9-312-122
REV: OCTOBER 10, 2012

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Gary Hirshberg and Stonyfield Farm

The skeptics say organic isn't proven yet. But I say it's chemicals that aren't proven. All of humanity ate organic food until the early part of the twentieth century. We've been on a chemical binge diet for about eighty years – an eye blink in planetary history – and what do we have to show for it? We've lost one-third of America's original topsoil, buried toxic waste everywhere, polluted and depleted water systems, worsened global warming, and exacerbated ailments ranging from cancer to diabetes to obesity.

— Gary Hirshberg[1]

In the spring of 1972, a 17-year old Gary Hirshberg clambered up a ski trail to an overlook in the snowfields high above Tuckerman's Ravine, near the summit of Mount Washington in New Hampshire. An avid ski racer, he had hiked here for many years, tramping through the snowfields to the peak, which at 6,288 feet is the highest in New Hampshire.[2] During the climb, he had periodically stopped to gaze down at the valley below, out over the placid towns and, once near the top, right through to the Atlantic Ocean – nearly 70 miles away. Now, a senior in high school, he was climbing in preparation for the annual Harvard-Dartmouth race, a slalom down the famed Hillman's Highway slope.[3]

On that morning, he found the view partly obscured by a thin, smog-like cover and he could not see the ocean. Turning to his girlfriend of the time, he said, "Normally, you see the Atlantic on days like this." Over the next six months, Gary noticed the trend worsening. A few years later, as a junior at Hampshire College, he returned to his beloved Mount Washington while conducting research for his thesis on "The Causes of Alpine Treeline." During numerous visits over his 15-month study, he noticed that he never once caught a view of the Atlantic for it was now continuously obscured by smog. Gary had his first measurable taste of the pollution trends along the Eastern Seaboard.[4]

Long before he became the CEO of the world's leading organic yogurt company, Stonyfield Farm, Gary Hirshberg was a nature lover with a fundamental aversion to business. To his mind, and many others', the unsound ecological practices of industry and particularly industrial agriculture had ruined the environment. At 17, Gary didn't want anything to do with the business world, "because those people were just ignoring all the realities that I was seeing."[5]

Three decades later, by contrast, Gary Hirshberg would describe himself as a "passionate capitalist," who had become a vocal champion of business as the single most important engine for environmental progress.[6] In the intervening years, he and Stonyfield co-founder Samuel Kaymen

Professor Nancy F. Koehn and Research Associates Nora N. Khan and Elizabeth W. Legris prepared this case. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

started a small yogurt operation with seven hand-milked cows and built a market-leading multinational company, which in 2011 generated more than $360 million in annual sales.[7] In doing this, the entrepreneur did not abandon the ideals he harbored as a teenager; quite the opposite. Step by painstaking step, Hirshberg and his colleagues constructed an enterprise focused squarely on addressing the same dilemmas he first encountered on his hikes up Mount Washington. How did Gary Hirshberg, who began his adult life ardently opposed to large business, become a successful CEO? How did his mission-driven company survive the ruthless, hyper-competitive playing field of food retailing? How did he pair social purpose with commercial enterprise to demonstrate that sustainability was very good business?

Hirshberg's Early Years

Gary Hirshberg was born on July 15, 1954, in Manchester, New Hampshire to Louise and Howard Hirshberg. The oldest of five children, he was descended from German, Latvian and Eastern European immigrants.[8] A curious boy, Gary loved exploring the outdoors and wilderness, particularly his cherished Lake Winnipesaukee and the White Mountains. For generations, the southern New Hampshire area had been arable, and his family enjoyed foods from neighboring vegetable, fruit, dairy and poultry farms, giving Gary an early appreciation of local food production.[9] Before long, however, he remembered, "the open fields, barns and chicken coops of my childhood were replaced by housing developments and industrial parks."[10]

Gary's father, a shoe manufacturer, travelled extensively throughout his childhood and eventually his parents divorced when their oldest child was 14 years old. Gary remembered very little of his father being home and instead viewed his mother as pretty much single-handedly raising him and his siblings. She was very community minded, frequently volunteering for charitable causes, even while holding down a full time job and bringing up five children. She was a powerful role model of compassion and service. At the evening dinner table, Gary recalls her constantly reminding her children to give back to those less fortunate.[11] All five children took part in charity work.

His family legacy was manufacturing. His paternal grandfather and father owned and ran the Pittsfield Shoe Corporation, a shoe factory, located on New Hampshire's Suncook River.[12] When he visited his father and grandfather at work, Gary watched streams of red, yellow and green wastewater flowing out of the factory into the river.[13] Later, as a teenager, he learned that the strange, brilliantly colored water was largely dye and manufacturing chemicals shuttled off, like much industrial waste at the time, seemingly out of sight and out of mind. But the waste didn't end up far from home; instead it flowed into the Merrimack River, at the time the tenth most polluted in the country.[14] The notion that industrial effluent caused ecological damage was hardly widespread among manufacturers of the day.[15]

In his high school years at the Derryfield School in Manchester, Gary threw himself into environmental activities. A competitive skier from early on, he would stretch each ski season as long as possible with weekend treks to Mount Washington. Between his junior and senior years, he found himself in the woods more often. His summer jobs were in the lakes and mountains, and often, after a day's work, he would hike several miles to join friends in the Appalachian Mountain Club Trail Crew, sleeping overnight in mountain shelters and then hiking down at sunrise to get back to work the next day.[16]

In Derryfield's classrooms, Gary became increasingly immersed in the growing environmental concerns of his generation. One of his teachers, Kevin Cullen, introduced him to *Living the Good Life* by Scott and Helen Nearing, which "hailed the joys of self-reliance, being close to the land, and raising your own healthy food."[17] On several occasions, Gary wound up visiting with the Nearings and he struck up a correspondence with Helen Nearing that would prove to be pivotal in his career choices six years later. Gary remembered being "intrigued by humanity's connection to nature, and began to sense – even if I couldn't quite explain it yet – that the loss of family farms would have a profound impact on both our country and our planet."[18]

Gary and fellow students also read Rachel Carson's 1962 book, *Silent Spring,* which described the debilitating impact of the pesticide DDT, chlorinated hydrocarbons, and other toxic pesticides on animal and human health.[19] (Carson argued that pesticide use in industrial farming and agribusiness needed to be managed carefully. DDT, in particular, she pointed out, aggregated in the food chain, killing birds and their spawn.[20]) Her book's publication prompted outrage within the chemical industry. The heads of American Cyanamid, Velsicol and Monsanto alternately refuted her claims and questioned her scientific credentials.[21] Velsicol went as far as trying to halt the book's publication, arguing that if farmers were to stop using pesticides, the American food supply would fall to ruin.[22]

Ironically, farmers had been cultivating crops and raising animals—mostly on small plots of land—without chemicals for centuries. In the 1800s, many began to use chemicals such as potassium and nitrogen to fertilize their fields. This use greatly increased after World War II. Ammonium nitrate fertilizers were developed from the leftover ammonium nitrate used for munitions during the war. Technical advances also brought something brand new: biocides, or chemical substances capable of killing live organisms.[23] Biocides like DDT, formerly used in malaria prevention for U.S. troops, were adapted to control plant diseases and kill off insects and weeds. Powerful insecticides were developed from war-era nerve gas research.[24] These biocides proved very successful in boosting crop yields. Subsidized by New-Deal era programs, farmers quickly adopted fertilizers and chemical biocides as important tools in raising crops. [25]

These innovations in pesticide and synthetic fertilizer use, along with new machinery such as cultivators and more efficient tractor models, all greatly increased food production and potential scale in farming.[26] Between 1935 and 1965, the number of corn bushels per acre more than tripled.[27] As farmers raised higher yields, however, they also produced a lower diversity of products, in part because of government regulations on farming that prioritized the growth of single crops, like soybeans.[28] Industrial agriculture took hold as family farms were bought up and consolidated, often by large, profitable corporations. During the course of the century, agribusinesses like Tyson Foods, Chiquita and ConAgra proliferated while the number of American farms shrank.[29] By the early 1990s, 76% of farmland was owned by the largest 10% of American farms.[30] (Between 1960 and 2010, over one million family farmers disappeared from America's landscape).[31]

In the 1940s, opposition to these changes emerged. A growing and a vocal number of activists and scientists began criticizing the methods of agribusiness. However, it was the publication of Rachel Carson's *Silent Spring* that galvanized broad public support for the young, ardent, and previously unrecognized environmental movement. Within 18 months of publication, *Silent Spring* had sold 1,000,000 copies and was well on its way to becoming the lodestone for all kinds of people and groups with newfound interest in the environment.[32] Carson was joined by biologists, agronomists and activists who studied (and raised awareness of) the effects of fertilizers. A string of public environmental disasters, including noxious exhaust gases forming a pall over New York City in 1966, and Cleveland's over-polluted Cuyahoga River catching fire in 1969, intensified public concern.

Growing collective interest, in turn, attracted the attention of government regulators and other policymakers.[33] In the early 1960s, Congress passed two landmark pieces of environmental legislation: the Clean Air Act of 1963 and the Water Quality Act of 1965, intended to control air pollution and create and enforce water quality standards.[34] The 1964 Wilderness Act designated federal land as off-limits to commercial development.[35] In 1970, Congress established the Environmental Protection Agency (EPA) with a broad mandate to ensure the protection of America's environment through research, standards and enforcement.[36]

The burgeoning environmental movement in and outside government was just one manifestation of the cultural maelstrom of the 1960s, arguably the greatest period of political radicalization and widespread activism in the 20th century. A wide range of individuals and groups across the country protested segregation, perceived abuses of military power and the seemingly pandemic materialism of the 1950s, among other grievances. The first major social cause of the decade was the Civil Rights movement, which took root after the 1954 *Brown v. Board of Education* decision desegregated schools.[37] Protestors, led by members of the Student Nonviolent Coordination Committee, agitated for integration of African Americans across the South.[38] The women's rights movement, the gay rights movement and the anti-war movement all formed in this decade and each drew on a diverse cross-section of students, labor unions, minority groups and other Americans who felt disenfranchised from the established order.[39] During the course of the decade, citizens took to the streets and marched by the hundreds of thousands to demand legal and civic change.[40]

Though he was too young to take part in these swells, Gary absorbed the era's passion—its sense of possibility, its proclivity to question convention and its ethic of direct action. As a young man in his 20s, Gary began asking his own questions about the environmental impact of business practices. He remembered that he ended up "pretty much hating business…I viewed industry as the source of all things evil…I figured out that the dyes and chemicals and the many other textile and shoe plants in our state were why I could no longer swim or fish without health risks."[41]

In the fall of 1972, the same year the EPA passed a country-wide DDT-ban, 18 year-old Gary entered Hampshire College in Amherst, Massachusetts. He was interested in understanding how humans systematically abused natural resources and produced waste. While studying at Hampshire, he became friends with Steve McDonnell (who would go on to found the organic and natural meat company Applegate Farms).[42] Both men found the experimental college atmosphere an ideal setting for exploring environmental problems. The typical Hampshire student was known to be self-motivated, curious and highly critical of orthodoxy.

As a college student, Gary channeled his growing interest in environmentalism into research on global warming. During his junior year, he took the course "Introduction to Climate Change," taught by Professor Ray Bradley.[43] He found the readings on diminishing ice cores and glacial melt, trends being documented worldwide, to be "horrific…[and] absolutely gripping."[44] Immersed in the data of climate modification and fascinated by the underlying science of the field, he decided to study alpine environments. Research for his senior thesis took him back to Mount Washington, where he tracked the advancing alpine tree line and its potential connection to rising global temperatures. Working with climate scientists at the Center for Northern Studies in Vermont, Gary developed a powerful new technique for measuring the ages of mountain trees.[45] Impressed by the results of his study, Gary's professors encouraged him to pursue graduate work.

In 1976, the 22 year-old Hirshberg graduated from Hampshire College with a concentration in environmental studies and began preparing to apply to graduate geography programs by taking advanced courses in geography and ecology at the University of Massachusetts. He was invited back to Hampshire to teach an introductory course on the polar environment. One day, during his class, Hirshberg listened to a guest lecturer speak of the difficulty of correlating climate change directly to tree lines. He felt a switch flip in his head. If he stayed in academia, he reasoned, he could work to create models until he was "70 years old and maybe explain 65% of the time what the probability is and that a problem exists, he said."[46] Yet, he added, he "wouldn't have done a damn thing about [actually] solving the problem."[47]

He completed his courses that fall but his pursuit of graduate studies came to a halt. While working part time jobs that spring, he began reading extensively about the fledgling sustainability movement, which sought to correct the damage done by industrial agriculture and pollution.[48] The movement's tenets stressed a renewable approach to the land as a healthier, more environmentally responsible alternative to corporate farming. Renewable farming practices included allowing soil to lie fallow at regular intervals so it could replenish itself for future use and eliminating the use of biocides and chemical fertilizers. Sustainability advocates also sought out innovative solutions for waste removal.[49] Hoping to explore the possibilities of the movement, Hirshberg began an internship at the New Alchemy Institute, an ecological research and education center on Cape Cod. The center was dedicated to research on how humans could minimize their reliance on fossil fuels and toxic chemicals particularly in food production through use of wind systems, alternative fuels or solar power to fuel year-round aquaculture and organic farming systems. During his time at the Institute, Gary worked on a solar-powered greenhouse that could feed ten people three meals daily.[50] The greenhouse used no fossil fuels, chemical fertilizers or biocides. It required no external heat even during Massachusetts' brutal winters, and it generated power through wind systems.[51]

By the late 1970s, Hirshberg had become the Institute's executive director. With only 25,000 people visiting the Institute each year, however, Hirshberg began to suspect that the impact of the center's work on Americans' daily lives was limited.[52] He also sensed that such marginal influence characterized the work of numerous non-profits, many of which worked through moral suasion.[53] Funding also frustrated Hirshberg; the Institute's $1 million budget depended partly on contributions from private corporations, a community that New Alchemy frequently criticized.[54] Moreover, other sources of funding were decreasing. In 1981, the Reagan administration slashed federal money for environmental non-profits, including the Institute.[55]

During this period as he grew increasingly restive about the prospects and resources of New Alchemy, Hirshberg made a trip to Disney's Epcot Center in 1982 to visit his mother who was then a senior buyer at the Center. While he was there, he had what he later called an unexpected and "life-changing epiphany."[56] At Epcot, he visited a Land Pavilion exhibit organized around the future of farming and sponsored by Kraft Foods.[57] In an air-conditioned building, Gary saw sickly plants soaked in plastic hydroponic tubes, their roots in liquid mixtures of pesticides, herbicides and chemical fertilizers. He remembered there was not a grain of soil in sight in this "cartoon scene of chemistry gone mad."[58] In a greater surprise to him, every day 25,000 attendees paid to see this exhibit—more visitors than toured New Alchemy Institute in a year.[59] Hirshberg was disturbed by all that he had learned at the Land Pavilion. Not only was this a celebration of food production moving in directions that he believed were ultimately destructive, but also it seemed clear that Americans were more responsive to the example of business than to that of non-profits and academia, no matter how significant their respective missions. While mulling over the entire experience at Epcot, he blurted out to his mother: "I have to become Kraft."[60]

The young, passionate man realized that the only way to compete with powerful commercial forces was to become a powerful economic force himself. In order to convey his vision of responsible food production and consumption to American households on the same scale as Kraft, he would need to work *through* business, rather than outside of, or in opposition to it. Moreover, he also realized that business was relatively supple and unfettered while nonprofits and government were often more rigid and constrained. At the same time, business had the sheer resources in terms of people, money and experience to bring great ideas to life.[61] Hirshberg remembered his clarity of understanding at this important juncture: "to become effective rather than eccentric, I had to somehow create a truly sustainable business that actually made money—and the more, the better."[62]

In 1982, there was no significant market for sustainably-made products, and Hirshberg had little evidence that conscientious principles, effectively applied, could be profitable. He was, however, armed with a critical realization: consumers could force changes in food production. With every single purchase, day in and day out, consumers registered their values directly in the market. They wielded, Hirshberg reasoned, "enormous power to choose the polluting, consumptive and failed ways of the past or the renewable and sustainable ways of the future…When we purchase anything, we are voting for the kind of communities, society and planet we want."[63] As these ideas crystallized in the aftermath of his visit to Epcot Center, he began to place what would become a big bet: that consumers who valued health and sustainability would "vote," in growing numbers, for sustainably-made, nutritious products. He envisioned an "enlightened business," that would, by capturing the hearts and minds of not just consumers, but its own employees, suppliers and other stakeholders, become a great driver for social and environmental change.[64]

Getting Started in the Yogurt Business

Shortly after his trip to Epcot, Hirshberg entered the yogurt business. In 1982, he became a trustee of The Rural Education Center (TREC), a non-profit organic farming school in Wilton, New Hampshire. TREC was run by his friend, Samuel Kaymen, who Hirshberg described as a "former defense-industry engineer in search of a higher purpose […and] one of the most focused men I've ever known."[65] In 1982, however, Kaymen was grappling with the challenges TREC faced raising sufficient operating funds. He knew of Hirshberg's experience in creating small, for-profit enterprises to keep the New Alchemy Institute solvent and asked him to help develop a business strategy for the Center. Concerned that Kaymen's school would go under, and keen to help his friend, Hirshberg obliged.[66]

Trained as chemist and agriculture scientist, Kaymen had long grown his own food for himself and his family.[67] He raised cows, pigs and sheep and cultivated his own gardens, grains and fruit trees. In 1978, in hopes of teaching others how to be agriculturally self-sufficient, he had moved with his wife Louise, their six children, and several Jersey cows, to Stonyfield Farm in Wilton.[68] A year later, Kaymen founded TREC. He dedicated himself to teaching homesteading skills, organic soil management and ecological agriculture through the classes offered at the Center.[69] Eager to learn organic food production, the students came to TREC from all over the world.[70] At its height, the center boasted more than 2,000 members.[71]

About the time he founded the Center, Kaymen had also started a yogurt operation in his home.[72] Working from a homemade recipe, he brewed batches of a low-sugar, cream-top yogurt using raw whole milk from one of the family cows, Laurabelle, primarily for the students, interns and neighbors of the Center as well as for the Kaymen family.[73] On July 16, 1982, he incorporated the yogurt-making operation as Stonyfield Farm, Inc., a subsidiary of TREC.[74] As a newly minted trustee, Hirshberg set about helping TREC meet its $150,000 annual budget. Together Hirshberg and Kaymen prepared for larger-scale yogurt production with an eye to creating a significant funding source for the Center.[75] With a $10,000 start-up loan from the Institute for Community Economics, which helped finance social enterprises and $25,000 from the Sisters of Mercy, a teaching order of Catholic nuns, Kaymen expanded the dairy herd and acquired machinery.[76] The next year, on April

9, 1983, the new Stonyfield factory, dubbed the Yogurt Works, produced its first 50-gallon yogurt batch.[77] The plain, whole milk cream-top yogurt went out in 32-ounce containers to local stores.[78]

The responsibilities of the expanded business soon overwhelmed Kaymen.[79] He struggled to buy feed and supplies, falling farther into debt.[80] In September 1983, he welcomed Hirshberg on full-time, betting the young man's commitment, intelligence and far-sighted environmentalism would compensate for his inexperience in business or financial management.[81] Hirshberg arrived at Stonyfield Farm, which was located in a run-down, drafty, 18th century farmhouse at the top of a hill. He remembered his first moments in the farm office. The room was filled with "three Army surplus desks piled chest-high with teetering stacks of unpaid bills."[82] Within hours, he realized Stonyfield was $75,000 in debt—which amounted to nearly 150% of annual sales. The electricity was close to being cut off; other creditors were banging on the door as well. Hirshberg immediately organized a debt offering among angel investors including his mother and several of his former New Alchemy Institute patrons. In the next months, Kaymen focused on making yogurt. Hirshberg focused on upgrading the business plans and securing additional angel investor loans.[83] He understood clearly that he had to improve Stonyfield's young, fragile balance sheet.

Although he was hired to alleviate financial woes, Hirshberg soon learned that it was impossible to have just one job at Stonyfield Farm. Daily operations were arduous and unforgiving. For example, every day, Kaymen awoke at 4:30 a.m. to milk the cows and start the wood-fired boiler to pasteurize the milk needed to make the yogurt. He did not stop to rest until the whole batch was delivered to local stores and he had completed evening milking, a chore that often stretched until late evening.[84] Hirshberg joined in helping milk the small, growing cowherd twice a day, often in sub-freezing temperatures. Kaymen's family also pitched in around the clock. Samuel's wife Louise and several of their children, for example, made yogurt, packed orders and woke in the middle of the night when needed.

Though Hirshberg hoped to deliver the gospel of sustainable food production, both he and Kaymen were uncertain how, exactly, their yogurt making would improve the environment. "We toiled on," Hirshberg remembered, "increasingly aware that we needed to be totally clear about why we were beating ourselves up like this."[85] Late one night after milking, Hirshberg retired to his office to craft a mission statement for the young operation, laying out five reasons that he and his comrades were in business: to provide high quality, all-natural products; to educate their consumers about sustainable farming and protecting the environment; to serve as a model of a profitable, socially responsible business; to provide lenders and stockholders great returns on their investments, and to give their employees a healthy, productive workplace.[86]

The next morning over breakfast, Samuel and Louise approved the mission statement. All three were confident both in the quality of their natural product and that making and distributing a healthy, delicious offering made without chemical inputs would draw customers to their philosophy. As they looked forward, they envisioned a model in which everyone involved, from employee to supplier to consumer, would work together to create a business that effected positive change. Years later, Hirshberg would describe this animating vision as a great gamble. The entrepreneurs were betting their energy, talent, all the resources they could muster and their future that "a truly honest product—pure yogurt—would attract customers so in tune with our environmental goals that both our business and our ideals would flourish."[87]

History of Yogurt

In its most basic form, yogurt is fermented and curdled milk. Lactic bacteria, or cultures, are used to ferment milk from a cow, ewe, goat, sheep or other milk-producing animal. The cultures are added to the milk, which is then incubated at certain temperatures. The milk thickens as the lactose is converted by the bacteria to lactic acid. [88]

The history of yogurt is rich, bridging continents and countries.[89] Some accounts place Neolithic herdsmen in 6000 B.C., in Central Asia, as the first accidental yogurt makers. After they milked their animals, they carried the milk in sheep stomach pouches. In a few hours, the rennin enzyme in the gut's lining naturally curdled the milk into a yogurt-like substance.[90] In the following centuries, curds and soured milk were consumed in ancient Greece, Rome, Egypt, and Mesopotamia. The Book of Job contains references to *leben*, a type of fermented milk.[91] Fourth century B.C. Greek physician Hippocrates wrote of the value of yogurt.[92] Five hundred years later, in the first century A.D, Pliny the Elder, the Roman scholar and historian, commented on the yogurt consumption of nomadic tribes.[93] In the early 1200s, Genghis Khan and his soldiers reportedly loved the taste of a fermented milk product like yogurt.[94]

Beginning in the 16th century, yogurt enjoyed short-lived flirtations with popularity in the West. French king Francois I allegedly cured a crippling ailment and intense depression with yogurt brought to him from Constantinople.[95] Two hundred years later, in 1784, Turkish immigrants carried their version of yogurt with them to the United States.[96] The food did not gain worldwide attention until the early 1900s when Ilya Metchnikov, a Russian bacteriologist, observed the unusually long life span of Bulgarians, who consumed large amounts of curdled milk.[97] He hypothesized a link between the lactic acid in yogurt and longevity. His work on probiotics in digestion earned him a Nobel Prize.[98] As the influence of Metchnikov's work expanded, European doctors increasingly prescribed the product to patients, and it was touted as a health food throughout the continent.[99]

Drawing on Metchnikov's research, a young Spanish businessman, Isaac Carasso began industrial production of yogurt, opening a small factory in 1919 in Barcelona. Carasso took careful note of Professor Metchnikov's studies completed at the Pasteur Institute in Paris. Using Bulgarian yogurt cultures, Carasso began to refine the manufacturing process, melding elements of Metchnikov's work with traditional yogurt making methods.[100] The Spanish entrepreneur named his company Danone, after his son Daniel, and began selling his yogurt.[101] During the next decades, the business grew, as yogurt consumption spread through Western Europe.

Yogurt first entered the American market in 1929 when two Armenian immigrants, Rose and Sarkis Colombosian, made their first batch over a stovetop in Andover, Massachusetts.[102] Soon after, they founded the Colombo & Sons Creamery and began selling their yogurt from a horse-drawn wagon around New England.[103] In 1942, Daniel Carasso opened a Danone yogurt factory in the Bronx under the Americanized name of Dannon Milk Products.[104]

Despite the reputed health benefits of yogurt consumption, demand in the United States was initially limited. In its first years, the Dannon factory produced "648 servings of plain yogurt a day, distributing the product in returnable half-pint glass jars," according to a *Dairy Foods* piece.[105] In 1947, Carasso began to experiment with his offerings by adding strawberry preserves to his yogurt. The sweetness appealed to consumers, and demand grew. By adding more flavors to the line, including raspberry and blueberry, Dannon became America's favorite yogurt in the now-expanding market.[106] In October 1950, the medical writer Dr. Gaylord Hauser published an article in *Reader's Digest* applauding yogurt's nutritional value, including its abundant protein and B vitamins, further spurring consumption.[107]

In the late 1950s, U.S. demand for yogurt continued to increase, growing five-fold between 1958 and 1968.[108] The 1970s and early 1980s saw more growth as U.S. yogurt sales climbed from 124 million pounds in 1968 to 940 million pounds in 1985, a compound annual growth rate of 12.65%.[109] In 1975, Americans each ate an average of 2.1 pounds of yogurt a year (what today would be around four cups worth). Eleven years later, in 1986, that number had more than doubled to 4.4 pounds.[110] By 1985, this burgeoning industry, worth $1 billion in sales, was dominated by large food conglomerates: Yoplait, owned by General Mills, Dannon, owned by the French BSN Groupe (later named Groupe Danone), and Light 'n Lively, owned by Kraft.[111] Commercial yogurts came in many flavors and types—from peach to blueberry to plain non-fat yogurt. This was the market in which Kaymen and Hirshberg aimed to effectively compete.

Struggling to Build a Business

Once the Stonyfield founders had codified their mission, they worked to introduce their product to new markets. They had early luck. A month after Hirshberg arrived, Kaymen received a call from Jack DeMoulas, the dairy buyer of a major 35-store regional grocery firm, the DeMoulas Market Basket chain. He was livid that Stonyfield was being sold at New Hampshire-based Alexander's Market and not in his stores. Kaymen replied that more yogurt demanded more cows, cows they did not have. Hearing this, DeMoulas "screamed into the phone, 'Well, get some more god-damned cows!' and hung up."[112]

The founders expanded the dairy herd to 19 cows, purchased a mechanized filling milking machine, and began to sell to DeMoulas. Stonyfield's business doubled with the addition of this account. The Market Basket chain served territory that overlapped with that of Purity Supreme markets, and it was not long before Purity's buyers took notice and asked to sell Stonyfield, as well.[113] In 1984, the yogurt category was growing at 20% a year, meaning the addition of Stonyfield to supermarket shelves did not require retailers to replace any existing brands. In this market dominated by large food producers, grocery buyers were willing to take on one—and usually only one—locally produced yogurt.[114] Seeing the success of Stonyfield in rival stores, new chains were eager to sell the brand. By the fall of 1984, Stonyfield was sold in the Purity, Stop & Shop, Shaw's, Iandoli's, Big D and other New England chains as well as through the New England Food Co-Op (NEFCO) distribution network. That year, Stonyfield had sales of $138,000—nearly three times its revenues in 1983.[115]

As the company began to expand into the Boston and broader New England market, sourcing its own milk became much more difficult. Hirshberg, Samuel and Louise were still running TREC, frantically seeking out new funding, making the yogurt and delivering it to suppliers. The company was now selling far more yogurt than its own herd could supply. Pressure came to a head in 1984, when a big storm knocked out power on the farm. Nonetheless, the cows had to be milked. Samuel, Louise and Hirshberg milked the 19 cows themselves—by hand, and in the dark. As their cows weren't accustomed to being milked by humans, the three yogurt-makers struggled with the animals in the cold, dark milking parlor, spilling precious milk as they did.[116]

To avoid a similar disaster in the future, the founders decided to sell the cows and source milk from local family-owned dairy farms.[117] They knew they needed to have the best milk available. The entrepreneurs also knew local milk was richer in protein than that produced on factory farms; as important, it was also sourced from cows that ate pesticide-free feed, and were more likely to be free of synthetic hormones.[118] But such inputs did not come cheap: local milk from family farms cost 15 to 18% more than that from factory farms. The startup also invested in new technology to increase its efficiency. An oil-fueled boiler, added in 1985, freed time formerly spent warming the milk with a wood fired boiler.[119] A new filler and capping machine allowed Stonyfield to produce yogurt in single-serving cups.[120] They added maple and vanilla and gradually expanded to include blueberry, strawberry and peach, rounding out a total of nine varieties by 1986.[121]

In the midst of the company's growth, the Stonyfield team welcomed a new figure to its ranks. In 1984, Gary Hirshberg had met the resilient, strong-willed Meg Cadoux, age 28, at an organic farming conference.[122] At the time, Cadoux, a graduate of Cornell's agricultural school, ran an organic vegetable farm near Princeton, New Jersey.[123] During the next years, the two struck up a long-distance relationship, flying between Newark and Boston thanks to $19 fares on the now defunct Peoples Express Airline. In January 1986, Meg moved in with Gary Hirshberg at Stonyfield, and the two married that June. She found that the farmhouse was divided into the four parts: the apartment of Kaymen and his family, their apartment, the three drafty offices and the Yogurt Works. The doors had no locks, the walls were thin and temperatures inside dropped to freezing during New Hampshire's brutal winters. Work and home blended into each other in the spartan surroundings.[124] Late at night, Gary would often sneak out to work, for example, in the offices 50 feet from their bedroom.

Meg quickly learned that there was plenty of daily drama on the farm. Product spoiled, and filling machines broke at almost regular intervals.[125] One winter, a dumpster caught fire when an employee disposed of a cigarette butt in it, and the adjacent barn, containing Stonyfield's entire inventory, nearly burned down.[126] Every day, eighteen-wheeler tractor-trailers arrived at Stonyfield to deliver perishable raw materials—fruit and milk.[127] In the winter, drivers struggled through mud and snow on the steep, one-mile dirt road leading up to the farm. When the trucks got stuck, employees on hand abandoned work to help dig the vehicles out.

In early 1987, the partners decided Stonyfield's weekly production run of more than 120,000 cartons had outgrown the hilltop plant's capacity.[128] With annual sales of over nearly $1.5 million, the company needed better facilities to meet demand.[129] For several months, they partnered with a dairy in western Massachusetts that manufactured their yogurt while Stonyfield handled marketing and sales. The company began to grow rapidly as it transitioned into a sales and marketing organization, chalking up another $1 million in sales in just a few months.[130] They shut down the Stonyfield Yogurt Works and let a few employees go in order to focus resources on the new manufacturing system, in which the co-packer handled production.[131]

On the eve of the stock market crash in October 1987, Hirshberg received a call from the dairy's banker. During the call, he learned that the western Massachusetts dairy faced serious financial difficulties and was potentially interested in being acquired by Stonyfield.[132] But the New Hampshire company did not have enough money to buy its partner. The next morning, the bank seized the dairy and padlocked it, with equipment, finished inventory, cups, milk and fruit all inside.[133] Hirshberg and Kaymen had no time to lose; the finished yogurt inventory would soon be worthless if not delivered.[134] The founders had to find $340,000 quickly: $100,000 to buy the inventory back from the bank, $180,000 to pay their creditors, and $60,000 to restart their Yogurt Works in order to meet the production schedule they had worked out with distributors and retailers.[135] Hirshberg and Kaymen scrambled to borrow money from old employees, friends, investors and family. To help Gary buy fruit, Meg forked over the $30,000 her father left her in his will, which she been saving for a down payment on a home.[136]

Once they retrieved the inventory, Hirshberg and Kaymen restarted the Yogurt Works, and Stonyfield resumed yogurt production on the farm. To take on increased volumes, they converted the barn into an FDA-approved warehouse and retrofitted an old carriage house into a cooler.[137] The plant ran on a new schedule: three shifts a day, seven days a week, for the next fifteen months. Gary called old employees and begged them to join the company again; he cajoled new employees to stay and "had every available body in town signing on for the most calamitous circus you could imagine," he remembered years later.[138] Kaymen and Hirshberg alternated working the graveyard shift every other night. Sleep suffered, with each man logging an average of three to four hours a night.[139] Because their suppliers served more important customers, like Colombo, during the day, Stonyfield often received their raw materials deliveries in the hours before dawn. The founders were forced to unload cup and fruit shipments "in pitch dark, bitter cold and fierce winds," Hirshberg recalled.[140] As his wife was pregnant and needed uninterrupted rest, he often went back to sleep on the office couch, warmed by a wood stove.[141]

In fiscal year 1988, sales climbed to $2.3 million, with Stonyfield losing about half a million dollars on this revenue.[142] The next year, sales inched up to $2.6 million while net losses doubled to $1 million.[143] The founders attributed this outcome to inefficiencies in the Yogurt Works, which was not designed for the new, large volumes. Margins were poor and production costs, high. The company hemorrhaged cash, losing $15,000 to $20,000 a week for 65 weeks.[144] In retrospect, Hirshberg said, it was only "thanks to our healthy combination of naïveté, self-confidence and profound myopia [that we] set sail on a journey that, like most entrepreneurial voyages, would in hindsight turn out to be completely insane."[145] To stay afloat as cash flow ebbed, Hirshberg leaned on the affability of employees and business partners. Despite these reprieves and Gary's exhaustive efforts to raise operating capital from existing and new investors, the company continued to burn through cash at often alarming rates.

The tumultuous months between October 1987 and the winter of 1988 were a trial for the founders and their families. Kaymen and his wife found their relationship strained. "Everything was unknown, uncertain. At times, I was without salary. Much of our early experience was awful. Mud, fires, snow…Madness! Madness."[146] Hirshberg, however, never panicked, driven by what often seemed an unwavering belief in the company's purpose and potential destiny. At times, Meg "marveled" at her husband's "creativity, and his optimism and calm in the face of disaster."[147] He appeared to live by the understanding that entrepreneurs "cannot allow any whiff of doubt to emanate from their pores…if their suppliers, if their employees, if their investors, any of their stakeholders sense that they have doubts, that they're worried, that they have fears, the business is finished," she said.[148]

Meg Hirshberg experienced this period very differently than did her husband. For years after, she referred to Stonyfield's turbulent start as the "bad old days."[149] She came to the farm emboldened by her husband's grand vision of a more sustainable type of living. Accustomed to the more modest scope of her organic farming duties, however, Meg often felt that she was unprepared for the never-ending constant turmoil of the young business.[150] As debt piled up and bankruptcy became a possibility after 1987, Meg realized that her life (and soon, their childrens' lives) hinged entirely on her husband's fate in what remained a very uncertain wager. His dreams, as she phrased it, were "similar to mine—only his were incubating in little plastic cups…Though I had little input into [his plan's] direction, I stood to lose everything if it failed."[151]

As Gary Hirshberg and Kaymen struggled to build their enterprise in the late 1980s, Meg found her endurance, adaptability and faith tested over and over again. Her husband and Kaymen worked relentlessly, implicitly expecting others to do the same. "It was all hands on deck. I mean, if you had two arms and two legs, you were working…So I worked. I was trained as a yogurt maker, though I didn't work very long in the factory," she said.[152] Meg also served in sales.[153] The all-consuming nature of the entrepreneurial journey blurred the lines of the Hirshbergs' marriage, the exigencies of the business often swamping more traditional priorities for the couple.[154] Compounding matters, Hirshberg and Meg had no privacy in their home life. Employees, suppliers and investors all flowed through their apartment to talk to Hirshberg or use their bathroom. One afternoon, Meg walked into her kitchen to be surprised by a staff member, casually taking out plates and cutlery from her cupboard for a work-related meeting.[155]

The couple grappled constantly with life on the edge of financial ruin. On what seemed a regular basis, Gary Hirshberg phoned his mother-in-law, Doris Cadoux, often late at night to borrow more money for the farm. Meg, concerned for her mother's financial stability, would call Doris immediately afterward on the other line, pleading with her to refuse Gary's request.[156] Despite her daughter's entreaties, Doris proved one of Hirshberg's most loyal investors, saving the firm's cash flow with a check, time and again. For Meg, this meant ongoing anxiety about her mother's financial stability.[157] Meg worried as well about the strain Hirshberg's borrowing placed on relationships with her siblings who were well aware that Doris was depleting her retirement savings by helping fund Gary's business.[158]

Meg recognized that her husband's shareholders, who included employees, friends and family, were investing in the mission of Stonyfield. They were also, she knew, betting on Hirshberg himself: his "smarts, persistence, commitment, and confidence."[159] He relied on these people to co-sign for loans, increasing their equity stakes in Stonyfield in turn. Some of his investors, including Doris, sat on the Stonyfield board. At times, they were vocal about their belief in the company's founder and its mission. "I had faith in Gary," Doris remembered, "perhaps more than I should have, given the circumstances. But I had a great deal of confidence in his ability and in what he was trying to do."[160] Hirshberg valued their loyalty and insights.[161] He felt obligated—beyond his fiduciary duty—to deliver on the promises he had made to his angel investors.[162] This same pressure helped power his own development as an entrepreneur, fueling his motivation and ingenuity. As he later described it, "When you're in debt with friends' and family's money, you don't have time for philosophy."[163]

Meg's role in the business soon changed. In May 1988, when she was nine months pregnant with their first child, she became worried about the yogurt plant's effluent, which piped directly into the field under their window. The fermenting curds' smell filtered directly into the young couple's bedroom, nauseating the expectant mother and disrupting her rest. She and Hirshberg trudged through a field overrun with poison ivy, to lay down polyethylene tubing, directing the effluent away.[164] Two days later, Meg bore her first child, Alex, on the farm—in clear earshot of other Stonyfield employees.[165] By the time she had her next child, Meg had relinquished her responsibilities in the business, concerned that chronic stress could damage the baby's health.[166]

As committed as he was, Hirshberg discovered that he, too, had his limits. In March 1988, exhausted by the toll of little sleep, accumulating losses, and the larger responsibilities of running a young company, he began negotiations with a Vermont-based dairy cooperative. Under the proposed deal, the cooperative would become Stonyfield's manufacturing and equity partner while Hirshberg and Kaymen would head up sales, research and marketing.[167] With everything in place to complete the transaction, the two entrepreneurs arrived in Vermont to sign the deal. To their great surprise, they were handed a one-page letter outlining a very different arrangement; the dairy planned a takeover, converting all of the shareholders' equity into debt.[168]

Furious, the founders walked out of the meeting. Describing his shock, Hirshberg said, "We'd have sooner driven off a cliff than deliver our battered little company into that vulture's talons."[169] On the way to the car, Hirshberg remembered, "my mind twisted and torqued in the kind of chaos that only an entrepreneur understands."[170] He would now have to face his wife, his mother-in-law (whose retirement funds he had potentially squandered), his investors and his employees. In the deep of a New England blizzard the two drove back to New Hampshire. As the Toyota struggled along the windy, snowbound highway, Hirshberg and Kaymen drafted a last, desperate effort: a business plan for a new yogurt plant. Kaymen pulled out a calculator, and the two computed costs for a no-frills plant that could run at profitable volumes.

In that moment, Hirshberg remembered hearing a familiar "voice of pathological optimism."[171] He still believed in a large potential market for natural, healthy food founded on sustainable manufacturing methods. With enough dedication and positive conviction, he reasoned, the most ill-advised undertaking could be turned into success. Any outsider, though, "listening to us on the way home that night…would have thought we had lost our minds," Kaymen noted.[172]

Arriving home at midnight, Hirshberg found Meg standing by the wood stove in eager anticipation. She kissed him and asked, "Is it done? Are we saved?" He replied, "No, the deal fell through, but Samuel and I have come up with a much better plan."[173] Meg was speechless and turned and headed to their bedroom. Hirshberg headed to his office to type up the new plan. Her account of the evening was telling: "I wept that night, pressing the damp pillowcase against my nose and mouth to filter out the stench from the yogurt waste still souring in our back yard."[174] Hirshberg was anguished as well; he was legitimately worried that Meg would leave him.[175]

The next morning, Hirshberg was up and out early, driving an hour to Concord where he greeted officials at the New Hampshire Small Business Administration (SBA) as they arrived at work. He convinced them that he and Samuel could build a plant for $592,500.[176] The SBA extended an 85% loan guarantee to Stonyfield on the condition that he could find a bank and also raise the requisite equity financing. Hirshberg drove that same morning to the Bank of New England, which eventually agreed to provide him with the (SBA-backed) $592,500.[177] Hirshberg raised an additional $500,000 (bringing his total for the year to $2.1 million) from individuals to fund the operating losses and build the plant.[178] The partners then secured a lease for a 21,000 square foot property in Londonderry, New Hampshire, and Stonyfield began to construct a new, larger and more efficient Yogurt Works. Moving forward, the obstacles they faced were formidable. They had high overhead without sufficient volumes to support it. They also had a difficult manual culturing process that was much more art than science, meaning the consistency of the product often suffered.[179]

Expanding the Market

In late 1988, the new Londonderry plant was completed. This marked a turning point for Stonyfield: increasing its stability, strengthening its manufacturing base and building a foundation for potential profitability. When the company relocated to the new facility in 1989, the Kaymens, Hirshbergs, employee Bob Burke and a few other workers from Wilton moved to Londonderry.[180] More than a year after the move, Hirshberg and Kaymen closed the books on their business for 1991: they had lost $245,000 on sales of $6.3 million. At less than 4% of sales, the net loss was the smallest the company had known, and both Hirshberg and Kaymen believed it augured well for the future. The move to the new, more efficient plant, in tandem with rising demand for the company's yogurt, helped staunch the company's financial bleeding and steer the enterprise towards profitability. From that point, Hirshberg said, "we hit our stride and have never looked back."[181]

As both entrepreneurs realized, significant challenges remained. Yogurt was one of the fastest growing consumer products categories in the United States, and large food manufacturers like General Mills were investing huge sums to compete effectively in it. Without a "war chest of millions of dollars" to dedicate to advertising and retailers' slotting fees, Hirshberg wondered, how was a small upstart like Stonyfield to make real inroads?[182] He knew that he and his team needed to build awareness of their brand among consumers, cajole store managers who were notoriously picky about the brands they carried, and earn and maintain footholds on supermarket shelf space. How to best do this on a relatively small budget with a premium product in a growing but niche position? In the early 1990s, the entrepreneurs grappled with these and other imperatives.

Marketing

The mass market for food was very difficult to enter. The most profitable channels of food distribution, supermarkets, exercised a great amount of deal power over which foods and brands were sold.[183] By deciding how much space was dedicated to a given product, a grocery chain effectively rented out shelf space to companies, usually for an introductory fee, called a slotting allowance. This allowance was a first-time, up-front payment that the manufacturer paid to have a stock-keeping unit (SKU) on store shelves.[184] The payment could exceed $40,000 a chain per item, which meant a company potentially needed millions for national distribution.[185] A company like Colombo or Dannon, aiming to sell a number of stock-keeping units of yogurt in a supermarket, relied on deep pockets to pay slotting fees. Moreover, because organic yogurt comprised a small fraction of overall sales, most supermarket chains had little interest in carrying it.

Despite these obstacles and the small advertising margins generated by Stonyfield's relatively high production costs, Hirshberg was keen to sell his products in supermarkets. Since the young company could not afford either mass marketing initiatives or competitive slotting fees, Hirshberg and Kaymen knew their success would depend heavily on word-of-mouth endorsement of their products and their mission. As they discussed possible tacks, Hirshberg honed in on what he called Stonyfield's "secret: when you make a better product and you're dedicated to causes people care about, all that…builds a lot of loyalty (which means you don't really have to rely on advertising)."[186]

In the mid 1980s, Hirshberg's focus was the Boston market—considered one of the most cut-throat, expensive markets for food in the Northeast.[187] After securing an order with Purity Supreme market, the young company found itself selling in the territory of other major players in the region, including Star Market and Stop & Shop.[188] Thanks to Hirshberg's grandfather's connection to Sidney Rabb, father of Carol Rabb Goldberg, the chairman of the Stop & Shop board and her husband Avram Goldberg, the CEO, they wrangled an offer from Stop & Shop dairy manager Bill Gaetani to hold Stonyfield taste tests in-store.[189] Initially they were allotted shelf space in five stores and could pass out yogurt samples over 12 weeks.[190]

Hirshberg and Kaymen were overjoyed at this possibility. Though both men were stretched paper-thin between yogurt-making and fund-raising, they pushed ahead with an improvisational, low-cost marketing campaign based on in-store sampling events. These events became their priority, since, ultimately, it was the supermarket customer who made or broke their venture. They realized they had to transform a consumer's preferences with a single serving.[191] At sampling stations in Stop & Shop stores, they handed out cups of plain Stonyfield cream-top yogurt, which customers could sweeten with local maple syrup. What the entrepreneurs lacked in formal marketing training or experience, they made up for in their conviction that theirs was the highest quality yogurt available. This conviction powered their efforts as they pressed a free cup of yogurt "into every visible palm—shoppers, store operators, dairy managers," as Hirshberg remembered.[192] Before long, the company was selling yogurt in 21 of the chain's stores, and the entrepreneurs hired more individuals to carry out demos. Within a year, Stop & Shop agreed to sell Stonyfield yogurt in each of its New England supermarkets.[193]

Consumer education was an important element of these sampling events; it grew out of Hirshberg's vision of helping create more informed customers who then voted at the register by purchasing socially and environmentally responsible products. As Stonyfield's marketing efforts gathered steam, the supermarket became the company's classroom. The two founders gave customers mini-lectures on the process of creating their yogurt, explaining and advocating for sustainable food production. They discovered their customers were often mature baby boomers, who "were looking to take greater responsibility for their own health and also wanted to have their purchases count for something more than just a purchase. They liked the idea that their grocery dollars could go to causes that they cared about," Hirshberg reflected.[194]

In order to get their product in front of consumers, Hirshberg and Samuel took advantage of all kinds of unconventional openings. Some of their methods were clever tricks. As Hirshberg remembered, "the best nights were when Samuel and I would go together to demo because I would talk to the consumer while he was sneaking products into her basket. So by the time she got to the front of the cash register and saw the extra cups of yogurt, she wasn't going to bring them all the way back. I'm barely kidding about that."[195] In 1984, when Hirshberg and Kaymen had trouble getting into the natural foods retailer Bread and Circus, based in Cambridge, Massachusetts, Hirshberg asked 20 friends to come to the Farm for his 30th birthday. He wanted only one birthday gift from each: to go to Bread and Circus and request Stonyfield yogurt. In three days, the Bread and Circus buyer called and said that demand for Stonyfield had skyrocketed, and they needed a delivery that day.[196] Stonyfield soon became Bread and Circus' top-selling yogurt, a position it held for the next 25 years (Bread and Circus was acquired by Whole Foods Market in 1992.)[197]

In addition to stoking word-of-mouth endorsement and buzz, the founders made modest ventures into coupon and print advertising. They used every surface available, from the backs of business cards, to shelf-strips in the supermarkets, to the labels on their yogurt cups, to highlight Stonyfield's mission.[198] The founders also made sure to personally answer phone calls and many of the thousands of enthusiastic letters they received from customers. In 1989, Gary created the "Moosletter," which outlined the workings of Stonyfield Farm and the company's environmental efforts.[199] Using a database compiled from the thousands of sampling sign-ups, letters and contest entries, Stonyfield staffers distributed the newsletter to households near and far. By 1994, it went to about 50,000 nationwide.[200]

Hirshberg and Kaymen ventured into other advertising venues, relying on their own ingenuity to engage potential customers. One morning in 1985, for example, on the popular Boston morning radio program, the *Joe and Andy Show*, Joe, the healthier of the two hosts, recommended that his co-host Andy try eating Stonyfield. "I'd rather eat camel manure," Andy responded.[201] Hearing the DJ's comment, Hirshberg and then fiancée Meg both drove down to Boston the next day with a quart of Stonyfield yogurt and a quart of camel manure from a local animal farm.[202] Presented with these options, Andy admitted that Stonyfield yogurt did, after all, taste better than camel manure.

The founders continued to strengthen brand awareness through innovative consumer-interest campaigns. In 1988, when Jack DeMoulas asked Hirshberg for the company's future advertising plans, he decided to put their supplying farmers' cows up for adoption.[203] Through Adopt-a-Cow, consumers could support family farmers and sustainable farming methods.[204] After sending in five Stonyfield lids, a consumer became the "sponsor" of a dairy cow. He or she received a certificate and biography of the cow along with quarterly updates on the cow's farm. Between 1988 and 1995, more than 25,000 customers signed up for the Adopt-a-Cow program.[205] Today, that number is in the hundreds of thousands.

Whether through sampling, in-store education or (often improvised) media spots, these early promotion efforts helped Stonyfield create direct relationships with consumers.[206] "We are a spoon-to-mouth brand, and we expand our customer base largely by making an emotional connection with those who sample our product," Hirshberg later wrote.[207] Keen to strengthen and enhance such connections, Hirshberg began building more formal marketing capabilities within the company. In 1986, he hired Bob Burke, who came to Stonyfield from Colombo to help him bring Stonyfield to more supermarkets. A year later, following Colombo's example, the company implemented a direct store delivery (DSD) distribution system, which allowed the manufacturer to control delivery and merchandising in store. This system had several advantages for the young company. Instead of delivering stock to a supermarket's distribution center, the Stonyfield truck driver brought the yogurt directly to stores. There he or she checked Stonyfield inventory on shelves, made sure it was highly visible, and monitored sales of other yogurt brands.[208] Working 100% on commission, each of these individuals was more salesperson than driver. In 1991, noting that stores served by Stonyfield drivers had higher sales, Hirshberg called the move into direct delivery one of the smartest decisions he made.[209]

In the late 1980s, Stonyfield captured almost 5% of New England's total yogurt sales. By 1988, Stonyfield products were sold in natural foods stores in every U.S. state.[210] An intensely loyal customer base fueled such expansion. According to Hirshberg, "supermarket buyers tell us that when we're out of stock, consumers scream more loudly than when any other brands are out."[211] In 1991, Stonyfield sales hit $6.3 million, and a year later, Stonyfield, with revenues of $10.2 million, posted its first profit.[212] After 36 consecutive quarters without positive net income, Stonyfield had finally broken into the black.

Kaymen, Burke, and the 37 year-old Hirshberg, who had always envisioned that his business should have nationwide impact, now turned their attention to markets outside New England.[213] The company first targeted natural foods stores, which had no slotting fees, in a given area. After Stonyfield signed with the natural foods stores' distributors, the company usually received orders from upscale supermarket chains, followed by more value-oriented chains like Pathmark.[214] At larger stores, they planned special events, including in-store demonstrations, and often distributed free cases to stores to hand out Stonyfield yogurt to employees and customers.[215]

By 1994, Stonyfield was distributed through supermarkets in nearly 20 states and nationwide through natural food stores.[216] The company boasted revenues of $21.5 million and had a 1% share of the U.S. market.[217] As Kaymen, Burke and Hirshberg moved to take on bigger markets, Stonyfield relied on the same strategies it had used in breaking into New England markets: a combination of education and sampling, often in store, strategic company-owned distribution, creative media overtures and stunts and other initiatives aimed at nurturing and maintaining broad, positive word-of-mouth among consumers. For example, in Chicago, when challenged with capturing a 3% market share in three months to stay on the shelves of the regionally-based Dominick's chain, Hirshberg went where people concentrated: the city's transit system, Metra.[218] Company representatives passed out 85,000 cups of yogurt to subway riders with coupons reading, "We salute your commute; thanks for doing your part to help save the planet." The effort earned the company both instant media attention and a jump to a 2.5% market share in the region.[219] These and other initiatives helped fuel greater growth.

One of the most successful vehicles for communicating Stonyfield values and brand awareness were the lids of yogurt cups. Hirshberg stumbled on this possibility in 1995 when he was 41 years old. Beginning that year, over one millions lids were printed each week with the company's favorite causes, from saving family farms, to mitigating global warming to health issues, like breast cancer education.[220] Some lids invited consumers to get involved in a specific issue or initiative. For example, a 1996 "Flip Your Lid" featured a letter to Congress that consumers could sign, which read, "Government should be more efficient, but not at the cost of a polluted planet. I don't support cuts in environmental funding for they deny our children their rights to healthy Earth. Please vote on behalf of the environment."[221] During this campaign, customers sent nearly 15,000 Stonyfield lids to their congresspersons at the Capitol.[222]

Some themes incited controversy. For example, a 1995 run of 1 million lids featured a non-profit gun safety organization, Stop Handgun Violence.[223] The lids expressed Stonyfield's support for the group and listed its phone number.[224] In response, retailers and consumers accused the company of stepping over the line of acceptable social advocacy. One grocer called Hirshberg and demanded, "How dare you use my supermarket as your soapbox?"[225] Some stores threatened to ban Stonyfield. Others asked Hirshberg to rush them new lids because these were so controversial.[226] Later, Hirshberg reflected, "Our intent was to heighten awareness, not to place supermarkets in a tough spot with their customers."[227]

Despite such hiccups, the company continued to grow, with revenues climbing to $44 million in 1998.[228] That year, Stonyfield moved into the Southeast and California, and Hirshberg remembered dealing with distributors as far, stateside, as Texas and Montana, and internationally, as Israel and Japan.[229] In new and existing markets, the young brand incited consumer interest and loyalty. A company study found that when Stonyfield had a promotion, three of five people who sampled the brand switched permanently.[230] Moreover, Stonyfield customers were less likely to switch to another brand, even when it was offered on promotion.[231] By the end of the decade, Stonyfield had established itself as a player in some of the most competitive markets in the country, including the Northeast, the Great Lakes region and the Southeast.[232] In 2000, national sales for the company were growing more than 28% over sales in 1999, in a category that was increasing at 8%.[233]

The end of the millennium marked a milestone for Stonyfield, as it edged out Colombo to become the fourth-ranked yogurt in New England, and the fifth-ranked yogurt nationally. That the formerly unknown upstart had not only carved out space for itself in grocery stores across America, but also generated sales exceeding those of the country's original yogurt maker, attracted significant media attention. Many hailed the moment as a triumph for natural and organic products. At the opening of the 21st century, it seemed increasingly clear that more consumers wanted products without additives and artificial ingredients.[234] As consumers gained confidence, knowledge and power, many households also demanded food with other value-added qualities, including socially responsible business practices.[235]

Product Development and Sourcing

Hirshberg, Kaymen and their yogurt makers had begun tinkering with new products shortly after moving to the Londonderry plant. In 1989, they added soft-serve frozen yogurt and nonfat refrigerated yogurt to the portfolio.[236] Through the 1990s, as the national market for natural and organic foods expanded, Hirshberg and his team continued to refine and diversify Stonyfield's offerings. In 1992, for example, the company began to experiment with new flavors, adding three: Tropical Fruit, Prune Whip, and Guava Papaya. None were well received, and the company quickly pulled them. That same year, they launched an ice-cream sandwich substitute, Frookwich. Made of two whole-wheat Frookie brand cookies and vanilla frozen yogurt, the Frookwich was retired after a year and a half because the cookies, made without artificial preservatives, quickly became soggy.[237]

In 1994, Stonyfield faced a critical choice in product development. That year, the FDA approved use of the synthetic bovine growth hormone rBST in cows. The hormone, which increased milk production, was increasingly linked in scientific studies to a higher risk of cancer—particularly prostate and breast cancer—in humans.[238] Hirshberg, disturbed by the FDA's decision, moved quickly to source milk from suppliers who did not treat their cows with rBST. Concerned about the potential long-run health effects of rBST, the entrepreneur also challenged a potential state-legislated ban on "rBST-free" labels. At the same time, Stonyfield stepped up its campaign to increase consumer awareness of the hormone and its potential effects. In 1995, the company ran six billboards in Connecticut and Massachusetts, featuring bovine versions of the farmer and his wife from the painting *American Gothic,* with the caption "Just Say Moo."[239] Alarmed by the unfolding controversy and the warnings of scientists from the Cancer Prevention Coalition and consumer groups about rBST, much of the American public became leery of hormone-treated milk. That year, national demand for organic milk skyrocketed, and organic dairy farms proliferated.[240]

The rBST controversy had larger consequences for Stonyfield. It motivated Hirshberg and his team to take a long, hard look at their milk sourcing. As many conventional farmers transitioned their land and livestock to organic production, Hirshberg felt compelled to convert his entire product line to organic. Though he had been long committed to the principles of organic farming, Stonyfield had, from its earliest days, found the sourcing of sufficient quantities of organic milk to be very difficult. As few farm cooperatives sourced organic products, Stonyfield had to compromise and use natural and hormone-free milk from other dairy farms.[241]

Eight years later, the emergence of the rBST hormone and its anticipated widespread use in conventional dairy farming offered Hirshberg an opportunity to align his product sourcing more tightly with Stonyfield's core values. In 1994, much of the American public did not really understand what organic food meant. Still, Hirshberg knew "organic" designated a rigorous process that ensured a product was made without pesticides, antibiotics or growth hormones at each stage of production. The entrepreneur had entered business to rectify environmental and social trends, and organic husbandry addressed a number of them, from toxification of the ecosystem to the decline of family farms. Not only did organic production reduce the emission of destructive and dangerous substances into the environment, it also offered family farmers a viable income stream and thus a runway to long-term financial stability. Equally important, an organic food system helped lower health care costs by reducing risks for illness and disease. As Hirshberg said, "when you eat better you are better."[242] On the level of competition, launching an organic line was a good defensive move against a new rival organic producer called Horizon.[243]

The entrepreneur believed these benefits justified the higher costs of organic milk, fruit and sugar, all of which were nearly twice as expensive as conventionally produced ingredients. To cover these costs, Hirshberg had to raise the price of his yogurt. Luckily, Stonyfield's loyal customer base "did not flinch. They kept paying our price for six ounces of our organic yogurt, even though they could buy eight ounces of a conventional brand for the same price," he said.[244] As Hirshberg and his team transitioned to organic production, they developed new quality control, research and sourcing capabilities.[245]

Paying high prices to organic milk producers acted as an important upstream incentive. Family farmers often avoided conversion to organic because the process took three years and reduced yields in that time.[246] Hirshberg protected his dairy farmers from the wild fluctuations in commodity prices that conventional farmers endured by offering a set floor price above the conventional market for the milk his company purchased.[247] In return for price stability, his dairy suppliers would deliver the highest quality organic milk available.[248] When Stonyfield prospered, so, too, did family farmers who practiced sustainable farming. It was a kind of virtuous cycle, and it earned the company good press and customer loyalty. As Hirshberg described it, "we have literally risked our shelf position to take a stand…this position has won us a stature that all the bribes in the world not have earned."[249]

In the mid 1990s when Stonyfield produced its first certified organic yogurt, the broader organic food movement in the United States was gathering steam. Between 1997 and 2005, U.S. organic food sales grew almost 400%—from $3.5 to $13.8 billion.[250] During these years, celebrity chefs and journalists, like Michael Pollan, gave the organic movement both credibility and publicity by calling attention to the effects of factory farming on human health, animal well-being and the environment. In 2002, the National Organics Standards Board ended a 12-year project to codify the meaning of labels "Made with Organic", "Organic" and "100% Organic."[251] Expanded media coverage and clearer standards helped boost understanding of and demand for organic goods.

Demand for organic milk grew particularly fast—more than 20% per year in the years leading up to 2008.[252] For Stonyfield, the pressure on organic milk suppliers meant shortages, beginning in 2005. One shortage forced the company to absorb $4 million in costs to buy organic milk at a premium. Other shortages prompted temporary conversions of some Stonyfield products, like Smoothies, to conventional forms.[253] In 2007, having bridged these hurdles in its pursuit of organic status, Stonyfield converted the last remaining portion its product line to organic. By 2009, Stonyfield would purchase over 300 million pounds of organic ingredients, sourced from over 100,000 acres of chemical-free land.[254]

The next burst of product innovation aimed to increase the health benefits of Stonyfield yogurt. Probiotics had long been shown to treat a variety of enteric and digestive ailments and reduce risk of cancer and hypertension.[255] The FDA required active cultures be present at the time of manufacture of refrigerated yogurts. However, the common post-fermentation heat treatment of many commercial yogurts—meant in part to prolong shelf-life—killed these beneficial active cultures.[256] Stonyfield's yogurt, in contrast, was not heat-treated after culturing, allowing it to retain several healthful bacteria. Yogurt manufacturers continued to innovate their live culture offerings by adding in cultures atop the two basic bacteria used in production.[257] In 1998, Stonyfield added more active cultures, *L. reuteri and L. casei,* to all its yogurts, becoming the only brand in the country to offer six active cultures in every cup.[258] Companies like Dannon, Yoplait and Mountain High would also earn the "Live and Active Cultures" seal from the National Yogurt Association, with the addition of "good bacteria" like *L. acidophilus* and *L. casei* to their health offerings.

During the late 1990s and early 2000s, the company continued to diversify its offerings. In 1999, Stonyfield launched YoBaby, the first certified organic whole-milk yogurt for infants as young as a year old.[259] Supported by a $1 million print advertising campaign, it was a runaway national success, and the company struggled to keep up with demand.[260] Enthusiastic parents wrote Stonyfield, extolling YoBaby's benefits as a cure for stomach ailments and a good transition to solid food.[261] The next year, Stonyfield created YoSqueeze, a squeezable yogurt made without preservatives and starches, to compete with Yoplait's squeezable offering.[262] In 2002, the company launched a single-serve soy yogurt with fruit on bottom, the first of its kind.[263] The same year, its yogurt smoothies and a drinkable YoBaby Yogurt for toddlers and babies entered supermarkets. On the eve of its 20th anniversary, in December of 2002, Stonyfield had become the third largest yogurt brand in the United States.

Within four years, it was the largest organic yogurt producer in the world, with annual sales exceeding $260 million.[264] From 1988 to 2006, Stonyfield had a compound annual growth rate of more than 27% a year; by contrast, the yogurt industry overall had expanded by 5 to 7% annually.[265] Against this backdrop, Stonyfield's product diversification continued through the end of the decade. In 2006, the company introduced certified organic ice cream, which would eventually come in Vanilla Chai, After Dark Chocolate and Cookies 'n Cream flavors. In 2007, the company created Oikos, a creamy yogurt with less lactose, less fat, and nearly twice the protein (23 grams) of other Greek yogurts on shelves.[266] By 2011, the company's inventory had swelled to feature three main all-organic lines: Stonyfield "Core," YoBaby and YoKids, and Oikos. Stonyfield Core offered fat-free and low-fat yogurts, in 4-, 6- and 32-oz sizes, in 12 different flavors. Frozen yogurt, ice cream, smoothies, fat free and whole milk also fell under the Organic core line.

Creating the Organization

As the business grew, Gary Hirshberg and Samuel Kaymen turned their attention to building specific organizational capabilities, including internal controls, employee compensation and quality standards. Systems were the first step in the evolution of the company from a bootstrapping entrepreneurial culture, largely driven by and dependent on Hirshberg, to a sustainable enterprise capable of carrying the mantle of market leadership.[267] One of the most important steps in creating the organization was Hirshberg's decision in early 1992 to bring Diane Carhart on board as Chief Financial Officer (CFO). Carhart immediately set about establishing a company-wide software system to track the costs of plant manufacturing and to help complete the company audit for 1992.[268] She established yearly and five-year strategic budgets, instituted quarterly reports and projections and developed financial controls.[269] She also coordinated and monitored the budgeting process. This involved using the formal sales forecast that Bob Burke had created to track how consumer demand translated into monthly production requirements, allowing the enterprise to better oversee and control operating costs.[270] Stephanie Madigan, brought on as manager of Human Resources, instituted a schedule of competitive salaries and health and retirement benefits, along with a popular tuition assistance program.[271]

Hirshberg and his growing team also turned their attention to developing Stonyfield's work force. In 1991, before the company turned into the black, he offered profit sharing through stock options.[272] He held daily all-staff meetings and instituted open-book management to give employees access to a wider range of the company's financial information. Recognizing that most of his employees had invested tremendous energy and dedication during the years before profitability, Hirshberg wanted to do all his business could to nurture a productive and engaged group of employees. As he explained, open books and employee stock options demonstrated the company's appreciation for its people and offered them a stake in Stonyfield's fortunes.[273] In 1995, Carhart and Hirshberg refined the employee stock ownership plan. She also focused on how the company recruited and hired from the outside. Many of the candidates we see, she explained, see Stonyfield completely in terms of its mission. "When I am interviewing them, I often to remind candidates that this a real job in a real business with real milestones we need to meet."[274]

To help him build the company and its capabilities beyond himself, Hirshberg knew he needed a strong management team. In 1994, this group was comprised of Hirshberg, Kaymen, Carhart, Burke, along with Pam Dietz, hired in 1993 and made marketing director in 1994, and John Horan, vice president of operations.[275] Each executive was focused on maintaining the company mission within his or her respective roles. For example, in 1996, Kasi Reddy, the newly appointed vice president of research and development and quality assurance, helped establish a research and development pilot plant. He ensured the plant had a high capacity for protein denaturization, a process that Stonyfield needed to use in place of artificial stabilizing in its natural products.[276]

Up until 1998, Hirshberg depended primarily on flexible, generalist managers who could handle the chaos of a startup, trusting his instincts to make sure these hires fit within the company's mission and evolving culture. He realized, "there was a pattern of nonconformity in these otherwise polished people which [gave] them the ability to accommodate to our lunatic world view."[277] For instance, the vice president of marketing had played in a rock band; the operations chief had left the dairy business for a while to open a hardware store.[278] Hirshberg saw these non-linear career trajectories as signs that these managers were free thinkers and therefore a good fit.

In 1998, when revenues topped the $40 million mark, Hirshberg began to plan the infrastructure of a much larger company. He sought talent to serve in three specialist positions.[279] After a rigorous process, he selected a strong individual for each job. "One of them," he remembered, "who happened to be an HBS graduate—actually said to me that her motto was 'sometimes wrong, but never uncertain.' What she was saying is, 'I'm going to run my silo, and you damn well better not step into it.'" The other two vice presidents whom Hirshberg hired "weren't as honest, but believed the same thing."[280] After several months, it became clear that the new hires neither fit with Hirshberg's mode of leadership, nor within Stonyfield's culture.[281] Many years later, Hirshberg described these hiring decisions as big mistakes. A specialist with business skills but with no mission-driven values, no "innate gut sense" of the product, customer and larger organizational purpose, could not succeed in his company.[282]

Merger with Danone

In 2000, the 46 year-old Hirshberg started to explore a safe exit strategy for the 297 shareholders who had invested in Stonyfield through the years. These shareholders included dairy farmers, family members, friends, about 100 employees, angel investors, and one venture capitalist. Some had supported Stonyfield since 1984, and their capital effectively kept the company alive until it became profitable in 1992. By the late 1990s, a number of these investors (particularly the venture capitalist) had begun asking for a return on their investments that outstripped what the company could distribute.[283] Hirshberg responded by seeking an investor who could buy out these shareholders.

With the help of investment bank Lazard Frères, Hirshberg eventually selected Groupe Danone, the Paris-based food giant and creator of yogurt brand Dannon/Danone. At the time, Danone's U.S. sales totaled $1.4 billion, almost half of which were dairy products.[284] Company executives were eager to enter the booming organic dairy sector. As the top U.S. natural yogurt brand, Stonyfield was a choice target. In 2001, after two years of negotiations, Danone purchased a 40% stake in Stonyfield Farm.[285] Two years later, the French company increased their stake to 80%. The total value of the deal to the New Hampshire yogurt maker was estimated at $125 million. Many long-term investors, including 100 employees and Hirshberg's friends and family, liquidated their investments very profitably.[286]

At the time, the Danone-Stonyfield merger shocked the social business community. Some critics suggested that Stonyfield was yet another value-based company swallowed by a multinational giant and that its commitment to sustainability would likely be toned down.[287] Hirshberg, too, remembered how one of Ben & Jerry's founders feared that their company would become "another brand like any soulless, heartless, spiritless brand out there" after being bought by multinational Unilever in 2000.[288]

Under the terms of the Danone-Stonyfield deal, Hirshberg maintained management control of the company and its board as well as 60% voting rights.[289] He and his team also gained access to Danone's market research, longtime Stonyfield board member Howard Jacobsen explained, along with use of the French company's manufacturing expertise.[290] Years later, Hirshberg pointed to the merger's success, saying, "Small is not always beautiful. There are advantages to getting to scale."[291]

Danone shared Hirshberg's enthusiasm for his company. As Danone's Vice President of Environment Myriam Cohen-Welgryn explained, her company had acquired Stonyfield to learn from its mission and model. The giant viewed Hirshberg as an "internal thought leader with strong convictions" and inspirational vision.[292] Stonyfield had learned to thrive using socially responsible business practices. The goal was for Hirshberg to help Danone grapple with its environmental priorities and initiatives—for instance, helping the large corporation commit to better carbon management. As Cohen-Welgryn phrased it, "the responsibility of the company does not stop at the factory gate."[293]

During the first decade of the millennium, Stonyfield, with Danone's investment, demonstrated the widespread impact a sustainable company can have on the global market. In 2005, Hirshberg was named managing director of Stonyfield Europe, tasked with creating sustainable brands in France, Ireland and Canada.[294] This marked the company's first foray into international waters. The new firm quickly acquired a 37% interest in Glenisk, Ireland's leading organic dairy.[295] With the founding of Stonyfield France, Hirshberg planned to capture the majority of French yogurt consumers that was reportedly open to sustainable eating. The new yogurt campaign for *Les deux vaches des fermiers du bio* featured the brand's eponymous cows. In a grassy, open field, one young cow, ignorant of the advantages of sustainable farming and organic eating, gets a lesson in the subject from her friend, a more articulate, be-spectacled cow."[296] Though *Les deux vaches* did not grow as quickly as Danone and Stonyfield expected, by 2011, the brand was a solid fixture of French supermarket shelves.[297]

Living the Mission

From its inception, Stonyfield Farm was a mission-driven organization. Hirshberg wanted his company to do more than make high-quality yogurt. He hoped, ultimately, that Stonyfield would change the way people thought about where their food came from and adjust their own behavior accordingly, becoming more and more committed to sustainable agriculture and the distribution system that grew out of such practices. Integrating an environmental or social mission into an organization, Hirshberg believed, would also strengthen it, creating a fulfilling workplace with more committed, productive and satisfied employees.[298]

But to do this successfully meant the integration had to be credible at every level of the organization. As Hirshberg described, "When we talk about reducing carbon emissions, we're actually doing it. When we talk about organics and saving family farmers, we're actually doing it."[299] Hirshberg, Kaymen, and their managers helped Stonyfield pursue its mission without rest. New employees were told that their real job was to help fulfill the environmental mission.[300] Stonyfield was not the only mission-driven company prospering in its respective market. Companies like Whole Foods, Honest Tea, Organic Valley, natural household product maker Seventh Generation and Applegate Farms were also enjoying strong growth.

Motivated by a broad social mission each of these entrepreneurs had started his company against long odds. In the beginning, Whole Foods CEO Walter Robb, explained:

> No one thought that we would get to the reach and impact that we have today. When you start from a sense of purpose and you're coming from that place, results come as they come. We were all pretty sure of intent, and there really wasn't any money for a long time. That's the best message for young business students: there is no right answer to these questions, except for one, and that's the one that's going to be right for you and the world.[301]

Working from this foundation, each of these business leaders and their companies had established powerful competitive positions in their respective markets—often against much larger rivals.

Institutionalizing Sustainability

To live its mission, Stonyfield invested a significant portion of new profits into sustainable initiatives with a focus on measuring their respective effectiveness. "You can't improve something you can't measure," Hirshberg said.[302] Measuring the impact of various company initiatives required an ongoing, objective self-appraisal process.

Examining Manufacturing Methods In 1992, Gary Hirshberg brought on his sister, Nancy Hirshberg, who had a background in agriculture sciences, to be vice president of natural resources. As a means of formulating concrete goals for improvement, she created a baseline of statistical information on Stonyfield's production process.[303] She worked with managers to develop metrics that measured the plant's energy and water use, water, as well as its waste production.[304] Nancy also created the company's first Mission Report, detailing how each step of the production process affected the environment.[305] Four areas were targeted for action: greenhouse gas emissions, toxins, resource use, and generated waste.[306] In 1993, the company conducted an "energy retrofit" of its Yogurt Works to make the facility more energy-efficient, reducing the amount of energy used for each unit of yogurt.[307]

Nancy was particularly keen to decrease Stonyfield's carbon footprint, a measure of how company activity affected climate change. In 1994, the enterprise underwent an ecological audit of its environmental impact by a third-party group, Green Audit.[308] The company began rigorous tracking of energy use in the Yogurt Works. The leaders believed the plant itself had the greatest impact on Stonyfield's carbon footprint; the process of heating and cooling the yogurt during pasteurizing used a huge amount of energy.[309] In the aftermath of the energy audit, the business began offsetting the plant's GHG emissions through a range of investments, including wind power projects and a reforestation program in Oregon.[310] In 1997, Stonyfield became one of the first companies nationwide to offset 100% of its plant's GHG emissions.[311]

To Gary Hirshberg, offsetting was an ambitious start, but it still felt like a panacea after the damage had been done. A system-wide Carbon Footprint analysis in 1999 revealed precisely how much energy Stonyfield used across the production cycle, from raising the feed for cows to packaging to shipping yogurt to retailers.[312] Gary and Nancy were shocked to find the company's biggest impact was from milk production—the methane and burping gases produced by suppliers' cows.[313] The second area was its packaging and distribution process.[314] Through subsequent Life Cycle Assessments (LCA), Stonyfield documented the entirety of emissions throughout its production process. The rigorous LCAs made new goals imperative. To reduce their footprint deep into the supply and distribution chains, they needed a strategy for continuous improvement.

Mission Action Program In 2002, the 48 year-old Hirshberg approached Nancy and said, "We're not going to be here forever…we need to make sure that [our mission] is engrained in our culture."[315] At the time, the company employed 187 people and had annual sales of $97 million.[316] The two reasoned that in-house restructuring would help create a workplace more fully driven by sustainability. In 2006, to better align performance with mission, Stonyfield implemented the Mission Action Program (MAP).[317] As Nancy explained, "We looked at what would be a force for engaging our employees…and realized we needed to freshen up our mission," engraining this more deeply into Stonyfield's culture and helping foster employees' emotional connections with their company and "holding them to continuous improvement."[318]

The MAP program identified ten areas in which Stonyfield had the greatest environmental impact. High-level teams of employees were formed loosely around the areas, which fell into three groups: Sustainable Sourcing (Teams: Ingredients and Milk), Sustainable Manufacturing (Teams: Gas Emissions, Green Chemistry, Zero Waste, Water) and Sustainable Distribution (Teams: Transportation and Packaging).[319] Each MAP team formed its own Action Plan, which set short- and long-term benchmarks and a timeline for achieving them. Compensation was linked to completing their annual MAP objectives, and tackling difficult problems, whether creating best practices to reduce GHG emissions (Milk), replacing chemicals used in operations with low-risk alternatives (Green Chemistry) or maximizing recovering material in production (Zero Waste).[320]

The MAP teams had steady success, helping Stonyfield cut costs and refashion itself as a model for sustainability. By 2009, the company kept more than 20 million pounds of waste out of incinerators and landfills.[321] Between 2006 and April of 2011, the MAP teams saved Stonyfield $18.2 million.[322] Absolute C02 emissions from transportation and distribution fell by 46%, saving the company $7.6 million; recycling and reuse saved the company $150,000 a year.

On the Cutting Edge Gary understood that as Stonyfield's goals for improving its sustainability and reducing its carbon footprint evolved, the company would need to stay on the cutting edge of science and technology. To this end, he invested in green research and development, calling on colleagues in the growing eco-industry to hunt down paths to cleaner energy, cleaner production and cleaner packaging. Through the first millennial decade, Stonyfield intensified its efforts to launch novel green research initiatives.[323]

Stonyfield's research focused primarily on climate change, one of Hirshberg's vital interests since his academic work on alpine tree lines. Excessive greenhouse gas (GHG) emissions, created by the national dependence on burning oils and finite fuels, were a direct cause of global warming. Renewable energy was a direct solution, and Hirshberg prioritized investment in renewable sources, including wind energy and a photovoltaic solar array on the rooftop of the Yogurt Works to power the plant with solar energy.[324] In 2006 the company began operating an anaerobic digester, a wastewater pretreatment facility that converted yogurt waste into biogas (a gas produced from breakdown of organic matter) that could then be re-used as energy for the plant.[325] As a result of these investments, by 2008, the company reduced its energy use by 19%.[326]

Stonyfield spearheaded another climate change initiative: addressing the company's largest carbon footprint, which was methane emissions from dairy cows. The 2009 Stonyfield Greener Cow Project explored diets that reduced these emissions. French researchers found that when cows are fed a diet rich in grass, alfalfa, flax and hemp (sources of omega-3, which rebalances a cow's main stomach and reduces waste), instead of traditional corn and soy feed, methane gas levels dropped by up to 18%.[327] Also, the cows' milk was rich in omega-3, thought to be important in protection against cancer and cardiovascular disease. Nancy Hirshberg oversaw a pilot project to help dairy farmers feed their cows the omega-3-rich feed.[328]

In 2010, Stonyfield set out to creating truly sustainable packaging, defined by the Sustainable Packing Coalition as "sourced, manufactured, transported, and recycled using renewable energy".[329] At the time, its multipack packaging was made of difficult-to-recycle, petroleum-based polystyrene.

Late that year, using bioplastics research done in conjunction with Danone, Stonyfield switched over to the world's first plant-based yogurt cup, made of polylactic acid (PLA), a 93% plant-based polymer made from corn.[330] From cradle to grave, PLA produced 48% less greenhouse gas emissions than the production of traditional plastic.[331] The new plastic saved Stonyfield $780,000 and reduced the company's annual carbon footprint by 1.875 metric tons.[332] This was another step towards the sustainable, environment-respecting future that Hirshberg envisioned for Stonyfield: "Success will be when you finish the yogurt, you will then eat the cup."[333]

Leading in Turbulence

Stonyfield grew rapidly in the first decade of the new millennium. By the time Danone purchased its second stake in 2003, the company's annual sales had surged past $100 million. In 2003, Stonyfield deepened its West Coast market penetration with the purchase of Brown Cow Yogurt, a California-based producer of all-natural cream-top yogurt.[334] In 2006, to keep up with burgeoning demand, Danone approved spending $66 million for expansions to the main Stonyfield plants.[335] By 2010, Stonyfield's successes were substantial. For 18 consecutive years, the company had enjoyed a compound annual growth rate of more than 23% a year.[336] In March 2011, the company reported $360 million in annual revenues.

In the early 2000s, the disturbing impact of climate change trends—the same trends that Hirshberg had studied 30 years before as a student gathering research samples on Mt. Washington—emerged with new force. There was increasing consensus among scientists that burning fossil fuels, oil and gas, along with rapid tropical deforestation, increased the amount of heat-trapping gases like Co_2 in the atmosphere. Many experts believed that the accumulation of such gasses caused average temperatures to rise globally, a consequence seemingly born out in the 40 years since 1970 when temperatures in the northeastern United States had been climbing by .5 degrees Fahrenheit per decade. Rising temperatures also contributed to increasingly volatile weather. Hurricane Katrina, which hit Louisiana in August 2005, was widely acknowledged to be a global warming event. Through the decade and into 2011, climate change-related disasters plagued the globe, including drought in Australia and China and heat waves in Russia and Europe, which resulted in grain shortages, failed harvests and rising food prices.[337]

In 2007, the Intergovernmental Panel on Climate Change (a collective of the world's leading climate scientists) concluded that the theory that the Earth's climate is warming was "unequivocal." It found the notion that the warming of the past five decades was caused by trapped gases, more than 90% certain. The panel predicted a certain mid-century ecological catastrophe if no effort was made to curb emissions.[338] National Resources Defense Council (NRDC) scientists described a future of extreme weather events—wildfires, hurricanes, floods and rising sea levels—leading to intensified drought conditions, catastrophic real estate losses and sky-rocketing energy costs.[339] The scientists also predicted that the world's nations had approximately one decade in which to decrease emissions enough to prevent this disaster.[340]

Immersed in the data, potential policy solutions and environmentally-progressive business practices around global warming, Hirshberg was also confronted with a changing organic market, which, by 2011, was glutted with new players that threatened to dilute his established brand. In 2008, total U.S. sales of organic foods reached $21.1 billion.[341] Large food companies, like Heinz, Kellogg's and General Mills, were eager to take a piece of this burgeoning sector and were poised to be significant competitors.[342] At about the same time, supermarkets like Safeway, Wegman's and Kroger brought out their own private-label organic yogurts.[343] Farther upstream, scores of massive, partially-organic dairies which confined cows but fed them organic corn, in direct violation of the

USDA organic code's "access to pasture" rule, were introducing organic yogurt that was much cheaper than Stonyfield's offerings.[344]

Hirshberg initially embraced the entry of larger companies into the organic market, hoping that economies of scale in large-scale production would help equalize prices between conventional and organic products on supermarket shelves.[345] Others, like Samuel Kaymen, rued the change. Corporations could "simply manipulate the laws and meaning of organic," Kaymen argued, without having any dedication to the principles of sustainable agriculture. This "greenwashing" diluted the goals and significance of organic, he added, pointing to the urgent dire need for a "transformation of our approach to the land, to transform agriculture from an industrial energy-intensive approach to a regional low-energy venture that makes the soil more fertile each year."[346]

The 2008 recession introduced new challenges for organic producers like Stonyfield. With gas at $4 per gallon, unemployment hovering near 10 percent, and home values falling, the higher price points of organic foods seemed less appealing to many Americans. A 2008 poll found that a majority of shoppers knew organic products were healthier, but in a recessionary environment only 27% found them worth the money.[347] Overall organic dairy sales had grown four to five times faster than conventional dairy revenues for the previous decade. But in 2009, organic dairy sales actually slowed below the rate of conventional dairy consumption (see **Exhibit 1**). Stonyfield's supply partner, the large cooperative Organic Valley, was forced to ask farmers to scale down production.[348] However, by mid-2010, demand for organic milk was growing again. Organic milk sales, measured by volume, rose 17 percent from January to October of 2011, compared to the same period in 2010.[349] Nevertheless, milk supplies became unreliable for a different reason: organic dairy farmers argued that they were not being paid enough. A handful began to switch back to conventional farming, making for pronounced milk shortages in Stonyfield's sourcing.[350] In a March 2011 talk, Hirshberg renewed his commitment to dairy suppliers, promising that, "We're never going to reduce the price to our farmers."[351]

These happenings unfolded within the broader context of the 2008 financial crisis and the widespread loss of public confidence in established institutions that this event precipitated. In 2008, Gallup poll numbers showed the American public's trust in both business and government was at an all-time low of 12%.[352] Though the public's confidence in business increased slightly during the next two years, from 16% in 2009 to 19% in 2010, business still remained at the bottom of the list of trusted institutions, barely a cut above HMOs and government.[353]

In the wake of widespread skepticism, Hirshberg spoke out on corporate responsibility. The public was furious over Wall Street's mishaps, and would, he predicted, demand that companies be more accountable in the future. In one speech, he stressed how "smart businesses will take stock and recognize that 'green'—not greed—is good."[354] If increasing revenue was a company's sole mission, he argued, it was not equipped for the 21st century. Certainly businesses had a vital responsibility to their shareholders, but their obligations did not end there. Going forward, companies would have to recognize their commitments to employees, communities, suppliers, and other groups, including those who represented the long-term health of the earth's environment.

In a 2009 commencement speech at Middlebury College, Hirshberg described the challenges that lay ahead for the country and the globe. The new millennium had seen a marked increase in carbon emissions, with billions of tons thrust into the atmosphere every year, resulting in temperatures that were rising at faster rate than previously predicted. To respond rapidly and effectively, businesses needed to embrace systemic change in how they thought about resources and energy, in their attitudes towards limits and in their understanding of sustainability.[355]

Hirshberg held Stonyfield up as a model, eager to share what he had learned with other business leaders from any industry. For two decades, his company had evolved in response to changing attitudes toward and collective understanding of ecological and social challenges. Stonyfield had worked to pinpoint its exact role in climate change and then overhauled its organization to minimize its environmental impact over time. It had funded green technology and advocated placing a tax on carbon emissions, two methods that could potentially help wean nations off traditional fossil fuel energy sources.[356] Stonyfield had championed sustainable agriculture and carbon sequestration, both broad-based, sophisticated solutions to the climate crisis. On top of all this, it had remained profitable, in no way held back by having a worthy social purpose; indeed, Hirshberg argued, propelled forward strategically and financially by its larger mission.

During his tenure as an entrepreneur and executive, Hirshberg's theory of sustainable business had become sharper, more focused. He was uniquely positioned to discuss the responsibility of business to correct the problems of climate change. The entrepreneur was convinced, given the political gridlock that paralyzed the U.S. federal government in 2012, that business "can lead…It can act quickly, get rules changed, and overturn entrenched interests." "In one of those ironic twists that make life so interesting," he went on, "the same boundless thirst for profit that got the planet into trouble can also get us out of it."[357]

Trade was the ultimate expression of the culture's values. When a consumer chose a service or good with a lower environmental footprint, Hirshberg reflected, a clear message was sent back to the business community.[358] He continued:

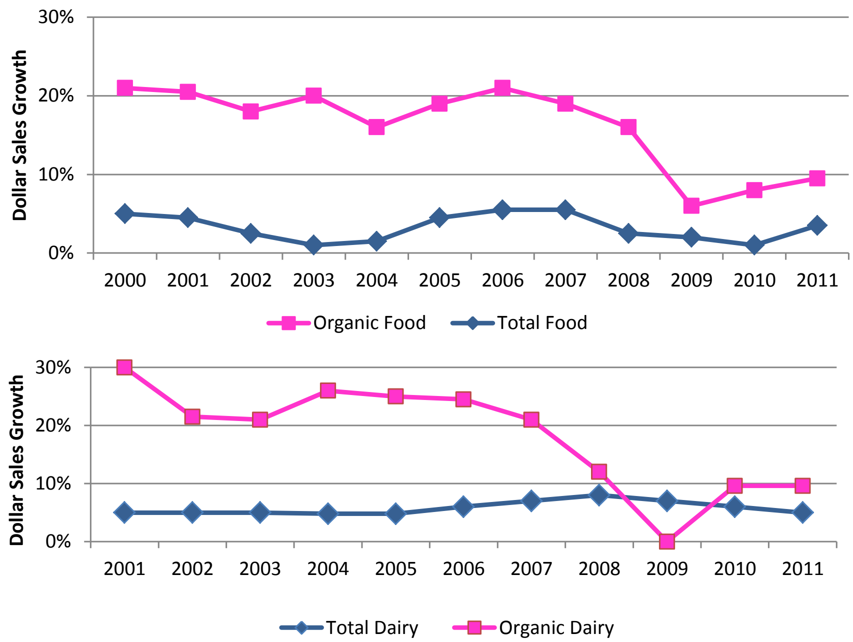
> Look at any product. I don't care—a greeting card, a vase, a bottle of tea. If you think there is any accident about its size, shape, color, flavor, price—forget it. There are no accidents. Everything is a result of research into what consumers want. Business exists to serve their customers. But, actually, that's only half the picture. The other half is that business is the most powerful influence there is on customers. The existence of an Honest Tea with less sugar educates the consumer about what is possible. In turn, the consumers exercise those votes and that determines what's actually going to be on the shelf. And that transaction, that moment of information going out and a message being sent back into the economic system through a purchase is the most powerful human interaction there is in terms of social change.[359]

Hirshberg's clear-eyed assessment of the market as the most powerful influence on human behavior had helped him build Stonyfield into a sustainable juggernaut. He felt strongly, along with a growing number of Americans, that business had a responsibility to solve social problems and improve its practices.

In January of 2012, Gary Hirshberg stepped down as CEO of Stonyfield, choosing Walter Freese, former chief of Ben and Jerry's, to take his place. Hirshberg remained chairman and moving forward, would cultivate Stonyfield's mission and oversee the European sister companies, along with environmental initiatives. He had made the decision after much thought and had decided the world's leading organic yogurt company could serve as a successful template for a wide range of mission-driven businesses moving forward.[360]

Hirshberg decided to push forward into advocacy and political work, building on his May 2011 appointment by President Obama to the Advisory Committee for Trade Policy and Negotiations.[361] He was also appointed, along with two former USDA Secretaries, as a Co-Chair of AGree, a national coalition seeking new solutions to 21st-century agricultural policy. He announced plans to focus on the country's agricultural and food policies—particularly on the issue of labeling genetically engineered foods through a national consumer awareness campaign, Just Label It.[362] His vision—to raise awareness and to change how people thought about their food—remained as focused as in his early days of building windmills at the New Alchemy Institute. He planned to dedicate his energy to improving the health of consumers and their children, the nation's environment, and its farmland. In 2012, he set his eyes on changing the American food industry, hoping to spur citizens to make better, wiser, more sustainable choices about their consumption, and, by extension, their quality of life.

Exhibit 1 Organic food sales outpace market



Source: Company.

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