

Case Study: Butternut Mountain Farm



No Hassles. No Surprises.
No Complications. Only Solutions.

Sweet Success: Meredith-Springfield taps into unique customer needs, delivers custom container solution for Butternut Mountain Farm, the Vermont Maple Sugar Company



In addition to blending seamlessly into the existing production line, the bottle's composition meets both Butternut Mountain Farm and their customer's sustainability goals.

Butternut Mountain Farm, a maple syrup producer, processor and distributor, has been a leading purveyor of all things maple since opening its doors in 1972. Their lineage and expertise is rich; David Marvin, Butternut Mountain Farm's founder began studying the art and science of maple at the heels of his father, a maple botanist at the University of Vermont, as a young child. Now nearly 6 decades later, in addition to perfecting maple syrup production, Butternut Mountain Farm has perfected the process of getting its products to market.

The business employs 100 and operates like a well-oiled machine. The home farm located on a sprawling 1,125-acres,

taps nearly 20,000 Maple trees—and manages another 66,000+ acres of land—in addition to running their 75,000 square-foot production and distribution facility. Efficient and effective, Butternut Mountain Farm prides itself on delivering great products on time, every time to their retailers and private label customers. This, of course, is ensured by the rigorous quality control system. Butternut Mountain Farm is certified organic, Kosher and SQF certified.

With a commitment to forest stewardship, land is well-managed and respected; the farm has been recognized as National Tree Farm of the Year by the American Forest Institute and a 625-acre portion in Johnson, Vermont, is conserved with the Vermont Land Trust. This forward-thinking approach is echoed in their sustainability goals. When a like-minded customer approached Butternut Mountain Farm with specific ideas regarding packaging, the issue of sustainability came to the forefront even more so—and with it came unique challenges.

19,500 – BMF taps running during the 2017 sugaring season

1,200 – Acreage managed by Butternut Mountain Farm (BMF)

350+ – Sugar makers producing syrup for BMF from whom Butternut Mountain Farm sources syrup in addition to their own farm

40 – Gallons of sap needed to make 1 gallon of maple syrup

1 – Manufacturers able to design a suitable, custom bottle for Butternut Mountain Farm

A Sticky Situation

Maple sap runs in early March and late April each year and is collected through plastic tubing and tapped into a maple tree. After the sap is harvested, it must be boiled down to become maple syrup. As it boils, water evaporates, increasing the density of the liquid and its sweetness, creating maple syrup as we know it. Other products, like maple sugar, must be further boiled down. Regardless of the end product, one thing is consistent in the process: heat.

“Butternut Mountain Farm has the capabilities to produce, bottle and ship our full product line across the globe,” explained Emma Marvin, Business Development. “Our maple syrup can be found in all 50 states and England, Germany, Poland and Japan. Of course, the packaging and distribution needs vary depending on the end locale

of the shipment but when handled in-house, under our name and branding, the production line is conducive to positive results. When we are approached with special requests or distribution channels are more complex, we have to take a step back and reevaluate procedures and protocols,” she added.

Such was the case with the customer request that initiated this project. The sheer volume and logistical needs of the customer warranted a review—and ultimate redesign—of the maple syrup bottle.

“When we were approached about a special order of private label maple syrup,” furthered Marvin, “we wanted to find a bottle design that could be integrated into our current production line. We knew it was a lofty goal and were pleased to find a partner, Meredith-Springfield, that could help us accomplish it.”

The melting point for glass is considerably higher than plastic, making it possible to bottle maple syrup in a glass container more readily without significant cooling time. Still, glass is considerably heavier and more prone to breakage. Ultimately, the decision was made to move forward with a plastic maple syrup bottle in a traditional glass shape but with a twist: the bottle needed to be clear. With no conventional supplier or sourcing of this variety of bottle, a custom solution needed to be designed. The added challenge? The bottle, of course, needed to withstand the heat of the syrup during the bottling process, maintaining its shape and meeting the strict quality requirements of Butternut Mountain Farm.

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Business Development

The Sweet Spot

The Butternut Mountain Farm team reached out to Meredith-Springfield, a Ludlow, Massachusetts-based blow-molded products manufacturer. A resource in the industry, and coming highly recommended by a peer, the company was the natural 'go-to' for Butternut Mountain Farm and others looking for unique solutions and custom-designed containers.

Informed of the task at hand, Meredith-Springfield President and Chief Executive Officer, Mel O'Leary,

and his team endeavored to design a bottle that met all of Butternut Mountain Farm's goals and the goals of their customer. With extensive experience working in the food and spice, liquor and health and beauty industries with such brands as Kraft and PepsiCo., Meredith-Springfield had the know-how and capabilities to deliver a food-safe product. Themselves an SQF-certified business, they were uniquely qualified to design, engineer, develop and produce the plastic bottles for Butternut Mountain Farm. The material selected? Environmentally safe, blow-molded plastic Polyethylene Terephthalate, more commonly referred to as PET.

Essentially a polyester, PET exists both as an amorphous (transparent) substance and as a semi-crystalline material. It is made into glass alternative containers by using improved barrier technology. PET is a non-leaching plastic which meets strict standards for safety and quality and further, remains intact during transport, when on store shelves and in consumer's homes.

In the plastics industry, PET is called "green" or "soda-bottle" plastic — a material which is widely recycled by consumers. This was music to the ears of representatives at Butternut Mountain Farm and their customer—both of whom have made a commitment to being as green as possible. Butternut Mountain Farm examines the environmental ramifications of all of their actions. Whether studying the energy-to-maple syrup produced metrics or the recycling stream — installing solar panels and a recycling program to address both issues—they also, whenever possible, work with local suppliers to cut down on emissions from the transport of supplies and products. Butternut Mountain Farm's customer was also concerned about emissions and by swapping the container from glass to plastic, the weight of the product was decreased more than threefold. All around, Meredith-Springfield was the right choice—but could they create the proper bottle shape?

After an initial brainstorm session, an aggressive timeline was established. All the while and all through the process, despite the complexities, communication was open and deadlines were met through research and discovery and prototype development.

Priding himself on being a solutions provider and never backing down from a challenge, Mel O'Leary took the Butternut Mountain Farm project home—to his kitchen. The nature of the project necessitated it—Mel had to see how the container would withstand heat. Through a multi-stage process, the design was ultimately finalized and put into production. The maple syrup bottled in Meredith-Springfield's custom containers hit shelves in mid-2017—right on schedule.



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"Mel's attitude is the same attitude and work ethic shared by members of the entire team working on this project: do what must be done to find a solution that meets the needs of our customers and highlights the high quality of the product," she furthered.

For Butternut Mountain Farm, the results Meredith-Springfield delivered were sweet as maple syrup.

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About Meredith-Springfield

An SQF-certified plastic extrusion and injection stretch blow-molding manufacturing and engineering company in Ludlow, Mass., Meredith-Springfield has built a reputation for providing superior, high-quality finished products and a hassle-free experience to companies across the globe. The company's core competencies include project management of extrusion blow molded articles from concept through commercialization, and creating process solutions to enable optimal manufacturing of the most difficult articles.

Meredith-Springfield offers the latest technology for molding PET and other resins to the existing client base and can take advantage of other global opportunities. Clients include American Distilling Inc., B&G Foods, Inc., Chesebrough-Ponds, Chevron Oil, Clairol, Clorox, Elizabeth Arden, Gillette, Johnson & Johnson, Kraft, PepsiCo, and Reebok. These are just a few of the companies who in the past, or at present, enjoy partnerships with Meredith-Springfield. Resin capabilities include HDPE, PP, PVC, PA, PET, EPET, TPE, TPU, ABS, LDPE and fluoropolymers. Serving the medical, packaging, industrial, HBA, and food industries, Meredith-Springfield consistently demonstrates its capabilities in world-class product design and manufacturing and deepens its national and international relationships. Meredith-Springfield is also a consistent referral for companies of all sizes who need test-market quantities of custom blow molded prototype samples for research and development (R&D) and for "out-of-the box" concept development. For more information, please visit meredithspringfield.com.



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