



Cream-of-the-crop  
plant-based dairy  
alternatives.





## The future of plant-forward dairy.

As consumer affinity for plant-based solutions continues to grow, people from all walks of life are seeking products outside of animal proteins. They not only want to satisfy their nutritional requirements and values but most importantly, they want great taste. One major segment of the plant-based product category is plant-forward dairy.

**Over 50% of global consumers** are now consciously choosing to incorporate plant-based protein products into their diets, and the combined meat and dairy alternative category is expected to reach **\$50 billion in sales globally by 2030.**

But as consumer preferences and sales surge, brands are faced with their own growing need to somehow differentiate themselves from competitors. Producers answering the surging demand for plant-based alternatives face a multitude of challenges in formulating products that boast functional nutrition, protein diversity, and clean labeling while still giving customers a superior taste and texture experience. The race is on to provide products to consumers in a way that feels and tastes authentic, and ADM holds the key to unlocking that more delicious, nutritional, and transparent future.



- + Dollar sales of plant-forward foods grew by **43%** between 2018 and 2020<sup>1</sup>
- + Nearly half of consumers actively search out food and beverages labeled “plant-based”<sup>2</sup>
- + More than 500,000 people signed up for Veganuary 2021, a **25% increase** over sign-ups in 2020<sup>3</sup>

## Better-for-you is the new baseline.

ADM capitalizes on decades of expertise and a wealth of study in the areas of plant-forward proteins, taste, taste modulation, and functional nutrition to cater to a wide range of consumer preferences. Today's shoppers are increasingly familiar with plant-based alternatives, especially those that add to protein diversity in the meat and dairy categories, and both sustainability and values-based purchasing can be significant drivers.

But sensory experience and protein diversity remain key to buyer retention as well as consumer adherence to nutrition programs and eating habits.

A whopping **80% of consumers** who have tried plant-based meat intend to use it to replace some or all of the animal-based proteins they were consuming previously.<sup>4</sup> But **27% of dedicated meat eaters** won't switch to plant-forward alternatives because they don't like the taste, and **20% don't like the texture**. Plant-protein dairy alternatives face similar hurdles.

As manufacturers rush to meet consumer demand, they're discovering firsthand the challenges that exist within the complex world of plant proteins. Gritty liquids. Unpalatable aftertastes. A jarring lack of sweetness. How can we balance nutrition and flavor to create an experience that truly satisfies? Is it possible to make plant-forward drinks with a silk smooth texture consumers crave? How can we compete with the taste of traditional milk consumers have enjoyed for decades?



### Desirable product qualities:

- Smooth texture
- Pleasing aftertaste
- Right mouthfeel
- Nutrition forward

### Undesirable product qualities:

- Poor, inauthentic flavors
- Unpleasant texture
- Bitter aftertaste
- Low nutritional value



# Plant-based dairy delivers.

At the same time, health and wellness are at the forefront of consumers’ decision-making processes. With the rising enthusiasm for tasty plant-forward alternatives comes a parallel increase in desire for enhanced nutrition. In an effort to make each bite count, shoppers are on the hunt for wholesome, familiar ingredients showcased on product labels that are straightforward and easy to read.

48%

of consumers plan to purchase more health and wellness-related items<sup>5</sup>

54%

of consumers care more about the healthfulness of their food choices than they did a decade ago<sup>6</sup>

25%

of consumers actively seek out foods that carry health benefits<sup>7</sup>

Fiber, whole grains, and plant-based proteins are perceived as the healthiest choices





# Ingenuity & expertise to give you an edge in plant-based dairy.

At ADM, we lean into the challenges experienced by developers during product formulation. One answer lies in taste modulation, a process that skillfully showcases positive facets of an existing flavor and/or texture while masking or minimizing more negative aspects to optimize the customer experience. Other solutions include transparency in production and labeling and creating products that are as nutritionally desirable as they are enjoyable.



## Consumers' drivers.



**Whole-self  
nourishment**



**Nutrition forward**



**Conscious  
consumption**



**Plant-forward  
diet/lifestyle**



**Sustainability**



## ADM's vegan mint chip frozen dessert.

At ADM, we've been developing customizable plant protein blends to help you deliver superior taste, performance, and nutrition. We leverage our deep portfolio of ingredients and culinary expertise to overcome textural and flavor challenges for an authentic dessert experience. Here's an indulgent, non-dairy frozen dessert case study.

### Challenge

Create a delectable, non-dairy frozen dessert that delivers more for the consumer.

### Solution

A delightfully delicious mint and chocolate flavored frozen dessert powered with plant protein and low sugar solutions—an alternative dairy treat consumers can feel better about. ADM brings added protein via a proprietary plant protein blend of pea and soy that functionally delivers a smooth texture, clean taste and plant protein diversity without any grittiness or off-notes.

This treat raises the bar with sugar reduction that doesn't sacrifice taste. Plant-based SweetRight™ sweeteners and Fibersol® work together not just to replace sweetness, but also to bring the same mouthfeel and functional properties. Fibersol brings an additional benefit in the form of prebiotic dietary fiber, which may help nourish the intestinal flora and maintain a healthy intestinal tract environment, with the prebiotic effect supported at 15g Fibersol per day.

We draw on decades of protein design, taste expertise, and technical ingenuity to address challenges associated with dairy alternatives to deliver a taste of how good it can be.







## Featured ADM ingredients

- + Proprietary plant protein blend (pea and soy protein)
- + Sugar reduction technology

## Other ADM ingredients

- + Proprietary plant protein blend (pea and soy protein)
- + Fibersol®
- + SweetRight™ Allulose
- + SweetRight™ Edge Stevia
- + Sugar
- + Mint extract
- + Chocolate flavor
- + Cocoa
- + Soy protein masker (natural flavor)
- + Natural milk mouthfeel enhancer
- + Colors From Nature®
- + Coconut oil
- + Sunflower lecithin

## The result

A creamy and dreamy non-dairy frozen dessert experience with added benefits of plant protein and lower sugar. This frozen dessert contains 67% less sugar than ice cream. Sugar content has been lowered from 18g to 6g per serving. A better-for-you treat you'll crave.



## ADM analysis: BPL1™ case study.

Gut health and its perceived impact on overall well-being are key drivers for today's health-conscious consumers. ADM has conducted extensive pre-clinical and clinical research linking the role of the microbiome to multiple areas of health and wellness, including aspects of metabolic health.

+ Globally, over 1.9 billion adults are overweight<sup>8</sup>

+ Nearly 30% of the world's population is overweight<sup>8</sup>

### Challenge

Develop a probiotic strain targeting aspects of body composition and metabolic health through clinical studies that is adaptable enough to incorporate into a variety of food and beverage applications reaching from classic dairy to plant-based products.

### Solution

A proprietary, cutting-edge biotic solution called BPL1™ (Bifidobacterium animalis subsp. lactis CECT 8145) with results in human clinical trials showing positive effects on measures of body composition (BMI) and aspects related to metabolic health. BPL1™ is supported by robust pre-clinical and clinical evidence illustrating its benefits.







Emerging [preliminary] evidence suggests BPL1™ may help support **weight management goals**, and in vitro data suggests BPL1™ may help support **metabolic health pathways**.<sup>9</sup>

## The result

After more than 9 years of research and development, including over 50 microbiome-related publications, including 9 dedicated to BPL1™, and human clinical trials, BPL1™ has been clinically shown to support aspects related to body composition and metabolic health, including BMI.

BPL1™ is ideal for use not just in dietary supplements including oil drops, capsules, sachets, sticks, and dairy products, but also in beverages, sports nutrition, better-for-you snacks and more.



## Why ADM: meet the future of plant-based dairy product conceptualization and execution.

ADM is on a mission to unlock the power of nature to solve global nutrition challenges while answering the call of producers and consumers who want food that tastes good while making them feel good, too. Consumers want to enjoy what they consume, and we enjoy giving them a sensory experience that plays into their existing nutrition programs and eating habits.

Our ideation process draws on 75 years of plant protein experience combined with unparalleled flavor craftsmanship. By using taste modulation and resources borrowed from our extensive protein and pantry toolbox, we can play with flavor, texture, and color, bringing out the best of Mother Nature and quieting off-flavors when necessary to ensure nutrition is never a sacrifice.

From adding protein and natural sweeteners to infusing plant-forward alternatives with microbiome solutions like probiotics, fiber, and botanicals, ADM is making each bite count. Our broad portfolio of dairy alternative ingredients and captives is used to underscore authenticity and leverage sense memory, enticing vegans and non-vegans alike to connect with dairy alternatives that look, taste, and act like the “real thing.” We’re reducing the barrier of entry for those new to plant-forward products and introducing those already familiar to the next generation of taste, texture, and enjoyment.





# Expertise to elevate any offering.

ADM’s exceptional capabilities even extend to improving sensory experience in specialty categories. Imagine reduced fat and lower-sugar products without that tell-tale sticky mouthfeel and sour aftertaste!

Today, ADM answers the rise of conscious consumption with plant-forward product solutions that combine all the benefits of functional nutrition with flavors and textures consumers want to experience again and again. From transparency in production, research, and labeling to a customer-first approach that stresses collaboration with an eye toward progress, ADM is strengthening brands through our products for a better collective future.



Plant-forward drinks currently account for **15%** of the total milk category<sup>10</sup>



The plant-forward drink market is expected to reach a **\$30 billion** valuation by 2029<sup>11</sup>



**58%** of consumers who purchase plant-powered drinks do so because they believe it’s healthier than cow milk<sup>12</sup>







## Ready to solve your challenges?

Partner with our team and discover what it means to create the next generation of nutritious, delicious, consumer-favorite plant-forward dairy alternatives.

**Request a technical consultation today.**

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### Sources:

<sup>1</sup><https://gfi.org/marketresearch>

<sup>2</sup><https://www.ift.org/news-and-publications/food-technology-magazine/issues/2021/august/columns/consumer-trends-plant-based-food-market>

<sup>3</sup><https://www.statista.com/statistics/1266145/number-of-people-participating-in-veganuary-worldwide/>

<sup>4</sup><https://gfi.org/resource/consumer-insights/>

<sup>5</sup><https://www.adm.com/news/news-releases/emerging-consumer-behavior-shifts-six-ways-food-beverage-innovation-is-evolving-in-the-face-of-covid-19-2>

<sup>6</sup><https://foodinsight.org/wp-content/uploads/2020/06/IFIC-Food-and-Health-Survey-2020.pdf>

<sup>7</sup><https://foodinsight.org/wp-content/uploads/2020/06/IFIC-Food-and-Health-Survey-2020.pdf>

<sup>8</sup>The World Health Organization, (2020) Fact Sheet on Obesity. <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweigh>

<sup>9</sup>Pedret, A., Valls, R. M., Calderón-Pérez, L., Llauradó, E., Companys, J., Pla-Pagà, L., ... & Solà, R. (2019). Effects of daily consumption of the probiotic *Bifidobacterium animalis* subsp. *lactis* CECT 8145 on anthropometric adiposity biomarkers in abdominally obese subjects: a randomized controlled trial. *International Journal of Obesity*, 43(9), 1863-1868.

<sup>10</sup><https://www.plantbasedfoods.org/retail-sales-data/>

<sup>11</sup><https://foodinstitute.com/focus/plant-based-milk-market-poised-for-continued-growth/>

<sup>12</sup>[https://advocacy.consumerreports.org/wp-content/uploads/2019/02/2018-Plant-Based-Milk-Survey\\_-Public-Report-1.pdf](https://advocacy.consumerreports.org/wp-content/uploads/2019/02/2018-Plant-Based-Milk-Survey_-Public-Report-1.pdf)

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