

INSIGHTS REPORT:

Creating vegan confectionery that meet consumers' taste and texture expectations

Plant-based foods & beverages are becoming increasingly mainstream as vegan options move beyond the established categories of meat and dairy alternatives alone.

Product developers are now being challenged to create vegan options in sweet categories such as confectionery too. But manufacturers be warned. Today's consumers have higher expectations around the texture, taste and mouthfeel of their vegan confectionery. There's an increasing array of options out there that are all competing for a place in the shoppers' grocery cart.

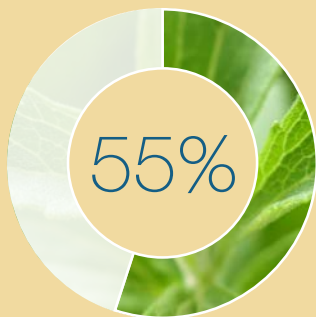
INFUSE by Cargill™ can help you create the high quality vegan sugar confectionery products that your customers can enjoy without having to sacrifice on texture or mouthfeel. All this, while also helping to deliver manufacturing and/or cost efficiency gains for you.



THE MARKET FOR VEGAN SUGAR CONFECTIONERY

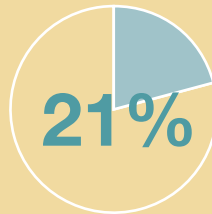
“Seeking Goodness” is a prominent trend in Cargill’s TrendTracker™ 2021 – our proprietary perspective on food & beverage trends impacting our manufacturing customers.

In the wake of the pandemic, it sees more consumers seeking to maintain their wellbeing, with many turning to plant-based products. As plant-based eating moves into the mainstream, the sugar confectionery category is no exception. In fact consumers expect the increased availability of plant-based sugary treats.



of global consumers state that their diet now includes meals that do not contain meat or fish, even though they're not vegetarian or vegan.

Source: HealthFocus International, 2020



The impact of the plant-based trend on the composition of the sugar confectionery aisle has been profound. Innova Market Insights data found that **21% of sugar confectionery launches tracked in Europe in 2021 featured a “vegan”, “vegetarian” or “plant-based” claim.** This was up from 11% in 2015.

This trend has been strong for several years now, with CAGR in European vegan/vegetarian/plant-based sugar confectionery launches running at +8.4% (2015-2021). The frequency of launches featuring a “vegan” claim was particularly strong at +25% CAGR during this timeframe. The term “plant-based” has only recently entered the scene, highlighted by its exponential CAGR of +79%. On the contrary, “vegetarian” positioning has reached maturity and product launches with such claims can be seen declining over the years (-3%).

For product developers, meeting the plant-based trend demands replacing one of the most widespread functional ingredients out there: gelatin. “There is strong demand for plant-based confectionery that uses ingredients such as starch, maltodextrin, carrageenan and pectin,” says Yannick Boulard, Customer Development Manager at INFUSE by Cargill™. “It’s partially driven by the vegan trend, which is increasing and going beyond the traditional categories, and into sweet categories such as bakery and confectionery too.”

But it’s not only a question of the full replacement of gelatin. The growing demand for higher margin collagen in beauty and nutritional product applications means a tighter availability for more commoditized gelatin products. At the same time, these confectionery manufacturers are also under pressure due to the challenging market amid the COVID-19 pandemic, which has stunted the sale of impulse purchases like sugar confectionery.

As a result, there is growing demand for both partial and full replacement of animal-based ingredients.



WHAT'S NEXT

Consumers increasingly want sweets that are plant-based but they are not willing to make big compromises.

They still expect to enjoy an exciting eating experience that features that soft, chewy texture that you expect from a sweet treat. Getting there is easier said than done as gelatin brings great functionality to sugar confectionery, such as texture and bite.

That's where INFUSE by Cargill™ can support you. We've got the ideal toolbox of solutions available to help create the plant-based sweet treats that you need to meet consumer's expectations.



MEET INFUSE by Cargill™

INFUSE
by Cargill

Meeting consumers' texture and overall eating expectations for plant-based confectionery is a major challenge.

By employing a multi-ingredient blending approach and through effective formulation finetuning, INFUSE by Cargill™ can help you create those high quality vegan sugar confectionery products that your customers can enjoy, without having to sacrifice on texture or mouthfeel.

As just one example of our competencies in challenging confectionery applications, by blending the best in pectins and hydrolyzed pea protein, INFUSE by Cargill™ has created an ingredient blend, optimized for use in plant-based double layered sugar confectionery.

But other solutions are also available for the plant-based reformulation of jellies, wine gums and deposited marshmallows for chocolate and/or bakery products.



SPOTLIGHT

IN FUSE
by Cargill

INFUSE by Cargill™ is the service offering model from Cargill Starches, Sweeteners & Texturizers Europe.

It brings together our extensive ingredient knowhow to rapidly create tailor-made ingredient blends that help speed up and enable your innovation and market launch plans.

Customers in Europe have been using Cargill's functional systems for more than 40 years to achieve custom texturizing ingredient blends. INFUSE by Cargill™ builds on that solid foundation, by adding sweetness and other specialty ingredients such as proteins and fibers, to address a broader array of customer formulation challenges.

Three pillars serve as the foundation for Cargill's customer focus in Europe:



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.



OUR SOLUTION



Lygomme® PM 600 is a functional ingredient blend, designed to deliver great texture in plant-based double-layered sugar confectionery, while delivering ease of use and helping with production efficiencies.

Our applications knowhow has resulted in the optimal blend whereby:

- **Pectin delivers a softer first bite versus gelatin**, and hence a new eating experience that surprises the consumer palate.
- **Pea protein provides similar aeration properties to gelatin**, and thereby enables a softer texture.

Suitable for vegans and vegetarians, and containing no gelatin, our solution blends the best functional ingredients to deliver a surprising eating experience that consumers will love.

RECIPE (80°BRIX) & NUTRITIONALS:

Ingredient in % on final product	Reference recipe with gelatin	INFUSE by Cargill™ recipe
Glucose syrup C☆Sweet® 01623	50.6	48.0
Sugar	30.8	36.5
Water	8.5	9.6
Gelatin 180 bloom	7.7	
Lygomme® PM 600		3.3
Citric acid (50%)	1.9	1.9
Color, flavor	As needed	As needed

G/100g	Reference recipe with gelatin	INFUSE by Cargill™ recipe
Energy (kcal/100g)	318	312
Fats	0	0
<i>of which saturated</i>	0	0
Carbohydrates	71	75
<i>of which sugars</i>	59	64
Dietary fibers	0	0.6
Proteins	6.7	1.0
Salt	0	0.2



SPOTLIGHT: PEA PROTEINS



Label-friendly:

- Produced from label-friendly yellow peas, which need no allergen declaration in Europe
- High quality ingredient
- Rated as one of the most healthy plant proteins*



Great sensory profile:

- Mild flavor, low off notes
- Suitable for plant-based formulation in various confectionery applications, such as deposited mallows, toffee, caramel, nougat & fudge, and gummies/jellies/chews



Great functionality:

- Provides similar aeration properties to gelatin
- Enables a softer texture



*Cargill IngredientTracker™ 2021

#PLANTPROTEIN



INFUSE

by Cargill™



Let's discuss how
INFUSE by Cargill™ can
enable the success of your
next plant-based sugar confectionery
launch amid the booming vegan
confectionery market.

Time to get INFUSED

✉ Infusebycargill_solutions@Cargill.com

🚀 www.cargill.com/infuse

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

The information in this 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.

Cargill.com

© 2022 Cargill, Incorporated. All rights reserved.

Cargill® Helping
the world
thrive