

Meat Alternatives Solutions for success

Delightful
with purpose

Cargill®



Cargill's Meat Alternatives

We are your
co-creation partner
for **success** through ...



Dedicated category expertise

Rely on our **global category** team, with **application expertise** and **market-driven insights**, to help you with solutions rooted in customer and consumer needs.



Broad portfolio of solutions

With Cargill's broad, **industry leading portfolio**, we are uniquely designed to provide solutions for **enticing taste and texture with improved nutritional value** to delight consumers.



Innovating to new heights

Our advanced **R&D capabilities** and **innovative eco-system** anticipate and scale up new technologies for us to co-create your next delighting, "better for me" **winning meat alternatives together**.



Differentiating through sustainability

Like you, we are committed to creating new solutions that will **feed the world more safely, responsibly and sustainably**, helping our customers to differentiate with sustainability.



Anchored by connections

With **Cargill's global presence**, we can offer a powerful supply chain position and strategic partnerships to **harness reliable sourcing at scale** in favor of your business goals.

We can help you find solutions for:

Meat, Fish & Seafood Alternatives

- ✓ Burgers
- ✓ Canned Tuna
- ✓ Cold cuts
- ✓ Crumbles/Chunks
- ✓ Ground meat
- ✓ Meatballs
- ✓ Nuggets
- ✓ Pate
- ✓ Sausages
- ✓ Shrimp
- ✓ Squid
- ✓ Whole muscles



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Alternative 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, yet their neutral taste profile makes them easy to incorporate into a variety of food and beverage products. Choosing the right protein type depends on various parameters; we help you select the right ones based on our expertise and experiences.



Product Type & Product Name(s)	Features & Benefits	Applications
Textured Protein TEX PW80 M	<ul style="list-style-type: none"> Provides firmness and meat-like bite Delivers on appearance, chew and -juiciness. High protein content (min 80%) Good quality protein 	Meat & fish alternatives: burgers, ground meat, meatballs, crumbles, nuggets, sausage
Wheat Protein Vital wheat gluten Hydrolyzed wheat protein Guvital® Prowliz®	<ul style="list-style-type: none"> Min. 75% protein content Protein enrichment Unique texturizing properties Improves yields & texture with enhanced water / oil absorption & retention Adds bile structure & firmness to cooked foods Mild taste profile Sustainably sourced wheat; SAI FSA silver level 	Meat & fish alternatives: whole muscles, cold cuts, burgers, ground meat, meatballs, crumbles, nuggets, sausages
Pea Protein Isolates & Hydrolysates PURIS™** RadiPure®	<ul style="list-style-type: none"> Min. 80% protein content Protein enrichment Can be easily used in a variety of formulations, providing different flavor options Broad functionality e.g., emulsifications Natural flavor with minimal pea aftertaste Process-friendly compared to soy protein Improved performance with the addition of salts in terms of emulsification and gelation 	Meat, fish & seafood alternatives: whole muscles, cold cuts, burgers, ground meat, meatballs, sausages, crumbles, nuggets, pate, shrimp, squid
Mycoprotein ABUNDA®**	<ul style="list-style-type: none"> Neutral taste and color Meat-like texture Nine essential amino acids Rich in protein & fiber Low in fat & salt Label-friendly Enables lower carbon footprint 	Meat, fish & seafood alternatives: whole muscles, cold cuts, burgers, ground meat, meatballs, nuggets, salmon, tuna, crab cake, shrimp

* Licensed trademark of Puris Proteins / Not for use in France

** Licensed trademark of ENOUGH®

Oils & fats

Vegetable oils & fats are essential in plant-based meat alternatives, finding the optimal mix is key to enabling an optimal texture and organoleptic properties, and an improved nutritional profile. The perfect combination of different plant-based oils and fats will let you to get as close as possible to the visual and melting aspects of animal-based fat.

Cargill is the perfect partner to help you succeed within this marketplace, with the portfolio and expertise to enable your success. We offer a broad portfolio including liquids, laurics, palm-based solutions, and blends & specialties that help your products stand out in terms of taste, texture, and visual appeal.



Product Type	Features & Benefits	Applications
Liquid Sunflower, Rapeseed, Linseed, Groundnut	<ul style="list-style-type: none"> Bring excellent sensory properties and flavor release Give lubricity Provide juicy mouthfeel Solutions for various nutritional profile 	Meat, fish & seafood alternatives: whole muscles, cold cuts, burgers, ground meat, meatballs, crumbles, nuggets, sausages, pate, shrimp, squid, canned tuna
Lauric Coconut / Palm kernel, Fully hydrogenated available	<ul style="list-style-type: none"> Bring excellent sensory properties and flavor release For extra white color experience Ensure high oxidative stability for long shelf life 	Meat alternatives: burgers, ground meat, meatballs, crumbles, nuggets, pate, sausages
Fats Palm-based solutions	<ul style="list-style-type: none"> Provide excellent structural properties for the best texture and meat-like appearance Ensure high oxidative stability for long shelf life Enable increasing succulence 	Meat alternatives: burgers, ground meat, meatballs, crumbles, nuggets, pate, sausages
Blends or specialties Palm alternatives based on cocoa butter and/or liquid oils	<ul style="list-style-type: none"> Support the meatlike appearance and mouthfeel Deliver excellent structural properties 	Meat alternatives: burgers, ground meat, meatballs, crumbles, nuggets, pate, cold cuts, sausages
Smart Fats Go!Drop®*	<ul style="list-style-type: none"> Supports the juiciness Mimics meat-like appearance Acts as an aroma carrier Reduces the total fat content Enables less saturated fat content Enables reduction in product calories Brings improved nutritional profile 	Meat alternatives: burgers, ground meat, meatballs, crumbles, nuggets, pate, cold cuts, sausages

* Licensed trademark of Cubic Foods S.L.

Texturizers & emulsifiers (1/2)

Achieving the perfect sensory experience is key. At Cargill, we couple our texture and emulsification solutions with our in-depth application and technical expertise to create the right ‘meat-like’ textures. From firmness to slice ability, moistness to visual appeal, we have solutions that can enhance the overall acceptance of meat analogue products.



Product Type & Product Name(s)	Features & Benefits	Applications
STARCH		
Functional Label-Friendly Starch: Waxy Maize, Tapioca SimPure®	<ul style="list-style-type: none"> Enhances structure and succulency Improves yields & texture Helps bind ingredients together Label-friendly options for mild to severe processes Available in instant & cook up versions 	Meat & fish alternatives: whole muscles, burgers, ground meat, meatballs, chunks, nuggets, cold cuts
Native Cook-Up Starch: Maize, Waxy Maize, Wheat, Tapioca C☆Gel® C☆CreamGel®	<ul style="list-style-type: none"> Label-friendly Contributes to moisture retention Improves texture and yield 	Meat & fish alternatives: whole muscle, burgers, ground meat, meatballs
Native Instant Starch: Maize, Waxy Maize C☆Gel® Instant	<ul style="list-style-type: none"> Label-friendly Viscosity in cold process 	Meat & fish alternatives: whole muscles, burgers, ground meat, meatballs, nuggets, cold cuts
Modified Cook-Up Starch: Waxy Maize, Tapioca C☆Tex® C☆PolarTex® C☆Battercrisp® C☆Set® C☆EmTex®	<ul style="list-style-type: none"> Delivers structure and emulsification stability in meat alternatives Improves yields & texture with enhanced water / oil absorption & retention Binds ingredients together Crisp batters for battered products and coating systems 	Meat & fish alternatives: sausages, crumbles, pate, nuggets, cold cuts
Modified Instant Starch: Waxy Maize, Tapioca C☆Tex® Instant C☆Mix®	<ul style="list-style-type: none"> Viscosity in cold process Holds shape & form in savory pastry fillings 	Meat & fish alternatives: sausages, crumbles, pate, nuggets, cold cuts

Texturizers & emulsifiers (2/2)

Achieving the perfect sensory experience is key. At Cargill, we couple our texture and emulsification solutions with our in-depth application and technical expertise to create the right 'meat-like' textures. From firmness to slice ability, moistness to visual appeal, we have solutions that can enhance the overall acceptance of meat analogue products.



Product Type & Product Name(s)	Features & Benefits	Applications
DRIED GLUCOSE & MALTODEXTRIN		
Dried glucose & Maltodextrin C Dry® MD	<ul style="list-style-type: none"> • Low relative sweetness • Serves as a bulking agent, bringing body and mouthfeel • Neutral taste 	Meat, fish & seafood alternatives: whole muscles, cold cuts, burgers, ground meat, meatballs, sausages, crumbles, nuggets, pate, shrimp, squid
CARRAGEENAN & XANTHAN GUM		
Carrageenan Satiagel®	<ul style="list-style-type: none"> • Cold gelation • Moisture retention • Improve slice ability 	Meat, fish & seafood alternatives: burger, ground meat, meatballs, sausages, cold cuts, pate, chunks, nuggets, shrimp, squid
Xanthan Gum Satiaxane®	<ul style="list-style-type: none"> • Thickening, suspension and stabilizing agent • Can be applied effectively at very low dosage • Stability under heat treatment 	Meat, fish & seafood alternatives: sausage, cold cuts, pate, chunks, nuggets, shrimp, squid
SEAWEED POWDER		
Seaweed Powder WavePure®	<ul style="list-style-type: none"> • Label-friendly • Helps to bring stability • Improves mouthfeel • Mild gelling properties 	Fish alternatives: burgers, nuggets, canned tuna, pate, shrimp, squid
LECITHIN		
Fluid/ Deoiled Lecithin Soy (NGM), Sunflower Rapeseed Topcithin®, Emulpur®, Emulstop®	<ul style="list-style-type: none"> • Label-friendly and plant- based emulsifier • Very good dispersibility • Good emulsifying and stabilizing properties • Extrusion aid, improves processability • Ensures homogeneous appearance • Improves texture and mouthfeel 	Meat & seafood alternatives: burgers, meatballs, sausages, cold cuts, pate, nuggets



Fibers

European consumers are looking to reach the challenging daily dietary goal of 25g of fiber per day.* Fortification is an obvious route to contribute to fiber intake, which is why fiber enrichment has never been more on trend. Cargill's fibers are fully in line with today's trends towards fiber enrichment, and label-friendliness.

*<https://www.efsa.europa.eu/en/efsajournal/pub/1462>

Product Type & Product Name(s)	Features & Benefits	Applications
Citrus Fiber CitriPure®	<ul style="list-style-type: none">• Label-friendly• Contribution to fiber intake• Moisture retention• Texture enhancement• Improves formability and processing	Meat, fish & seafood alternatives: whole muscles, cold cuts, burgers, ground meat, meatballs, sausages, crumbles, nuggets, pate, shrimp, squid



Sweeteners

Hitting the right sweetness is an important part of getting your plant based meat formulation right. Cargill's extensive portfolio of nature-derived sweeteners can help you with your complete formulation needs to deliver top quality products.

Product Type & Product Name(s)	Features & Benefits	Applications
Dextrose C Dex®	<ul style="list-style-type: none">· Browning agent and flavor enhancer	Meat, fish & seafood alternatives: whole muscles, cold cuts, burgers, ground meat, meatballs, sausages, crumbles, nuggets, pate, shrimp, squid



Functional systems (1/2)

There are many consumer expectations involved in creating perfect meat, fish & seafood alternatives: By delivering such functional systems, Cargill can overcome your challenges by employing a multiple ingredient approach, leveraging our broad Cargill building blocks of plant proteins, texturizers, oils & fats, and flavor & color, and through effective formulation fine-tuning. Our specifically designed blends help you deliver high quality alternatives that consumers can enjoy without any compromise on the eating and cooking experience.



Functional systems	Features & Benefits	Applications
Trilisse® MVP 1201 Declaration: Pea protein, wheat protein	<ul style="list-style-type: none"> Plant-based solution, suitable for vegans and vegetarians Label-friendly ingredients Ensures the right balance in taste and texture Enables source of/ high in protein claims 	Meat & fish alternatives: whole muscles, burgers, ground meat, meatballs, sausage, crumbles/chunks, nuggets
Trilisse® REM 2320 Declaration: Starch (tapioca, potato), Citrus fiber	<ul style="list-style-type: none"> A blend of label-friendly ingredients Specifically designed to help deliver on texture authenticity and stability Water-binding Contributes to juiciness and succulence Enables fiber enrichment that is positively impacting the Nutri-score 	Meat alternatives: sausage
Flanogen® REM 2360 Declaration: Methylcellulose (E461), Carrageenan (E407), Potato starch, Dextrose, Citrus fiber, Sodium chloride	<ul style="list-style-type: none"> Enables to reduce syneresis and increase water binding during heat treatment Designed to perform for delivery on hot and cold texture Enables fiber enrichment that is positively impacting the Nutri-score 	Meat alternatives: crumbles
Flanogen® REM 2461 Declaration: Methylcellulose (E461), Potato starch, Carrageenan (E407), Citrus fiber, Dextrose	<ul style="list-style-type: none"> Binding and texturizing functional system Designed to deliver on texture authenticity at hot consumption and stability during cold storage Enables fiber enrichment that is positively impacting the Nutri-score 	Meat & fish alternatives: burgers, ground meat, meatballs, nuggets
Flanogen® REM 2570 Declaration: Methylcellulose (E461), Tapioca starch, Carrageenan (E407), Konjac gum (E425), Potassium chloride (E508)	<ul style="list-style-type: none"> Binding and texturizing functional system Contributes to firmness, chewiness, and succulence Designed for emulsification and texture authenticity Firm texture at consumption temperature 	Meat alternatives: sausage

Functional systems (2/2)

There are many consumer expectations involved in creating perfect meat, fish & seafood alternatives: By delivering such functional systems, Cargill can overcome your challenges by employing a multiple ingredient approach, leveraging our broad Cargill building blocks of plant proteins, texturizers, oils & fats, and flavor & color, and through effective formulation fine-tuning. Our specifically designed blends help you deliver high quality alternatives that consumers can enjoy without any compromise on the eating and cooking experience.



Functional systems	Features & Benefits	Applications
Flanogen® REM 1581 Declaration: Methylcellulose (E461), Carrageenan (E407), Dextrose- Konjac gum (E425i), Sodium Chloride	<ul style="list-style-type: none"> Designed to deliver on core processing requirements, stability and texture authenticity Develops gelled structure during cold storage, and firm bite during hot consumption 	Meat & seafood alternatives: Sausages, shrimp, squid
Flanogen® REM 2760 Declaration: Carrageenan (E407), Dextrose, Citrus Fiber, Potato Starch, Konjac gum (E425), Xanthan Gum (E415)	<ul style="list-style-type: none"> Designed to deliver on core processing requirements, stability and texture authenticity Improves sliceability, moisture holding and cooking stability at higher temperatures Contributes to authentic meaty texture Enables fiber enrichment that is positively impacting the Nutri-score 	Meat alternatives: cold cuts
Flanogen® REM 2870 Declaration: Carrageenan (E407), Modified starch (E1450), Citrus Fiber	<ul style="list-style-type: none"> Designed to deliver core processing requirements and shelf-life stability Boosts the gelation of plant-based proteins and the sliceability Delivers excellent water absorption and moisture retention during shelf life and improves cooking stability at higher temperatures Enables fiber enrichment that is positively impacting the Nutri-score 	Meat alternatives: cold cuts



Your co-creation partner for success

✓ Expertise

✓ Portfolio

✓ Innovation

✓ Sustainability



Meat & Dairy Alternatives

Delightful
with purpose

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