

NEWSLETTER



INGREDIENTS
Your Long Term Partner

MEAT, CULINARY & SNACK INGREDIENTS

Q4 2020

Dear Readers,

Welcome to the Q4 edition of the FSL Meat, Culinary and Snack Ingredients Newsletter.

The year 2020 has been one to go down in history with some of the largest disruptions we have ever seen in our personal and professional lives. With 2020 now almost behind us and with two COVID-19 vaccines in sight we are hoping to see a more stable 2021 starting by Q2 of next year. And while we hope for this pandemic to abate itself into the annals of history by the end of next year, experts anticipate that its influence on individual health and concerns surrounding sustainability will leave a lasting impact on consumer psychology for decades to come. In a research survey conducted by Accenture, **81% of consumers are now making healthier, more sustainable or more ethical purchases after COVID-19 with 89% likely to continue after the crisis.**

In line with these global health and sustainability trends which are shaping our world, in this edition of our newsletter we will be covering our innovative and healthier solutions for Egg-Free Mayonnaise and for Meat Analogues which are a growing trend in our region with Burger King and Subway launching their own versions in the GCC last month.

Please contact us to discuss any of the solutions presented here in further detail and please let us know if there are other topics you would like us to cover in our next newsletter.

We wish you all a healthy and safe new year!



Egg-Free Mayonnaise

Mayonnaise is a popular global condiment that is used to enhance the flavor and texture of many foods across the world. Traditionally oil, egg yolk and vinegar or lemon juices are used as the base ingredients in preparing mayonnaise with the emulsifying properties of egg yolk stabilizing the oil and water emulsion while preventing flocculation.

Although egg possesses various functional properties, egg also has its constraints due to its price volatility, high levels of saturated fat and cholesterol and the possibility of contamination with Salmonella which creates a food safety risk. Mayonnaise has usually been cited for health-related issues due to its high fat and cholesterol levels. Furthermore, animal products and animal agriculture have been coming under consumer scrutiny for their negative environmental impact and disease spreading potential (after COVID-19 this has become an even greater concern) which has led to growing demand for food products that are free from animal derivatives.

With consumers becoming increasingly health conscious and selective about which foods they consume the demand for plant-based food products is experiencing double digit growth levels and a new market for egg-free mayonnaise is waiting to be filled by innovative, and healthier brands in the GCC region who wish to capitalize on this opportunity.*

Benefits of Egg-Free Mayonnaise:

- ✓ **Lower in saturated fat**
- ✓ **Lower in cholesterol**
- ✓ **More sustainable**
- ✓ **Plant-based (free of animal products)**
- ✓ **Suitable for vegans and Hindus**
- ✓ **Alternative for people with allergies to egg**

*(*Most Hindus also do not eat eggs which creates a captive new market of 3.24 million consumers for plant-based mayonnaise in the GCC.)*



FSL's Solution to create Egg-Free Mayonnaise



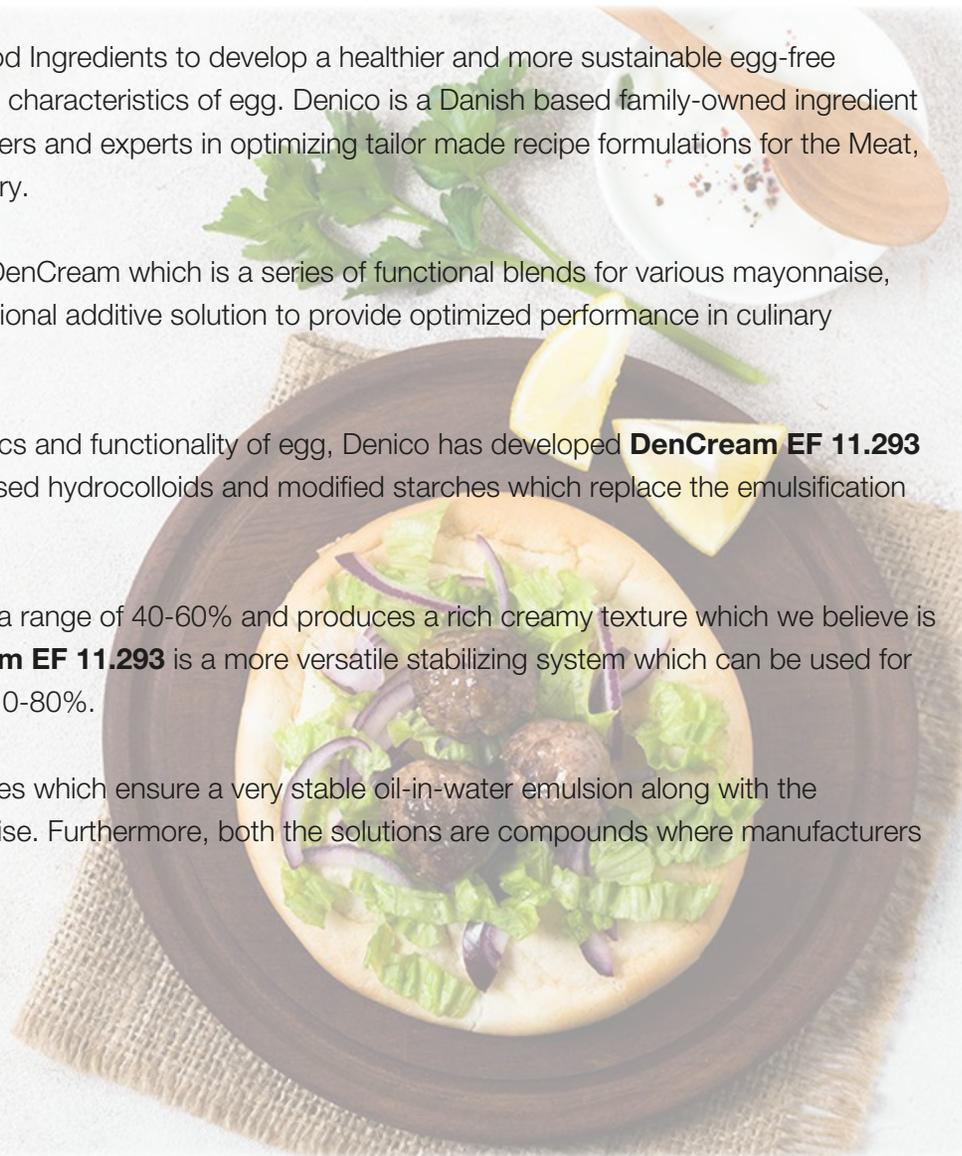
FSL has partnered with Denico Food Ingredients to develop a healthier and more sustainable egg-free Mayonnaise solution with the same characteristics of egg. Denico is a Danish based family-owned ingredient company who are renowned blenders and experts in optimizing tailor made recipe formulations for the Meat, Poultry, Snack and Culinary Industry.

One of Denico's proprietary series applicable for the culinary industry is DenCream which is a series of functional blends for various mayonnaise, sauce, dressing and ketchup applications and which acts as a multifunctional additive solution to provide optimized performance in culinary applications.

To create an eggless mayonnaise application with the same characteristics and functionality of egg, Denico has developed **DenCream EF 11.293** and **DenCream EF 55 11.004**, which are combinations of vegetable-based hydrocolloids and modified starches which replace the emulsification properties of egg yolk.

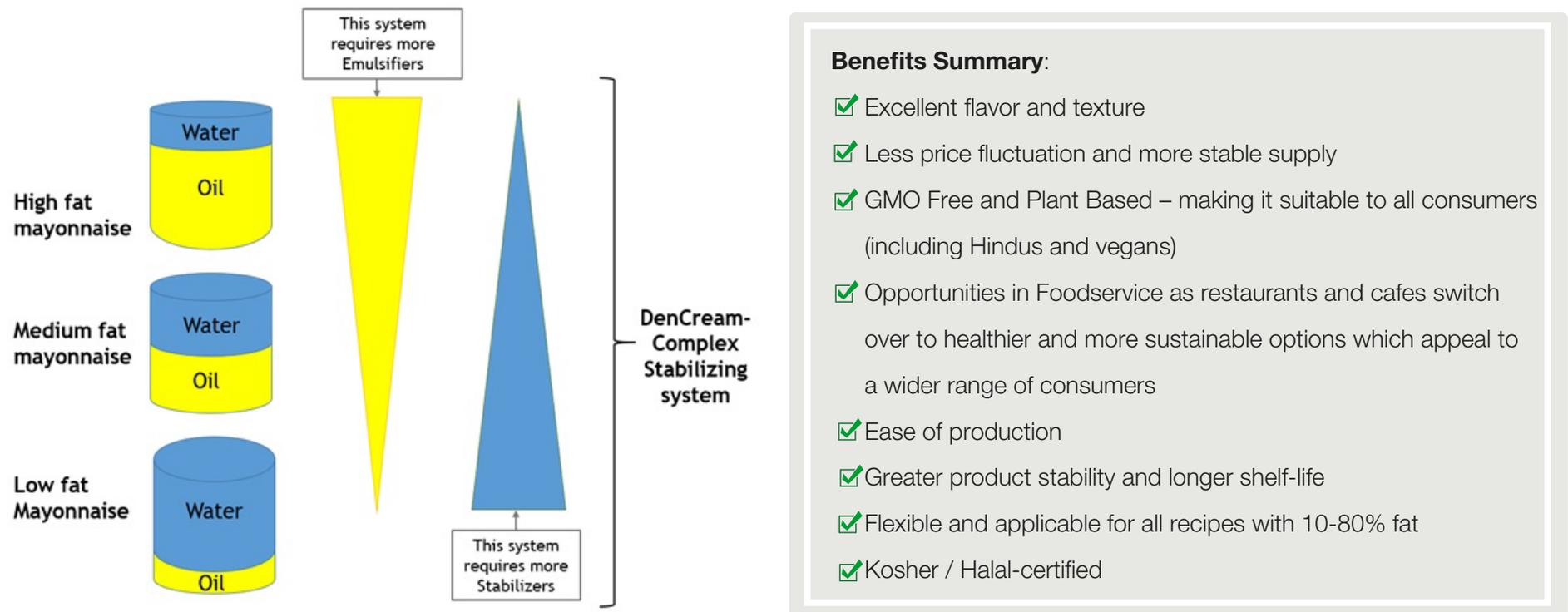
DenCream EF 55 11.004 is used for lower-middle-fat mayonnaise with a range of 40-60% and produces a rich creamy texture which we believe is the best solution to produce a premium egg-less mayonnaise. **DenCream EF 11.293** is a more versatile stabilizing system which can be used for producing mayonnaise in cold process with a wide fat content range of 10-80%.

Both of these solutions offer excellent stabilizing and emulsifying properties which ensure a very stable oil-in-water emulsion along with the creaminess, short structure and viscosity required for premium mayonnaise. Furthermore, both the solutions are compounds where manufacturers only need to add water, oil, sugar, preservatives, acids and mustard.



Low Fat Mayonnaise requires more stabilizers, whereas high fat content mayonnaise requires more emulsifiers. Below is a graphic explanation of how FSL and Denico can develop a customized blend for your needs.

A universal stabilization system which can customize the balance of emulsifiers and stabilizers for a wide range of low and higher fat content mayonnaise.



We anticipate that the demand for plant-based mayonnaise will continue to grow and be a part of the growing plant-based and health trend. Contact us to learn more about our innovative solutions which enable all the benefits from egg-free mayonnaise without compromising on taste or texture!

References: <https://onlinelibrary.wiley.com/doi/10.1002/fsn3.1132> | <https://www.transparencymarketresearch.com/eggless-mayonnaise-market.html>

I DenCream EF 11.293 | EGG-FREE Mayonnaise 50%



Total recipe %	End product %
Vegetable oil	50,00
Water	38,10
Sugar	2,50
DenCream EF 11.293	4,00
Vinegar 5%	3,00
Salt	1,20
Pottasium sorbate E202 (preservative)	0,10
EDTA E385 (antioxidant)	0,10
Spices or flavors	optional
Color (beta-carotene)	optional
Total	100,00

Technological process

Cold process:

1. Blend **DenCream EF 11.293** with some oil in a ratio of 1:2
2. Add salt, sugar into water phase and mix until all ingredients are fully dissolved
3. Add **DenCream EF 11.293** (blended 1:2 with oil) into water phase and start emulsifying process
4. Emulsifying process: add vegetable oil (little by little) under high shear
5. Add spices and/or flavors
6. Add vinegar and adjust pH 3.8-4.5
7. Fill into containers

I DenCream EF 11.293 | EGG-FREE Mayonnaise 10%



Total recipe %	End product %
Vegetable oil	10,00
Water	72,10
Sugar	2,50
DenCream EF 11.293	10,00
Vinegar 5%	4,00
Salt	1,20
Pottasium sorbate E202 (preservative)	0,10
EDTA E385 (antioxidant)	0,10
Spices or flavors	optional
Color (beta-carotene)	optional
Total	100,00

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I FSL's Innovative Range of Plant-Based Meat

FSL has developed a full range of plant-based meat products using the combined expertise and ingredients portfolio of our various principals.

Our range includes the following plant-based analogues:

Beef & Chicken Burgers



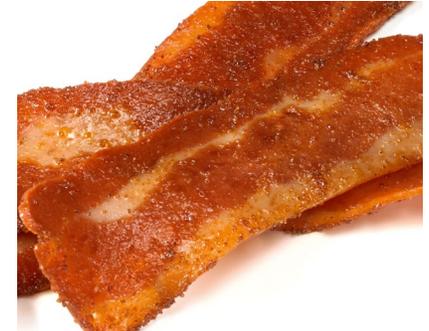
Hot Dogs & Frankfurters



Tandoori Chicken Nuggets



Bacon



Fish Sticks



Shawarma



Shish Tawook



Plant-Based Launches in the UAE

After a series of trials and sensory evaluations we have fine-tuned these recipes for the GCC market which has now caught onto the plant-based meat trend with various local restaurants and international chains including Burger King and Subway bringing their plant-based whoppers and meatball subs to the region.



Burger King Arabia launched their Plant-Based Whopper in UAE last October 2020 and Subway UAE launched their Meat-Free Sandwiches (V-Subs) last November 2020.

Please contact FSL if you are interested in any of the above products or topics:

Vivek Upreti

Food Specialities Limited

Meat, Culinary & Snack Ingredients

vivek@foodspecialities.com

+971 4 8069 653