

The Power of Foundational Dairy Powders in Application Development

Dairy ingredients provide some of the most recognizable flavors consumers crave. The tang of sour cream, the savoriness of butter, the rich mouthfeel of cream. These flavors are hard to miss in countless foods and applications across categories and cuisines. But there's a more subtle dairy flavor that rounds out the flavor profile of so many products and applications that's a little harder to define. In the industry, sometimes it's called a "dairy note" – it's the comfort that comes from a glass of milk or a pat of butter on a piece of toast.

Food and ingredient manufacturers know dairy notes are a critical part of many consumer trends, and culinary and R&D teams are often tasked with pursuing these flavors. Many dairy ingredients outside of cheese can provide that dairy note, including foundational dairy powders such as:

- Butter powders
- Buttermilk powders
- Cultured powders
- Cream powders

Each of these categories have several variations, and all can play a critical role in imparting that dairy essence in a wide range of applications.



THE BENEFITS AND USES OF FOUNDATIONAL DAIRY POWDERS

Often, these foundational dairy powders can be incorporated into formulations to reduce the need for conventional ingredients like butter or cream without sacrificing that signature dairy note. They're valuable ingredients in developing new products and applications. They offer several production and handling advantages as well.

- Reduced shipping and storage costs
- More predictable product costs and availability
- Extended ingredient shelf life
- Ease of use
- Greater product consistency

These benefits are also attractive for food manufacturers looking to reduce cost or complexity with existing products and formulations. Market volatility impacts the price, availability of ingredients, and specific ingredient profiles vary from manufacturer to manufacturer. When the cost of butter increases, it only makes sense that food manufacturers look for ways to reduce those costs – that could include butter powders.

The challenge is it's rarely a one-for-one replacement. Applications are complex, with countless variables all impacting each other to add up to that signature dairy note. You may be able to replace the flavor of conventional butter with butter powder, but it may alter the level of solids in the formulation, or it may impact the texture in other ways. Or it may affect the ingredient line or nutritional profile. All of these elements add up to a complex, interconnected puzzle manufacturers and culinary teams must work to solve.

At the same time, the overlap in dairy note flavors means the best solution may involve multiple dairy powder ingredients. If the application calls for a nutty flavor from the butter, brown butter powder may play a role in the final application. If a food manufacturer is developing a ranch dip, they may add buttermilk powder in addition to sour cream powder to bring more acidity and bring out the herbs and spices in the final application. Bluegrass Ingredients Culinary and R&D teams can assist in designing the perfect dairy blend to deliver the optimal dairy note.



3 KEYS TO COLLABORATION UTILIZING FOUNDATIONAL DAIRY INGREDIENTS

Bluegrass Ingredients is perhaps best known for its extensive line of **cheese powders** and concentrates, but we offer a comprehensive portfolio of **dairy ingredients**. This gives food manufacturers a wide range of options when developing applications that deliver the dairy note.

Our Agile Ingredient Innovation Model is rooted in deep collaboration with customers and R&D teams. Here are a few ways food manufacturers can make the most of those collaborations.

1 START WITH APPLICATION PARAMETERS IN MIND

Formulations are complex, and solving the challenges that come with application development is rarely a straight line. The more details a food manufacturer can provide about the requirements of the finished product, the better. Is this a reformulation or a fresh start innovation formula? Do you need 60 days on the product, or 190 days? Does it need to meet organic or all-natural labeling requirements?

2 IDENTIFY ALL INGREDIENT FUNCTIONS

Heavy cream adds dairy flavor and texture to many formulations. Does your application have a texture metric? Does it have a specific melt point? What shelf life do you expect? Understanding the full scope of an ingredient's impact on flavor, form and function can streamline efforts to supplement it.

3 SHARE AS MUCH INFORMATION AS POSSIBLE

Formulations and recipes are closely held secrets – and for good reason. Bluegrass Ingredients practices strict confidentiality with all our customers' projects and inquires. But the more information manufacturers can share about their ingredients, processes and business goals, the better the potential for Bluegrass Ingredients to deliver streamlined solutions aligned with your goals, strategic objectives and project parameters.

