



Solutions for optimal dairy (alternative) performance

**Dairy & Plant-based
Dairy Alternatives,
Europe**

Cargill[®]

Cargill, your partner for co-creating growth in Dairy & Plant-based Dairy Alternatives

Dairy products are complex formulations requiring the right mix of ingredients and expertise. Our broad range of (plant-based) ingredients including proteins, texturizers, oils & fats, sweeteners, cocoa and chocolate, fibers as well as functional systems are designed to inspire consumer pleasing solutions. Our world-class technical expertise can help you leverage this broad portfolio to create deliciously satisfying products. Add in our reliable global supply chain, and you have all the tools you need to create winning (plant-based alternatives to) dairy.



Our secrets to your dairy alternatives success:



Insights-driven innovation:

Complement your insights with our research into market trends and consumer needs to develop consumer-pleasing products



Broad solutions portfolio:

Leverage our broad Cargill ingredient portfolio and our partnership to deliver fully integrated solutions



Enhanced expertise:

Tap into reliable, knowledgeable and highly skilled dairy & plant-based dairy alternative experts and state-of-the-art facilities that are close at hand



Accelerated sustainability:

Advance your sustainability goals by leveraging our sustainability actions and commitments across the supply chain



Trusted supplier:

Scale, grow and thrive thanks to global supply chains and alternative solutions to help manage your costs

Cargill can help build up texture & mouthfeel, enhance nutrition, create friendly labels and help build more sustainable consumer products.

Moreover, Cargill could help you deal better with:



Increasing milk (powder) and fat prices:

Mitigate high prices of milk protein and fat by reformulating with (plant-based) texturizers or fats & oils to build back texture & mouthfeel



HFSS regulation:

Lower fats, sugars and salts in dairy/dairy alternatives by leveraging our smart fats, texturizers and sweetener solutions



High sugar prices:

Leveraging our broad portfolio of liquid sweeteners and dextrose, offering cost-competitive solutions



We can help you find solutions for:

- ✓ (Plant based alternatives to) cheese
- ✓ (Plant based alternatives to) cream
- ✓ (Plant-based alternatives to) milk
- ✓ (Plant-based alternatives to) dairy drinks
- ✓ (Plant-based alternatives to) yogurt
- ✓ (Plant-based) desserts
- ✓ (Plant-based) spreads
- ✓ (Plant-based) creamers
- ✓ (Plant-based alternatives to) butter



Ingredients in this document:

Texturizers



Sweeteners



Fibers



Plant proteins



Fats & oils



Cocoa & chocolate



Functional systems



Texturizers

Texture is a vital part of product delivery as it determines how we experience a product: its flavor, appearance, texture, and mouthfeel. At Cargill, we couple our texture and emulsification solutions with our in-depth application and technical expertise, to address your most challenging formulation needs, and to deliver the palate-pleasing textures that keeps your customers coming back for more.

Product Type/Name	Features & Benefits	Applications
Starch		
Functional Label-Friendly Starch: <i>Waxy Maize, Tapioca</i> SimPure®	<ul style="list-style-type: none"> · Label-friendly · Smooth, non-gelling texture bringing body and mouthfeel · Great cold storage stability 	(Plant-based alternative to) yogurts, desserts and plant-based alternative to cheeses
Native Cook-Up Starch: <i>Maize, Waxy Maize, Wheat, Tapioca</i> C☆Gel®	<ul style="list-style-type: none"> · Label-friendly · Good gelling · Provides firm texture · Prevents stickiness after grating / slicing 	Analogue cheese, dairy gelled desserts, plant-based alternatives to cheeses, plant-based gelled desserts
Native Instant Starch: <i>Maize, Waxy Maize</i> C☆Gel® Instant, C☆HiForm®	<ul style="list-style-type: none"> · Label-friendly · Viscosity in cold process 	
Modified Cook-Up Starch: <i>Maize, Waxy Maize, Tapioca</i> C☆Tex®, C☆PolarTex®, C☆CreamTex® C☆Set®, C☆Stretch®	<ul style="list-style-type: none"> · Wide range of textures · Shelf life stability · Water-binding · Acid, heat & shear tolerance · Excellent gelling properties 	Analogue cheese, yogurts, dairy desserts and plant-based alternatives to cheese, yogurt and plant-based desserts
Modified Instant Starch: <i>Maize, Waxy Maize, Tapioca</i> C☆Tex® Instant, C☆PolarTex® Instant, C☆HiForm®	<ul style="list-style-type: none"> · Viscosity in cold process · Wide range of textures · Shelf life stability · Water-binding · Acid, heat & shear tolerance 	

SimPure®

Label-friendly starches

SimPure® starches help address consumers' desire for simple ingredients and familiar labels, at the same time giving manufacturers greater process tolerance, shelf life and storage stability.

- **Label-friendly** – nature-derived, recognizable and simple ingredients
- **Broad functionality** – suitable for a wide range of consumer products, thanks to the broad portfolio with texturizing properties
- **Body & mouthfeel** – enhances the flavors and textures of everyday products



Cargill.com/emea/simpure



Product Type/Name	Features & Benefits	Applications
Dried Glucose & Maltodextrin		
Dried glucose & Maltodextrin C☆Dry® MD, C☆Dry® Light, C☆Dry® GL, C☆NutriDry	<ul style="list-style-type: none"> · Body, mouthfeel, bulking agent · Low relative sweetness · Neutral taste 	(Plant-based) frozen desserts, flavored dairy and cocoa drinks, (plant-based alternatives to) yogurts, cheeses and creams
Pectin, Carrageenan, Xanthan Gum		
Pectin UniPECTINE®	<ul style="list-style-type: none"> · Label-friendly thickening and gelling agent · Stabilizes proteins in acidic conditions 	Yogurts, processed cheese, acid dairy drinks, creams, frozen desserts, plant-based alternatives to yogurts, fermented creams, plant-based acid dairy drinks
Carrageenan Satiagel®, Satiagum®, Aubysel®	<ul style="list-style-type: none"> · Acts as a thickening and gelling agent · Suspends and stabilizes fat, protein and cocoa particles · Improves mouthfeel 	(Plant-based) desserts, dairy drinks, plant-based alternatives to cheeses
Xanthan Gum Satiaxane®	<ul style="list-style-type: none"> · Thickening, suspension and stabilizing agent · Can be applied effectively at very low dosage · Stability in acid conditions and under heat treatment 	Frozen desserts, plant-based desserts, plant-based alternative to cheeses
Seaweed Powder		
Seaweed Powder WavePure®	<ul style="list-style-type: none"> · Label-friendly · Very limited color and flavor deviation, formulation and process versatility · Brings great body and mouthfeel 	(Plant-based) dairy desserts, plant-based alternatives to dairy drinks
Lecithin		
Fluid Lecithin: <i>Soy, Sunflower, Organic Soy</i> Topcithin®, Leciprime®, Metarin®	<ul style="list-style-type: none"> · Label-friendly emulsifier · Stabilizes emulsions and foams · Reduces surface tension · Non-GMO* and GMO available · Not a major allergen 	Dairy creams, plant-based alternatives to dairy drinks and plant-based alternatives to cheeses
Deoiled Lecithin: <i>Soy, Sunflower and Rapeseed</i> Metarin®, Emulpur®, Emultop®	<ul style="list-style-type: none"> · Available in different quality grades (Organic, FQ-MaxX infant, FQ-MaxX, Premium, Standard) 	

* There is no single definition of "non-GMO". Contact Cargill for source and processing information.

WavePure®

Seaweed powder

WavePure® is a seaweed powder range based on native seaweed obtained without any chemical modification. It's a unique ingredient with great mouthfeel properties that enables smooth and creamy textures, in category like gelled dairy desserts.

- **Label-friendly** – nature-derived, simple and familiar plant-based ingredient, based on seaweed
- **Nutritional boost** — low calorie content, rich in fiber and other naturally healthy elements (i.e. proteins, vitamins, & antioxidants)
- **No chemical modification** — whole, not-transformed seaweed; all the natural components of the seaweed are kept intact



[Cargill.com/food-bev/emea/texturizers/seaweed-powder](https://www.cargill.com/food-bev/emea/texturizers/seaweed-powder)





Sweeteners

Cargill offers one of the broadest sweetness portfolios, ranging from full to no calorie options, to offer choice to customers and consumers. Whether you're creating an entirely new product or formulating for balanced nutrition, Cargill's broad range of nature-derived sweetness solutions can help you for sweet success.

Product Type/Name	Features & Benefits
High intensity sweeteners ¹ (0 kcal/g, Sugar and calorie reduction, Sweetness adjustment)	
Steviol glycosides from stevia	
Truvia®	<ul style="list-style-type: none"> · High Purity Reb A · Cost-effective sugar reduction · Clean, sweet taste
ViaTech®	<ul style="list-style-type: none"> · Proprietary, synergistic blends of Steviol Glycosides designed for optimal taste and sweetness · Clean taste allows for deeper sugar reduction · Reduces bitterness and licorice off-notes
Steviol glycosides from fermentation	
EverSweet® ²	<ul style="list-style-type: none"> · Advanced fermentation techniques bring to life stevia's sweetest elements – steviol glycosides Reb M and Reb D · Sugar reduction up to 8% SEV, with further reduction possible in combination with flavor modulators or other flavor enhancers like erythritol

Applications:

(Plant-based) frozen, neutral and fermented desserts, (plant-based alternative to) flavored dairy and cocoa drinks

Stevia

Cargill's agricultural stevia program has been benchmarked at Silver level by Farm Sustainability Assessment (FSA) 3.0³ – becoming the first stevia producer in the industry with our entire grower network evaluated that achieved this distinction.



[Cargill.com/sustainability/sustainable-stevia](https://www.cargill.com/sustainability/sustainable-stevia)



A life cycle assessment (LCA) shows that EverSweet® advanced fermentation techniques result in improved environmental performance in key metrics such as carbon footprint, water use and land use impact compared to production from leaf or bioconversion, or traditional sugar.⁴

EverSweet®



[Cargill.com/food-beverage/emea/sweeteners/eversweet](https://www.cargill.com/food-beverage/emea/sweeteners/eversweet)

³ FSA is a standardized reference developed by SAI Platform, a food-industry organization dedicated to advancing sustainable agriculture in the food chain. It's designed to help producers assess their sustainable practices and support manufacturers in sourcing sustainably grown products. ISO/TS 19657:2017 (<https://www.iso.org/news/ref2254.html>).
⁴ LCA results have undergone a ISO14040/44 panel review, underlying report available upon request.

Product Type/Name	Features & Benefits	Applications
Full-calorie sweeteners (4 kcal/g, Bulk sweeteners)		
Glucose syrups C☆Sweet®	<ul style="list-style-type: none"> · Low to moderate relative sweetness · Medium to high viscosity, body and mouthfeel · Helps to adjust sugar recrystallization 	(Plant-based) frozen desserts
Glucose-fructose syrup C☆TruSweet®	<ul style="list-style-type: none"> · Moderate to high relative sweetness · Cost-effective sugar replacement · Controlled browning & freezing point depression 	
Fructose syrup C☆TruSweet® 01795	<ul style="list-style-type: none"> · High relative sweetness enabling up to 30% sugar and calorie reduction, and more in combination with high intensity sweeteners · Enhances freshness and boosts fruity flavors 	
Dextrose C☆Dex®	<ul style="list-style-type: none"> · High relative sweetness, typical sweet taste · Flavor enhancement · Quick energy release · Good solubility · Monohydrate or anhydrous powder, variety of particle size distributions 	
Low/no-calorie sweeteners¹ (2.4 kcal/g- 0 kcal/g, Bulk sweeteners, Sugar and calorie reduction, Tooth-friendly)		
Maltitol Maltidex®	<ul style="list-style-type: none"> · Similar sweetness, cooling effect and behavior to sucrose · Boosts fruity flavors 	(Plant-based) frozen, neutral and fermented desserts, (plant-based alternative to) flavored dairy and cocoa drinks
Sorbitol C☆Sorbidex®	<ul style="list-style-type: none"> · Milder relative sweetness · Cost-effective 	
Erythritol Zerose®	<ul style="list-style-type: none"> · Sweetness and taste profile close to sucrose · Synergistic with high-intensity sweeteners, masks off-flavors · Adds smoothness and body · Zero calories · Good digestive tolerance 	



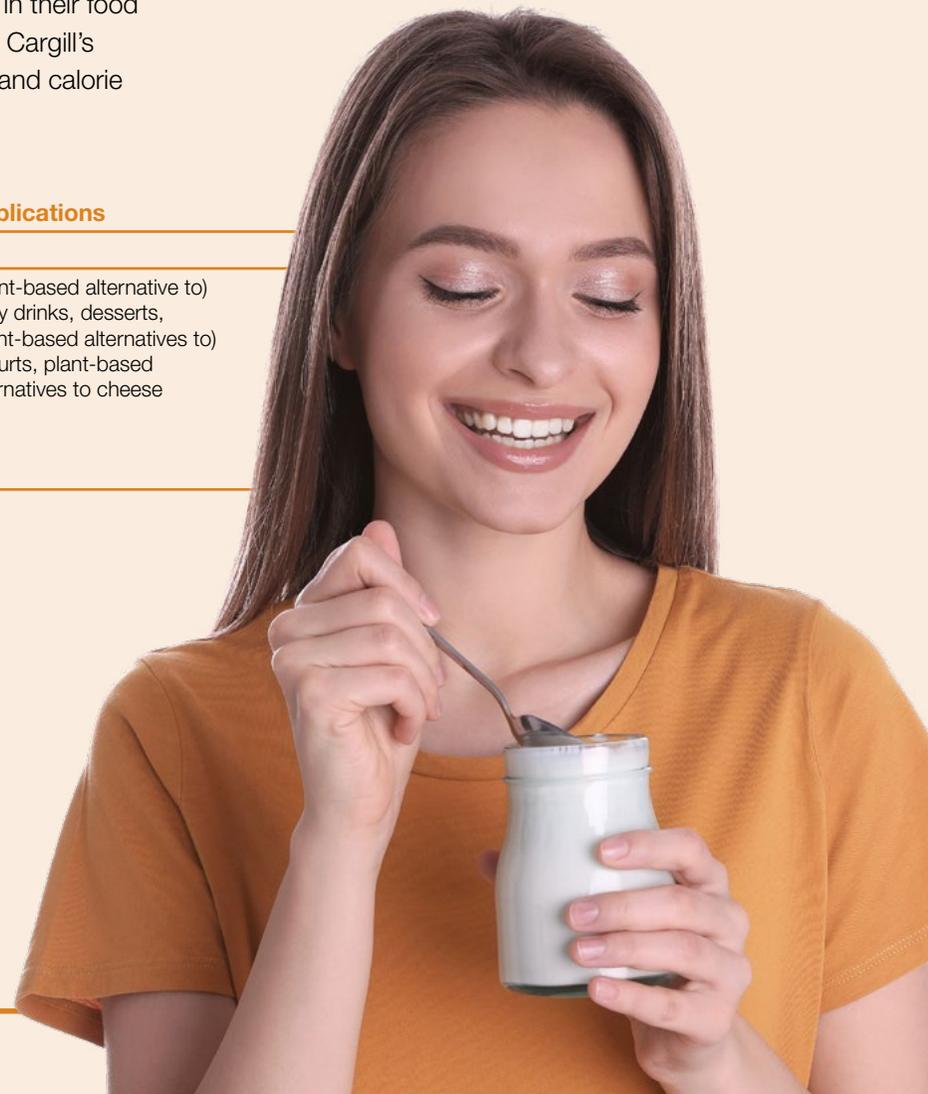
¹ Steviol glycosides and polyols are permitted in most energy or sugars reduced foods under "quantum satis" or under conditions of use. Foods with over 10% polyol content must carry a label "Excessive consumption may cause laxative effects" (EU Reg. 1333/2008 on food additives)



Fibers

As consumers embrace a more proactive and preventative approach towards health, their attitudes are increasingly reflected in their food and beverage choices hence fiber is rising in popularity. Cargill's fibers are fully in line with today's trends towards sugar and calorie reduction, fiber enrichment, and label-friendliness.

Product Type/Name	Features & Benefits	Applications
Fibers		
Soluble corn and wheat fiber Cargill™ soluble fiber	<ul style="list-style-type: none">· Label-friendly· Enables 'High in fiber' 'Source of fiber' claims· Enables minimum 30% sugar reduction· Calorie reduction· Nutri-Score improvement	(Plant-based alternative to) dairy drinks, desserts, (plant-based alternatives to) yogurts, plant-based alternatives to cheese





Plant proteins

In food, proteins are an important nutritional source supplying the body with essential amino acids that it cannot synthesize on its own. Beyond nutrition, these affordable, plant-sourced proteins provide functional benefits makes them easy to incorporate into a variety of food and beverage products. We can help food & beverage manufacturers match protein choices to brand goals, resulting in a new generation of products that meet the diverse needs and desires of today's more discerning consumer.

Product Type/Name	Features & Benefits	Applications
Plant proteins		
Pea Protein <i>Isolates & Hydrolysates</i>	<ul style="list-style-type: none"> · Min. 80% protein content · Great functionality · Superior taste profiles 	Plant-based alternative to yogurts, cheeses, creams, plant-based flavored and cocoa drinks
Wheat Protein <i>Hydrolyzed wheat protein</i> Prowliz®	<ul style="list-style-type: none"> · Highly digestible · Robust protein content (Protein (Nx5.7) on dry basis: 76.5% min.) · Low viscosity · Good solubility 	

Pea Protein

Versatile, functional, irresistible

Pea protein isolates are a good source of protein, produced from label-friendly yellow peas, which need no allergen declaration in Europe. Their nutritional value pairs well with broad functionalities:

- Good solubility and stability at different pH
- Mild flavor versus other pea proteins
- Great emulsification and whipping properties
- Texturizing properties: smooth, creamy and spoonable texture
- Excellent water holding capacity avoids staling during shelf life

Cargill's extensive portfolio, deep application knowledge and technical expertise enables us to support food manufacturers in answering various plant-based formulation challenges.



[Cargill.com/emea/pea-proteins](https://www.cargill.com/emea/pea-proteins)



Fats & oils

Vegetable oils & fats are essential in the creation of alternatives to dairy that deliver on sensory appeal. Finding the right mix is key to enabling optimal texture and organoleptic properties, and an improved nutritional profile. Our oils & fats portfolio for alternatives to dairy is in line with key trends around health, sustainability, label-friendliness, without compromising on sensorial properties that consumers expect.



Product Type/Name	Applicatons		Features & Benefits
	Dairy Alternatives	Dairy	
Liquids <i>Sunflower, Rapeseed, Linseed, Corn, Soy</i>	Plant-based alternatives to dairy drinks and desserts	Dairy desserts	<ul style="list-style-type: none"> · Low in saturated and high in mono- and polyunsaturated fatty acids · Bring excellent sensorial properties. · Solutions for various nutritional profile
Laurics <i>Coconut, Palm kernel</i>	Plant-based alternative to cheese, plant-based alternative to creams and recombined creams		<ul style="list-style-type: none"> · Fully hydrogenated available · Ensure high oxidative stability for long shelf life · Bring excellent sensorial properties and flavor release · For extra white colour experience
Fats <i>Palm-based solutions Fat-based milk powders</i>	Plant based alternative to cheeses and creams, plant-based desserts, plant-based alternative to flavored dairy and cocoa drinks	Coffee whiteners and yogurt-based drinks	<ul style="list-style-type: none"> · Provide excellent structural properties · Deliver the desired texture and mouthfeel · Ensure high oxidative stability for long shelf life
Blends <i>Palm alternatives based on cocoa butter and/or liquid oils</i>			<ul style="list-style-type: none"> · Provide excellent structural properties · Achieve desired texture and mouthfeel · Reduced saturated fatty acids



Cocoa & chocolate

From bean to bar, Cargill's global portfolio of high quality cocoa and chocolate ingredients can help you create delicious dairy & dairy alternatives applications.

Product Type/Name	Features & Benefits	Applications
Chocolate		
Standard <i>Milk, dark, white</i>	<ul style="list-style-type: none"> · Liquid & solid solutions · Capability to produce chocolate recipes that comply with vegan certification · Available with sustainable certification 	(Plant-based alternative to) desserts and dairy drinks
Caramel Selection	<ul style="list-style-type: none"> · White chocolate with caramelized ingredients · Clean label- flavored with natural caramelized ingredients · Four color & flavor profiles 	
Organic	<ul style="list-style-type: none"> · Organic claim chocolate · Sourced from organic origins across the globe to limit local influences on supply stability · Blended from different origins to ensure consistent flavor profiles 	
ExtraVeganZa <i>Vegan chocolate decorations & inclusions</i>	<ul style="list-style-type: none"> · Sensorily outstanding vegan chocolate range with lighter color profile and vegan claim · Based on sunflower syrup or rice syrup · Available from 'suitable for vegan' to 'vegan with no detectable levels of dairy'* 	
Cocoa powder		
Gerken's® cocoa	<ul style="list-style-type: none"> · A broad range of high-quality cocoa powders suitable for a variety of applications · Two new, 30% sugar reduced cocoa powders, in a natural way (without adding any sweeteners or artificial ingredients) · Available with a sustainable certification · Available in organic 	
ExtraVeganZa	<ul style="list-style-type: none"> · Two specialty cocoa powders to enhance the sensory appeal of plant-based alternatives to dairy drinks 	
Coatings and fillings		
Customized plant-based compounds	<ul style="list-style-type: none"> · Made with plant-based ingredients for recipes that are also suitable for vegans · No limit on dairy traces is offered* · Dedicated 'No nut' production line · Available with a sustainable certification 	

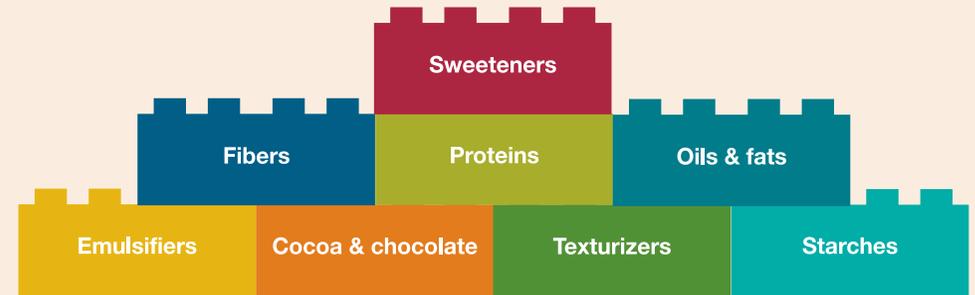
* Produced on our standard lines, dairy traces without max limitations.



INFUSE by Cargill™ Functional Systems

Blended ingredient solutions offer customers the ease of a solution that helps speed up their development and launch innovative products faster to market. By delivering such functional systems, Cargill can deliver on the core requirements for Dairy and Alternatives to dairy.

Among others, we offer functional ingredient systems under Trillise®, Flanogen® and Lygomme® label, that address a complex set of consumer demands, such as nutritional balance, label friendly, plant-based and other “free-from” formulation challenges.



Neutral drinks

ABN series

- Stabilizes particles, such as cocoa powder, and plant proteins to prevent sedimentation
- Brings mouthfeel and smoothness



Neutral desserts

ADF, ADG, ADM series

- Various combinations of ingredients designed for Creamy, Gelled or mousse desserts.
- Provide, in synergy with milk proteins the desired texture.
- Stabilize and prevent syneresis
- Improve the sensory parameters



Spreadable & processed cheese

ACH series

- Helps to deliver the key properties per alternative to cheese type: good or controlled meltability, stretch, elasticity, firmness.
- Improves the texture and overall eating experience



Creams

ACL, ACT series

- Various combinations of ingredients, starches, hydrocolloids, emulsifiers, to improve texture of fat reduced UHT creams
- Helps to stabilize fat, brings thickness, smoothness
- Provides additional whipping properties



Fermented products

AYS series

- Helps to deliver indulgent mouthfeel and great overall texture
- Improves smoothness and shiny appearance
- Limits syneresis during shelf life
- Easy to use in plant-based formulations as well, with no process adjustments needed



Cargill's
Food Solutions

Co-
creating



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