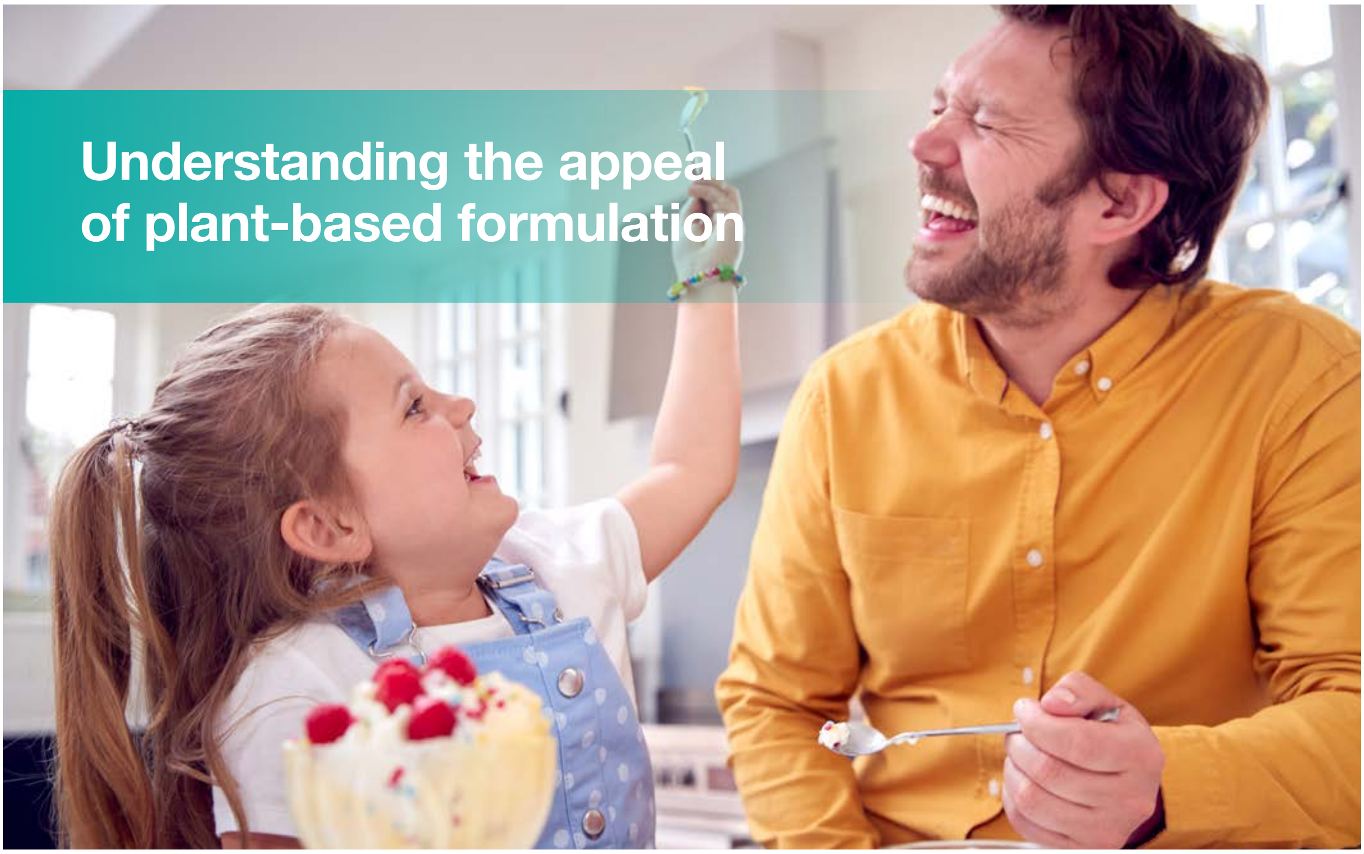
Plant-based dairy alternatives

Insights Report



Understanding the appeal of plant-based formulation

Spurred on by the pandemic, more and more consumers are embracing flexitarian diets, making plant-based dairy alternatives one of the hottest segments in the food and beverage landscape. No longer limited to a niche consumer base, large swaths of the dairy aisle are now home to these trendy products.

This broader consumer base has sparked steady volume growth for the category (11% CAGR, 2015-2020), despite the ups and downs of the COVID pandemic. This upward trend is expected to continue in the years ahead, with Euromonitor projecting a 7% CAGR (2020-2025).[1]

It is also a hotbed of innovation, moving well beyond the original soy-based milk alternatives. Plant-based drinks still make up the largest subcategory of new product launches by volume, but the non-dairy ice cream and frozen yogurt space is the fastest growing, delivering a 33% CAGR (2015-2020).[2] Other popular segments for new product launches include spoonable non-dairy yogurt and non-dairy cheese, which both delivered double-digit growth over the last five years.[3]

Health perceptions are certainly key drivers behind the category's meteoric rise, but other factors such as taste, costs, animal welfare and sustainability are growing in importance. For brands to succeed in an increasingly crowded marketplace, they'll need to weigh these considerations, too.

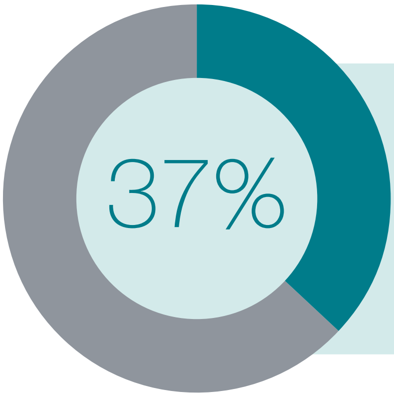
Cargill® Helping the world thrive

Focus on flexitarians

Vegetarians and vegans get credit for kick-starting the plant-based movement, but it's the flexitarian who thrust plant-based formulation into the mainstream. While this group of consumers hasn't sworn off animal-based products completely, they are making a conscious effort to eat more plant-forward options.

A relative newcomer on the scene, flexitarian ranks are steadily expanding. Data from FMCG Gurus shows that 22% of European consumers now report following a flexitarian diet, up 12 points in just the last two years.[4]

As noted earlier, health perceptions play a big role in their decisions. HealthFocus International (2021) found that four in ten (37%) European shoppers view plant-based foods as healthier than their animal-based counterparts. This research suggests other concerns play a role as well, as the majority (58%) of global consumers view plant-based options as better for the environment.[5] Ongoing repercussions from COVID-19 will only amplify these trends, as consumers place a premium on health, safety and well-being – for themselves and the planet.



37% of European shoppers view plant-based foods as healthier than their animal-based counterparts.

Source: HealthFocus International, 2021

Taste is perhaps the biggest hurdle of plant-based alternatives, as today's mainstream audience wants something more than the bland products that defined the category just a few years ago. Improved formulation, coupled with a changing palate, have more consumers appreciating the flavor nuances afforded by plant-based foods.

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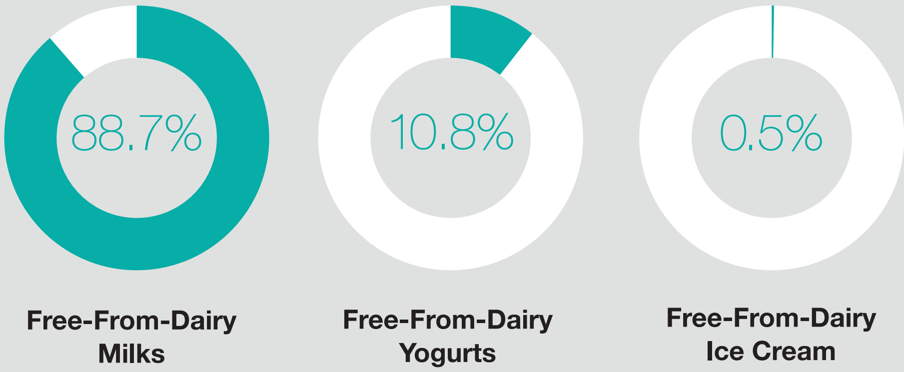
The evolution of dairy alternatives

Fueled by this expanding consumer base, dairy alternative volumes showed consistent growth over the past five years, delivering an 11% CAGR (2015-2020).[6] Not even a global pandemic could slow this steady climb. While the broader food and beverage sector saw category volumes decline in the wake of COVID-19, dairy alternatives maintained their double-digit growth. Euromonitor data shows an 11% increase in retail volume of free-from-dairy (milks, yogurts and ice creams) between 2019 and 2020. The market research firm expects this positive outlook to continue, with an expected 7% CAGR for the free-from-dairy category over the next five-year span.[7]

As interest in the space has expanded, so too has innovation. Free-from-dairy milk alternatives were first on the scene and still make up almost 90% of category retail volumes.[8] Other formats, including free-from-dairy yogurts and ice creams, are newer to store shelves. However, it's these emerging subcategories that are delivering the most explosive growth. In particular, free-from-dairy ice cream is a rising star, up 12% CAGR (2015-2020). Demand for the plant-based treat is expected to continue on an upward track, with a CAGR of 11% in the coming five-year stretch.[9]

Dairy Alternative Volumes

(Europe, 2020)



Source: Euromonitor, 2020

Trends in NPD

These growth projections reflect the category's alignment with prevailing market forces. Cargill's TrendTracker™ insights, which identified 'Holistic Nutrition' as a key trend for the months ahead, notes COVID-19 pushed many shoppers to double-down on health. It finds consumers are adopting an all-encompassing approach to diet and nutrition, actively looking for more nutritionally balanced products.

Against this backdrop, consumer research from Cargill shows plant proteins shine. Pea protein is a particular standout, positively perceived by shoppers as a healthful addition to product formulations. Additionally, company research suggests the importance of front-of-pack nutrition labels is also increasing.

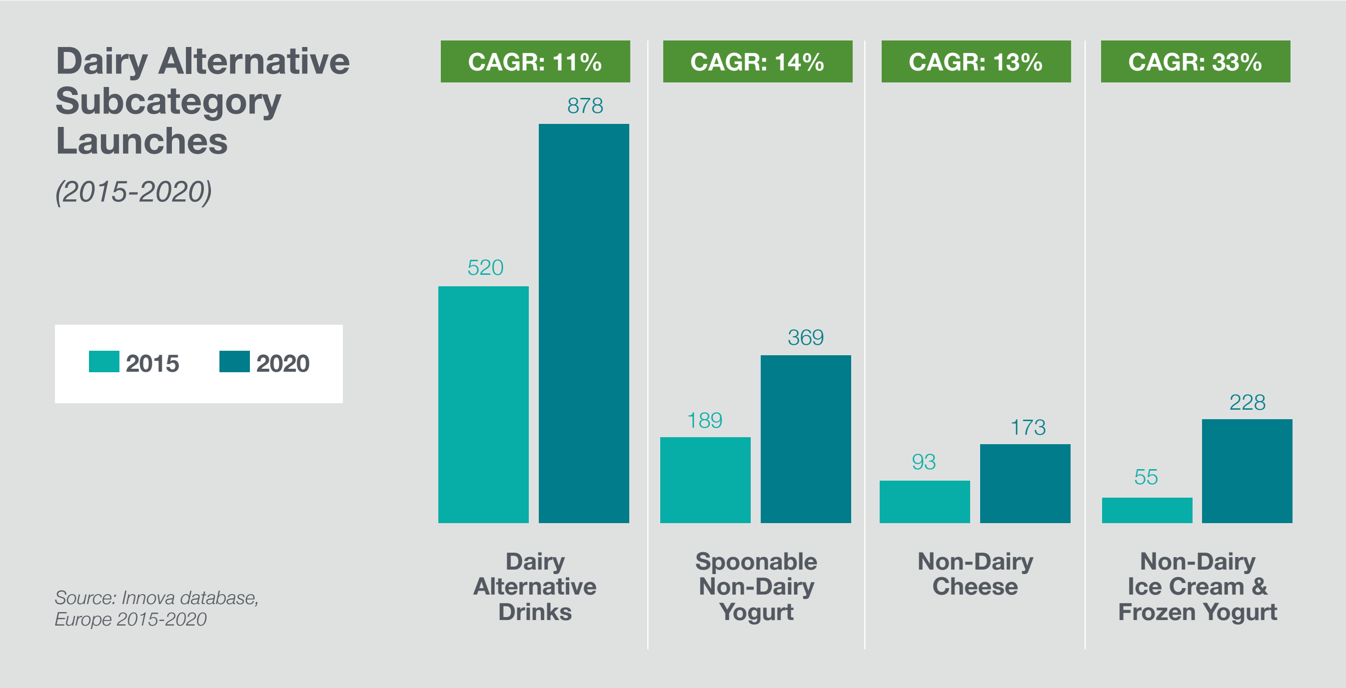
53%

53% of EMEA consumers say they are extremely/very likely to look at nutrition labels when they shop for food and beverages.

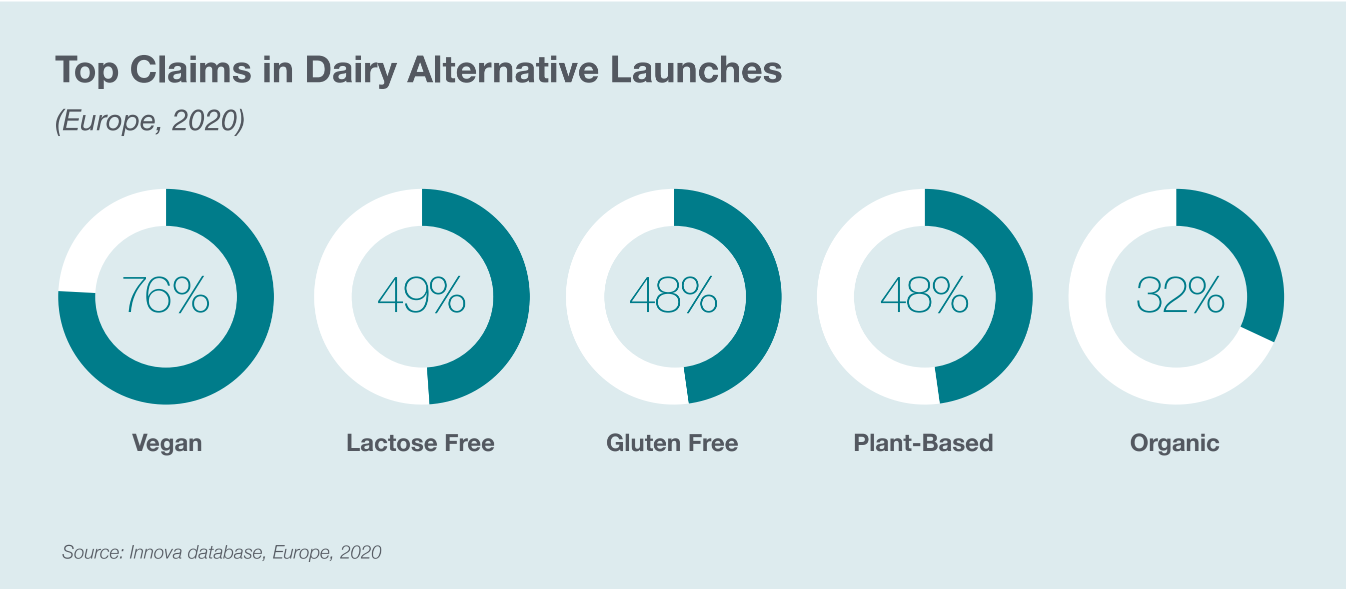
Cargill's IngredienTracker™

Product launches tell the story

Data from Innova paints a similarly bright future for plant-based dairy alternatives. It shows a strong increase in the number of dairy alternative launches across Europe between 2015 and 2020 with a CAGR of 14%. In 2020 alone, dairy alternative drinks made up around half (53%) of the total dairy alternative product launches, followed by spoonable non-dairy yogurt (20%), non-dairy cheese (16%) and non-dairy ice cream & frozen yogurt (13%). Each of these subcategories showed strong growth on the NPD front, with non-dairy ice cream & frozen yogurt delivering the highest CAGR – an impressive 33% over the last five years.[10]



Claims on these new products most often highlight their vegan offer, with slightly lower incidences of plant-based or vegetarian claims. Lactose- and gluten-free claims are also widespread.



Technical challenges remain

Plant-based dairy products have captured consumers' interest, but to ensure they are more than a passing fad, manufacturers must continue to innovate. Today's flexitarian consumers expect a dairy-like experience, an ask that can be difficult to achieve.

Dairy-based ingredients have specific properties that impact taste and texture. While consumers are open to plant-based dairy alternatives, success will be largely predicated on their ability to mirror their animal-based counterparts.

23%

of consumers are hesitant to consume a plant-based alternative because they **don't know what's in them**

22%

of consumers are hesitant to consume a plant-based alternative because they **don't think it tastes as good as animal-based products**

Source: HealthFocus International, 2020

Knowledgeable ingredient suppliers can help brands arrive at a well-balanced mix of plant-based ingredients that replicate the taste and functionality of the dairy protein and fat they replace. However, just as the challenges vary by application, so too will the solutions.

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Plant-derived solutions

As difficult as it is, meeting consumers' sensory expectations is only part of the story. As competition heats up in the dairy alternative space, brands will need to develop plant-based products that better reflect flexitarians' aspirations. They want foods with health benefits – but they're also scrutinizing ingredient statements and seeking choices that support sustainability.

Delivering on all those expectations starts with the right ingredients and the right ingredient partner. You need ingredients that provide nutritional balance, are familiar to consumers, sustainably sourced and still highly functional in your formula – optimizing taste and texture.

Cargill has solutions that can address these opportunities:

- **NutriScore.** Perceptions around health are a big draw for dairy alternatives, but often further improvements could still be made on their nutrient composition. Cargill can help brands bolster their nutritional credentials, using blends of plant proteins, reduced-sugar sweetening solutions, fibers, texturizers and more.
- **Label-friendly.** An increasing number of consumers scrutinize labels when purchasing food and beverages. Their preferences have shifted toward familiar ingredients and simpler labels, giving food manufacturers the challenge of providing appealing products that respond to this trend. Cargill offers a range of ingredients, including fibers, stevia, starches, pectin, seaweed powder, pea protein and other familiar ingredients, which all support clean-label formulation. At the same time, these ingredients offer the process tolerance and functionality required in dairy alternatives.
- **Sustainably sourced.** Consumers want to know the stories behind the products they buy, including where and how ingredients are grown and processed. Cargill recognizes the importance of transparency and has an unwavering commitment to sustainability. Across our portfolio, we offer ingredients that can help customers achieve their sustainability targets.
- **Optimized taste, texture.** Dairy alternatives have achieved mainstream appeal. With that comes heightened expectations around taste, texture and other sensory attributes. Our broad ingredient portfolio can help brands deliver, with sweetening solutions like glucose syrups, polyols and stevia, as well as texturizers, emulsifiers and fibers that provide mouthfeel, emulsification, stabilization and more.

SPOTLIGHT: Pea Proteins & SimPure® Starches

Ingredients like **pea proteins** and **SimPure® starches** help address consumers' desire for simple ingredients and familiar labels, while also providing the sensory profile and functional properties manufacturers need for successful formulations.

Great functionality

- Pea proteins provide outstanding solubility. When combined with SimPure® and other ingredients in our texture portfolio, a range of desired textures can be achieved, including liquid, indulgent creamy and soft gelled
- SimPure® starches provide smooth texture bringing body and mouthfeel, ideal for yogurt
- They are both suitable for a wide range of consumer products

Label-friendly

- Pea proteins are produced label-friendly yellow peas, which need no allergen declaration in Europe
- SimPure® starches leverage the unique properties of a variety of botanical sources, such as corn, potato, and tapioca

Great sensory profile

- Pea proteins offer mild flavor, low off notes
- SimPure® starches enhance flavors and textures

SimPure®
Simple ingredients. Pure functionality.™

cargill.com/emea/simpure
cargill.com/emea/plant-proteins/pea-protein

RECIPE:

Fermented plant-based specialty

Ingredients	%
Skimmed milk	Up to 100%
Skimmed milk powder	1.00%
Sugar	8.00%
Cream at 35% fat	9.00%
SimPure® series (Starch)	**1.50%**
Cultures	0.02%

Nutrition Facts	Amount per serviing (100g)
Energy	98 kcal
Fats	3.2
of which saturated	2.8
Carbohydrates	14.0
of which sugars	12.8
Proteins	3.3
Dietary fiber	0.2

Ingredients	%
Water	Up to 100%
Coconut ‘milk’	16.00%
Sugar	8.00%
PURIS™ Pea 870	**3.70%**
SimPure® series (Starch)	**4.00%**
Calcium salt	qsp to reach 120 mg/100mL
Cultures	0.02%

Nutrition Facts	Amount per serviing (100g)
Energy	89 kcal
Fats	3.3
of which saturated	2.8
Carbohydrates	12.0
of which sugars	8.2
Proteins	3.3
Dietary fiber	0.2

Advancing sustainability, every step of the way

At Cargill, we are working to nourish the world in a safe, responsible and sustainable way and drive positive change across our supply chains. It starts from the ground up, with our farmer-partners, who embrace soil and water conservation practices and regularly evaluate and improve their farming practices.

For example, to ensure a long-term sustainable crop supply for food starch, we have committed to source waxy corn 100% sustainably from European farmers. In support of this initiative, Cargill has developed the Waxy Corn Promise™ program, driving positive change throughout the European starch supply chain. Thanks to our Waxy Corn Promise™ we provide credible claims to help our customers achieve their sustainability targets.

In similar fashion, our Red Seaweed Promise™ is our commitment to securing a long-term, regenerative red seaweed supply. The program is specifically designed to address key sustainability challenges for the harvesting and cultivation of red seaweed, while enhancing producer livelihoods, supporting local communities and conserving the marine environment.

SAI Platform FSA sustainable sourcing

On top of sustainability programs like these, we source verified corn, wheat, soy, potatoes and peel, benchmarked at Silver level or above according to the SAI Platform's Farm Sustainability Assessment. This industry-recognized benchmark supports good agriculture practices in key sustainability areas, including:

Soil Conservation | **Biodiversity Conservation** | **Water Quality**

To reach the SAI FSA Silver benchmark, farmers are independently audited based on standards that go further than European regulations and allow for credible sustainability claims.

cargill.com/sustainability/corn/cargill-waxy-corn-promise
cargill.com/sustainability/sustainable-seaweed
cargill.com/food-beverage/emea/sustainably-sourced-corn-and-wheat

The Cargill advantage

As a global ingredient leader, Cargill's broad portfolio of nature-derived solutions is backed by world-class formulation expertise and supply chain reliability to help food and beverage manufacturers meet the most challenging application goals and marketplace demands, whether they're creating an entirely new product or reformulating existing ones.

References

[1] Euromonitor, 2015-2020
[2] Innova database, Europe, 2015-2020
[3] Innova database, Europe, 2015-2020
[4] FMCG Gurus, 2021
[5] HealthFocus International, 2021
[6] Euromonitor
[7] Euromonitor
[8] Euromonitor
[9] Euromonitor
[10] Innova database, Europe, 2015-2020