

**IN
FUSE**
by Cargill™

Ignite the FUSE!

On-trend recipes



Fast forwarding your product development



Hannah Keenan

*Business Development Manager
INFUSE by Cargill™*

I'm so proud to have recently celebrated INFUSE by Cargill™ second anniversary, and what a year it's been!

After a remarkable first year, we've continued to deliver agile innovation to the market every 8 weeks, with some exciting new concepts such as hybrid dairy solutions, mixing both animal and plant-based proteins to truly deliver the best of both worlds.

We have expanded into the META region, and opened our new dairy application center in Turkey, an important first step to taking INFUSE global.

But we don't stop here.

With a robust pipeline of great ideas, and our expanding ingredient building blocks, we can quickly deliver tailor-made solutions designed only for you.

To help you ignite your innovation fuse, we have bundled a few of our on-trend recipes.

It's time to get
INFUSED!



Table of contents

Spotlight: INFUSE by Cargill™ 4



Dairy & Plant-based alternatives to dairy recipes..... 7

Greeky Fusion Delight..... 9

Plant-Based Alternative to Halloumi Delight 10



Bakery recipes..... 11

Plant-Baked Wraps 13



Plant-based meat alternatives recipes 14

Texture Sensation Burger..... 16

Texture Sensation Bites 17

Summary 18

What's next?..... 19

Meet the INFUSE team 20

Some Cargill products are only approved for use in certain geographies, end uses, and/or at certain usage levels. It is the customer's responsibility to determine, for a particular geography, that (i) the Cargill product, its use and usage levels, (ii) the customer's product and its use, and (iii) any claims made about the customer's product, all comply with applicable laws and regulations.




SPOTLIGHT ON



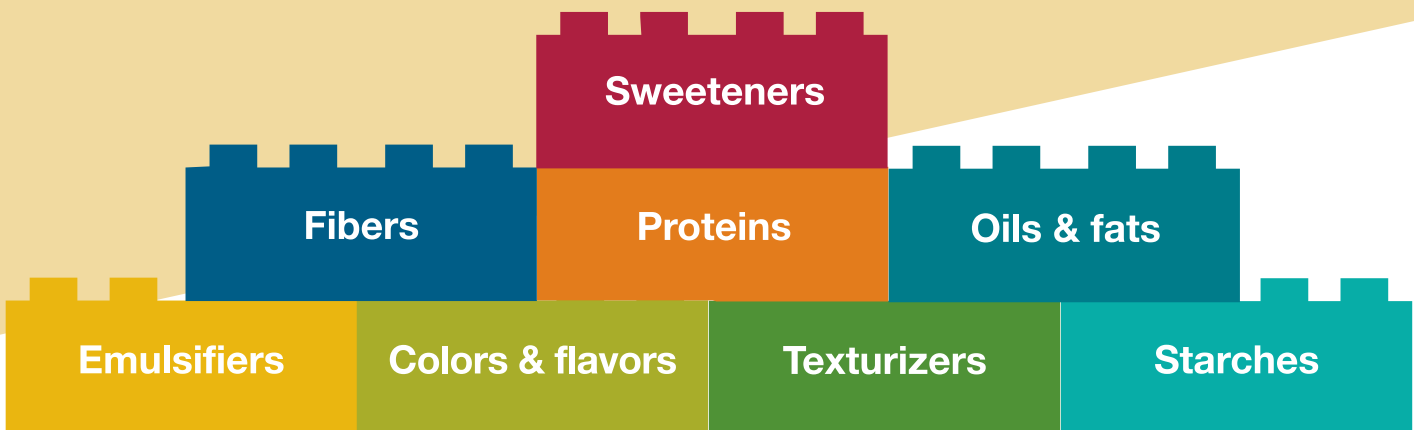
For those of you that need a reminder: INFUSE is the service offering model from Cargill Starches, Sweeteners & Texturizers EMEA that’s all about tailoring ingredient blends to meet specific customer needs, and helping you fast forward your product development.

Set up at the crux of innovation and reformulation, we understand the challenges when removing functional ingredients such as sugar or those from animal-based sources. Our blends can provide an all-in-one solution that simplifies and speeds up your product development all the way through to production, minimizing complexity and room for error.

Three pillars serve as the foundation for Cargill’s customer focus in EMEA:

-  **An unwavering attention to providing on-trend solutions.**
-  **A commitment to speed to market.**
-  **Access to deep technical expertise to help create tailored ingredient blends.**

INFUSE builds on our 40+ years of functional ingredient blending expertise, leveraging our broad portfolio, formulation expertise and knowledge of ingredient synergies. By leveraging our building blocks approach, we can easily tweak and tailor blends for the right functionality and properties.





SPOTLIGHT ON

Fibers



Cargill™ soluble fiber

healthy choice, clear results

Cargill™ soluble fiber is a label-friendly soluble fiber obtained from European corn and wheat that enables sugar* reduction and fiber enrichment while helping to maintain the desired taste in a variety of applications.

- **Sugar-reduced success:** help to achieve minimum 30% sugar* reduction in a wide range of food applications such as confectionery, bakery, dairy, beverage and more.
- **Label-friendly enrichment:** nature-derived (wheat & corn), familiar ingredients that enable fiber enrichment and nutritional boost.
- **Great taste & appearance:** provide great performance and mouthfeel in everyday products.



- **Trilisse® 200:** blended solution of soluble corn fiber and chicory root fiber

* Reduction of all types of caloric sugars and sweeteners.



Cargill.com/food-beverage/emea/sweeteners/cargill-soluble-fiber

Proteins



Cargill™ plant protein range

Cargill's plant protein solutions help meet consumers' hunger for protein-enriched, sustainable and label-friendly foods and drinks. Our wheat, pea and textured proteins:

- **Help formulators achieve consumer-pleasing taste and mouthfeel,** with enhanced nutritional profiles.
- **Contains a robust protein content** and are compatible with vegetarian/vegan diets
- **Bring a variety of functional benefits** contributing to texture, shelf life and more

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/food-beverage/emea/plant-proteins



- **Trilisse® MM 500:** blended solution of pea protein and wheat proteins
- **Lygomme® PM 300:** blended solution of carrageenan and pea protein
- **Trilisse® MVP 1201:** blended solution of pea protein and wheat protein



- **Plant-baked Wraps:** a plant-based alternative to wraps



SPOTLIGHT ON

Texturizers



CitriPure®

Citrus fibers

Introducing CitriPure® — a label-friendly citrus fiber obtained without chemical modification, providing nutritional properties and great texture enhancement.

- **Label-friendly:** Nature-derived, simple and familiar ingredient based on citrus peel.
- **Nutritional boost:** Fiber enrichment thanks to its intrinsic balanced mix of 40% soluble fiber and 60% insoluble fiber, enabling Nutri-score improvement.
- **No chemical modification:** Simply fully dried peel (nothing added, nothing taken away) produced with only water and energy. All the natural components of the citrus peel are kept intact.

www.Cargill.com/food-beverage/emea/texturizers/citrus-fiber



- **Trilisse® FM 1221:** blended solution of CitriPure® citrus fiber, soy lecithin and chicory root fiber
- **Flanogen® REM 2560:** blended solution of methylcellulose, carrageenan, SimPure® potato starch, CitriPure® citrus fiber and dextrose
- **Flanogen® REM 2760:** blended solution of hydrocolloids, CitriPURE® citrus fiber and SimPure® potato starch



- **Texture Sensation Bites:** a plant-based alternative to meat balls

Starches



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. SimPure® leverages the unique properties of a variety of botanical sources such as corn and tapioca to address some of today’s most important texturizing challenges.

- **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

www.Cargill.com/emea/simpure



- **Trilisse® AYS 0688 DF:** blended solution of SimPure® maize starch and UniPECTINE® pectin
- **Flanogen® REM 2560:** blended solution of methylcellulose, carrageenan, SimPure® potato starch, CitriPure® citrus fiber and dextrose
- **Flanogen® REM 2760:** blended solution of hydrocolloids, CitriPure® citrus fiber and SimPure® potato starch



- **Greeky Fusion Delight:** a hybrid alternative to Greek yogurt
- **Texture Sensation Bites:** a plant-based alternative to meat balls



Dairy & Plant-based alternatives to dairy

RECIPES

Dairy & Plant-based alternatives to dairy recipes

Dairy remains one of the most innovative and trend-driven application areas within the global food & beverage industry. Due to the complexity of the food matrixes involved, dairy products rely on synergies between ingredients for optimal performance. This lends the category particularly well to ingredient blends marketed under the INFUSE by Cargill™ brand in Europe.

INFUSE by Cargill allows us to propose a complete tailor-made solution to our customers, where we combine several technical ingredients for optimal results. Whether you are looking for a label-friendly solution, calorie reduction, or replacing a certain animal protein with plant-based proteins, our INFUSE by Cargill experts can offer the best solution for your specific needs.

It's time for DAIRY to be DIFFERENT!



Philippe Barey
Principal Application
Specialist

TRY OUR DELICIOUS PROTOTYPES:



Greeky Fusion Delight



**Plant-Based Alternative
to Halloumi Delight**

Greeky Fusion Delight

With Trilisse® AYS 0688 DF and 200



CHALLENGE:

Create a hybrid alternative to Greek yogurt that delivers on the dairy experience in terms of taste and texture while keeping the ferments alive, and that supports an improved Nutri-Score

Ingredients

Ingredients (in %)	
Water	Up to 100
Skimmed milk	55.0
Cream 35%	10.5
PURIS™* Pea 870 pea protein	1.9
Trilisse® AYS 0688 DF	2.0 – 2.5
Cargill fully refined coconut oil	1.4
Trilisse® 200	1.3
C☆Gel® 03401 Corn starch	0.5
Cultures	0.04

* Licensed trademark of PURIS proteins

Nutrition facts

Amount per serving (G/100g)	Dairy ref	Hybrid
Energy (kJ 444 / kJ 364) (kcal)	106	87
Fats	8.4	5.2
<i>of which saturated</i>	5.54	3.8
Carbohydrates	4.5	5.8
<i>of which sugars</i>	4.5	3.2
Dietary fibers	0	1.0
Proteins	3.1	3.7
Salt (mg)	0.1	0.1



Labeling suggestion

- **Trilisse® AYS 0688 DF:**
Maize Starch, Pectin
- **Trilisse® 200:** Dextrin (Fiber), Inulin (Chicory Root Fiber)

Key benefits

- Hybrid solution leveraging the best of both worlds: the indulgence of the animal proteins and the protein diversification of the plant-based proteins
- Improved Nutri-score from C to B*:
 - Source of protein claim
 - Reduced saturated fat levels
- Indulgent mouthfeel and overall texture

SPOTLIGHT

IN FUSE
by Cargill



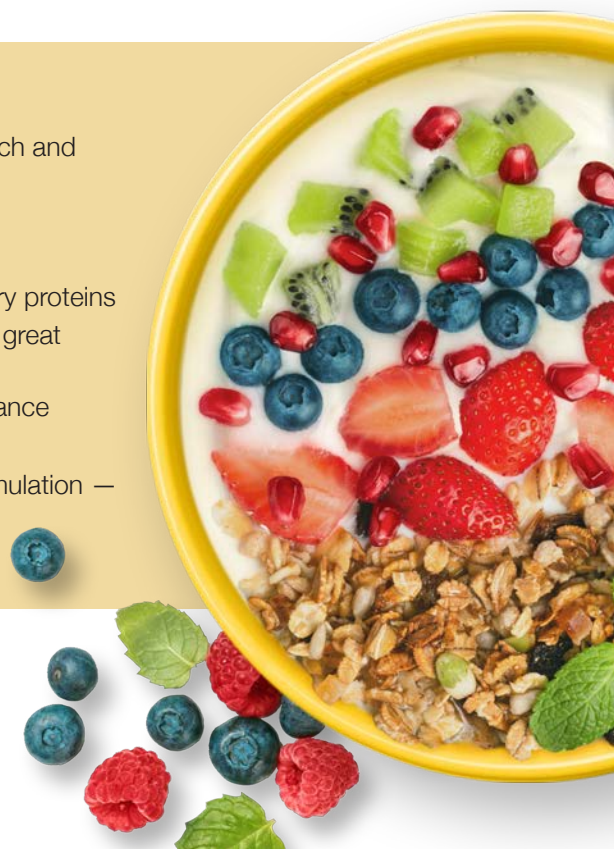
Trilisse® AYS 0688 DF

- Blended solution of SimPure® maize starch and UniPECTINE® pectin
- Label-friendly ingredients
- Structures and stabilizes the yogurt
- Compensates the functionality of the dairy proteins
- 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 or hybrid formulation — no process adjustments needed

* vs. full dairy market reference

Cargill.com

© 2022 Cargill, Incorporated. All rights reserved.



Plant-based alternative to Halloumi Delight

With ACH 830 DF and Cargill IY 45



CHALLENGE:

Create a plant-based alternative to halloumi cheese that matches the characteristics and functionality of the animal-based product, whilst still delivering the same texture and eating experience

Ingredients

Ingredients (in %)	
Water	Up to 100
ACH 830 DF	26
Cargill IY 45	20
Citric acid	pH 4.3
Salt	2.0
Flavoring	As required

Nutrition facts

Amount per serving (100g)	Dairy ref*	New
Energy (kJ 1389 / kJ 1138) (kcal)	332	272
Fats	26	20
<i>of which saturated</i>	18	9
Carbohydrates	3	23
<i>of which sugars</i>	2	0
Dietary fibers	0	1
Proteins	23	0
Salt (mg)	3	1.9



* Reference numbers based on a variety of available Halloumi cheeses available on the market today.

Labeling suggestion

- **ACH 830 DF:** Maize Starch, Modified Maize Starch, Guar Gum
- **Cargill IY 45:** Cocoa Butter, Rapeseed Oil

Key benefits

- Plant-based solution, suitable for vegans and vegetarians
- Improved Nutri-Score from E to D
- Indulgent mouthfeel and overall texture
- Similar eating and cooking experience as the dairy-based version
- Same technical performance as the dairy-based version

SPOTLIGHT

IN FUSE
by Cargill



ACH 830 DF

- Blended solution of modified maize starch, maize starch and guar gum
- Carefully selected ingredients for their individual functionality
- Helps to bring back key properties such as meltability, elasticity, texture and stretch





Bakery

RECIPES

Bakery recipes

While bakery remains an essentially indulgent market, it's sheer breadth means that significant differences exist within the category itself. For some — sweeter — categories such as cakes and cookies, most consumers would prefer to have less calories, fats and sugars, yet with indulgence and taste remaining the top priorities. For other categories, such as cereal bars and breakfast cereals, health is becoming more important, with higher willingness to compromise on taste.

In tailoring solutions to customer needs, often ingredients cannot be looked at in isolation.

INFUSE by Cargill™ allows us to propose an entire tailor-made solution to our customers, where we combine several different technical ingredients in an optimal blend.

INFUSE solutions are therefore BAKED to PERFECTION!



Martine Van-havere
Application Specialist

TRY OUR DELICIOUS PROTOTYPE:



Plant-Baked Wraps

Plant-Baked Wraps

With Trilisse[®] MM 500



CHALLENGE:

Create a plant-based lunch or snacking option that boosts the protein intake, whilst still providing a moment of indulgence

Ingredients

Ingredients (in %)	Source of protein	High in protein
Wheat Flour	65.72	53.72
Water	24.99	24.99
Trilisse[®] MM 500	3.50	12.50
Cargill Sunflower oil	7.33	7.33
Salt	0.73	0.73
Baking powder	0.73	0.73

Nutrition facts

Amount per serving (100g)	Source of protein	High in protein
Energy (kJ 1100 / kJ 1502) (kcal)	263	359
Fats	7.5	10
<i>of which saturated</i>	0.7	1.1
Carbohydrates	40	46
<i>of which sugars</i>	1.55	1.97
Dietary fibers	1.71	2.0
Proteins	8	19
Salt (mg)	0.96	1.3



Labeling suggestion

- **Trilisse[®] MM 500:**
Pea Protein, Wheat Proteins*

* According to EU Regulation (EC) 2073/2005 on microbiological criteria for foodstuffs, wheat gluten is not intended for direct human consumption (i.e., not "ready-to-eat") without further processing (e.g., cooking, baking, frying) to eliminate or reduce microorganisms to an acceptable level

Key benefits

- Plant-based solution, suitable for vegans and vegetarians
- Protein-enriched, enabling 'source of' (12%) or 'high' (20%) protein claims
- Good texture, bite and chewability
- Non-drying or gritty mouthfeel
- Balanced taste profile

SPOTLIGHT

IN FUSE
by Cargill



Trilisse[®] MM 500

- Blended solution of pea and wheat proteins
- Pea protein is one of the most healthy perceived plant-based proteins by consumers*
- Enables source of/ high in protein claim
- Helps to manage the dough rheology in terms of viscosity, stiffness and elasticity
- Water-binding properties

* Cargill IngredientTracker™, 2021, 6 European markets





Plant-based meat alternatives

RECIPES

Plant-based meat alternatives recipes

There's no denying that we are in the midst of a plant-based revolution. Meat alternative product development is on the menu at many of the major manufacturers, as the demand for vegetarian, vegan and plant-based options goes truly mainstream. In fact, Euromonitor predicts that in the next 5 years, the value of meat and seafood alternatives will double in Europe, as the market further diversifies.*

The largest product groups for meat alternatives consist of minced and formed meat products, such as burgers, patties and meatballs and sausages. The market is expanding, however. Beyond the well-established formed meat alternatives for hot consumption, there is a growing trend towards emulsified plant-based cold cuts too.

This is where Cargill's knowhow and application expertise comes into play and where our new INFUSE by Cargill™ service offering model will help your product stand out in taste, texture and visual appeal.

It's time to take plant-based formulations to NEW FRONTIERS!



Zuzana Van Beveren
Principal Scientist

TRY OUR DELICIOUS PROTOTYPES:



Texture Sensation Burger



Texture Sensation Bites

* Source: Euromonitor, Value sales of Meat and Seafood Substitutes, Europe, 2021-2026

Texture Sensation Burger

With Trilisse® MVP 1201 and Flanogen® REM 2461



CHALLENGE:

Create a plant-based alternative to a burger that meets consumer expectations for both the cooking and the eating experience

Ingredients

Ingredients (in %)	
Water	51.19
Cargill™ Plant Protein (TEX PW80 M)	16.60
Cargill® Rapeseed oil	7.40
Cargill® Refined Coconut Oil	5.50
Trilisse® MVP 1201	4.60
Flanogen® REM 2460	4.10
Frozen shallots	3.70
Meat (Grilled) flavor*	2.40
Malt Extract	1.85
Vinegar	0.90
Natural colors*	0.83
Garlic	0.75
White pepper	0.18

* From our Taste & Color partner

Nutrition facts

Amount per serving (100g)	Meat ref*	New
Energy (kJ 870 / kJ 967) (kcal)	208	231
Fats	11.7	14.4
<i>of which saturated</i>	5.0	6.0
Carbohydrates	3.9	6.3
<i>of which sugars</i>	0.4	1.6
Dietary fibers	0.5	3.1
Proteins	21.5	17.2
Salt (mg)	0.8	1.2

* Reference numbers based on a 12% fat burger recipe



Labeling suggestion

- **Trilisse® MVP 1201:** Pea Protein, Wheat Protein*
- **Flanogen® REM 2461:** Methylcellulose, Potato Starch, Carrageenan, Citrus Fiber, Dextrose

* According to EU Regulation (EC) 2073/2005 on microbiological criteria for foodstuffs, wheat gluten is not intended for direct human consumption (i.e., not "ready-to-eat") without further processing (e.g., cooking, baking, frying) to eliminate or reduce microorganisms to an acceptable level

Key benefits

- Comparable nutritional profile as the meat reference recipe
 - High protein claim
- Desired meat-like texture, juiciness, chewiness and firm bite
- Desired taste profile: flavor intensity, savory, and no off-notes

SPOTLIGHT

IN FUSE
by Cargill



Trilisse® MVP 1201

- Blended solution of pea and wheat protein
- Helps to support protein claims, in unison with Cargill™ plant protein TEX PW80 M
- Helps to ensure the right balance in taste and texture



Texture Sensation Bites

With Trilisse® MVP 1201 and Flanogen® REM 2560



CHALLENGE:

Create a plant-based alternative to meat balls that meets consumer expectations for both the cooking and the eating experience

Ingredients

Ingredients (in %)	
Water	49.38
Cargill™ Plant Protein (TEX PW80 M)	16.70
Frozen shallots	10.00
Cargill® Rapeseed oil	5.00
Trilisse® MVP 1201	4.20
Flanogen® REM 2560	3.80
Cargill® Fully Refined Coconut Oil	3.50
Vinegar	1.70
Flavors*	1.00
Salt	1.00
Sugar	1.00
Frozen parsley	0.90
Natural colors*	0.67
Garlic	0.30
Spices (Paprika powder, nutmeg, white pepper, oregano)	0.85

* From our Taste & Color partner

Nutrition facts

Amount per serving (100g)	Meat Ref	New
Energy (kJ 958 / kJ 774) (kcal)	229	185
Fats	14.2	10.3
<i>of which saturated</i>	6.0	4.0
Carbohydrates	3.7	5.1
<i>of which sugars</i>	0.4	1.9
Dietary fibers	0.3	3.3
Proteins	21.7	16.6
Salt (mg)	0.8	1.6



Labeling suggestion

- **Trilisse® MVP 1201:** Pea Protein, Wheat Protein*
- **Flanogen® REM 2560:** Methylcellulose, Carrageenan, Potato Starch, Citrus Fiber, Dextrose

* According to EU Regulation (EC) 2073/2005 on microbiological criteria for foodstuffs, wheat gluten is not intended for direct human consumption (i.e., not "ready-to-eat") without further processing (e.g., cooking, baking, frying) to eliminate or reduce microorganisms to an acceptable level

Key benefits

- Balanced nutritional profile
 - High protein & source of fiber claim
- Desired meaty texture, juiciness, chewiness and firm bite
- Slight savory taste with no plant protein aftertaste

SPOTLIGHT

IN FUSE
by Cargill



Flanogen® REM 2560

- Blended solution of methylcellulose, carrageenan, potato starch, citrus fiber and dextrose
- Binding and texturizing blend designed to deliver on texture authenticity at hot consumption and stability during cold storage
- Helps to improve the nutritional profile



Consumer trends are on the move and turning more complex, changing consumers' shopping lists.

These changing consumer demands mean that the future shopping list includes more focus on healthier options. Consumers want plant-based choices, less sugars & calories, products with a growing array of label friendly ingredients, protein & fiber rich foods and more.

But there are so many different avenues to pursue. Getting there will require differentiated offerings and a partner with the right formulation and ingredient expertise.

INFUSE by Cargill™ offers customers the ease of a blended ingredient solution to help speed up their product development and launch innovative products faster to market.



What's next?

In the new year, we'll be bringing again new innovative concepts to market.

In January ('Veganuary'), we will launch new plant-based alternatives to dairy drinks.

In February ('Fiber February'), we will launch fiber-enriched bakery products.

Stay tuned for more!



Meet the INFUSE team – Europe



Hannah Keenan
*Business Development
Manager*



Yannick Boulard
Account Manager



Inge Kerkaert
Segment Director



Delphine Savereux
Product Line Manager



Denise McCarthy
Go To Market Leader



Sandy Van Espen
Business Marketing Lead



Gayle Pierce
*Marketing Activation
Manager*



Margreet van Altena
*Marketing Communications
Manager*



“Given today’s complex formulation challenges, the days of solving problems with a single ingredient are gone, However, with INFUSE by Cargill™, we can offer customers the ease of a blended solution that can help speed up their development cycles and launch innovative products faster to market.”

Denise McCarthy, Go To Market Leader, Cargill Starches Sweeteners and Texturizers



Meet the INFUSE team – META

As every region has its own unique taste, texture and pricing needs, INFUSE by Cargill™ has expanded its footprint into the Middle East, Turkey, Africa and India. With the opening of our multi-million dollar, state-of-the-art Innovation Centre in Turkey, and Cargill's more than 40 years of texturizing ingredient blends expertise, we are now perfectly equipped to help meet our dairy customers' needs in META as well.



Çağatay Taşkın
Product Line Manager



Canan Eskikapusuz
Development Manager



Levent Uslu
Sales Lead



Huseyin Ozansoy
Commercial Manager



Çağlar Imre
Development Manager



Nejla Yasar
Marketing Manager



Pelin Kurt
Marketing Communications
Specialist



“Consumers in META and India are looking for dairy products in line with their cultural taste preferences, developed over centuries. This region has a dynamic and unique dairy market that differs from any other region. With the opening of our dairy application centre in Turkey, we can support dairy manufacturers in META to speed up their product development by using tailor-made ingredient blends.”

Çağatay Taşkın, Cargill META and India INFUSE Business Manager





Let's discuss how **INFUSE by Cargill™** can enable the success of your next product launch.

Time to get INFUSED

✉ Infusebycargill_solutions@Cargill.com

🚀 www.cargill.com/infuse

🚀 www.linkedin.com/showcase/cargill-food-ingredients/

The information in this Recipe Book is believed to be true and accurate. However, all statements, recommendations or suggestions are made without guarantee, express or implied, on our part. WE DISCLAIM ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE and FREEDOM FROM INFRINGEMENT.

The information presented herein is intended to illustrate the possible technical applications of our products. However, since the use of this information and our products is beyond our control, any recommendations or suggestions are made without guarantee of warranty in each country and particularly in the absence of patent rights. In addition, we recommend that the user ensures that this product is in compliance with the local regulations in force, particularly in the country where the finished product is to be consumed. It is the responsibility of the user to comply with the patents and the regulations in force.