sample the first fruits of Lyfe Kitchen, a soon-to-be-chain of restaurants that might just shift the calculus of American cuisine. At Lyfe Kitchen (the name is an acronym for Love Your Food Everyday), all the cookies shall be dairy-free, all the beef from grass-fed, humanely raised cows. At Lyfe Kitchen there shall be no butter, no cream, no white sugar, no white flour, no high-fructose corn syrup, no GMOs, no trans fats, no additives, and no need for alarm: There will still be plenty of burgers, not to mention manifold kegs

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LYFE HOPES TO OPEN HUNDREDS

OF OUTLETS—

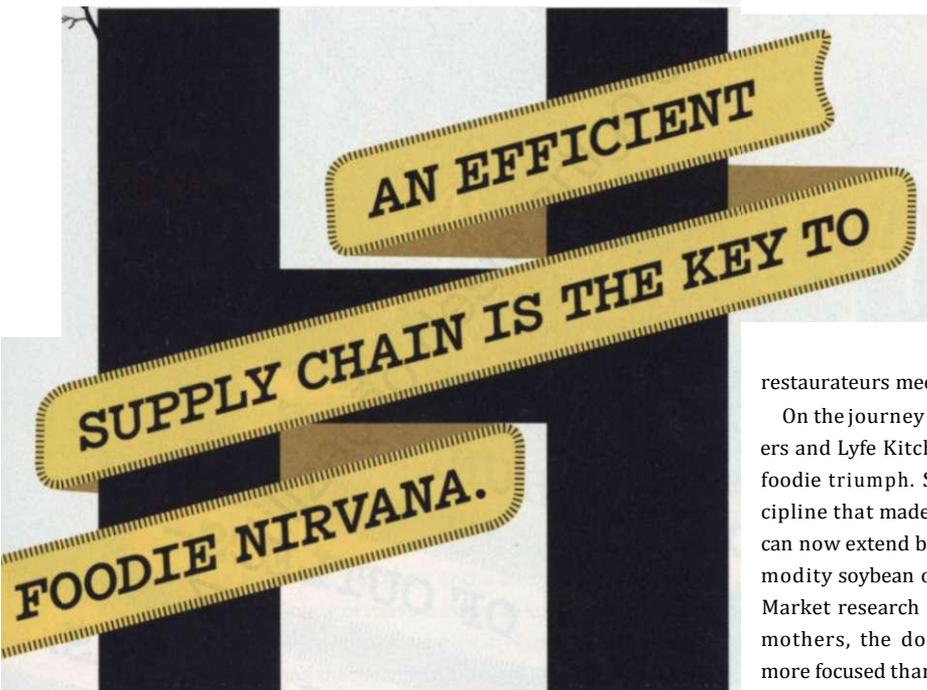
IN JUST 5 YEARS.

of organic beer and carafes of biodynamic wine. None of this would seem surprising if we were talking about one or 10 or even 20 outposts nationwide. But Lyfe's ambition is to open hundreds of restaurants around the country, in the span of just five years.

Yes, for the moment the only Lyfe Kitchen is here on Hamilton Avenue in Palo Alto. It opened less than a year ago as a sort of prototype. But imagine tens of millions of local, sustainable gourmet meals, served with the efficiency and economy that one expects from a national fast-food chain. Such a feat of feeding has never before been attempted, and if Lyfe Kitchen succeeds, the results will reverberate far beyond our stomachs.

There is one overriding reason to believe that this venture will work. The cofounder and chief executive of Lyfe is Mike Roberts, former president and chief operating officer of McDonald's. He and some of his erstwhile McDonald's colleagues have bet a few million bucks that an eco-embracing, mega-natural startup will blaze the trail to their rightful share of the billions and billions served by Burger King, KFC, Subway, Taco Bell, Pizza Hut, Domino's, and Wendy's.

Lyfe's aim is not just to build a radically sustainable, healthy brand of fast food. The former Golden Archers hope to transform the way the world produces organic ingredients, doing for responsibly grown meat and veggies what McDonald's did for factory-farmed beef. These **days**, the **Utopian** vision of responsible agriculture is premised on a return to small **and** slow. If Roberts is right, though, we'll have to swallow a paradox as preposterous as a vegan Whopper: The nirvana of eco-gastronomy may at long last be **attained**, but only thanks to the efficiencies of supply-chain management.



HERE'S A STORY THAT TELLS you something about Mike Roberts, his business philosophy, and the logistical amplitude of his brain. When he ran McDonald's, the company spent years preparing for the release of what seemed like an extraordinarily simple dish: sliced apples served with a caramel dip. Before that first Apple Dipper could pass the lips of the first Apple Dipper consumer,

Roberts supervised months of quality assurance and menu development, months of meetings with chefs and operations people, months of investigation into all possible Apple Dipper sources. Everyone had to agree on specifications (Fuji? Red Delicious? Granny Smith? Honeycrisp? Or one of the other 7,500-plus varieties of apples grown worldwide?). Then everyone had to understand the vast quantities that would be required. Then everyone had to agree on price. Not long after Apple Dippers appeared on the menu, McDonald's became the nation's largest seller of apples.

"Roberts is intense," says Mike Donahue, the former McDonald's chief communications officer who now fills the same role at Lyfe Kitchen. "He's a maniac."

As in?

"He was going..." Donahue begins. His voice trails off.

Where was Roberts going?

"He was going—" Donahue says in a low voice. "He was going to be a priest." Instead, the young Roberts launched himself into a 29-year career at McDonald's, culminating in three years as president of American operations and then two more as president of the whole corporation. During his years as a top executive, Roberts often tried to push the chain toward healthier fare, such as mango strips, slinky-shaped carrots, and yogurt. At one point he even explored the possibility of a vegan McNugget. ("People would look at him like he was a Cyclops," Donahue says.) In 2006 he resigned; soon after his noncompete agreement expired, he pulled together two of Oprah's celebrity chefs, Art Smith and Tal Ronnen, and had them create a sample menu for what was to become Lyfe Kitchen.

A few weeks after my first brush with Lyfe's food, I meet Roberts at the company's corporate offices in Chicago, on the 16th floor of a high-rise that's right on the Magnificent Mile. Roberts, who's wearing a dark suit neatly tailored to his wiry frame, ushers me back to a conference room that offers an astonishing view of Lake Michigan. He approaches the window, glances outside, and draws the blinds. "We're in the middle of the first stage of the food revolution," he says. "I'm dreaming of a place where science, medicine, producers, farmers, and restaurateurs meet to say we are on a journey together."

On the journey that Roberts wants to take, organic food producers and Lyfe Kitchen will travel toward a realm of financial and foodie triumph. Success will be based on the strict market discipline that made fast food possible in the first place, a drill that can now extend beyond commodity beef, commodity wheat, commodity soybean oil, commodity sugar, and commodity potatoes. Market research Roberts did at McDonald's convinced him that mothers, the dominant decisionmakers about mealtimes, are more focused than ever on healthy food. So this time around, brussels sprouts and quinoa will enter the picture. This time around, the end result—the food—will look and smell and taste more like an entrée from some bistro in Brooklyn than a 30-second stop along Fast-Food Alley. But the process will be roughly the same, in that the problems of enormous scale can be solved through similar uses of technology, efficiency, and experience. "I would say that the pattern of this mosaic is very familiar," Roberts says. "The

fresh!

THIS IS FAST FOOD

What makes Lyfe Kitchen not just another locavore restaurant? Mainly its mania for fast-food-style efficiency, as seen by the prep work that goes into each ingredient of its Loch Duart salmon entrée. —VICTORIA TANG

Salmon

(5 ounces) The fish arrives from Scotland with the skin and bones already removed. Because it's sustainably raised (and high-quality), Lyfe feels justified in not sourcing it locally.

Baby kale

(2 cups) Mature kale requires the stems to be removed before serving. Lyfe avoids this by using baby kale instead—prewashed organic greens from Earthbound Farm.

Pomegranate seeds

(1 tablespoon) When in season, the juicy seeds are plucked out of the membrane ahead of time.

Dried cranberries

(1 tablespoon) These are measured in advance and stored in plastic bags for easy access.

Farro

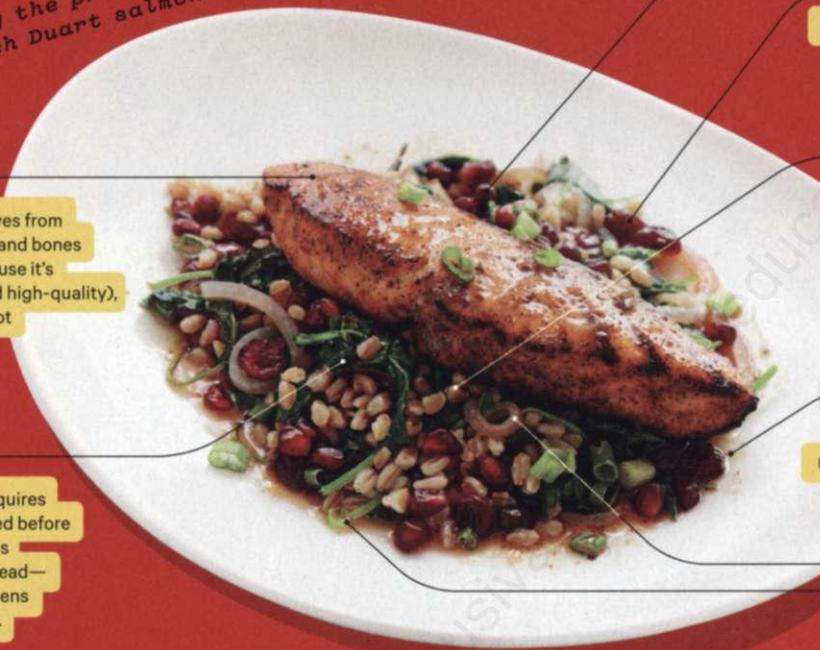
($\frac{1}{2}$ cup) Before the lunch and dinner rushes, whole-grain farro is cooked for 20 minutes, then cooled. It is used in several dishes and remains fresh throughout the day.

Maple-chipotle sauce

(1 ounce) A long shelf life means batches of this can be made a day or two in advance.

Red onion ($\frac{1}{2}$ cup) Green onion (1 tablespoon)

Since onions start to lose flavor as soon as they're cut, the crew chops only enough for one shift at a time.



strategy of the rollout, the people and their skill sets, the systems of training and hiring and finance and accounting and supply chain, the development of the property and real estate system—they are all very similar."

In other words, Roberts will take all the tricks he learned from old-style fast food and apply them to the next phase of American eating. Which brings us back to that free-range chicken. The new poultry supply chain is not just about procuring as much chicken meat as quickly and cheaply as possible. It's about delivering wholesome chicken from birds that are fed hormone-free food and raised on farms that don't produce the environmental degradation of a Tyson or Perdue. For example, as a general rule the poultry industry cools its slaughtered chickens in chlorine water baths—which not only affects the flavor but delivers more absorbed water to the consumer. Lyfe's poultry supplier, Mary's Chickens, has figured out a superior way to cool its birds—surround the whole production line with chilled air as they pass through. "It's better for food safety," says Jim Campbell of Synergy Restaurant Consultants, the company Roberts has hired to source most of Lyfe's ingredients. "You're not mixing all these chickens in a bath of water, where contamination can occur. And you're saving 30,000 gallons of water a day."

In his attempts to source the cheese for Lyfe's cheeseburgers, Campbell is considering a Modesto dairy farm called Fiscalini.

"These guys are cool," he says. "They seem to be self-sufficient and entirely sustainable." Fiscalini has built methane digesters to process its daily harvest of cow manure and whey byproducts into biogas, which in turn powers a Spanish-built, 1,057-horsepower, V-12 engine, which in turn is attached to a 710-kW electrical generator. The result is that Fiscalini's cows produce all of the operation's electricity—and there's enough left over to power more than 100 homes in the nearby community. "They put power back into the grid," Campbell says.

Yesterday's supply-chain infrastructure, the one that Roberts and his colleagues helped to perfect, was based on boxed patties and buns that had been treated with preservatives and designer enzymes. But new flash-freezing and high-pressure-pasteurization methods have enabled retailers like Lyfe to deliver dishes free of magnesium lactate, triammonium citrate, and other preservatives. Even the packaging has undergone a revolution, as dead trees have been replaced by bio-compostable sugarcane and corn stalks. In a post-petroleum world, clear "plastic" bowls, cups, and cutlery will be extruded from resins like polylactic acid, a polymer that comes from fermented dextrose—which comes from corn. All these advances are far from "natural," but the net result (Roberts and his team hope) will be to let the organic ingredients last long enough to arrive at the table—or be carried home—in a fresh enough state



Lyfe Kitchen

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that they can compete with less healthy and less responsible alternatives.

WHAT ROBERTS DID FOR THE apple at McDonald's he now intends to do for the brussels sprout at Lyfe. He sees brussels sprouts as a viable alternative to french fries, and he has built an ingenious process to realize that vision. "I believe it to my core," Roberts says. "People say, 'I have not had a brussels sprout in 10 years, but I will have these four times a week.'" Lyfe Kitchen's one restaurant is on track to serve more than 10,000 pounds of the little cabbages in its first year—by means of the brutal efficiencies McDonald's once put into the lowly potato.

The story of Lyfe's local brussels sprouts begins at one of the two farms that Synergy's Campbell has enlisted in San Mateo and Monterey counties. After spending the first 50 to 60 days of their lives in nurseries, the sprouts head to the fields. The tightly wrapped leaf balls grow from axils that form a helical pattern around the stalks and can be harvested for the first time after roughly 110 days. Later the plants can be harvested again, up to five times over a period of seven weeks, delivering as many as 100 sprouts from every stalk.

After they're cut from the stalks, the sprouts are washed, cooled, sanitized, packed, and stored in a cold room. At this point, the clock begins to tick: Their shelf life is just 20 days. And so the brussels sprouts are carried by refrigerated trucks to Lyfe's Bay Area distributors, where they are usually turned around within 24 hours. Stored at 34 degrees Fahrenheit, they await their second truck ride, which will deliver them to Lyfe. There they are immediately stowed in the walk-in cooler at the back of the restaurant.

When the brussels sprouts hit the restaurant, their fate is overseen by a man named Larry Taylor, a 34-year McDonald's veteran. Taylor is a space-time guy, an efficiency expert who once ran 150 McDonald's restaurants in the Midwest, then headed up an operations group for a region that included 650 franchises before spending nearly two years in worldwide operations. Looking at the initial plans for the Palo Alto pilot restaurant, Taylor realized that whenever Lyfe's line cooks required more sprouts, they would have to careen to the walk-in at the back of the kitchen—a waste of 30 seconds. So he had reach-in coolers installed next to the cook line, only steps away from the sprout station. The extra fridge in just the right spot would save 10 seconds, maybe 15. "It's a long math equation," he says. "For every 15 seconds of time we save, we build 1 percent of sales capacity. So we like to lock down our key performers at their stations during the peak periods. The less frantic your work is, the better rhythm you have."

UNLIKE THE SIT-DOWN bistros where gourmet food is generally prepared and served, Lyfe sees each brussels sprout as merely a cog in a vast clockwork, a system that is set into motion as a customer approaches the counter, gives their name, and places an order. Once that order is sent electronically to the kitchen, a cashier hands the customer a coaster. RFID strips beneath every table pick up the signal from the coaster and send it back to the kitchen. That's how the runner—someone other than the person who took your order—knows where you are sitting, what you have ordered, and your name.

Now that the order has gone into the kitchen, the software-based cooking system kicks in. It's smart enough to separate the elements of your order and send each of them to the monitor that hangs above the relevant food-prep station. The flatbread maker sees flatbread orders; the pantry chef, who makes all the salads and desserts, sees the salad order; the *rôtisseur* at the broiler station—you get the picture. So everything everyone needs to cook shows up in a queue, and the chefs each hit a plastic button beneath the screen to signal that they have begun. When they're done, they press a button that "bumps" the food order to the "quarterback," who gathers the

finished product and puts it on a plate with all the other stuff you want to eat.

Take that free-range chicken dish. Just as in a high-end kitchen in Chicago or San Francisco, the *rôtisseur* here cooks the chicken breast at a different spot from the one the legumier uses to sauté the brussels sprouts, squash, and cranberries. Of course, the two elements—the chicken and the vegetables—have different cooking times. Lyfe's software is ready for such complication, though, and sequences the timing. In the case of salmon and potatoes, say, the fish takes five minutes while the tubers take two. So the *rôtisseur* receives the salmon order three minutes before the potatoes order appears on the legumier's screen. Same for the chicken and brussels sprouts. It's all finished at the same time and plated together by the quarterback. Then the runner picks it up, heads to your table, and says, "Hi, Fred."

The same system that choreographs this rapid dance also lets managers keep score, updating sales and tracking orders in real time. Taylor stresses how the gamelike properties of this arrangement can help motivate the crew, with the cooks and runners all able to see how they are performing compared with everyone else. "When you give them real-time data," Taylor says, "it can radically change their behavior."

But the heart of any restaurant is the kitchen, and at the heart of Lyfe's kitchen are four energy-saving cooking technologies. The TurboChef impingement oven microwaves while also blasting hot air over the food at 60 miles per hour. "Combi" ovens combine steam and convection cooking so the food crisps and moistens simultaneously. And instead of a stainless steel or cast iron griddle, Lyfe uses one made of 1-inch-thick chrome, which reduces the amount of heat lost. Even the cheese melters save energy: When microswitches sense the weight of a plate, they immediately kick the burner into high gear. As soon as the plate leaves the melter, the machine turns itself back to low.

Lyfe's innovations extend even to the dishwashing station, which features a system that captures steam, condenses it, and recycles the heat for the next wash. And while a typical dishwasher may use 15 gallons per wash, Lyfe's units use three-quarters of a gallon and sanitize without chlorine—a boon for local sewage systems.

THE ONE NAGGING QUESTION is scale. Lyfe has figured out how to get 10,000 pounds of brussels sprouts to tables in Palo Alto with minimal spoilage, but what about getting 100,000 pounds to nine more cities? A million pounds to 100 cities? Roberts hopes to see his chain expand to 500, even 1,000 restaurants within several years. Can America's farmers possibly grow, process, and deliver enough fresh, local, organic, hormone-free, non-antibiotic-added, health-saving, world-redeeming ingredients?

It's clear that as of now, the answer is most definitely no. The morning after my lunch in Palo Alto, a Lyfe delegation treks to San Juan Bautista, California, to visit Earthbound Farm, the nation's largest grower of organic produce. Earthbound supplies Costco, Safeway, and Walmart with prewashed and packaged tenderleaf (more commonly known as salad greens) and now controls 49 percent of the organic lettuces market—which means it keeps a lot of people in arugula, frisée, and romaine.

When Lyfe's consultant, Campbell, mentions the target scale, Earthbound's senior manager for national food service, Jon Kiley, screws up his face in a frown. Lyfe's menu features a fair share of beets, cabbage, chayote, and potatoes, not to mention boatloads of those brussels sprouts. As Kiley points out, organic root vegetables are a lot tougher to supply than organic frisée, kale, and arugula. Since they take a long time to grow, they're more susceptible to insects and consequently more difficult to deliver as organic (no chemical pesticides allowed)—which may create a problem when it comes to Lyfe's future demand for organic potatoes and sweet potato fries. Also, expanding production is hard under the current rules for organic produce: It takes three years just to certify a field as organic, and five to seven years before the soil becomes truly productive. "It may be viable," Kiley says, "if you have 50 stores." But 20 times that? The question hangs in the air unanswered.

Also left unmentioned is the problem of seasonality. As of now, no one at Lyfe claims that 100 percent of ingredients can be obtained from organic sources year-round. "The answer has always been no, it cannot be done," Campbell says. No matter how energy-efficient the kitchen, no matter how technically astute the procurement practices—weather happens. Too much rain rots tomatoes. Oranges freeze. Texas onions shrivel in a drought.

None of this troubles Mike Roberts, though. Lyfe sees Whole Foods as a model for how responsible food consumption can shift the marketplace. "We're really, really early," Roberts says. "There are 80 million people who have become much more aware of the food they eat. And that's going to continue as far out as we can see."

Perhaps he's right to be sanguine. After all, even as McDonald's metastasized across America during the 1960s, US farmers weren't prepared to supply it and its competitors at the staggering scale that they reached during the 1970s. The rise of fast food transformed the entire world agricultural system, in many ways for the worse. If a sustainable-food chain could achieve even a fraction of McDonald's growth today, then the whole system might shift again, this time for the better. Such, at least, is Roberts' vision. "I believe, without being religious, that this is a cause," he says. "Take this bread, take this wine," he goes on, his dark eyes aglow with the fervor of the priest he never became. "It's the quint-essential element of faith."