Making fruit perform

Cargill's capabilities, portfolio, and recipes

Cargill | Food

Let's explore the fruit-based category

The fruit-based category is an overarching one that encompasses both fruit applications such as jams & fruit desserts, but also fruit fillings for bakery, and fruit preparations for dairy.

FRUIT FOR FRUIT
- Jams
- Gelling sugar
- Fruit Dessert
- Water jelly

FRUIT FOR DAIRY
- Fruit preparation for yoghurts
- Ripple for frozen desserts

FRUIT FOR BAKERY
- Water-based fillings
- Bakery creams
- Glazing, icing & decoration

Today's fruit-based product development is being driven by consumer trends towards **indulgence** and **label-friendliness**, but also customer requirements around **cost-efficiency**.

At the same time, food manufacturers may engage in improving the nutritional profile of their products either on a voluntary basis or driven by regulations. Especially in jams and marmalades, reducing sugars and increasing fruit content can enable a healthier perception, and demands ingredients expertise.

Due to the intermediary nature of many of the solutions required for fruit-based products, you need a reliable partner who can understand your full matrix. By working with Cargill, you're partnering with ingredient and formulation experts, who can help apply their knowledge to your specific processes. In this way, we can support you in helping your products meet the needs of tomorrow's consumers.

Thanks to our **applications expertise**, we can help you win across the board: either at the intermediary stage, or within the final application. So, whether you're manufacturing a fruit prep solution for a sugar-reduced fruit yogurt, a bake stable filling for a French pastry, a high in fruit spread or anything in between, we've got you covered!

What's inside:

Cargill expertise and solutions

Leverage Cargill's capabilities in fruit to manage your operations and innovations:

Insight-driven innovation: Complement your insights with our research into market trends and consumer needs to develop consumer-pleasing fruity products.

Broad solutions portfolio: Leverage our broad Cargill ingredient portfolio and functional systems to power your solutions.

Enhanced expertise: Tap into reliable, knowledgeable and highly skilled fruit, dairy and bakery experts and state-of-the-art facilities that are close at hand to help solve your challenges.

Trusted supplier: Get peace of mind through our global supply chain expertise, which ensuresfocuses on safe products that are priced right and delivered on time.

Differentiating through sustainability: Advance your sustainability goals by leveraging our sustainability actions across the supply chain.

Leverage Cargill's broad ingredient portfolio and functional systems to make fruit perform:

Sweeteners:
- Glucose and glucose-fructose syrups
- Erythritol
- Polyols
- Stevia

Texturizers:
- Label-friendly, native & modified starch
- Maltodextrin & dried glucose
- Pectin
- Carrageenan
- Xanthan gum

Fibers:
- Soluble corn and wheat fiber
- Citrus fiber
- Seaweed powder

Cocoa & chocolate:
- Cocoa powder
- Chocolate
- Decorations & inclusions

Functional systems:
- Functional ingredient blends that can help solve technical and operational challenges

Spotlight on the latest ingredient innovations

At Cargill, developing solutions that can meet current and future consumer needs is critical for our customers' success. Here's a spotlight on some of our recent ingredient developments that can power your fruit-based products and innovations:

SimPure® Bright functional, label-friendly starch

Our latest solution for color-sensitive applications such as bakery creams, fruit fillings and creamy dairy desserts. Available in both cook-up and instant versions, these starches will enable you to achieve the balance between label-friendliness and visual & textural appeal.

See how it performs in these recipes:

- Strawberry fruit preparation without added sugars for yogurt (page 15)
- Dry mix for instant bakery fruit filling (page 20)

UNIPECTINE® LMC^{Plus} pectin

UniPECTINE® LMC^{Plus} allows fruit processors to market high quality, cost efficient and on-trend jams/jelly/spreads and fruit-filled bakery products. These solutions make novel textures possible due to their great gel strength performance, while improving cost-in-use versus LMC (low-methoxyl pectin) standard pectins in bake-stable fillings. In jams and spreads, it enables cleaner labeling versus LMA pectin and is suitable for organic formulations.

See how it performs in these recipes:

- Organic, label-friendly, high in fruit, strawberry fruit spread (page 9)
- Fruit ripple sauce for ice cream (page 17)
- Post-bake sugar reduced raspberry fruit filling for muffin (page 21)

EverSweet® next generation stevia sweetener*

EverSweet® stevia sweetener is produced using advanced fermentation techniques to bring to life stevia's sweetest elements – steviol glycosides Reb M and Reb D – so you can now make significant sugar reductions without compromising on taste.

See how it performs in this recipe:

- Strawberry fruit preparation without added sugars for yogurt (page 15)

*EverSweet® is a product of Avansya, a joint venture between Cargill and dsm-firmenich.

Cargill™ soluble fiber

Cargill™ soluble fiber can help you answer the consumer demand for sugar reduction and fiber enrichment, while improving the nutritional profile of food & beverages. Produced via micro-reactor technology developed in partnership with Germany's Karlsruhe Institute for Technology, for which Cargill has secured both an exclusive license and granted patents and based on European corn and wheat, these plant-based and label-friendly ingredients can help improve the nutritional profile of fruit-based products.

Fruit recipes

At Cargill, we can support your fruit product development, through our broad expertise in jams & jellies, gelling sugars and fruit desserts. We can help with stabilization, texture & taste standardization, indulgent texture creation, and more.

Our fruit application team, which is based in Baupte (France), works on fruit customer projects, knowledge building, recipe formulation, innovation and core R&D projects.

Explore some of our fruit recipes:

- **Organic, label-friendly, high in fruit strawberry spread:** *Recipe*
- **Low brix strawberry jam:** *Recipe*
- **Sugar preparation for homemade jam:** *Recipe*
- **Water jelly dessert:** *Recipe*

Expert tips

In jams or fruit spreads, you need a texturizer that can help develop a consistent texture, distribute & stabilize the fruit pieces, prevent syneresis, and create a pleasant mouthfeel. Pectins are typically the texturizer of choice. However, it's important to select the right pectin, taking into account the reactivity between the recipe and the pectin.

How to select the "optimal" pectin?

- The texture objective is a smooth, soft, spreadable gel without syneresis. Pectin choice is mainly related to reactivity/speed of gelation.
- The setting temperature in jams should be below the filling temperature (gelation in jars).
- General rules of thumb:
  - 60° Brix: HM pectin, mainly Slow Set (SS) or Medium Rapid Set (MRS).
  - < 60° Brix: LM pectin
    - In low °Brix jams, you need high reactive pectin, so the recommendation is to work with LMA pectin.
    - In organic jam, from a regulatory point of view, you can't formulate with LMA pectin so LMC pectin is the solution of choice.
  - High reactive pectins may be added to support good fruit distribution.

Pectin types are defined by their gelation system (sugar, acid and calcium are the pectin gelling agents), with each type having its own functionalities and properties.

DID YOU KNOW?

In the past, people were used to adding a piece of apple or some lemon juice, (i.e. pectin and acid), to help the suspension and/or strengthen the gel of a jam or fruit spread.

The rise of jam industrialization facilitated the use of pectin and acid as additional ingredients to allow texture adjustment (gelled or spreadable) and its standardization.

HM	LM (<50% DE*)	
High-methoxyl	**LMA** *Low methoxyl amidated*	**LMC** *Low methoxyl Conventional*
Gel with >60% sugar + pH <3.5	Gel with calcium + H-H	Gel with calcium mainly
Acid at the end	Lower calcium need, easier use vs. LMC	Higher calcium need, good control
Strong cuttable gel	Low viscosity in hot conditions Thermo-reversible	Hot viscosity Bake-stable
Organic compliant		Organic compliant

**DE = degree of esterification/ DA = Degree of amidation*

Impact of reactivity on the texture

Weak texture
Slow reactivity

Smooth texture
Optimal reactivity

Granulous texture
Excess of reactivity

Cargill's wide offer of UniPECTINE® pectins

Cargill has a wide range of pectins with consistent product quality and full controllability for the targeted (sub)-application. Our dedicated application and technical experts are there to help you unlock the best out of pectin's possibilities.

The range covers a full array of specifications with regards to reactivity, pH, calcium content of fruit, filling temperature and more.

These pectin solutions enable great fruit suspension and help ensure consistent, stable texture in both conventional and sugar-reduced applications.

DID YOU KNOW?

Fruits are a source of sugars, salts, and fibers (including pectin), which can influence the pectin gelation. Red fruits are known to bring higher acidity and calcium content than yellow fruit and will thereby increase pectin reactivity.

RECIPE

Organic, label-friendly, high-in-fruit strawberry fruit spread

conscious consumption

healthy for me

CHALLENGE:

Create a high–in-fruits/reduced-in-sugars strawberry fruit spread with a consistent, stable texture and pleasant mouthfeel, good flavor and visual aspect, while managing the high amount of liquid.

Ingredients

Ingredients	Weight (g)
Strawberry puree	600
Cane sugar	400
Water	100
Lemon juice concentrate	10
Pectin (UniPECTINE® OF 308 C SB)	**6-8**

Nutrition facts[1]

Amount per serving (100g)	
Energy (kcal)	210
Fats	0.0
of which saturated	0.0
Carbohydrates	50.0
of which sugars	49.0
Proteins	0.3
Fibers	0.6
Salt	0.0

Key benefits

- Better for you recipe – higher in fruits, lower in sugars.
- Label-friendly recipe – pectin is a well-known ingredient.[2]
- Consistent, stable texture, nice visual aspect and pleasant mouthfeel.
- Great texture performance providing cost-in-use advantage.[3]

INGREDIENT SPOTLIGHT

UniPECTINE® OF 308 C SB pectin

UniPECTINE® Uniquely perfected for you

Our LMC[Plus] solution is a low methoxyl pectin which has been developed to enable fruit processors to market a high quality, cost-efficient and on-trend consumer product.

- Secures fruit pieces stabilization at the filling temperature.
- Develops good gel strength without the need for extra calcium addition.
- Enables cost saving.*
- Helps to create a consistent, stable and spreadable texture and pleasant mouthfeel in reduced sugars/high in fruits spreads, and jams.
- Suitable for organic recipes.

**Versus traditional LMC pectin use, cost saving of up to 25% can be achieved.*

DID YOU KNOW?

Label-friendly claims are the most impactful claims influencing consumers' sweet spreads purchasing decisions. Moreover, 1 in 2 consumers will look at the ingredient list when buying a new spread.

Source: Innova Market Insights category survey, Europe, 2025, Cargill IngredienTracker™ 2025.

[1] *Nutritional facts are calculated on finished product, after evaporation.*
[2] *Cargill IngredienTracker™ 2025, Europe*
[3] *Versus traditional LMC pectin use, cost saving of up to 25% can be achieved.*

RECIPE

Low brix strawberry jam

healthy for me

CHALLENGE:

Create a low brix jam with a consistent, stable texture and pleasant mouthfeel.

Ingredients

Ingredients	%
Strawberries	50.0
Water	36.0
Sucrose	17.5
Pectin (UniPECTINE® OG 175 C SB)	**0.7-0.8**
Citric acid	3.0-4.0

Nutrition facts

Amount per serving (100g)	
Energy (kcal/00g)	88
Fats	0.0
of which saturated	0.0
Carbohydrates	21.5
of which sugars	20.0
Proteins	0.3
Fibers	1.0
Salt	0.02

ABCDE

Key benefits

- Low in sugars recipe.
- Authentic fruity taste and texture shine through – no longer masked by high sugar concentrations.

INGREDIENT SPOTLIGHT

UniPECTINE®
Uniquely perfected for you

UniPECTINE® OG 175 C SB pectin

A low methoxyl amidated (LMA) pectin which has been developed to improve gelling in low brix fruit-based products.

- Helps to create a consistent, stable texture and pleasant mouthfeel in low brix spreads and jams.

DID YOU KNOW?

Reduced sugar claims are currently claimed in 10% of new product launches (H2-24-H1-25). Sugar reduction is visible on both ends of the spectrum:

- **25% of launches had sugar>55g in 22-23 vs. 22% in 24-25.**
- **31% of launches had sugar <=40g in 22-23 vs. 38% in 24-25.**

Source: Innova Market Insights database, H2-2022-H1-2025, Europe, Confitures & fruit spreads

RECIPE

Sugar preparation[1] for homemade jam

conscious consumption

healthy for me

CHALLENGE:

Enable the creation of a tasty, home-made jam with good fruit pieces distribution and good gel strength.

Ingredients

Ingredients (for 1kg of finished product[2])	Weight (g)
Sucrose	981-987
Citric acid	8-10
Pectin (UNIPECTINE® OH 655C)	**10**

Key benefits

- Enables the creation of tasty, home-made jams with good fruit pieces distribution and good gel strength.[3]

INGREDIENT SPOTLIGHT

UniPECTINE® Uniquely perfected for you

UniPECTINE® OH 655C pectin

An LMA (low-methoxyl amidated) pectin which has been developed for gelling sugar production for homemade low sugar jams, used in 2 or 3 parts fruit to 1 part sugar:

- Good fruit distribution at high filling temperature.
- Develops good gel strength.
- Low reactivity makes it extremely well suited for acidic (red fruit) recipes and for jelly with elastic textures and high transparency.

[1] Gelling sugar is powder mix of sugar, pectin and acid for the preparation of homemade jams.
[2] Jam preparation: 2 parts fruits, 1 part sugar preparation.
[3] Cargill IngredienTracker 2025, Europe.

RECIPE

Water jelly dessert

conscious consumption

CHALLENGE:

Create a dry mix ready to use for customers or for use in an industrial process to create a cost-efficient water jelly dessert with soft gel texture.

Ingredients

Ingredients	%
Water	80.2
Sucrose	19.0
Functional system (Gelogen® OW 0190)	**0.7**
Citric acid[1]	0.1
Coloring & flavoring	As required

Nutrition facts

Amount per serving (100g)	
Energy (kcal/00g)	76
Fats	0.0
of which saturated	0.0
Carbohydrates	19.0
of which sugars	19.0
Proteins	0.0
Fibers	0.0
Salt	0.0

Key benefits

- Low in calories and fat.
- Vegan-friendly.
- More affordable dessert vs. others in the market.[2]
- Hydrating and refreshing dessert.
- Customizable flavors and colors.

INGREDIENT SPOTLIGHT

IN FUSE by Cargill

Gelogen® OW 0190

A blended solution of carrageenan, locust bean gum extract and buffer salts, designed for producing fast-gelling water jelly desserts, mimicking gelatin texture properties.

- Vegan-friendly – can be used to replace gelatin, widening appeal to consumers on specific diets (vegetarian, kosher...).
- Enables fast gelling.
- Shortens preparation time.
- Helps to create a soft and very cohesive texture.
- Enables easy demolding from the cup (no stickiness).
- Locust bean gum extract improves transparency.
- Stabilizes the final product, even at ambient temperature, thanks to the high melting temperature.
- Suitable for ready-to-use dry mixes and industrial production.

[1] Citric acid is typically used for industrial water jellies, with green and lemon notes. Hygroscopicity of acids could impact the caking of dry mixes, hence preference for less hygroscopic and soluble acid like adipic or fumaric acid for dry mixes preparation.
[2] Such as desserts with real fruit.

Dairy recipes

At Cargill, we can support your fruit product development for dairy, through our broad expertise in dairy and fruit preparations for yogurt and sauces & ripples for desserts. We can help with stabilization, texture and taste standardization, managing the interaction between the white mass and the fruit and more.

Our fruit application team, based in Baupte (France), works in close collaboration with our dairy application team (also situated in Baupte), on fruit for dairy customer projects, knowledge building, recipe formulation, innovation, and core R&D projects.

Explore some of our fruit for dairy recipes:

- **Strawberry fruit preparation without added sugars:** *Recipe*
- **Fruit ripple sauce:** *Recipe*

Expert tips

For the stability of the fruit preparation, it's important to select the right texturizer/ texturizing system. The main needs include flowability (no gel as the fruit prep needs to be pumped off the container), aspect (no broken gel) and the controlled reactivity with the white mass (no flocculation nor granulation).

There are 2 types of texture formulation:

Fruit preparation without fruit pieces (fruit puree):

Functionality required is thickening, which is typically formulated with **starch**.

Fruit preparation with fruit pieces:

Functionality required is thickening and stabilization of the fruit pieces, which is typically formulated with a **gelling agent** (like LM pectin or carrageenan) and **starch** (for thickening and smoothness).

Starch

Starches bring the final viscosity, smoothness and pumpable texture. Modified starches or functional, label-friendly starches that mimick the behavior and tolerance of modified starches will be recommended.

Gelling agent

Pectin creates the network in high fruit/low brix media, is acid pH stable and enables a very good flavor release. LMA pectins will be recommended, as there is a risk of calcium reactivity with the white mass when using LMC pectins.

Alternatively, **kappa carrageenan** can be used as they have good flexibility toward calcium and pH. This enables a very good flavor release and helps to create a smooth and shiny aspect.

RECIPE

Strawberry fruit preparation without added sugars

conscious consumption

healthy for me

CHALLENGE:

Create a smooth fruit puree preparation to be used in yogurt without the addition of sugars, yet with a sweet and well-rounded fruity taste.

Ingredients

Ingredients	Weight (g)
Strawberry puree	50.0
Water	44.0
Corn starch (SimPure® 99405)	**6.0**
Strawberry flavor	As required
Stevia sweetener (EverSweet®)[1]	**0.15**

Nutrition facts

Amount per serving (100g)	
Energy (kcal)	37
Fats	0.0
of which saturated	0.0
Carbohydrates	9.0
of which sugars	2.6
Proteins	0.26
Fibers	0.6
Salt	0.012

A B C D E

Key benefits

- Better for you recipe – significant reduction in sugars.
- Label-friendly recipe – starch and stevia are familiar ingredients.[2]
- High-quality sweet taste with minimal off notes.
- Easily pumpable texture.
- Great cold storage stability.

INGREDIENT SPOTLIGHT

EverSweet
stevia sweetener

EverSweet® stevia sweetener[1]

EverSweet® stevia sweetener is our next generation stevia sweetener made of steviol glycosides from fermentation.
It delivers:

- Optimal, zero calorie sweetness.
- Higher levels of sugar reduction.
- A sustainability story.
- Cost-effectiveness in use.

[1] *EverSweet® is a product of Avansya, a joint venture between Cargill and dsm-firmenich.*
[2] *Cargill IngredienTracker 2025, Europe*

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INGREDIENT SPOTLIGHT

SimPure®
Simple ingredients. Pure functionality.™

SimPure® 99405 functional, label-friendly waxy corn starch

SimPure® starches help to address the consumer need for simplicity and familiarity whilst striving to give manufacturers greater process tolerance, increased shelf-life and storage stability. SimPure® 99405 delivers:

- A simple (corn) starch label.
- A higher process tolerance compared to native starches.
- Ease of use and processing comparable to modified starches.
- A creamy texture and nice mouthfeel without impacting the flavor profile.
- Required viscosity and stability to the fruit preparation and the yogurt.
- Good enough storage stability. If it needs withstanding more severe process and recipe conditions, stay tuned for our soon to be launched SimPure® 99409, suitable for harsh processing.

DID YOU KNOW?

A “low/no or reduced sugar” claim influences the purchasing decision of 20% of European consumers when buying spoonable/drinkable yogurt.

Source: Innova Market Insights category survey, 2024

RECIPE

Fruit ripple sauce

experience it

CHALLENGE:

Create a smooth, stable and flowable ripple for use in frozen desserts.

Ingredients

Ingredients	g/1kg
Sucrose	280
Glucose-fructose syrup (C*TruSweet® 01751)	**280**
Fruit pulp	250
Water	120
Dried fructose	100
Fruit extract	20
Pectin (UNIPECTINE® XP OF 608 C SB)	**2-4**
Citric acid	q.s.

Key benefits

- Adds flavor and texture to frozen desserts.
- Flowable, shiny texture.
- The expert combination of sweeteners in the recipe decreases the freezing point of the syrup, which enables a more indulgent consumption experience.

INGREDIENT SPOTLIGHT

C*TruSweet® 01751

A glucose-fructose syrup that brings balanced synergistic sweetness and offers manufacturers cost and processing efficiencies. In frozen desserts and fruit preparations.

- Helps to reduce the water activity, controlling the freezing point and helping to prevent ice crystal growth.
- Helps to keep the sauce in a free-flowing texture and visually appealing even after freezing.

UniPECTINE® XP OF 608 C SB

Our LMC^{Plus} solution is a low-methoxyl pectin with high calcium bond capacity which enables the creation of a flowable and shiny ripple sauce.

- Low reactivity.
- Good stability during freezing.
- Thick, pumpable texture.
- Shiny appearance.
- Cost-effective.
- Increasing the dosage enables the creation of a shorter texture for extruded ice cream.

UniPECTINE®
Uniquely perfected for you

Bakery recipes

At Cargill, we can support your fruit product development for bakery, through our broad expertise in bakery, bakery fillings, creams, decorations, and glazes. We can help with stabilization, functionality delivery and tailoring to the process and filling system.

Our fruit application team, based in Baupte (France), works in close collaboration with our bakery application team, on fruit for bakery customer projects, knowledge building, recipe formulation, innovation and core R&D projects.

Explore some of our fruit for bakery recipes:

- **Dry mix for bake & freeze-thaw stable instant fruit filling:** *Recipe*
- **Post-bake SR raspberry filling:** *Recipe*
- **Label-friendly, bake-stable vanilla** *Recipe*
- **Glaze:** *Recipe*

Expert tips

We differentiate 3 types of bakery fillings:

Bake-stable fillings

Deposited on the raw dough, needs to withstand the baking step. The texturizer choice is driven by their thermostable property.

Post-bake fillings

Deposited after the baking step, no thermostability required but thermo-reversibility. As the filling will be injected, the texture needs to be short leaving 'no tail'and not too thick.

A special subcategory are the fillings that will be acidified and immediately deposited on the biscuit. Here the kinetics of gellification need to be super precise and fast.

Dry mix filling

Instant bakery cream, instant fruit filling (bake-stable or post-bake). When there is no heating step, cold solubility is required, and dispersion, dissolution and gelation step need to be easy and fast.

Three main characteristics will guide the texturizer choice:

- **Water availability/ brix level.**
- **Bake stability or not.**
- **Acidic or neutral pH.**

TYPICAL SOLUTIONS:

Long shelf life fruit filling

1

High brix/low water content, acid -> typically **pectin** is the solution of choice.

Short shelf life fruit filling

2

Low brix, acid -> typically **(modified) starch** is the solution of choice, standalone or potentially in combination with **pectin**.

Neutral filling/water-based chocolate filling

3

Medium water content, neutral pH –> typically **(modified) starch** is the solution of choice, standalone (post-bake) or in combination with **pectin** (bake-stable).

Instant bakery creams/ fruit fillings

4

Typically, **pre-gelatinized starch** (C*Tex® Instant) is the solution of choice alone or in combination with alginates in **INFUSE by Cargill™** functional systems (bake-stable instant bakery cream/instant fruit fillings) or in combination with **carrageenan** (Satiagel® series) for freeze/thaw stabilization.

RECIPE

Dry mix for instant fruit filling

conscious consumption

CHALLENGE:

Create a ready-to-use, label-friendly dry mix for preparing a bake-stable fruit filling that is easy to disperse in cold liquid without compromising the fruit taste or color.

Ingredients

Ingredients	%
Dextrose (C*Dex®) 02001	**49.0**
Sucrose	36.7
Corn starch (SimPure® Bright 99476)	**14.0**
Citric acid	0.3

Nutrition facts

Amount per serving (100g)	
Energy (kcal)	393
Fats	0.0
of which saturated	0.0
Carbohydrates	98.0
of which sugars	86.0
Proteins	0
Fibers	0
Salt	0

Key benefits

- Simplified fruit filling preparation with label-friendly convenience.
- Smooth and shiny appearance.
- Authentic fruity taste and color.
- Creamy, bake-stable texture.
- Freeze-thaw stable.
- The expert combination of sweeteners delivers sensory optimization,preservation properties to prevent/reduce water activity and bulking aspects.

INGREDIENT SPOTLIGHT

C*Dex® dextrose 02001

C*Dex dextrose, derived from corn starch, brings functional, sensory and nutritional properties.

- Bulks with high sweetening powder.
- Helps easy dispersibility in powder mixes.
- Helps to shorten the sweetness perception.
- Enhances the original food & beverage flavors.

Cargill offers dextrose in a variety of particle size distributions and granulometry to provide ease and stability of blending.

SimPure® Bright 99476

SimPure® Simple ingredients. Pure functionality.™

A functional, label-friendly waxy corn starch designed to help create brighter end products such as instant creams or fruit fillings. They are designed for use in cold processes that have moderate to high shear.

- Brings viscosity and body.
- Provides stability in low pH applications.
- Clean taste.
- Smooth and shiny texture.
- Bright color.
- Bake stability.
- Suitable for ambient, chilled and frozen storage.

RECIPE

Post-bake sugar reduced raspberry fruit filling for muffin

healthy for me

CHALLENGE:

Create a sugar-reduced fruit filling with a consistent spreadable texture and sweet, fruity taste, while maintaining high soluble solids and balancing the water activity with the muffin.

Ingredients

Ingredients	%
Sucrose	350.0
Raspberry pulp standardized	250.0
Glucose syrup (C*Sweet® 01403)	**250.0**
Soft water	220
Glycerol	70.0
Pectin (UNIPECTINE® XPO OF 308 C SB)	**10.0**
Citric acid	1.5
Potassium sorbate	0.5

Nutrition facts

Amount per serving (100g)	
Energy (kcal)	260 kcal
Fats	0.0
of which saturated	0.0
Carbohydrates	65.0
of which sugars	42.0
Proteins	0.1
Fibers	0.3
Salt	0.0

Key benefits

- Better for you recipe – reduced sugars.
- Enhanced natural, fruity flavor profile.
- The expert combination of sweeteners delivers sensory optimization,preservation properties to prevent/reduce water activity and bulking aspects.

INGREDIENT SPOTLIGHT

C*Sweet® 01403

A low DE (30 DE) glucose syrup, which contains 10g/100g of sugar and which is used as a bulking agent. In combination with sucrose, it:

- Helps to avoid crystallization
- Lowers the sugar content
- Enhances the natural flavor profile of fruits or other aromatic ingredients
- Enables 30% declarable sugar reduction vs a reference recipe

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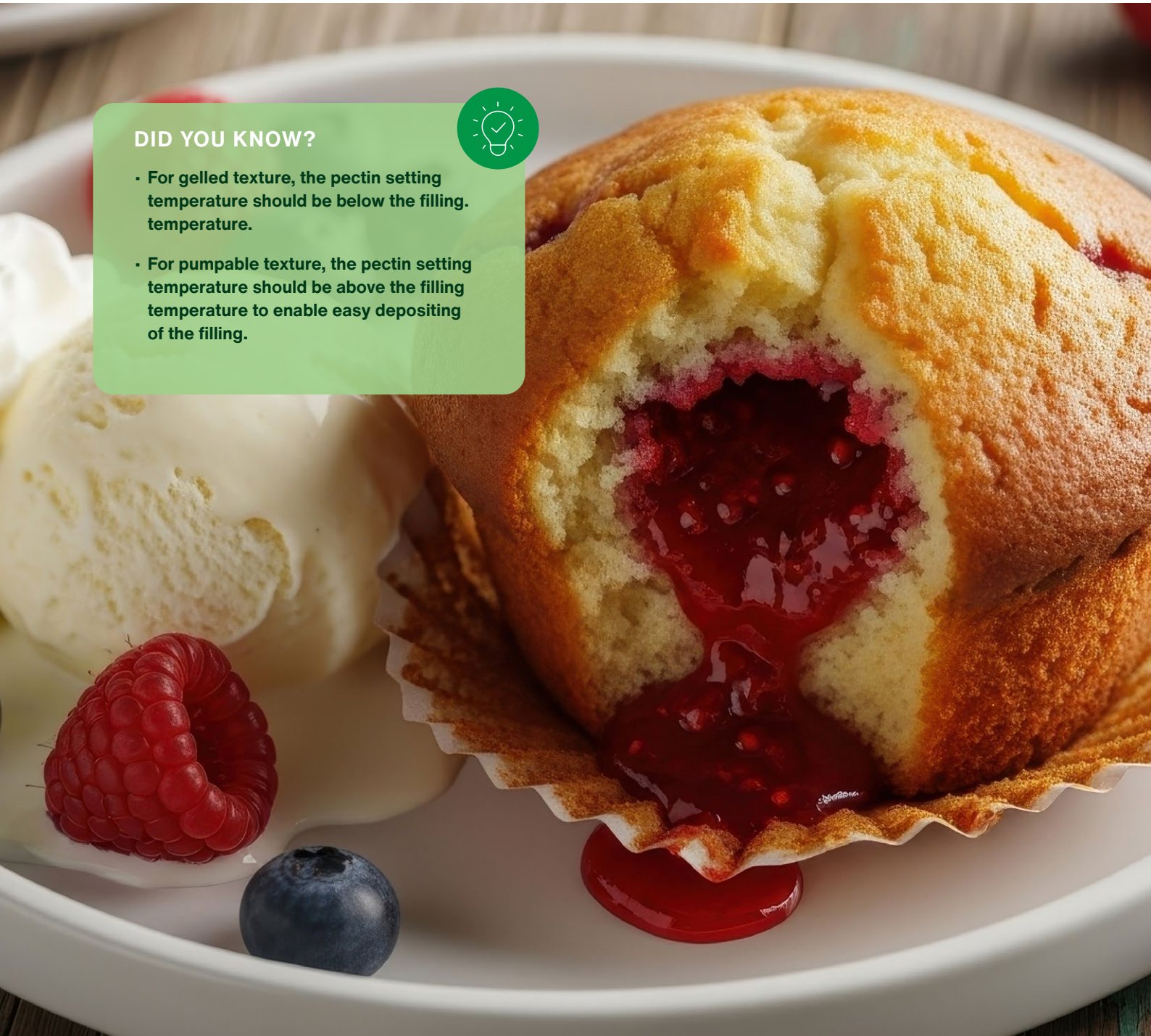
INGREDIENT SPOTLIGHT

UniPECTINE®
Uniquely perfected for you

UniPECTINE® XPO OF 308 C SB pectin

Our LMC^{Plus} solution is a low-methoxyl pectin which has been developed to enable bakery and fruit processors to market a high quality, cost-efficient and on-trend consumer product.

- Develops good gel strength without the need for extra calcium addition.
- Helps to prevent syneresis, ensure homogeneity in the container and avoid water migration to the dough.
- Helps to create a thick, easy to inject and spreadable texture with pleasant mouthfeel and smooth aspect.



DID YOU KNOW?

- **For gelled texture, the pectin setting temperature should be below the filling. temperature.**
- **For pumpable texture, the pectin setting temperature should be above the filling temperature to enable easy depositing of the filling.**

RECIPE

Label-friendly, bake-stable vanilla filling

conscious consumption

CHALLENGE:

Create a label-friendly, bake-stable vanilla filling with a creamy texture and pleasant mouthfeel.

Ingredients

Ingredients	%
Soft water	42.7
Glucose syrup (C*Sweet® 01623)	**30.0**
Sucrose	14.5
Whole milk powder	6.0
Functional system (Trilisse® OB 910/ OB920)	**5-6**
Citric acid solution (50%)	0.34
Potassium sorbate	0.05
Color & flavor	As required

Nutrition facts

Amount per serving (100g)	
Energy (kcal)	196
Fats	1.6
of which saturated	1.0
Carbohydrates	45.0
of which sugars	41.0
Proteins	1.6
Fibers	0.5
Salt	0.06

A B C D E

Key benefits

- Label-friendly formulation.
- Bake-stable.
- Creamy, vanilla flavor.
- Shiny appearance.

INGREDIENT SPOTLIGHT

Trilisse® OB910/920

A blended solution of functional, label-friendly starch & pectin (OB 910) and seaweed powder (0B 920), designed for producing bake-stable, label-friendly fruit fillings for bakery.

- Helps to provide the required short texture.
- Is bake-stable.
- Helps to deliver a creamy taste (enhanced in OB 920).
- Brings a shiny appearance (enhanced in OB 920).
- Suited for longer shelf life and with limited retrogradation (OB 910).

RECIPE

Glaze

experience it

CHALLENGE:

Create a glaze with cohesive and transparent texture that will cling nicely to the fruit.

Ingredients

Ingredients	%
Water	79.8
Sucrose	19.0
Functional System (Gelogen® OW 7000)	**1.0**
Citric acid*	0.2
Color & flavor	As required

Nutrition facts

Amount per serving (100g)	
Energy (kcal)	76
Fats	0.0
of which saturated	0.0
Carbohydrates	19.0
of which sugars	19.0
Proteins	0.0
Fibers	0.0
Salt	0.0

Key benefits

- Firm, cohesive texture.
- Transparent look.

INGREDIENT SPOTLIGHT

Gelogen® OW 7000

A blended solution of carrageenan, locust bean gum and buffer salts, designed for producing glazes to be deposited on bakery products such as fruit pies.

- Can be directly dispersed without functionality loss (in dry mix glaze).
- Provides viscosity at the depositing step.
- Helps to create a firm and cohesive texture.
- Locust bean gum improves transparency.
- Suitable for ready-to-use dry mixes and industrial production.

What's next?

The European Union's "Breakfast Directive" has recently been revised to strengthen food safety, transparency, and labeling standards for key breakfast items. These updates aim to help consumers make healthier and more informed choices while combating food fraud. Key products covered include honey, fruit juices, jams, jellies, marmalades and dehydrated milk.*

The key regulatory updates for jams & marmalades concern the minimum fruit content, aimed at reducing sugar presence:

- From 350g to 450g/kg in jams.
- From 450g to 500g/kg in extra jams.

Timeline: The Directive (EU) 2024/1438 was adopted in April 2024. Member States must integrate it into national law by December 14, 2025. Full enforcement begins on June 14, 2026.

Cargill experts have been running tests with new recipes that are in line with the new Directive requirements and look forward to sharing the learnings and helping guide your reformulation efforts.

Source: Council adopts revised "breakfast directives" to strengthen marketing standards and improve consumer information - Consilium

Let's discuss how we can improve the performance of your fruity portfolio.

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Read more about our solutions:

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