Concentrates Poised to Disrupt the Dairy Alternative Space

The plant-based sector is growing up quickly.

Like any coming-of-age story, there have been stumbles and missteps along the way. But there is little doubt consumer demand for plant-based products is here to stay. In fact, the global plant-based food market is **projected** to reach \$85 billion by 2030, growing at a CAGR of nearly 10%.

As the plant-based space has evolved, with significant investment and interest from consumers, food manufacturers have sought out new innovations to help meet consumer expectations while keeping costs in check.

When it comes to plant-based dairy alternatives, there's one innovation that has been largely overlooked to date: Plant-based cheese concentrates.

Dairy and cheese concentrates provide intensified and targeted dairy flavor through enzyme modification and other specialized processes. Removing moisture and standardizing components like fat, protein and flavor compounds make concentrates a cost-effective alternative to traditional dairy and dairy alternative ingredients.

ON AVERAGE, CONCENTRATES CAN DELIVER FOOD MANUFACTURERS A 10 TO 25% REDUCTION IN CHEESE COSTS.

A vegan cheese concentrate offers significant potential to improve the flavor, form and function of plant-based offerings. Here's a closer look at some of the challenges that can be addressed with a plant-based solution like Bluegrass Ingredients' Vegan Cheez Concentrate.



THE BENEFITS OF PLAN BASED I

REDUCED COSTS

- **MORE INTENSE DAIRY FLAVORS**
- **EASIER HANDLING**
- **REDUCED TRANSPORTATION** AND STORAGE NEEDS
- *⊗* CLEAN-LABEL FORMULATION





SOLVING FOR REAL DAIRY TASTE

There's a lot about the plant-based space that's attractive to today's consumer. Plant-based offerings have environmental benefits both in terms of sustainability and animal welfare. Many plant-based products have health and wellness benefits distinct from their traditional meat and dairy counterparts. These benefits appeal to traditional vegetarians and vegans. Yet the rise of so-called "flexitarians" is driving an increased focus on plant-based offerings from food manufacturers of all sizes. Flexitarians prioritize reducing dairy and meat consumption without eliminating it from their diets completely. Case in point: Nearly 40% of milk buyers buy both milk products and dairy alternatives, according to NielsenIO.

BUT AS MORE CONSUMERS SHOW INTEREST IN PLANT-BASED OFFERINGS, MANY OF THESE PRODUCTS ARE COMING UP SHORT ON A FUNDAMENTAL FACTOR: TASTE

Across a wide range of plant-based categories, the flavors of the products, even those with significant investment, simply aren't meeting consumer expectations. As the consumer landscape shifts, that taste gap has become a critical stumbling block. A vegan may wish a plant-based product tasted better, but taste won't drive them back to traditional meat or dairy offerings. A flexitarian, on the other hand, simply won't purchase a plant-based product that doesn't taste as good.

Nowhere is that flavor gap more pronounced than in the cheese market. Food manufacturers have struggled to make a plant-based cheese that tastes like the "real" thing. What's more, the texture of plant-based cheese, particularly when melted, has been a challenge.

Food manufacturers that can crack the code on bettertasting cheese stand to gain significant ground in the plant-based space.

Bluegrass Ingredients has hit on a plant-based cheese solution that has been proven to meet consumer taste expectations. Our Vegan Cheez Concentrate offers deep cheese flavors while leveraging many of the other benefits of concentrates.



BLUEGRA INGREDIE VEGANI CONCENI

Bluegrass Ingredients' Vegan Cheez Concentrate is plant-based with just nine ingredients:

- **⊗** WATER
- **⊗** COCONUT OIL
- **⊗** SALT
- **⊘** MODIFIED FOOD STARCH
- *⊗* YEAST EXTRACT
- **⊗** NATURAL FLAVOR
- **⊗** LACTIC ACID
- **⊗** XANTHAN GUM
- **⊘** CITIC ACID



PROVEN EXPERTS IN DELIVERING DAIRY FLAVORS

Bluegrass Ingredients traces our origins back to the dairy industry.

With more than 100 years of combined dairy and cheese expertise, Bluegrass team members are proven experts in dairy flavor and innovative ingredient solutions. That taste expertise has been proven through flavor matching and application development work. They can draw on that expertise when formulating a traditional or plant-based application that demands a specific dairy flavor.

Bluegrass Ingredients dairy concentrates, including our Vegan Cheez Concentrate, use high-quality ingredients with a proprietary enzyme modification process. This process, combined with deep dairy expertise, means we can create custom "Black Box" flavors that cannot be matched or easily replicated. The result is a deep cheese flavor made from non-dairy ingredients, often with less cost and complications.

REDUCING COSTS WITH CONCENTRATES

In addition to delivering deeper and more authentic cheese flavors, concentrates offer significant saving opportunities in cost in use. Where a food manufacturer might use a conventional cheese powder at 5% or 7% in a given application, a cheese concentrate could be used at 1.5%. That has the potential to deliver significant savings, as well as reducing shipping and storage costs.

A SUITE OF PLANT-BASED INGREDIENT SOLUTIONS

New plant-based offerings are being brought to market all the time. Per a **NielsenIQ analysis:**

"One of the greatest strengths of plant-based products is the breadth of offerings for consumers. What began primarily with meat substitutes has now expanded into a diverse range of categories, including dairy alternatives, snacks, beverages, seafood substitutes, and even plant-based eggs."

Bluegrass Ingredients has hit upon an innovative plantbased cheese concentrate with significant potential to deliver on consumer flavor expectations while reducing costs. But as food manufacturers explore a growing world of plant-based products, Bluegrass' wide range of plant-based products are an equally important part of the product development puzzle.



PLANT-BASED ORGANIC OAT MILK POWDERS

PLANT-BASED OAT MILK POWDERS

PLANT-BASED CHEESE POWDERS

PLANT-BASED YOGURT POWDERS

PLANT-BASED SOUR CREAM POWDERS

PLANT-BASED BUTTER POWDERS

The Agile Kitchen at Bluegrass team partners with customers to provide hands-on R&D support and deliver innovative solutions that help move business forward.



To see how much concentrates could save your organization, try our <u>Cheese Sauce Savings Calculator</u>.

PROPRIETARY CONCENTRATE SOLUTIONS ROOTED IN DAIRY EXPERTISE

At Bluegrass Ingredients, our longtime experience in dairy flavors, combined with advanced processing capabilities, allow us to craft innovative concentrate paste and powder ingredient solutions.

What sets Bluegrass Ingredients concentrates apart:

- **⊗** ADVANCED TECHNICAL CAPABILITIES
- **⊗ RAPID FLAVOR CUSTOMIZATION**
- **⊘** UNIQUE "BLACK BOX" FORMULATIONS



A TIMELINE OF **PLANT-BASED** INNOVATION

The demand for plant-based alternatives has existed for centuries. Innovation has been spurred by technological advancements as well as shifting consumer demand. Here's a glimpse of some of the developments that have driven the plant-based food space to a market of more than \$40 billion.







