Food Insider Journal

Clean Label Strategy & Formulation

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Organic Non-GMO
Exploring the Consumer Disconnect

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Over the past 25 years, the food and beverage industry has gone through myriad changes. I recall my first Natural Products Expo West in 1993, with terrible tasting nutrition bars, strange green foods and an emphasis on “health” that often meant a compromise on “taste.”

Today, Expo West has grown into the largest showcase for innovative, cutting-edge foods in the United States; its growth mirrors the rising interest among consumers in natural, clean label, great tasting foods.

In the industry, we often refer to the term “clean label,” although from a consumer point of view, they’re just looking for ingredients that are recognizable and easy to understand. The importance of education—in store, online, via social media—cannot be overemphasized. Getting out in front of a consumer movement around an ingredient or product category can mean market success or product failure.

The goal of Food Insider Journal is to tackle some of the macro issues impacting your business, exploring how topics like clean label, functional ingredients and labeling considerations are connected to desired market outcomes. Our first issue dives directly into the hot topic of non-GMO, including its relation to organic, and illustrates the market opportunity using the fast-growing dairy segment. Case studies showcasing a few Expo West NEXTY Award finalists and winners illustrate how companies have found whitespace in their categories, and the lessons that could be applied to your business.

Stay tuned for future issues that will explore how to balance label and taste concerns when working with alternative sweeteners; considerations around formulation and labeling in the “free from” space; and supply chain sustainability—and how to accurately share that message with consumers. We invite you to explore our website for more infographics, videos and presentations that complement our digital magazine, and to share your thoughts on topics we should consider. And if you’ve got a great story to share, don’t hesitate to let us know!

Best regards,

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The food and beverage industry is undergoing a paradigm shift toward clean label, a shift that can be seen across every product category. While the term “clean label” has become the catchall phrase for ingredients that are simple, organic, natural and identifiable, the concept is certainly not new when it comes to the discussion of organic or genetically modified organisms (GMOs).

Since the early 1990s, organic has had a federal definition related to production methods, which disallows GMOs. But in the past several years, “non-GMO” has become the go-to claim, even overtaking “organic” as an assurance of safety and quality in some consumers’ eyes. The market for organic food and beverages continues to thrive, and consumer concern over genetically modified ingredients has consumers actively seeking out products with non-GMO labeling. While taste is king, the success or failure of a finished product depends on how consumers perceive that product as well as the value and impact organic and non-GMO ingredients make on their purchasing decision.

Organic, Non-GMO Sectors Poised for Strong Growth

According to the Organic Trade Association’s (OTA) 2016 Organic Industry Survey, organic sales in the United States hit a record high of $43.3 billion in 2015, up a robust 11 percent from the previous year’s record level and far outstripping the overall food market’s growth rate of 3 percent. Laura Batcha, OTA’s CEO and executive director, said the industry witnessed its largest annual dollar gain ever in 2015, adding $4.2 billion in sales, up from $3.9 billion in new sales recorded in 2014. Of the $43.3 billion in total organic sales, $39.7 billion were organic food sales, up 11 percent from the previous year, and non-food organic products accounted for $3.6 billion, up 13 percent. In fact, nearly 5 percent of all the food sold in the United States in 2015 was organic.

In terms of category leaders, fruits and vegetables comprise the largest piece of the U.S. organic pie, with sales of $14.4 billion, up 10.6 percent, in 2015. Batcha said produce continues to be the gateway to organic sales because shoppers make a natural connection between agricultural practices in the field and fresh produce. Nearly 13 percent of produce sold in the United States is organic, and in 2015, sales of organic fresh juices and drinks grew by 33.5 percent, making it the fastest growing of all organic subcategories. The fastest growing of the eight major organic categories included in OTA’s 2016 Organic Industry Survey was condiments, with 18.5 percent growth. Condiments, however, are the second-smallest organic food category, at $1.2 billion.

“Dairy, the second-largest organic food category, accounted for $6 billion in sales, an increase of more than 10 percent,” Batcha said, noting farm-fresh foods such as produce and dairy are driving the market and together account for more than half of all total U.S. organic food sales.

“More consumer interest in clean labels, clean food and transparency continue to drive interest in organic,”
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Dairy Beverages

Nutrition Facts
- Modified food starch
- Carrageenan

Dairy Beverages

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Nutrition Facts
- Gellan gum
- Blend based on corn or tapioca starch and pectin

Nutrition Facts
- Modified food starch
- Non-organic or GMO texturizers

Nutrition Facts
- Blend based on corn or tapioca starch, agar or pectin
- QAI-approved ingredient blends

Nutrition Facts
- Modified food starch
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Nutrition Facts
- Blend based on corn starch or citrus fiber with xanthan or locust bean gum

Nutrition Facts
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she said, citing concerns over allergens and food sensitivities that reach beyond gluten-free, as well as interest in non-GMOs that is fueling the demand for transparency.

“Consumers are searching for foods grown, raised and processed without the use of artificial flavors, synthetic colors, preservatives, antibiotics, synthetic hormones, GMOs and synthetic pesticides.”

The U.S. Families’ Organic Attitudes & Beliefs 2016 Tracking Study conducted by OTA found 82 percent of parents say they have purchased organic products, while the same percentage of U.S. families report they buy organic sometimes—one of the highest levels in the survey’s 7-year lifetime.

What’s more, consumers increasingly say they frequently look for the USDA Organic seal while shopping.

The reason: more U.S. families are incorporating organic products into their lifestyle and are increasingly likely to purchase them in mainstream, easily accessible retail channels at competitive prices. And with a growing proliferation of quality store-brand organic products, consumers are finding more options that meet their needs, Batcha said.

While organic sales are experiencing robust global growth, consumers also are looking for products that are free from GMOs. According to the Packaged Facts 2015 report “Non-GMO Foods: U.S. and Global Market Perspective, 2nd Edition,” global retail sales of foods and beverages was US$5 trillion in 2014, with non-GMO products accounting for roughly $550 billion of those sales. By 2019, the market for non-GMO food and beverages will hit $1 trillion. The report found U.S. retail sales of foods and beverages identified as non-GMO were approximately $200 billion in 2014, with organic and natural foods accounting for about 60 percent of that number.

Packaged Facts estimates U.S. retail sales of non-GMO food and beverages will reach $330 billion by 2019.

Data presented during the SupplySide West 2016 panel discussion “GMOS: Today’s Challenges, Tomorrow’s Opportunities” stated 53 percent of consumers will pay more for foods they perceive as healthier, 40 percent will sacrifice taste for health benefits, and 48 percent will choose natural and/or organic whenever possible. Consumers increasingly are scrutinizing product labels, which is why non-GMO advocates, such as the Right to Know movement, have focused on mandatory labeling as an effective way to let consumers know whether a product contains GMOs.

Panelist Daniel Lohman, an organic and CPG industry adviser at Category Management Solutions, suggested numerous strategies companies can adopt to grow sales of non-GMO products, including the use of “scorecarding”—managing goals by breaking them into small, manageable chunks. He further stressed companies must know their customers, as non-GMO consumers aren’t interested in simply being sold, but crave information, education and transparency. It is also important to learn how to navigate the maze of data, analytics and resources to maximize return on investment.
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Consumer Perception Still Somewhat Cloudy

Consumers are bombarded with marketing messages 24/7. Walk down any grocery aisle and you will find product label claims such as “organic,” “all-natural,” “gluten-free,” “non-GMO” and so on. Examples are endless, but it all boils down to this: “Do consumers really understand the difference between organic and non-GMO?” The answer is “yes, maybe and no.”

According to data from the Packaged Facts report “Natural and Organic Foods and Beverages in the U.S., 5th Edition,” two out of three consumers (66 percent) strongly or somewhat agree that product packaging for foods and beverages should clearly indicate the presence of GMOs, and more than half (52 percent) agree it’s important that the foods and beverages they buy do not contain GMOs. Moreover, 49 percent of consumers have concerns about GMOs other than food safety, and 39 percent of consumers purchase organic foods partly because they are inherently non-GMO.

“Even so, only 17 percent of consumers reported being very familiar with federal legislation on labelling GMOs—even though this legislation was making headline news in Summer 2016, when the Packaged Facts survey was being conducted,” said David Sprinkle, publisher, Packaged Facts.

In simple terms, organic products are intrinsically non-GMO, as one of the attributes of organic is that genetic engineering (GE) is a prohibited practice. Therefore, consumers only need to understand that when they buy organic products, they are choosing products made without GMOs.

“Sometimes consumers don’t understand that when they are buying certified [organic], they are buying non-GMO products. Organic production and processing prohibit the use of GMOs, which means an organic farmer cannot plant GMO seeds, an organic cow can’t eat GMO alfalfa or corn, and an organic soup producer can’t use any GMO ingredients,” Batcha said. “To meet the USDA organic regulations, farmers and processors must show they do not use GMOs, and that they are protecting their products from contact with prohibited substances, such as GMOs, from farm to table.”

National Bioengineered Food Disclosure Standard Act

The topic of labeling of genetically modified organisms (GMO) in food and beverages has been contentiously debated by consumers, activists, the food and beverage industry and lawmakers for years. However, the debate over mandatory versus voluntary labeling heated up over the past few years as a number of U.S. states introduced ballot initiatives calling for mandatory labeling of genetically engineered ingredients. In July 2016, President Obama signed S.764, which established the National Bioengineered Food Disclosure Standard Act. Under the federal law, products sold in the United States that contain GMOs will be required to disclose those ingredients to consumers. USDA has two years to create a set of rules that brands must follow to disclose GMO content. The Act preempted the nation’s first state GE-labeling law: Vermont’s Act 120, which would have taken effect July 1, 2016.
Organic certification and “certified organic” statements are sufficient to substantiate a claim that a certified organic food is non-GMO and/or was not produced using excluded methods; however, many operators choose to make additional non-GMO claims to make sure consumers understand they’re choosing a non-GMO product.

“The thing for consumers to remember is that ALL organic products are intrinsically non-GMO, but not all products labeled non-GMO in the marketplace are organic,” Batcha emphasized.

USDA’s National Organic Program (NOP) develops the rules and regulations for the production, handling, labeling and enforcement of all USDA organic products, and those who sell or label a product “organic” when they know it does not meet USDA standards can be fined up to $11,000 for each violation. USDA organic products have strict production and labeling requirements and must meet the following requirements:

- Produced without excluded methods (e.g., genetic engineering), ionizing radiation or sewage sludge.
- Produced per the National List of Allowed and Prohibited Substances (National List).
- Overseen by a USDA National Organic Program-authorized certifying agent, following all USDA organic regulations.

According to OTA’s U.S. Families’ Organic Attitudes & Beliefs 2015 Tracking Study, avoiding GMOs is a hot-button issue for nearly four in 10 families, and 37 percent of parents say they are making a great deal of effort to purchase non-GMO products.

Megan Westgate, co-founder and executive director of the Non-GMO Project, agreed the consumer perception of what organic and/or non-GMO means is still somewhat cloudy. “In the case of GMOs, that’s quite understandable as we are all on a learning curve about these rapidly evolving technologies. Despite the pro-GMO propaganda, consumers intuitively understand these new technologies are experimental and potentially unhealthy,” she said.

Non-GMO Project Verified is the fastest-growing label in the natural products industry, representing $19.2 billion in annual sales and more than 43,000 verified products for over 3,000 brands. Westgate said consumers are confused about the difference between organic and Non-GMO Project Verified and they have sought to eliminate that confusion through its communications and through its work with retailers and brands.

“Our consistent message is organic and non-GMO are different but complementary. Organic covers a lot of important attributes that Non-GMO Project Verification does not, while Non-GMO Project Verification offers a level of rigor around GMO avoidance, including...
required testing, that organic does not,” Westgate said. “As the landscape of genetic engineering continues to evolve rapidly, with new products of gene editing and synthetic biology quickly penetrating the supply chain, the specialized focus of the Non-GMO Project is more important than ever.”

The Power of the Consumer

According to a recent Acosta report, “Back to Our Roots: The Rise of the Natural/Organic Shopper,” the profiles and motives of today’s natural/organics shoppers are drastically different than they were even less than a decade ago, especially in terms of what they’re buying and from where, why they purchase these foods, and how they get information about the products’ ingredients and processes.

“Not so long ago, shoppers interested in natural and organic food had to seek out specialty stores to find the items they wanted,” said Colin Stewart, senior vice president, Acosta. “Now, not only has the growing popularity of non- or minimally processed food fed the rise of major specialty retailers, it is also transforming product development and grocery retail across various channels as the profiles of natural and organic shoppers evolve.”

The report found shoppers are seeking natural/organic products in categories with an increased penetration rate including dairy, cereal/oatmeal, snacks, pasta/grains and soups. “Must have” natural/organic items for families that are heavy purchasers of these items include produce (60 percent), dairy (50 percent), juice (47 percent), meat (46 percent) and snacks (44 percent).

The report identified three key factors motivating consumers to purchase natural/organic products: the desire to avoid chemicals found in traditional food; a perceived improvement in food quality; and overall family health. Price is the biggest barrier because “conflicting information or studies about products” creates consumer confusion about what’s good for them. Moreover, 56 to 63 percent of natural/organic shoppers report they read labels for product information, and the top three sources of product information for natural/organic shoppers are product packaging, in-store signage and internet searches.

“Motivated by a desire for better health and transparency, natural and organic shoppers are a powerful force that retailers and brand marketers must study and speak to carefully,” Stewart said. “This category is one of the most important sales and marketing opportunities in retail grocery today, and all indications are strong growth will continue well into the future.”

Consumers also have similar incentives for seeking out non-GMO products. In Packaged Facts’ consumer survey conducted for its 2013 report on non-GMO foods, approximately 30 percent of respondents reported buying grocery products with GMO-free labels and 27 percent said they bought organic products in part to avoid GMOs. By 2015, these numbers had jumped by 9 and 8 percentage points, respectively, representing increases of more than 25 percent in both cases, according to the July 2015 Packaged Facts report “Non-GMO Foods: U.S. and Global Market Perspective, 2nd Edition.”

The report noted roughly two-thirds of consumers agree that the presence of GM ingredients should be disclosed on the labels of grocery products. In fact, more than 45 percent try to avoid GMO products and nearly 40 percent actively seek out non-GMO labeling. What’s more, 35 percent of consumers reported the absence of GMOs among the main reasons they prefer organic foods.

Packaged Facts found consumers who are significantly more likely than average to support GMO labeling, view GMOs unfavorably and seek out non-GMO grocery products are typically 18 to 44 years old; have children in the home; are either college students or have earned a postgraduate degree; are Hispanic, Black or Asian; and live in the western or northeastern United States. What’s more, data from the 2015 HealthFocus International’s Global Shopper Views on GMOs found 45 percent of global shoppers believe removing GMO ingredients would make food and beverage products healthier—higher than the percentage who consider organic foods to be healthier.

Companies Delivering on Organic, Non-GMO Demand

Choosing to purchase foods that are organic, non-GMO, natural or just made with fewer, more recognizable ingredients is an important individual decision. In a monumental shift, today’s
Consumers now have the upper hand when it comes to the future of product development. Leading CPG companies can no longer roll out a “new and improved” snack or juice and expect the public to immediately embrace it; instead, they must earn those sales by delivering better-for-you products consumers desire and accomplish it with complete transparency.

Companies are focused on creating, reformulating or even rebranding “better-for-you” products. They are focused on health and wellness improvements including reducing sugar and artificial flavors/colors; removing artificial preservatives and colors; using sustainable sourcing; moving toward cleaner labels; creating natural and organic alternatives to existing brands; and investing in up-and-coming brands.

Transparency is making a monumental impact on sales growth and product offerings. To that end, leading food and beverage companies have pledged to improve sustainable agriculture practices through their ingredient supply chains, increase transparency of their products, and move to more natural and fewer ingredients for their flagship brands. In fact, a September 2016 report from Mintel noted that 44 percent of new food products introduced between 2013 and 2016 claimed to be non-GMO, noting that companies are responding to increased consumer demand.

In February 2017, confectionery giant Barry Callebaut announced three additional chocolates have been verified by the Non-GMO Project, bringing the total number of Non-GMO Project Verified products to 26 items. “Today more than ever, consumers are researching the ingredients in food and beverage products and making very deliberate purchase decisions based on those ingredients,” said Dave Johnson, CEO and President Americas of the Barry Callebaut Group. “Barry Callebaut is committed to providing our customers with chocolate and cocoa products that directly respond to consumer trends and our marketing and R&D teams will continue to innovate our offering to meet those needs.”

In business for 150 years, Welch’s knows a little something about non-GMOs. For generations, the company’s cooperative of nearly 1,000 family farmers have grown the Concord and Niagara grapes used to make Welch’s 100% Grape Juices from heirloom berries native to the United States that have never been genetically engineered. However, it wasn’t until this year that the company began putting non-GMO labeling on its Farmer’s Pick 100% Juice, Welch’s 100% Grape Juice and 100% White Grape Juice products.

“Our focus on non-GMO ingredients and products isn’t new; we are simply sharing information that has always been true,” said Dave Eisen, chief marketing officer, Welch’s. “The key to delivering on the non-GMO promise is the supply chain, and it’s important that companies understand the journey of all ingredients—from the farm to the final product. Welch’s very own Concord or Niagara grapes are at the heart of our 100-percent grape juices, giving us a unique advantage when it comes to ingredient traceability.”

Eisen said the company is monitoring the response to its use of non-GMO messaging and will continue to focus on bringing our consumers more information about the ingredients in its products as their needs and wants evolve.

“We do expect interest in non-GMO and free from claims, as well as products made with whole food ingredients, to continue to grow across categories,” he said, citing a recent consumer survey commissioned by Welch’s that found more than 40 percent of Millennial snackers are looking for real fruit in the snacks that they choose. “We feel well-positioned to meet these evolving consumer needs, both with our existing flagship 100% grape juice and new products as we look to expand our portfolio.”

Also in February, Kayco introduced its line of Beetology non-GMO, USDA-certified organic and certified Fair Trade cold-pressed juices. The five varieties of 100-percent juice blends...
American consumers spend more than $43 BILLION on organic

Organic is one of the fastest growing segments of American agriculture and consumer demand for organic products continues to rise. The vibrant U.S. organic sector is creating jobs and opportunities in communities across the nation.

OTA.com

contain no preservatives, additives, artificial colors or flavors, and are non-soy, non-dairy and certified kosher. “Through our consumer research we learned that the important attributes in fruit and vegetable juices were better quality, functional ingredients, organic and natural beverages. Our labels are clean and have limited ingredients. In addition, we have supervision on site for every production run because quality and transparency cannot be compromised,” said Kim Cassar, vice president of marketing, Kayco. “We certify our products so there is never a question on our ingredients. We knew we had to be obsessive about quality through the entire development process, which is why we hand-picked the best partners through the entire supply chain from the source of the ingredients to the final production lines.”
Just recently, Bertolli increased its number of USDA-certified organic pasta sauces from two to four with the addition of Organic Fire-Roasted Garlic Marinara and Organic Five Cheese with Romano, Parmesan & Asiago. The company also offers an organic extra virgin olive oil and organic EVOO cooking spray. And powerhouse Bolthouse Farms recently tapped into the growing “better-for-you” movement with the introduction of four varieties of USDA organic certified salad dressings.

In October 2016, Bumble Bee Seafoods announced its branded portfolio of canned Solid White Albacore Tuna in Water and in Oil had received Non-GMO Project verification. “We take feedback from our consumers seriously and, over the years, we’ve had a lot of success by listening and responding to what people want when it comes to filling their family’s pantry,” said Dave Melbourne, Bumble Bee senior vice president, consumer marketing and corporate social responsibility. “We know shoppers today are looking for affordable and nutritious protein with clean ingredients made without genetic engineering. As the national brand leader in Solid White Albacore Tuna, certifying our Solid White Albacore line was the initial priority and we are targeting to have the balance of our canned and pouch tuna products Non-GMO Project Verified by the end of December.”

In July 2016, Dannon unveiled its first Dannon® and Oikos® branded products containing more natural and non-GMO ingredients. Over time, the company’s three flagship brands Danimals®, Oikos and Dannon, which account for approximately half the company’s sales, will evolve to contain non-GMO ingredients. Beginning this year and completing the transformation by the end of 2018, Dannon will ensure the cows that supply milk for the three brands will be fed non-GMO feed, a first for a leading non-organic yogurt maker. The process will involve the conversion of an estimated 80,000 acres of farmland to produce non-GMO crops that will provide non-GMO feed for the milk used to make Dannon, Oikos and Danimals brand products.

“Shoppers are our main ingredient, and what is important to them drives what we do. For this reason, the range of products we make is evolving to provide even more choices,” said Dannon CEO Mariano Lozano. “Transparency is the key word for this shift. To show to our consumers that in order to make a real choice, we need clear labels, today we are making a bold change and candidly discussing how transparency from brands is essential for shoppers to make real choices.”

In January 2014, General Mills announced its original Cheerios cereal would no longer be made using GMOs, following consumer and activist pressure to remove the GMO ingredients from the product. While Cheerios were never made with GMO oats, the company has made changes to its sourcing
to ensure other ingredients, like sugar and corn starch, come from non-GMO corn and non-GMO pure cane sugar. That same month, Post Foods announced it would introduce a Non-GMO Project Verified Grape-Nuts cereal.

Other brands also are providing greater transparency by clearly labeling products containing GMO ingredients. With the possibility of GMO labeling legislation becoming a reality, General Mills, Kellogg Co., Campbell Soup Co., ConAgra and Mars took a preemptive step to commit to labeling GMOs in products regardless of whether a federal labeling law required them to do so.

**Verification Helps Seal the Deal**

According to Westgate, surveys consistently show more than 90 percent of people in the United States and over 85 percent in Canada want GMOs labeled. “Globally, there has been an ongoing move toward greater GMO transparency and increased availability of non-GMO choices as consumers consistently voice their concerns about genetic engineering. The Non-GMO Project works with more than 3,000 brands and what we hear from them is that the leading factor motivating them to seek Non-GMO Project verification is consumer demand,” she said, noting the same holds true for both organic and conventional brands.

Shoppers are increasingly looking to make values-based purchasing decisions and are actively seeking products that have the attributes most important to them. Westgate said for shoppers, a Non-GMO Project Verified purchase may resonate with values around personal health, the environment or social justice. Food and beverage companies are seeking to stay relevant with these evolving consumer preferences.

“The Non-GMO Project Standard is designed to honor the work that certified organic companies are already doing, with the added measure of ongoing testing for GMO-risk ingredients at critical control points,” Westgate said. “Third-party organic certification and Non-GMO Project verification are complementary and necessary for holistic non-GMO supply chain shifts. The National Organic Program (NOP) has excellent guidelines for traceability and segregation, and the Non-GMO Project Standard and Product Verification Program was designed to complement the NOP by adding in the important element of rigorous testing."

Westgate said retailers are saying the biggest growth category is products that are both certified organic and Non-GMO Project Verified. “Retailers report that when non-GMO product lines are introduced, or after adding both Non-GMO Project Verified and certified organic labels, sales of organic lines stay strong, such as when Whole Foods added Non-GMO Project Verified eggs alongside their 365 brand organic eggs,” she added.

**Cleaning Up the Supply Chain**

Westgate said more brands from outside the natural and organic sector are seeking Non-GMO Project verification, noting that 2016 witnessed a huge amount of interest from both organic and conventional global ingredient suppliers, many of which are the largest in North America.

“This was reflected at the 2016 Institute of Food Technologists conference where Non-GMO Project Verified Butterfly [logo] was deemed the hot trend. At the 2016 SupplySide West conference, Cargill announced its commitment to meet consumer demand and work at the supply chain level on Non-GMO Project Verified ingredients,” she noted. “We are excited for these shifts because we want to support the seed, feed and ingredient sectors in meeting large scale CPG demand, thereby helping to achieve our

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Consumers see both USDA certified organic and Non-GMO Project Verified labels as indicators of the food being aligned with their values around purity and avoidance of unnatural things they don’t want to be feeding themselves or their families.

—Megan Westgate, co-founder and executive director, Non-GMO Project
mission of preserving and building a non-GMO food supply and ensuring consumer choice."

Other Non-GMO Project Verified ingredients introduced during SupplySide 2016 included Ganeden’s probiotic ingredient GanedenBC30, Bunge’s Non-GMO Project Verified milled ancient grains, and Nexira’s acacia fiber Fibregum™, just to name a few.

But it’s not just food manufacturers that are keeping a watchful eye on the supply chain. “Shoppers are increasingly more concerned about the healthfulness and sustainability of foods they are choosing,” Westgate said. “They are troubled by the lack of transparency on store shelves and they want to know what is in their food, who made it, and that the people involved and the environment were treated with care. Shoppers overall are seeking to eat healthier and to avoid products containing ingredients they see as potentially negative, including GMOs.”

She cited 2016 data from the Hartman Group that found 54 percent of people surveyed indicated that they believe foods produced by biotechnology or GMOs pose a serious health risk, up from 47 percent in 2015.

Westgate said consumers see both USDA certified organic and Non-GMO Project Verified labels as indicators of the food being aligned with their values around purity and avoidance of unnatural things they don’t want to be feeding themselves or their families. “Organic and Non-GMO Project Verified are complementary in their appeal to values-oriented shoppers looking to avoid GMOs and the byproducts of the chemical agricultural system GMOs are a part of,” she said.

However, the domestic non-GMO supply chain is not well established for all commodities and materials, and, in general, supply chain challenges are a natural result of demand outpacing supply as the non-GMO market rapidly expands. As producers and suppliers increasingly see the opportunity in non-GMO and respond to the demand, this supply challenge is self-correcting. “We are heartened that domestic and international supply chains are rapidly increasing their capacity to provide the quantity, consistency, and necessary price stability of supply that complies with the Non-GMO Project Standard,” Westgate added.

Another threat to the non-GMO supply chain is the rapid introduction of products from new forms of genetic engineering such as gene editing and synthetic biology. “In an attempt to side step the bad reputation of GMOs, in many cases these products are being marketed as ‘non-GMO’ just on the basis of not being transgenic. But they still sit squarely within the realm of biotechnology as defined by Codex Alimentarius and the Non-GMO Project,” Westgate said.

“We now have someone working full-time just on research and monitoring of supply chain risks from these new forms of genetic engineering. By carefully tracking all the new products being introduced, we can work with producers to keep the non-GMO supply chain from being infiltrated.”

Availability of non-GMO seed is another obstacle the industry faces as biotech companies continue to consolidate control of the food supply by buying up seed companies. The solution here is complex, but some important aspects include continuing to build market demand for non-GMO varieties and supporting independent research and development efforts. “Adventitious contamination from GMO crops also continues to be a major issue for the supply chain. The remedy for this starts with testing, which is by far the most rigorous way to identify, quantify and control GMO contamination,” Westgate said.

Innovation Is Key

As demand for organic and non-GMO products continues to grow, so too will consumer calls for more transparency and cleaner formulations across all food and beverage categories. This means brands need to continually innovate by revamping, reformulating and developing products and marketing messages to appeal to the empowered consumer and gain their loyalty.
Best Practices for Labeling Organic and Non-GMO Products

Claims like “organic” or “non-GMO” require increased care and investment before they can make their way onto a food or beverage product label or be included in marketing materials. CPG brands typically use available technology to communicate these concepts, either by posting food policy statements on company websites or using any possible space on product packaging. However, the legal consequences of communicating inaccurate information, or being unable to substantiate the clean label claim exposes companies to class-action plaintiff attorneys who view food litigation as the next asbestos or tobacco frontier.

Food Insider Journal recently caught up with Ryan Fournier, an international trade attorney at Armstrong Teasdale LLP in St. Louis who represents companies in international corporate, trade and regulatory matters, including regulations promulgated by FDA, to discuss best practices brands can follow surrounding the use of organic and non-GMO claims on packaged foods. Fournier spoke on supply chain considerations and solutions during the “Delivering on the Clean Label Expectation” summit at SupplySide West 2016.

**Food Insider Journal**

What best practices should a CPG company consider putting in place to ensure success with organic and/or non-GMO ingredients?

**Ryan Fournier**

It’s important to consider the delicate balance between implementing best practices and not wasting corporate profits on unnecessary procedures. Overall, supply chain transparency should guide a CPG company in determining best practices. At a macro level, these involve implementing standard operating procedures and verification programs to mitigate risk of sourcing ingredients that are not considered organic or non-GMO. This is especially important if the ingredients are sourced internationally or if the CPG company is unfamiliar with the supplier.

It’s important to consider the balance between implementing best practices and not wasting corporate profits on unnecessary procedures.

— Ryan Fournier, international trade attorney, Armstrong Teasdale LLP
On a micro level, there will be industry-specific best practices; however, all actors in the supply chain must be knowledgeable of an ingredient’s end use. CPG companies also should understand the manufacturing processes for specific ingredients and whether this would disqualify use of organic or non-GMO claims. Finally, it’s critical to understand how every department, i.e., research and development, legal, marketing, global sourcing, etc., in the CPG company is involved with the organic or non-GMO claim.

**FIJ** How can food and beverage makers adhere to clean label principles to mitigate legal risks and take control of their supply chain?

**Ryan Fournier** The best piece of advice to take control of their supply chain is to have the right people involved. All actors in the supply chain should be knowledgeable of an ingredient’s end use and how it relates to product claims. For example, marketing departments will make claims about a specific product—either on the product label, social media or website—but these claims need to be verified by legal or global sourcing departments to confirm they are true and accurate, and the company has the proper procedures in place to substantiate that claim. If the claim isn’t true, there is risk of class action or government involvement.

**FIJ** Can you cite some recent legal cases where organic or non-GMO labeling of a food or beverage product resulted in a lawsuit against the CPG brand?

**Ryan Fournier** An interesting case is *Podpeskar v. Dannon*. The issue here is whether a product can claim it is “all natural” if the cows used to produce the milk in the product are fed genetically engineered (GE) feed. A decision in favor of the plaintiffs would serve a huge blow to industry, as the level of GMO corn grown for feed is significant. Another case is *Zamudio v. Perrigo*. In this case, the company made organic claims, but product testing conducted by the plaintiff indicates there are hazardous substances present, and some of them preclude the use of the “organic” claim.

**FIJ** What best practices should those companies have followed to avoid the lawsuits?

**Ryan Fournier** I see two common mistakes that ultimately lead to the lawsuits mentioned above, and these types of lawsuits in general. The first mistake is a lack of verification and auditing of the supply chain to ensure that the ingredients sourced can live up to the product claim. For example, if you’re going to make a 100-percent organic claim, then every ingredient in that product (to the source) needs to be continually audited and verified. There also should be final product testing to ensure there are no substances present that should not be in the product or would preclude the use of the claim.

The second misstep happens when there is an internal disconnect between the marketing, legal and compliance departments. No matter how large or small a company, any clean label claim should trigger a review by each of these departments from their respective viewpoints to ensure the appropriate substantiation is there to render the claim truthful and not misleading. A common mistake is for companies to do this investigation during product creation or branding, but failing to continually do so while the product is being sold to consumers. A slight change in the sourcing of an ingredient or a new manufacturing process implemented by the supplier (and failing to notify the CPG company) could increase the risk that these claims are no longer truthful.

**FIJ** Can you name any CPG brands that have done an outstanding job in terms of adhering to clean label practices and product labeling?

**Ryan Fournier** That’s difficult to cite since I don’t know details of their compliance procedures. However, there are many respected CPG brands out there that don’t have the procedures we are talking about today, and have been lucky so far in that they have not been the target of a class action lawsuit.

What makes these class actions so unique, and why I think they will continue to increase, is the evidence is so easy to collect against any CPG brand. The plaintiff need only walk into the grocery store, pick the product off the shelf with the clean label claims, send it to a lab, and discover through testing (usually genetic testing) that the non-GMO product has genes you would not expect to find in a product. For example, one of the class actions involved a cereal product that claimed it was all natural and non-GMO. Through genetic testing, they found jellyfish genes and mouse genes. Clearly, animal genes would only be found in a GMO product.

It is that easy now for any plaintiff to gather the evidence they would need to show a product’s claim is false and misleading. If you are the named defendant, hopefully you can show standard operating procedures, lot tracking, audits and verification procedures indicating it’s only a unique and isolated event. Otherwise, it will be a more difficult case to defend.
Everyone’s looking for the magic bullet: a way to live a noticeably healthier life without making a noticeable change. Unrealistic? Maybe not. Research published in the February 2016 issue of the *British Journal of Nutrition* says making a simple switch from conventional to organic milk can drastically improve nutrient intake, arguably without much effort at all on the part of the consumer.

In the largest study of its kind to date, researchers reviewed nearly 200 papers on milk and 67 papers on meat. What they found was that organic milk and meat contain around 50 percent more beneficial omega-3 fatty acids than their conventional counterparts. Plus, organic offerings were found to include higher levels of fat-soluble vitamins like vitamin E, as well as 40 percent more conjugated linoleic acid (CLA).

Why? Study authors said the beneficial fat profiles in organic milk are a result of the outdoor grazing and low-concentrate feeding demanded by organic standards. This study came on the heels of a previous study from the same team that found organic crops are 60 percent higher in a number of key nutrients than conventionally grown crops.

These findings are not falling on deaf ears. Indeed, sales of organic dairy are growing worldwide. According to data from Euromonitor International, the global retail value of organic dairy (including milk, cheese, yogurt, butter and other products) reached just over US$10 billion in 2016, up from about US$6.6 billion in 2011—that’s a period growth of 52.7 percent and a compound annual growth rate (CAGR) of roughly 8.8 percent. Milk was the player with the most growth in 2016, surging nearly 60 percent since 2011 to reach US$6.6 billion in retail value alone.

Stateside, the picture is a similar one. Organic dairy in the United States reached a retail value of US$3.4 billion in 2016, growing 34.8 percent since 2011. Again, milk took the largest market share over butter and cheese, reaching US$2.4 billion in retail value in 2016, up 26.1 percent since 2011. But, unlike the global trend, butter and cheese both outperformed milk in terms of growth, with butter growing 40.7 percent between 2011 and 2016 to reach a retail value of US$99.2 million, and cheese growing a whopping 87.5 percent to reach US$615.5 million in retail value.

This explosive growth is partly due to unwavering support from the natural retail channel, where Mintel reports organic milk makes up 70 percent of the market share. But it’s also thanks to the fact that organic dairy products are no longer limited to just...
these channels “after many years of being seen by the industry as ‘niche’ items,” said Albert Straus, founder and CEO of Straus Family Creamery. “In the past, organic products were primarily found and shopped for at co-ops, natural food stores and Whole Foods stores.”

Indeed, shoppers from across the spectrum are making the switch to organic dairy. According to Mintel, 30 percent of adult consumers say they drink organic cow’s milk, and 29 percent of parents with children under age 18 years say their kids drink organic milk. Mintel predicts consumption will only increase, as more consumers learn about the health benefits of consuming organic compared to conventional dairy.

Sales of dairy products free from genetically modified organisms (GMOs) also are growing, said Megan Westgate, executive director and co-founder of the Non-GMO Project, probably because shoppers who prioritize non-GMO foods overall tend to turn to dairy first. “Milk is a staple for many children and adults, so it is often the first place people will look when making changes in their diet,” she said.

According to data from Euromonitor, the worldwide retail value of GMO-free dairy reached approximately US$3 billion in 2015. In the United States, the retail value of GMO-free dairy reached about $1.4 billion, with milk accounting for nearly all of it.

Westgate said there are currently 390 Non-GMO Project Verified products in the dairy category. Of the 189 verification inquiries the nonprofit organization received from dairy businesses in 2016, the No. 1 reported motivation was market demand, she added.

Published in September 2016, Mintel’s Better-For-You Eating Trends Spotlight sheds some light on this demand, with findings that consumers strongly associate GMO-free foods with being healthier options. In fact, nearly 30 percent of all consumers surveyed said they avoid GMO ingredients when shopping for healthy foods. Mintel said consumers’ dislike of GMOs is on par with their dislike of artificial ingredients: 22 percent wouldn’t feed them to people in their household, and 46 percent said they’re not suitable for anyone.

If you ask Pam Stauffer, global marketing programs manager at Cargill, organic and non-GMO dairy options alike are poised for continued growth as interest in transparency and health overall continues to grow.

Packaged Facts released a report in September 2016 highlighting top trends among product launches in the organic and non-GMO dairy space. Here’s what’s breaking the mold:

**Single serve**
WhiteWave recently launched Horizon Organic Protein Plus single-serve milk, boosted with 15 g of protein in a 10-ounce serving. Organic Valley also launched a single-serve option, marketed to adults under the Good to Go brand.

**Exotic flavors**
Liberte USA, a business unit of General Mills, launched organic yogurt varieties in exotic flavors like Ecuadorian Mango, Philippine Coconut and French Lavender. Chobani offered a new non-GMO Greek yogurt drink in Apple Cucumber Spinach. Noosa, another non-GMO option, launched a Sweet Heat line featuring yogurt varieties like Mango Sweet Chili, Raspberry Habanero, Mexican Chocolate and Bhakti Chai.

**Functional ingredients**
Grains and seeds take center stage at Chobani with its new Mighty Oats line, featuring fruit and whole grain steel-cut oats. Its Ancient Grain blend includes quinoa, chia, buckwheat and fruit. And new non-GMO Greek yogurt from Greek Gods is also now available with chia seeds added.
The global retail value of organic dairy (including milk, cheese, yogurt, butter and other products) reached just over US$10 billion in 2016, up from about $6.6 billion in 2011. Source: Euromonitor International

“Within the dairy space, growth in organic and non-GMO product development is particularly strong,” Stauffer said. “Today’s consumers are seeking more choice and transparency in their food. They want to recognize the ingredients, understand what purpose they serve in a product and even know where the ingredients come from.”

Identifying the Consumer

The most influential consumers in the organic and non-GMO dairy spaces mirror those making waves when it comes to organic and non-GMO foods in general. A survey conducted by Packaged Facts and published in July 2015 revealed consumers who most often purchase premium milk (including fortified, non-GMO, and/or milk produced without added hormones or antibiotics) matched the demographic profile of non-GMO consumers overall. That is to say, they were between the ages of 18 and 44 years, had children in the household, held a postgraduate degree, earned a household income of $75,000 per year or more, and resided mainly in the Western or the Northeastern United States. Driving these consumers’ decisions in the dairy aisle, Straus said, is the popularity of the Non-GMO Project’s verification seal, extensive media coverage of ballot measures regarding labeling and Whole Foods’ firm position on labeling in its own stores.

Similar to the general organic shopper, Aaron Martin, nutrition innovation manager at Agropur Ingredients, pegs organic dairy shoppers as “not your typical consumer, but ones who have done their research and are usually well versed in nutrition.”

That said, there is a subset of consumers that stands out as making the biggest impact in organic and non-GMO dairy: Millennials. According to Mintel, there are a few factors at play here. First, Millennials are more likely than other groups to buy organic foods overall, probably because they are among the most likely to avoid GMOs (at a rate of 29 percent) and look for organic ingredients.
(31 percent) when shopping for healthy food. They are also a group entering parenthood, and Mintel maintains parents are significantly more likely than average to purchase organics. But they also make food purchasing decisions based on taste first and foremost—and 25 percent of Millennials believe organic products taste better than non-organic products.

On the GMO-free side, Westgate agrees that “moms ages 25 to 44 years, and certainly Millennials who have a greater interest in health, will likely be swayed by the increasing accessibility of non-GMO dairy options,” so long as retailers continue to join on as supporters of the Project’s mission and more brands work towards verification.

Lewis Goldstein, vice president of brand marketing at Organic Valley, agrees that Millennials play a key role when it comes to organic dairy. “This generation cares deeply where their food comes from and its effects on their bodies and the environment,” he said. “In many cases, their parents introduced them to organic dairy and now when they are making the purchase decision, they’re expanding the categories they choose to buy organic.” Goldstein pointed out that Millennials’ passion for organic foods is making waves even in foodservice, which is only just beginning to offer organic milk and other dairy.

When it comes to sales of specific dairy products, younger shoppers tend to lead the way in most categories.

Mintel data released in October 2016 shows that consumers ages 18 to 34 years are considerably more likely to look for organic cheese at retail. When asked what would most likely persuade them to buy one natural cheese over the other, 39 percent of these respondents said an organic claim would be in their top five criteria (19 percent put it in the top two). To compare, just 21 percent of respondents ages 35 to 54 years placed organic in their top five. As did just 13 percent of those over age 55 years.

Further, not only do organic claims matter to younger cheese consumers, but nearly 40 percent of them are willing to pay more for it. Brands would be wise to offer sampling to their retail partners, since this same population was also the most likely to want to sample cheeses before buying (to the tune of about 40 percent), perhaps to justify the higher price tag of organic offerings.

The product landscape is already shifting to accommodate demand: according to Mintel’s Global New Products Database, organic cheese product launches increased from just 2 percent of launches in 2013 to 11 percent in 2015.

In the yogurt space, Mintel found that 27 percent of consumers purchased organic yogurt in the past three months. Mintel also noted younger consumers were more likely than
other age groups to purchase organic yogurt, with 37 percent of Millennials having done so in the previous three months.

In response to demands on the non-GMO side, The Dannon Company announced last year it would label any products containing GMO ingredients and also take steps to ensure that cows supplying milk for Danimals, Oikos and Dannon branded yogurts would be fed GMO-free feed. “We estimate this will require the conversion of about 65,000 acres of forage crops,” said the company’s senior director of public relations, Michael Neuwirth.

While Millennials represent a clear target for organic and non-GMO dairy brands, Goldstein sees another unifying thread that unites his consumer base. Though Organic Valley carries many types of dairy products, each with a bit of a different demographic—milk might be most popular among moms, while butter tends to be popular with home cooks—all of its consumers share a common sentiment. “What all of our consumers have in common is a mindset of believing that they can change the world through their purchases. They can improve their health and the health of our environment and the creatures that live here through organic food,” he said. “We are in the midst of a huge societal shift regarding the importance we place on what we put in our mouths and it is that belief system that defines our core consumers."

**Pioneer Pathways**

More than 20 years ago, Horizon helped pioneer the organic dairy movement and became the first company to supply organic milk nationwide. Horizon realized early on the responsibility that comes with producing food for families, and has never wavered on its commitment to the organic movement and values like health, community and environmental stewardship.

Today, as part of the The WhiteWave Foods Company, the Horizon brand also offers a variety of quick-and-easy meals and snack items, including Classic Mac™, Organic Mac, Gluten-free Mac, crackers, cheeses, shelf-stable Super Squeeze pouches, Fruit Crunchers and Apple Clusters.

Looking back, category leaders like Straus Family Creamery and Organic Valley also share a common approach rooted in integrity. Neither company saw organic or clean label dairy as a business decision—both reported that their commitment to transparency, sustainability and clean labels was inherent to their goals from the start.

“A clean label was never something we discussed,” Goldstein said. “And as far as whether feed GMOs or not to feed? That is the question for many dairy farmers and brands. On the one hand, some maintain that GM cattle feed does not affect the status of the final milk product. Others believe it’s important to keep GMOs out of the supply chain entirely to support the integrity of organic and non-GMO labeling. Here are three sides of this argument, from an advocacy group, a verifying body and an organic dairy business.

**The dairy farmer advocate:** Christopher Galen, senior vice president of communications, National Milk Producers Federation

“Our farmers are concerned that biotechnologies that increase sustainability and reduce the environmental footprint of farming—because they require less water and fewer passes over the field with diesel tractors, among other benefits—are at risk. It has little to do with the regulatory process, and everything to do with a marketing claim. When it comes to dairy cows, there’s nothing GM in the milk if you feed GM crop to the animal. We wanted the legislation to be very clear on that point, and it is.”

**The verifying nonprofit:** Megan Westgate, executive director and co-founder, The Non-GMO Project:

“From a mission perspective, when it comes to preserving and building a non-GMO food supply, feed is one of the most critically important areas of focus because the majority of GMO acres in the United States are in production for livestock feed. Plus, most shoppers consistently state that they’re not interested in consuming GMOs, including dairy from cows fed a GMO diet. Their reasons span concerns about health, the environment, animal welfare, food security and more. And, though current testing has limitations in terms of identifying genetically engineered proteins in milk and meat, a number of studies have shown that there are discernable differences in products from animals fed a GMO diet.”

**The organic dairy brand:** Albert Straus, founder and CEO, Straus Family Creamery

“Consumers value our certified organic products and the farming system that produces them. We think it’s essential to maintain the integrity of our organic farming system. This means not having GMOs in our products. We believe these organic farming practices protect the land, soil, water, and farmers, and maintain animal welfare. We need to continue this practice for future generations to ensure sustainable organic family farming and the health of our rural communities.”
we knew if clean label dairy would be in demand—we didn’t!” What Organic Valley leadership did know, however, was that they saw themselves as caretakers of the earth and environment, and as consumers, they deserved to know what they were consuming. “That was the start of the organic movement, the creation of the USDA organic program and the Organic Valley brand,” Goldstein added.

Organic farming was also in the DNA at Straus Family Creamery, where Straus, son of early environmentalists and dairy farmers, felt that “with farming comes an inherent responsibility of being a good steward of the land,” he said. “My decisions are made to minimize our impact on the land.”

As such, sustainability was always front and center at Straus Family Creamery. And, to this day, it leads by example. When Straus achieved organic certification for his creamery and farm, “it allowed us to better reflect the true costs of production and promote sustainable land stewardship, and offer a viable business model for organic dairy farms,” he said. Today, he is proud to report that nearly 90 percent of the dairy farms in Marin and Sonoma Counties are organic. Ultimately, Straus plans to grow this impact by rolling out a zero-carbon-footprint farm system that can be translated statewide and across the country.

That’s not to say these pioneers haven’t met hurdles along the way. At Organic Valley, one challenge that comes to mind is the use of ingredients that technically meet the standards put forth by the organic program, but which don’t meet the expectations of consumers.

“Carrageenan is an example,” recalled Goldstein, which the brand previously used to achieve desirable consistency for products like whipping cream. It’s approved for use in organic products, “but many consumers have told us they don’t like it,” he said. So Organic Valley rose to this challenge, opting to work for five years to remove the ingredient and use an alternative instead. It all goes back to the brand’s—and other leaders’—commitment to transparency and using the best ingredients.

“Our growth and the growth of the organic industry is due to consumers being more educated,” Goldstein added. “Today’s consumers are hungry to be educated. As a society, we are beginning to realize that a lot of food really cheap isn’t better than less food that is healthier. We are only at the beginning of this societal shift in eating. It’s exciting to be one of the pioneers.”

**Room to Grow**

Going forward, there exist many opportunities for growth. First, there is an opportunity to address consumer confusion surrounding the differences between organic and non-GMO dairy to which, according to Mike Ferry, president of premium dairy at The WhiteWave Foods Company, even the highly educated organic dairy consumer falls prey. “More than half do not understand that all organic products are, by definition, non-GMO,” he said.

Myriad seals may be part of the problem, said Goldstein, with “seal overload” taking the place of USDA Organic certification on some dairy products. “There is a lot of greenwashing out there,” he said. “Organic manufacturers don’t have marketing budgets equal to large consumer packaged goods companies, so we have to work harder to tell the story of organic agriculture and our brands.”

Indeed, there’s an opportunity for education here, especially because the benefits associated with organic and non-GMO products are “particularly important among dairy category users,” Ferry said. “For example, consumers value that organic dairy is produced without the use of antibiotics, added growth hormones, and toxic or persistent pesticides or fertilizers.”

On the production line, Straus said there’s an opportunity to
appeal to organic dairy consumers’ environmentalist tendencies by incorporating more sustainable practices. For example, Straus Family Creamery’s organic cream-top milk is packaged in reusable glass bottles made with 50-percent recycled glass. “The bottles are returned to the creamery, washed, sanitized and reused an average of six to eight times before re-entering the recycling stage,” he explained. Organic dairy consumers, he said, “care about the sustainability and responsibility of the packaging, how the farmer is appropriately recognized and rewarded for his or her hard work, and how the worker, animals and land are treated.”

When it comes to product development, Mintel pointed out two key areas for growth: grass-fed and easy-digestion options. The latter trend appeals to one in five consumers who told Mintel that organic and easy digestion claims are important to their milk purchasing decisions. Notably, consumers did not rank lactose-free high on their list of priorities (just 9 percent had it on their radar). They do, however, associate organic food and drinks with proper digestion. As such, in an environment where awareness surrounding dairy sensitivity continues to grow, organic milk and dairy producers may have an opportunity to capitalize.

Grass-fed, on the other hand, is undeniably poised for growth. Currently, Mintel said the majority of dairy milk sales at natural channels do not carry grass-fed labels, likely due to heftier price points and limited supply. But it’s a trend on the rise, with Mintel reporting that 14 percent of consumers say milk from grass-fed cows is among their top three most important attributes considered at purchase. Brands are already taking note. Organic Valley answered this call with Grassmilk and Grassmilk yogurt offerings, with the latter offering consumers a cream-on-the-top whole milk yogurt made with 100-percent grass-fed milk in plain and vanilla flavors. Annie’s Organic also recently launched a grass-fed yogurt in berry, strawberry and vanilla varieties. “The trend toward pasture-raised and 100-percent grass-fed dairy and meat is growing at an unbelievable pace,” said Goldstein, “as consumers recognize that if the animal eats well, consumers do, too.”

But, in the end, Goldstein said the biggest opportunity for growth in organic and non-GMO dairy is getting the message out to consumers. “We need to tell a clear and succinct story to consumers on the value of organic and healthy food,” he said. “The more effectively we can get our message out as a unified industry, the more successful we will be in our mission to grow organic family farms and make people and the planet healthier.”

27% of consumers purchased organic yogurt in the past three months.
Everyone knows someone who shuns dairy products for fear of digestive discomfort or, worse yet, digestive disaster that can strike at the most inopportune moment or inconvenient place. Whether due to lactose intolerance, milk allergies or even perceived sensitivity, millions of Americans just can’t stomach dairy products and miss out on its nutritious goodness. For many of those affected, the culprit could very well be the A1 beta-casein protein found in cows’ milk. Cue The a2 Milk Company™, which is helping consumers “feel the difference” through its branded line of dairy products that are free from the A1 protein.

The Discovery

Since the beginning of time, all cows produced only A2 beta-casein protein, but because of a naturally occurring genetic mutation in European herds when domestication occurred for mass production, another milk protein—A1 beta-casein protein—appeared and spread worldwide because of human migration and modern farming practices.

The a2 Milk Company

U.S. headquarters: Boulder, Colorado
a2milk.com

In 2000, The a2 Milk Company was founded in New Zealand by Corran McLachlan, Ph.D., after his research discovered cows naturally produce different types of milk proteins—A1 beta-casein and A2 beta-casein—that digest and affect people differently. Leveraging its proprietary knowledge in milk exclusively containing the A2 protein-rich dairy products, the company is pioneering the only natural alternative for those with sensitivity to conventional cows’ milk that typically contains the A1 protein often associated with indigestion and discomfort. In fact, its extensive intellectual property portfolio includes 14 families of interlocking patents, comprehensive trademark registration and proprietary know-
how in the production and promotion of A1 beta-casein protein-free milk products.

It only took seven years for a2 Milk® branded products to capture 10 percent market share of Australia’s total refrigerated supermarket fluid dairy milk, including lactose free and organic, equating to nearly $1.1 billion in retail scan sales (excluding club stores, convenience stores and foodservice sales).

Today, a2 Milk products can be found in Australia, New Zealand, China, the United Kingdom and United States. In 2015, a2 Milk® entered the U.S. market with its line of 100-percent pure, natural cows’ milk available in whole, 2%, 1% and skim milk varieties made from milk from cows selected to naturally produce only the A2 beta-casein protein type, without the use of a technological process or genetic engineering (GE).

**Identifying the Herd and the Consumer**

According to Blake Waltrip, U.S. CEO of a2 Milk Company, the majority of milk consumed in America today contains the A1 protein and roughly one in four Americans potentially misdiagnose themselves as lactose intolerant when they may suffer from sensitivity to the A1 protein.

“Millions of Americans are unnecessarily missing out on the nutritional wholesomeness and great taste of real dairy milk. We’re excited for the chance to change this unfortunate consumer trend and transform the way people consume dairy,” he said. “We’re embracing the opportunity to drive growth in a category that’s been steadily declining over the past decade. Our experience from Australia shows that a2 Milk has the potential to revive the milk industry and bring people in the United States back to pure dairy milk again.”

All ordinary milk has some A2 protein but also some A1 protein; however, cows that produce only the A2 protein make up only about 30 percent of an ordinary herd. “We are absolutely the only company that is certified to produce 100-percent pure a2 Milk® with no A1 protein,” Waltrip said.

To identify cows that only produce the A2 protein, the company goes into established dairy herds and performs a simple genetic test.
of tail hair. “Cows are either A1/A1 producers, A1/A2 producers or A2/A2 producers. We hand select the A2/A2 cows and put them in separate VIC (very important cow) club, milk them, process and package their milk separately from other milk,” Waltrip explained.

The company employs a proprietary quality control system called a2 System™ to ensure all products that bear The a2 Milk Company name has undetectable presence of the A1 protein. While the milk cows are not treated with growth hormones or rBST and their milk is antibiotic free, the milk is not organic or non-GMO verified—issues that don’t appear to affect consumers’ purchasing decisions.

“It’s important to remember that all milk currently sold in America, whether organic or not, is a mix of A1 and A2 protein and therefore cannot offer the unique health benefits of the a2 Milk brand. We’re in the early stages of our introduction and expect to work with farmers of all types as we expand and grow,” he said.

Consumer feedback lauds the products’ attributes such as being hormone- and antibiotic-free and carrying Validus Animal Welfare Review Certification, but the most important attribute centers around the digestive improvement they feel, Waltrip said.

“We constantly have consumers reach out to tell us how we have changed their lives or the lives of a family member. The great thing about our product is people can actually feel the difference immediately. Within an hour or so from the time they drink it, they will know if our product works for them,” he said.

“The best gauge of any product’s success is to see a constantly building consumer base, and we are experiencing that with our current customers on a monthly basis. In fact, we have retailers from across the country reaching out to attempt to secure distribution of the brand. This is a very unusual circumstance and does not happen unless consumer acceptance is building.”

**Education Breeds Success**

Educating consumers about the product and all its nutritional benefits would take more time than a normal CPG launch. To that, the company employed an aggressive public relations campaign to help communicate the benefits of the product from a rational perspective and advertising to connect the benefits emotionally with consumers.

“While the brand was being established in Australia, there were attempts initially to license the brand in the United Kingdom and United States. These were both deemed unsuccessful as it was clear that the brand requires an investment and focus to build awareness and a dedicated consumer base,” Waltrip said.

Currently, the company’s advertising, marketing and product packaging have done a great job of bringing consumers with dairy issues back to real dairy. But it’s a2 Milk’s website that really shines because it’s innovative and fun while being educational—a task not easily accomplished. In addition to its focus on the health benefits of its products, where they can be purchased, and the usual FAQ, deeper topics such as the science behind A1 and A2 milk proteins and their effect on human digestion; the company’s commitment to sustainable and humane farming; testimonials from real consumers; and more are presented in a consumer-friendly format. Numerous videos explain those deeper topics in both scientific and layman’s terms, but what stood head and shoulders above those was the commercial parody of the movie “Sixteen Candles” that follows a young man who drinks dairy before the big dance and the unfortunate results of that action as well as a clear and simple solution in the form of a2 Milk.

**Spoiler alert:** he gets the girl and improved gut health.

Life is full of #feelgoods—those little moments that make your heart flutter, not your stomach.
Since its inception nearly 30 years ago, the mission of the CROPP Cooperative/Organic Valley has been creating and operating a marketing cooperative that promotes regional farm diversity and economic stability by means of organic agricultural methods and the sale of certified organic products. “As an organic farmer-owned and farmer-operated cooperative, we are dedicated to protecting and strengthening practices that respect the interdependence of all life,” said Diana Danoff, associate brand manager, Organic Valley. “Non-GMO is also important because GMOs promote an increase in the use of toxic pesticides. While organic and non-GMO production methods are important to us, choosing Organic Valley products also means a consumer supports cooperatives, stable farmer pay prices, sustainability, and many other values that make Organic Valley what we are.”

This mission impacts every decision Organic Valley makes when it comes to new product development, meaning every product must represent the highest integrity in ingredients, nutrition, organic standards and taste. “We always use a short list of simple ingredients. We’ve never used words like ‘natural’ on our products, instead opting for the simple USDA Organic logo. We also use a logo that reminds consumers that ‘Organic is Always Non-GMO,’” Danoff said.

The Mooove to Yogurt

Over the years, sales of Organic Valley Grassmilk products grew in all channels, catapulting it to the No. 1 grass-fed dairy brand and expanding its product offerings to include a variety of organic foods including organic milk, yogurt, soy, cheese, butter, spreads, creams, protein shakes, eggs and produce.

Realizing the growing consumer—and retailer—demand for USDA organic 100-percent grass-fed dairy, Organic Valley dipped its hooves into the booming yogurt category. In 2015, 24-ounce tubs of Organic Valley Grassmilk Yogurt hit the market in vanilla and plain varieties; the following year saw the launch of Organic Valley Grassmilk Yogurt Cups in strawberry, blueberry, vanilla and plain varieties in 6-ounce cups to appeal to consumers looking for premium and nutritious yogurt along with grab-and-go convenience.

“Our Grassmilk fluid milk was a tremendous success and consumers told us they wanted more. Retailers also asked for...
this type of product to build out their 100-percent grass-fed dairy offerings. When we launched these products, there was only one national brand of 100-percent grass-fed organic yogurt so we knew this was a large and growing opportunity for Organic Valley,” said Nicole Mydy, brand innovation director, Organic Valley.

What separates Organic Valley Grassmilk Yogurt from the rest of the herd in the dairy aisle is the USDA-certified, 100-percent grass-fed yogurts contain more protein and boast cleaner ingredient statements than some competitor brands. “Because the cows receive no supplemental feed, grain or soybeans in their diet, Organic Valley whole Grassmilk also contains an 18-percent higher level of conjugated linoleic acid (CLA), thought to improve immune function, than conventional whole milk and a better omega-6 to omega-3 fatty acid ratio. These higher nutrient levels also are preserved in the yogurt,” she said.

Timeline to Launch
Once the company decided Grassmilk Yogurt was the most logical expansion of the Grassmilk line, Mydy said it took less than one year to develop the product, finalize a manufacturing partner, route milk supply from its Grassmilk farmers in close proximity and sell into its retail partners. But formulating and perfecting a new product—especially in the dairy sector where taste, viscosity and texture are key make or break points—requires tremendous work from everyone on the team to achieve success.

“One of our major successes during the product development process came from using nonfat dry milk as an ingredient because it helped to thicken the texture of the yogurt without adding any gums or stabilizers. As an added benefit, it gives the product more protein than many of its competitors,” Danoff said. “During the development of our yogurt cups, we anticipated struggling with costs. We use the highest-quality ingredients, including organic fruit, in our yogurt, and yogurt is a highly competitive category to enter. After a thorough category analysis and seeing our yogurt tubs take off with minimal marketing support, we were confident that we could succeed and decided to proceed with the launch.”

Checks and Balances
Today, more than ever, our food is under increased scrutiny from regulatory and certification bodies to retailers and consumers. Ultimately, it is a brand’s responsibility to secure its supply chain, product development and branding—a huge task that requires myriad checks and balances.

“Organic Valley Grassmilk Yogurt carries the 100-percent USDA Organic seal, and our farmer-owners are audited regularly by a third party to ensure they are adhering to the required standards. In fact, Organic Valley’s standards are higher than those of the USDA. We also have kosher and halal certifications,” Danoff said.

In terms of its grass-fed claim, Organic Valley 100-percent grass-fed animals receive only fresh pasture and dried forages, like hay. Danoff said they consume supplements as needed, but never receive grain or soybeans.

“To avoid consumer confusion, Organic Valley has chosen to hold off getting grass-fed dairy certifications until there is a Unified Grassfed Dairy Products Standard. We are working with other groups toward getting that standard implemented,” she noted.

Belief in a Better Way
At the heart of the Organic Valley creed is the belief that food can be created in a better way. The company’s website is chock full of educational information from its “humble beginnings” story to everything a consumer would want to know about organic and non-GMO products. Sections on sustainability and animal care show the co-op’s dedication to the earth and all its inhabitants while another section allows consumers to learn more about the farmers who comprise the co-op. So many messages are packed into the website, but the video on the home page—Organic Valley: Who We Are—really lets consumers learn how the mission-driven cooperative owned by family farmers believes when people work together in the spirit of cooperation, it can create change and make a true difference in the world.
In 2003, Tim and Laura Joseph were just a couple of dreamers with no farming experience who purchased a 250-acre dairy farm in Little Falls, New York, with the idea of getting into the conventional dairy business. In 2007, they transitioned their farm to certified organic practices, believing them to be in line with their own values about food production.

They made the decision to shift from grain feed to a 100-percent grass diet—a decision that laid the foundation for what would eventually see the formation of Maple Hill Creamery in 2009.

By 2010, two other 100-percent grass-fed dairy farmers joined their efforts and with that extra milk supply, Maple Hill Creamery increased production and distribution across the Northeast in natural food and specialty stores. By 2012, as other farms joined the herd, Maple Hill Creamery outgrew its location and sold its cows and farm to focus on the growing brand and Milkshed. The Josephs and their partners purchased a dedicated dairy production facility in Stuvyesant, New York, and by 2013 expanded its distribution nationwide and began refining its branding and consumer-facing education on all Maple Hill Creamery:

No Corn, No Grain, Just Grass

by Judie Bizzozero
things grass-fed, as well as supporting trade marketing efforts.

In September 2014, Maple Hill Creamery announced its designation as the first third-party 100-percent grass-fed dairy brand via Pennsylvania Certified Organic’s (PCO) 100% GrassFed Organic certification. Today, the company continues to challenge conventional thinking that you can’t produce milk with “just grass,” and is committed to growing a community of regenerative grass farmers and demonstrating how 100-percent grass-fed dairy is the “new” organic by benefitting the cows, consumers, the farmers and the land.

**Grass-Fed Dairy Poised for Growth**

The folks at Maple Hill Creamery realized consumer demand for organic, non-GMO products would eventually create huge opportunity for innovation in the dairy aisle, and grass-fed was a natural path to follow. “When we started 2009, not many grass-fed dairy products were being marketed, and we felt there was an opportunity,” said Tim Joseph, founding farmer and CEO at Maple Hill Creamery. “Over the past few years, demand for grass-fed dairy products has exploded fueled by surging consumer interest in clean labels and full-fat dairy.”

According to market research firm Mintel, the grass-fed dairy sector is poised for considerable growth even though products carry a higher price point over conventional dairy, the sector is poised for considerable growth. In fact, 14 percent of consumers cite milk from grass-fed cows as one of the most important attributes that influence their purchase decision.

**Why Grass Over Grain**

“We know that a 100-percent grass-fed model is better for the cows, the farmer, the land and, ultimately, the consumer. When cows are allowed to enjoy a truly ‘natural’ diet, grazing 100 percent of the time and never receiving grain supplements, they are healthier and they produce milk with a superior nutrition profile and delicious flavor,” Joseph said. “Farmers get paid a price premium for this 100-percent grass-fed milk. And when farmers don’t have to spend money on grain, medications and other inputs required by production methods that rely on grain, they can actually make a good living milking cows. Finally, grazing cows benefits the land, adding more topsoil and improving the carbon cycle.”

The company’s website explains it best: “When a cow eats the diet she was meant to (grass), her gut flora (good bacteria in rumen) flourishes, aiding with digestion keeps immune system strong and her body healthy. Third-party testing shows milk from its 100-percent grass-fed cows has an omega-3 to omega-6 ratio close to 1:1, which means the omega-3 levels are higher than other brands tested. Maple Hill Creamery milk has three to five times the amount of beta-carotene than other brands it tested. In general, 100-percent grass-fed animals

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**Smaller** operations can prove more nimble in bringing new products to market, but operators must be sure to build in the time for scale-up from pilot stage to full production, as there are often issues to address for the large quantities.

**Watching** consumer trends can provide insight that supports a go-to-market strategy.

**Clear** and consistent messaging about the health benefits of not only the product, but the production methods, offers the transparency consumers are seeking.
live a longer and healthier life than conventionally-fed grain-fed cows, as this diet supports their health and longevity.”

Joseph said Maple Hill Creamery products distinguish themselves from competitors by adhering to three key qualities: “We only use milk from cows fed a diet of 100-percent organic grass and forage; we only use full-fat milk and none of the inherent nutrients are ever removed when we make our products; and we are committed to a clean label—our flavored yogurts only use real fruit, real extracts and a minimal amount of pure cane sugar for a slightly sweet taste.”

The company’s hallmark product—Cream on Top Yogurt—was created on the family farm’s stove top in 2008 and began distribution in 2009. Described as tastefully tart, incredibly smooth, topped with a luxurious “creamline” layer, the line includes 6-ounce cups in eight flavors as well as 32-ounce tubs of three flavor varieties. Today, the Maple Hill Creamery product lineup includes Drinkable Yogurt, “Cleaner” Kefir, Greek Yogurt, Raw Milk Cheese and Fresh Mozzarella. The company will launch 100-percent grass-fed fluid milk sometime later this year.

Perfecting the Product

Relatively speaking, Maple Hill Creamery is still a small operation, which gives it an advantage when it comes to product development. “The nature of our products does not require a lot of ‘food science’ and most of the work involves flavor and packaging so our average time to develop and launch a product is about six months,” he said.

However, Joseph is quick to note there are challenges that arise when scaling an artisanal quality product to the level of a national brand. “Time and temperature are big factors that can impact pH and other qualities of the finished product, so scaling to full-size production often adds time and temperature variables that are not present at the pilot batch stage. “Most of the time it is a matter of meticulously stepping through the production process and eliminating variables around time, temperature, processing equipment specs, etc.,” Joseph said. “It’s generally a tedious and frustrating process, but part of the deal. Due to the nature of our products, we can’t rely on some of the processing aids and stabilizers that can mitigate many issues as our consumers are looking for very clean labels.”

In fact, all the company’s organic products have a uniquely fresh, earthy flavor and buttery-smooth texture that comes from using only 100-percent grass-fed full-fat organic milk. Products are free from excess added sugar, artificial flavors, thickeners or added colors. According to the company, “since day one, we’ve kept our recipes traditional and uncomplicated, staying true to our philosophy that the best foods are simply made with exceptional ingredients.”
Industry events like Ingredient Marketplace, SupplySide West and Vitafoods only take place a few days a year.

With over 20 categories to pick from and more than 300 downloadable supplier resources, the SupplySide & Vitafoods Global Storefronts directory provides a solution to this by easily connecting buyers and suppliers year-round.

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