



# THE DEFINITIVE GUIDE TO USING DAIRY CONCENTRATES IN FOOD PRODUCTS

Dairy concentrates have proven a valuable solution for food manufacturers looking to optimize flavor, functionality and cost efficiency in their food formulations. However, many product developers haven't worked with dairy concentrates before, and they may not understand their true potential in food formulations.

Bluegrass Ingredients developed this dairy concentrate FAQ to give product developers detailed insights into the technical aspects of using dairy concentrates in a diverse range of applications, from dips and soups to packaged entrees and sauces. We've also developed a [Cheese Substitution Calculator](#) that shows how much you can save when switching to dairy concentrates.

## WHAT IS A DAIRY CONCENTRATE?

**Answer:** Let's start with the basics. [Dairy concentrates](#) are specialized ingredients designed to deliver intensified dairy flavor through enzyme modification and other specialized production processes. By removing moisture and standardizing components like fat, protein and flavor compounds, dairy concentrates are a cost-effective alternative to traditional dairy ingredients.

## ARE DAIRY CONCENTRATES MADE FROM REAL DAIRY?

**Answer:** Yes! Concentrates are made from real dairy products. The process starts by selecting high-quality dairy ingredients. Next, we add enzymes or cultures to attain specific flavor profiles. The final concentrate is processed into a powder or paste and is ready for use in a variety of food applications.

## WHAT'S THE DIFFERENCE BETWEEN A CONCENTRATED POWDER AND PASTE?

**Answer:** The concentrate format depends on the application, processing environment and required functionality. Bluegrass' R&D team collaborates with food brands and manufacturers to recommend the ideal concentrate format and usage rate. General guidelines include:



**Powder Concentrates:** Have a long shelf life, are easy to store and can be blended with other dry ingredients. Common applications include snack seasonings, baking mixes and instant soups.



**Paste Concentrates:** Deliver an intense flavor, require less storage space than natural cheese and are easily incorporated in wet formulations. Applications include cheese spreads, dips and sauces.

## CAN CONCENTRATES HAVE DIFFERENT FLAVOR PROFILES AND STRENGTHS?

**Answer:** Dairy concentrates are typically 5 to 20 times more concentrated than standard dairy products on a volume basis. In a formula that uses natural or processed cheese at 10% to 20% of total allocation weight, cheese powder concentrates may be used at 5% to 10%. Paste concentrates may be used at 0.3% to 2%.

## ARE DAIRY CONCENTRATES CUSTOMIZABLE?

**Answer:** Yes. Bluegrass Ingredients customizes dairy concentrates to deliver specific flavor profiles, and functionalities based on an application. They also are available Kosher, Halal and Organic.



## ARE DAIRY CONCENTRATES CONSIDERED A CLEAN LABEL INGREDIENT?

**Answer:** Yes, dairy concentrates can be part of a clean label platform. In fact, they often may reduce the need for artificial flavors and colors.

## ARE THERE PLANT-BASED CONCENTRATES?

**Answer:** Yes, Bluegrass Ingredients offers a complete line of plant-based dairy powder concentrates, including, oat milk, cheese, yogurt, sour cream and butter powders.

## WHAT ABOUT COSTS? ARE CHEESE CONCENTRATES MORE EXPENSIVE? HOW WILL THEY IMPACT MY OVERALL COSTS?

**Answer:** For this question, let's take a look at our line of Butter Concentrate Pastes. When using a butter concentrate, a smaller amount of concentrate vs. ingredient is required to achieve the desired buttery flavor in a formula. Because concentrates require less butter or cheese, ingredient, shipping and storage costs are reduced. We've seen upward of \$170,000 in savings on an annual purchase of 200,000 pounds of butter when our butter concentrate paste is substituted for butter.

## WANT TO SEE HOW MUCH YOU CAN SAVE BY SWITCHING TO CONCENTRATES?

Use our [Concentrate Savings Calculator](#) to estimate your potential savings by using Concentrates into your formula.

**Answer:** The concentrated nature of butter paste means the ingredient is less prone to variations in quality that can occur with fresh butter. Concentrates also are less susceptible to market volatility due to extreme weather or supply chain problems.

## I'M SOLD ON EXPLORING DAIRY CONCENTRATES! HOW DO I BENCH TEST EXISTING FORMULAS?

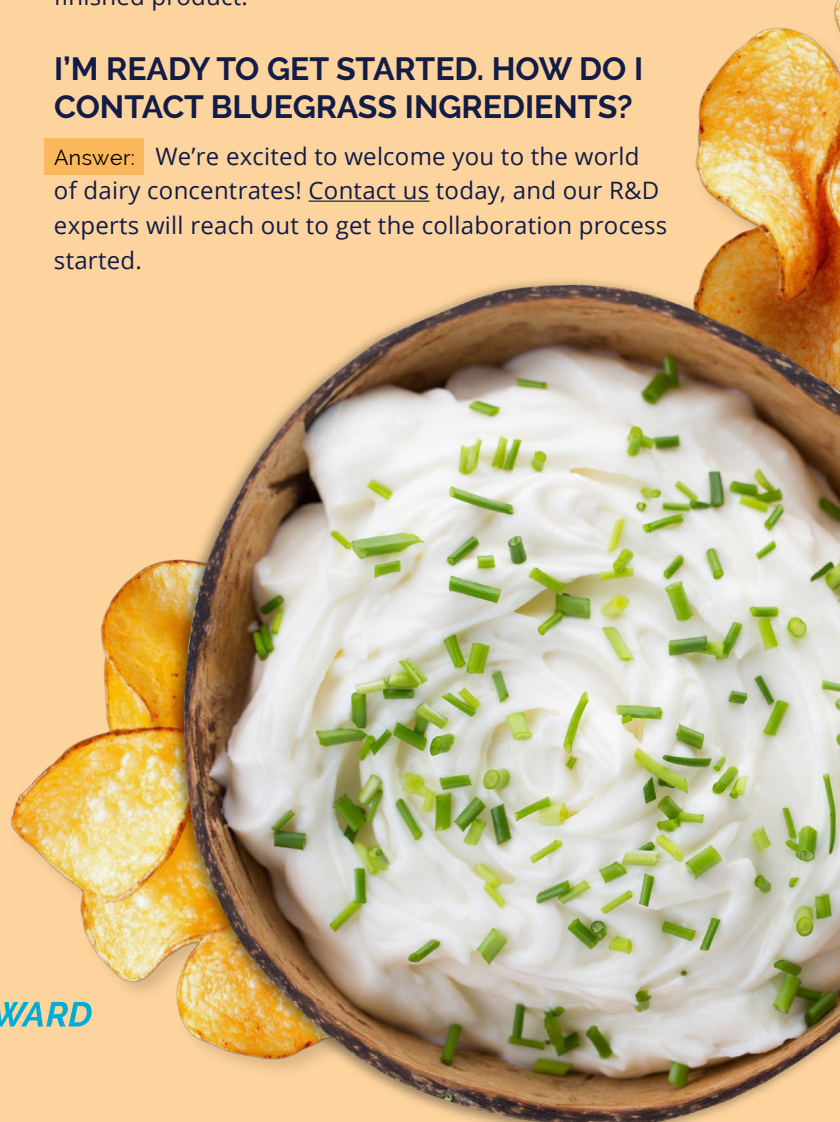
**Answer:** Great news! Bluegrass Ingredients will help guide your switch to dairy concentrates. Here is a general idea of what to expect:

- We'll start in our [Agile Kitchen™](#) by substituting a traditional dairy ingredient with a concentrate. For example, if the original formula uses 10% cheddar cheese, we'll use 1 to 3% of concentrate depending on the strength of the concentrate.
- Next, we'll adjust the formula to lower cost ingredients and compensate for moisture loss and balance the fat content.

Our experts will work with your formula until we replicate, or in many cases, improve the flavor and mouthfeel of the finished product.

## I'M READY TO GET STARTED. HOW DO I CONTACT BLUEGRASS INGREDIENTS?

**Answer:** We're excited to welcome you to the world of dairy concentrates! [Contact us](#) today, and our R&D experts will reach out to get the collaboration process started.



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