

bagel Boomers

To fulfill its mission of excellence, Bagel Boy takes a leap forward with its new state-of-the-art facility.

BY STEVE BERNE

"All we do is one thing — bagels — so we have to be the best or we're out of business, and that is not an option," stated Chuck Bouchrouche, president of Bagel Boy, Inc., Lawrence, Mass. Such entrepreneurial attitude crowns two decades of experiences that brought the man and his company into its latest achievement — a 33,000-sq-ft, greenfield facility equipped with state-of-the-art processing systems outputting nearly one million bagels per week.

"Bagels started hitting it big in the mid-1980s," recalled Mr. Bouchrouche. "Frozen, refrigerated, food service, in-store and fast food outlets — all were gaining share as popular outlets for bagels. I

remember the commercials for Lender's bagels with Murray Lender perched on the grocery shelf as customers passed by, signifying a little bit of the owners traveled with each shipment. It was the category leader I planned to emulate.

"I had a vision of what I wanted to accomplish when I emigrated from Lebanon in 1982 — the proverbial American dream," Mr. Bouchrouche continued. Armed with an electrical engineering degree, a family history of baking and contacts in northern Massachusetts, Mr. Bouchrouche started out as a bread distributor at Methuen, Mass.

HOT PURSUIT. In 1987, Mr. Bouchrouche traveled to California where he opened his own retail bakery making Syrian bread, pita bread and his own modified formulas for bagels. "That is where it became clear

I should focus on bagels," Mr. Bouchrouche said. "There was so much potential and opportunity, and I built that California bakery to a highly successful operation, with bagels evolving as the cornerstone." While Mr. Bouchrouche did not mind the 20-hour days in pursuit of success, the desire to return to the East Coast to continue his quest became too great to ignore, and in 1991, he packed up and headed east.

"Chuck convoyed back east," recalled John Boghos, now a full partner in Bagel Boy. At that time, Mr. Boghos was in the process of assuming his retiring father's position as president at Middle East Bakery — a baker of pita bread, lavash, waffles, pancakes, tortillas, and a distributor of other products. Strong family ties called Mr. Boghos away from a successful sales career at a Fortune 500 computer company.

"Chuck drove directly to the bakery and, consistent with his past reputation as a go-getter, negotiated a 50:50 financial deal with Middle East," Mr. Boghos con-

▼ Standing tall and proud, partners Chuck Bouchrouche (right) and John Boghos, show off cinnamon and plain bagels fresh off the bagel formers.



Bagel Boy Inc.



▲ Automated minor ingredient systems enhance accuracy and efficiency for dough make-up.

▼ Four-lanes of divided bagel pieces split into two rows of two, heading for the corresponding

continued. “We knew Chuck was a good businessman and hard worker with a ‘blue collar’ attitude.”

Mr. Bouchrouche took over a small corner of the bakery to begin producing bagels. However, it became clear after six months that the close-quarters relationship placed too many demands on his bagel formulation and business practices. According to Mr. Boghos, “I sensed Chuck’s apprehension at the inability to grow the business. He had a vision of his career path and felt very strongly about it. That’s when I knew I wanted to be in the bagel business with Chuck. Remember, this was the early 1990s when fresh bagels were really starting to make an impact in the bread aisle.”

A new partnership was formed, and Mr. Boghos proceeded to buy out Middle East’s share of the Bagel Boy business. The deal was to have Mr. Boghos continue as president

of Middle East while also pursuing an independent company with Mr. Bouchrouche. The rest, as they say, is history.

The two entrepreneurs enjoy good chemistry, according to Mr. Boghos. “With Chuck’s zealous vision of growth and my conservative business plan, the business flourished,” he said. “I’m ‘Mr. No,’ and Chuck is ‘Mr. Go.’”

The new company bought a small rack oven, a few racks and a used bagel former. They also put together a good team of managers, both from the local area as well as a few transferees from Mr. Bouchrouche’s business in California. Using his California bagel recipe, he secured steadily increasing business from local grocery chains.

“Within six months we ran out of available space at Middle East and moved into a 3,000-sq-ft unit of a industrial strip at Lawrence,” Mr. Bouchrouche said. “We bought a second rack oven to keep up with production.”

As business began to plateau, Mr. Bouchrouche re-evaluated his product and his process. “I found that taste preferences are very geographic, not only in flavors but also textures,” Mr. Bouchrouche noted. “In California, my process called for steaming bagels before baking. That’s how consumers there preferred them — proof, retard, steam and bake. What you get is a soft-textured bagel.” As Mr. Bouchrouche discovered, a majority of East Coast consumers prefer boiled bagels, which yields a slightly tougher bagel with a denser

“bite” to it.

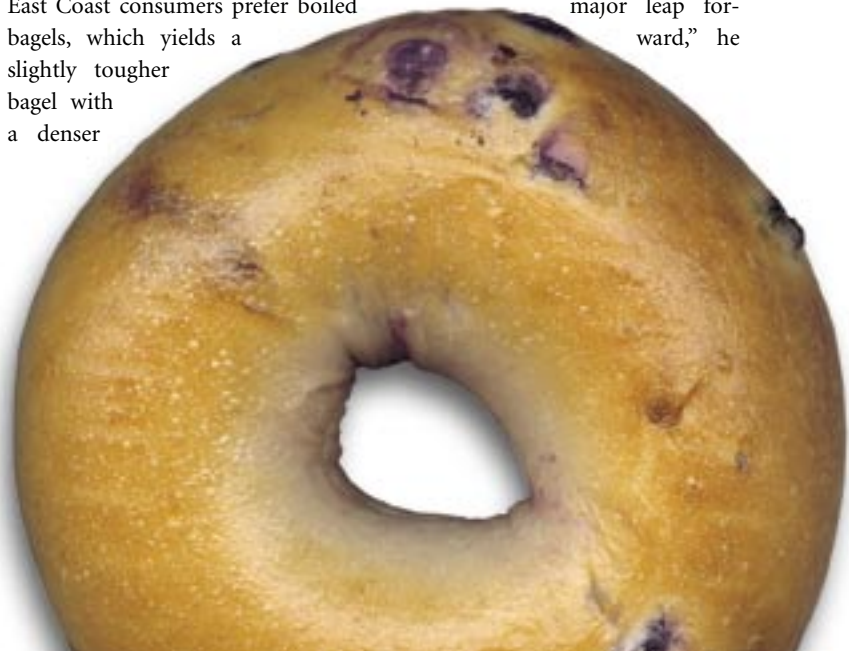
After testing the process change, Bagel Boy converted to boiled bagels, and business grew rapidly once again.

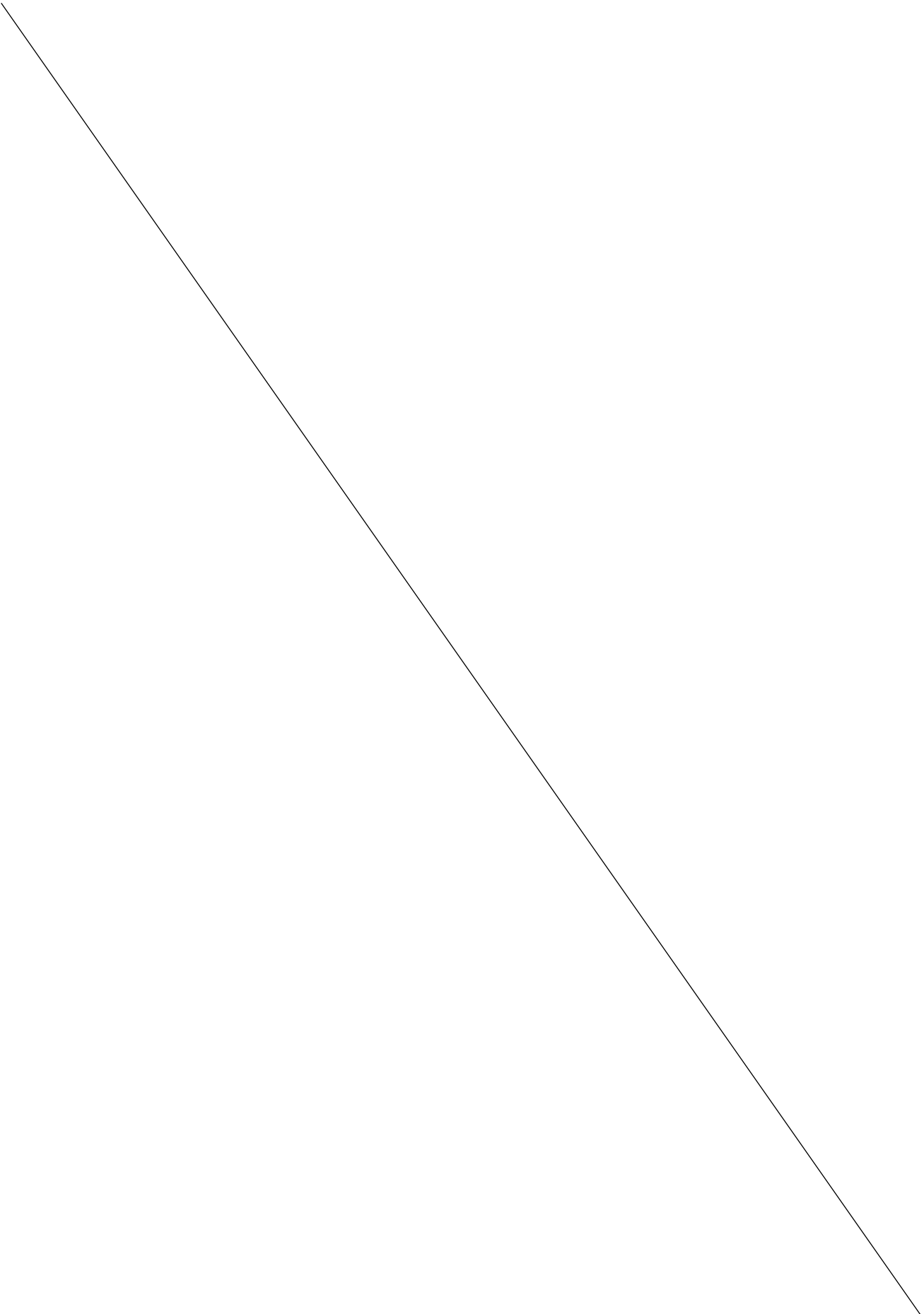
LEAP FROG. In 1994, the company moved into a 10,000-sq-ft facility and gained a larger foothold in grocery chains and local quick-service restaurants. “This is when we began seeking private label sales throughout New England,” said Mr. Boghos.

In 1999, the company purchased its first automated machine — an ABI Ltd. 12,000-piece-per-hour automated bagel make-up line. The company also added 6,000 sq ft of processing space by acquiring an adjacent industrial unit and, within the next two years, outgrew that space, too. Bagel Boy used a small mixer and the ABI divider and former, but all other operations were manual. “My joints still hurt every time I think of all the hours we spent manually chunking dough into the divider, loading and unloading peel boards, racking them and manually pushing them into the proofer,” Mr. Boghos said, recalling those growing pains.

Employees, including the owners, worked the lines day and night. “Operations became very crowded and inefficient,” Mr. Bouchrouche admitted. “Production went in all directions. Racks were everywhere. It was a mess.

“We knew we needed to make a major leap forward,” he





Bagel Boy Inc.

continued. "The process was still very labor intensive. It was time to expand the processing space and bring more automation to the operation. I was convinced it was the only way to continue to grow."

With Mr. Boghos acting as the common denominator, Bagel Boy entered into a joint venture with Middle East Bakery and collectively purchased land in an industrial park. The companies constructed a single 100,000-sq-ft building, in which Bagel Boy occupies 33,000 sq ft. Middle East Bakery occupies 49,000 sq ft and Riverside Specialty Foods, a subsidiary of Middle East Bakery making humus and other sauces, uses 18,000 sq ft.

"We designed Bagel Boy's interior and equipment layout in the most efficient manner, which immediately opened up tremendous space," Mr. Bouchrouche said. "We have room for expansion, and we included a mezzanine that can be converted to production space for other products."

The company also started to look at equipment and process upgrades. "We went to the International Baking Industry Exposition, bakery auctions and called ABI Ltd., Toronto, seeking faster, more automated systems," he added.

READY TO ROLL. By the time the new plant was commissioned last October, the operation included a KB Systems 100,000-lb-capacity flour silo and sifter, and three Champion mix-



ers — one 1,600-lb-, one 800-lb- and one 600-lb-capacity systems. "We use the largest mixer for main line flavors such as plain and onion bagels," Mr. Bouchrouche said. "The 800-lb mixer produces dough for mini-bagels, and the smallest mixer is used for short-run flavors and test batches."

The plant installed a 16-bin, automated, minor ingredient batching system from Sterling Controls with a holding hopper traveling along a track under the minor ingredient bins. Based on preprogrammed formulas, operators enter batch weights and counts before each run, and the system automatically moves the holding hopper under the appropriate ingredient bins. Loss-in-weight feeding precisely meters salt,

sugar, malt, cinnamon and other ingredients into the waiting hopper. At the end of the cycle, the hopper positions itself above a portable bin and deposits the blend of minor ingredients, which are then manually carried and emptied into the appropriate mixer.

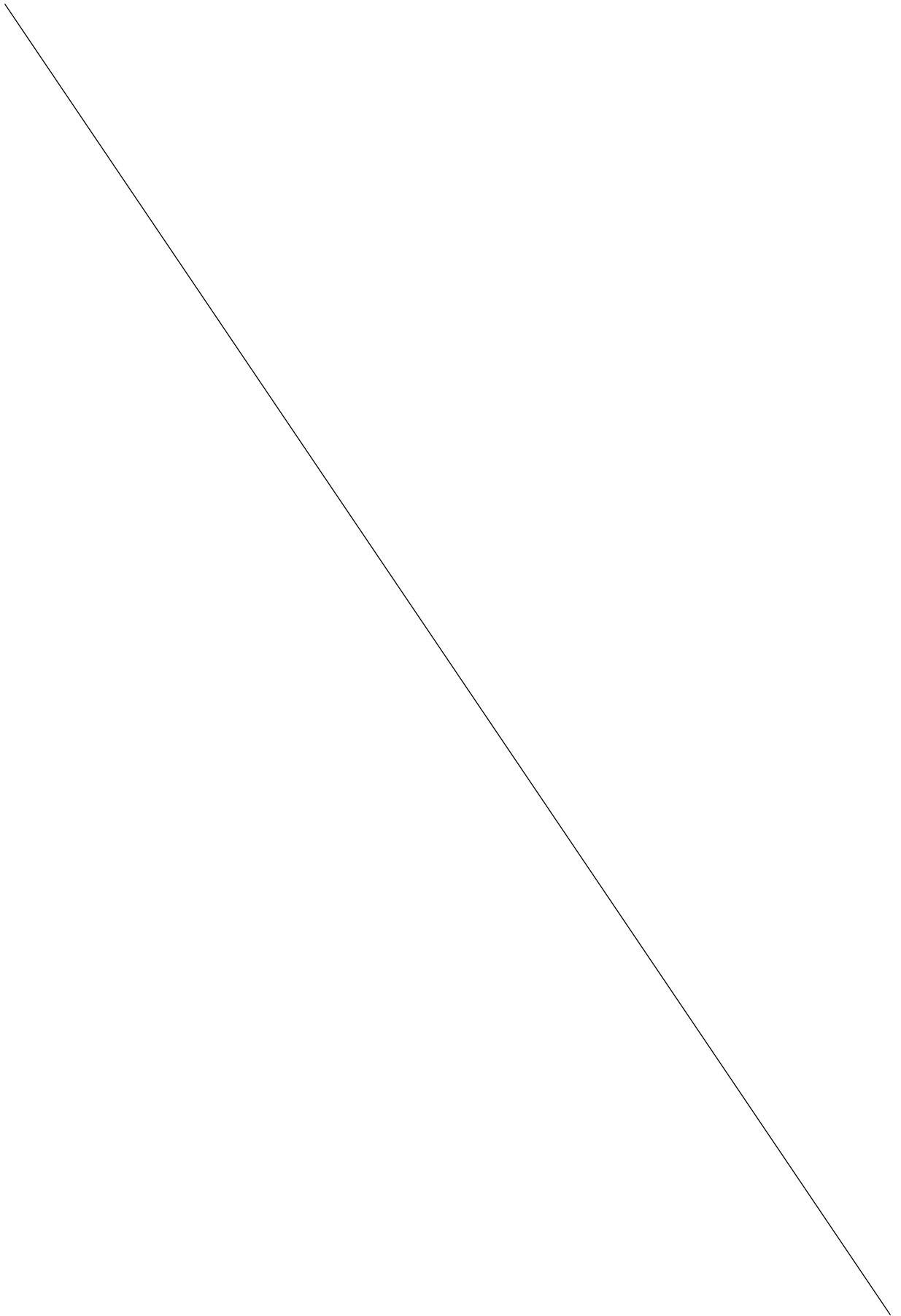
Water is electronically metered into the mixers as is flour, after sifting. "Our flour is milled locally, and we always receive it within two days of milling, so it has little chance of settling, clumping or gaining moisture," Mr. Bouchrouche said. "It is also double aerated — once when it is loaded into the tanker and once when it is pumped into the silo. Sifting simply assures consistency prior to mixing. Bulk flour also improved our product quality compared with bagged flour."

After mixing, dough is dumped into troughs and transported to waiting ABI Ltd. dough trough elevators. "ABI was really instrumental in our growth," Mr. Bouchrouche stated. "After we bought the company's very first automated bagel equipment in 1999, we followed that up by pur-



▲ Peel boards of proofed and retarded bagels feed into the transfer system and are depanned prior to the boiler, while empty boards discharge under the belt.

◀ Bagels emerging from the boiler drain for up to a minute before entering the 80-ft oven.



chasing a 12,000-piece-per-hour and ultimately two 24,000-piece-per-hour systems.”

Each automated system includes a dough chunker, 2- and 4-lane dividers, respectively, double-bank bagel formers (twin systems for each of the 24,000-piece systems), discharge conveyors and reciprocating conveyors that automatically load bagels onto waiting peel boards.

“All that our operators have to do is take the full boards and load them on racks — a far cry from our manual days,” Mr. Boghos said. “We gained tremendous consistency and efficiency, not to mention capacity. And the systems are extremely reliable, allowing us to focus on new business and new products.”

Employees roll loaded peel boards into the 7-door proofer, which holds up to 88 racks. Bagels proof for approximately 30 minutes at 120°F (49°C) before they are removed from the proofer and allowed to temper at ambient conditions for 10 minutes. Racks are then transferred to the retarder that has a flow-through configuration to assure first-in, first-

out. The 38°F (3°C) retarder holds up to 550 racks, with nearly 600 bagels per rack, according to Mr. Boghos. “We retard the bagels 18 to 24 hours — generally overnight. This enhances the bagels’ flavor and gives the finished product good rise and a characteristic New York-style ‘snap’ after boiling

and baking. We like to say our bagels bite back.”

Peel boards are manually loaded onto the receiving conveyor of the boiler. In an effort to minimize maintenance and complexity, Bagel Boy purchased a transfer system from C.H. Babb. The “fixed-wing” transfer

The Drill

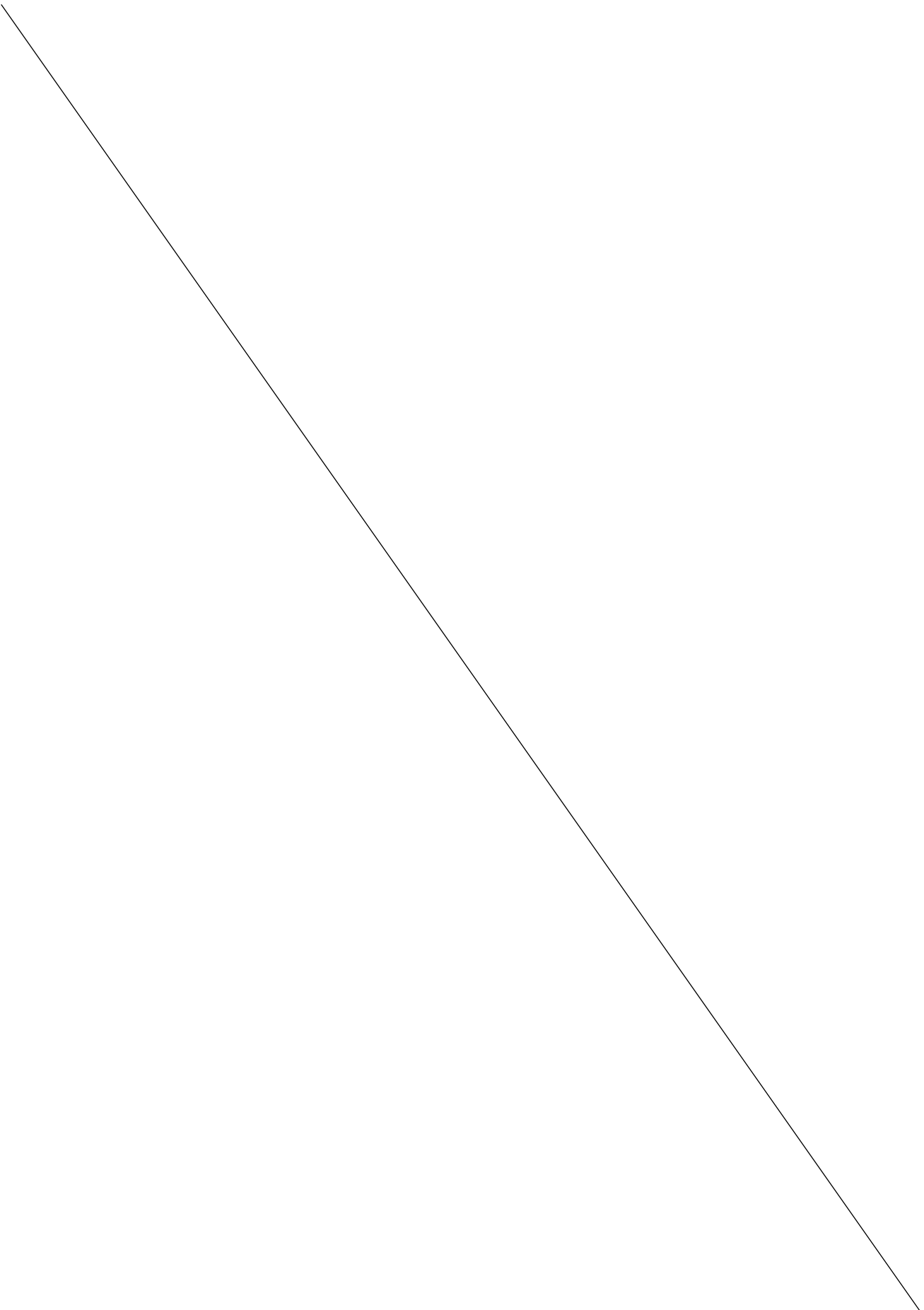
Food safety and quality are paramount to Bagel Boy. “Our whole business is bagels,” said Bob Barysauskas, quality control manager for the company. “We are audited by customers as well as ourselves. We instituted a HACCP program last year and have a comprehensive GMP training manual that all employees must read and understand.”

Mr. Barysauskas, a food science and nutrition major from University of Massachusetts, Amherst, with an M.B.A. from Long Island University, spent 18 years in various segments of the food industry before coming to work for Bagel Boy two years ago.

Mr. Barysauskas uses “The Drill” for all new hires. “It begins with a 20-minute talk covering all the basics of food safety and good manufacturing practices,” he said. “It then specifies three distinct zones of operation — yellow, blue and red.”

Each zone indicates an increased level of food safety and establishes do’s and don’ts as they pertain to GMPs. Dough makeup is the yellow zone and the least critical of the three zones, although Mr. Barysauskas stresses a high baseline of food safety for the entire plant.

Post-retarder through the baking process is the blue zone and post-oven is the red zone. “Finished products after baking are the most critical area because packaging operations are the last chance for human contact. I emphasize to employees to put themselves in the frame-of-mind consumer when handling product that others will purchase and consume ... perhaps even their own family. For most, that’s



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mechanism stays stationary while the peel boards convey forward, just under the transfer belt. Bagels are peeled off the boards, which then slide onto a take-off conveyor and manually stacked for reuse.

The bagels, whose internal temperature is approximately 65°F (18°C), transfer to the boiler. After

a 1-minute full-submersion boil, bagels are forced-air dried before entering the 80-ft C.H. Babb modulating oven. The design eliminates hot and cold spots, producing evenly colored bagels across the band. Bagels enter at 100°F (38°C) internal temperature and exit the oven at 209°F (98°C).

Baked products drop to a conveyor that travels up and back one-half the length of the oven to the top of an I.J. White spiral cooling system.

PRIVATE PROWESS. Packaging options for Bagel Boy bagels include bulk bagging for either regular or mini-bagels and 6-count bags.

“The majority of our business is 22-oz packages,” Mr. Boghos said. “Bagels are sliced and packed 6 per bag using two UBE combination systems.” Bags are clipped with color-coded Kwik Lok closures and packed in bread trays for delivery.

All finished packages travel through Lock Inspection metal detectors prior to being trayed. “More than 95% of our products are sold as fresh,” Mr. Boghos added. “We do have some small orders from Puerto Rico and other areas in the Caribbean, and that product is frozen at Middle East and shipped by freighter. All of our business is supermarket and currently nearly all is private label. Only the frozen products are sold under the Bagel Boy brand.”

While the company is a regional supplier to New England and the Atlantic states, 25% of its customers represent nationally distributed brands.

“We jumped into the private label business early on,” Mr. Bouchrouche said. “Due to confidentiality agreements, we can’t use brand names as sales tools. However, most of our early business was earned through reference selling between supermarkets. Our business kept pace with the growing popularity of bagels.”

TOP OF ITS GAME. While competition for market share increases, Bagel Boy has stayed on top. “Loyalty is a very big thing in New England,” Mr. Boghos noted. “We’ve held the competition at bay mostly through product quality and consistency, but also because we never say no to customer requests.”

Relationships are key to Bagel Boy’s success, according to the owners, both on the sales and manage-

ment level as well as its route driver level. Despite earlier differences, both Middle East and Bagel Boy knew it was critical to keep a good working relationship with each other.

“We share a lot,” Mr. Boghos said. “Route trucks, storage and freezing, sometimes even line mechanics and employees when one or the other of us is in need.”

Bagel Boy currently employs 62 full- and part-time people on the production lines, with a unique scheduling arrangement. “Our full timers work 10 hours per day, Tuesday through Friday,” Mr. Bouchrouche said. “With the automated systems in place, we can get most of our orders done in this time period. I supplement with part-time help — high-schoolers and local college students — and full-time supervisory employees. This team works six days per week, finishing weekday

► Added production efficiency through machine reliability helped Bagel Boy ride the wave of bagel popularity.

production and working as long as necessary on Saturday, Sunday and Monday to fill smaller orders. This way, production gets done with little or no overtime.

Currently, Bagel Boy produces more than 2 million bagels per week for its customers with very strict quality standards. “All we make is bagels, so our business depends on quality,” Mr. Bouchrouche said. “Any imperfect bagel is removed from the line.” While less-than-perfect bagels are currently sold to a local animal feed producer, Bagel Boy has plans for its “seconds” — bagel chips.

“We have equipment on order and plenty of space in the 6,000-sq-ft mezzanine for bagel chip production. “We already have customers lined up



for product,” Mr. Bouchrouche added. “We will have the chance to serve our customers better and perhaps expand our area of distribution.” These will be the first products to be sold domestically under the Bagel Boy label.

“In many ways, timing is everything,” Mr. Bouchrouche concluded. “I had a vision and stuck with it. “John saw the combination of market readiness and business opportunity and jumped on board. Together, we feel very good about the business and the future.” ■