NATURAL
DAIRY FLAVOR
SOLUTIONS

Natural Dairy Flavor Concentrates

Explore the world of authentic dairy flavors that deliver the total flavor experience while providing lower cost-in-use than traditional dairy ingredients – Jeneil Natural Dairy Flavor Solutions

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WHITE PAPER

Introduction

Flavor is more than just taste; flavor is achieved through a combination of aroma, texture, mouthfeel, and masking capabilities. Jeneil excels at providing high quality natural dairy flavor concentrates, also known as Enzyme Modified Cheese (EMC), through innovative processes such as natural fermentation and culturing. These authentic dairy flavors deliver the total flavor experience consumers desire, while providing a lower cost-in-use than traditional dairy ingredients.

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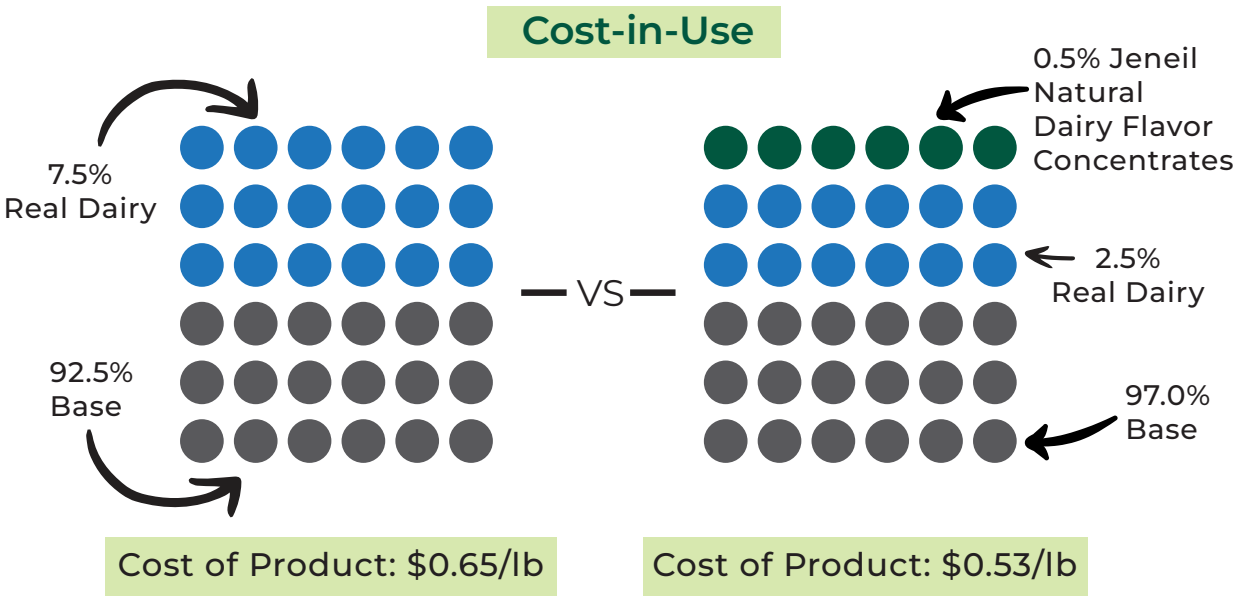
Value:

Jeneil's Natural Dairy Flavor Concentrates are an essential component for the creation of authentic dairy flavors within formulations. These products can provide targeted dairy notes when a natural cheese, cream or butter product would otherwise be too expensive or difficult to process. Natural Diary Flavor Concentrates fulfil several roles across a variety of applications. These flavors can be used as the sole source of cheese flavor (i.e. analog cheese), to give a specific characteristic to bland-tasting products (i.e. processed cheese) or to intensify the overall cheesy taste (i.e. snack foods, soups or sauces)[1].



Jeneil manufactures gold standard Natural Dairy Flavor Concentrates through natural fermentation processes, culturing, and the addition of other natural flavors, which allow developers to create products that deliver the taste consumers expect, but at an affordable price, low use rates and that are easy to use.

Process:

Jeneil's Natural Dairy Flavor Concentrates are developed through a natural fermentation process using enzymes to enhance the flavor profile of raw dairy materials: cheese, cream, or butter.

The process starts with young cheese (3-6 months) with mild overall flavor. Different enzymes are then added to develop specific types of cheese profiles. In this fermentation process, the cheese components, such as fat and protein, are broken down by enzymes and converted into various flavor compounds[1].
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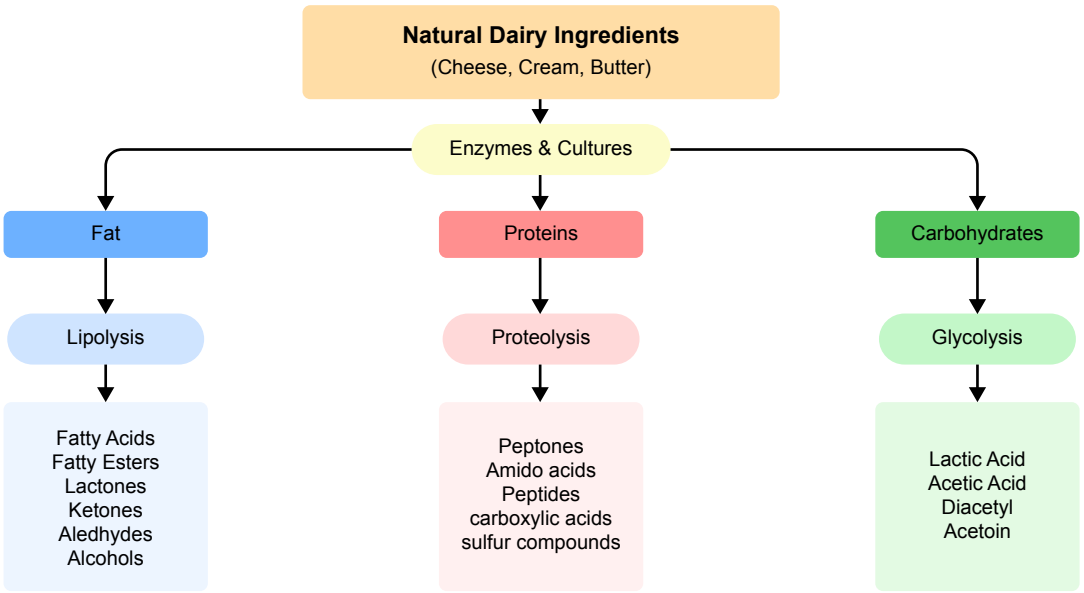


Lipases are used to break down fat into fatty acids that are key flavor components of many types of cheese. Lipolysis plays an important role for cheese flavor development in EMCs, as this process produces high levels of short-chain fatty acids. These fatty acids contribute to the overall flavor profile and intensity, and for some cheese flavors, lipolysis contributes significantly to the finished flavor[2]. For example, 20% of the fat in blue cheese is oxidized to methyl ketones and secondary alcohols[3].

Proteolysis is another important process within flavor development in Natural Dairy Flavor Concentrates. Here, specific enzymes are used to break down the natural protein found in the starting substrate into smaller peptides and then further break these into free amino acids, sulfur compounds or carboxylic acids. Typically, many subtle savory and sulfur notes of the dairy profile are developed during this stage[4].

Lastly, glycolysis of carbohydrates from the use of cultures helps produce several important key flavor compounds. Through this process, lactose is broken down into lactic acid, acetic acid, diacetyl, or acetoin. These key flavors are just as important when creating the balanced flavor profile of many dairy products[1]

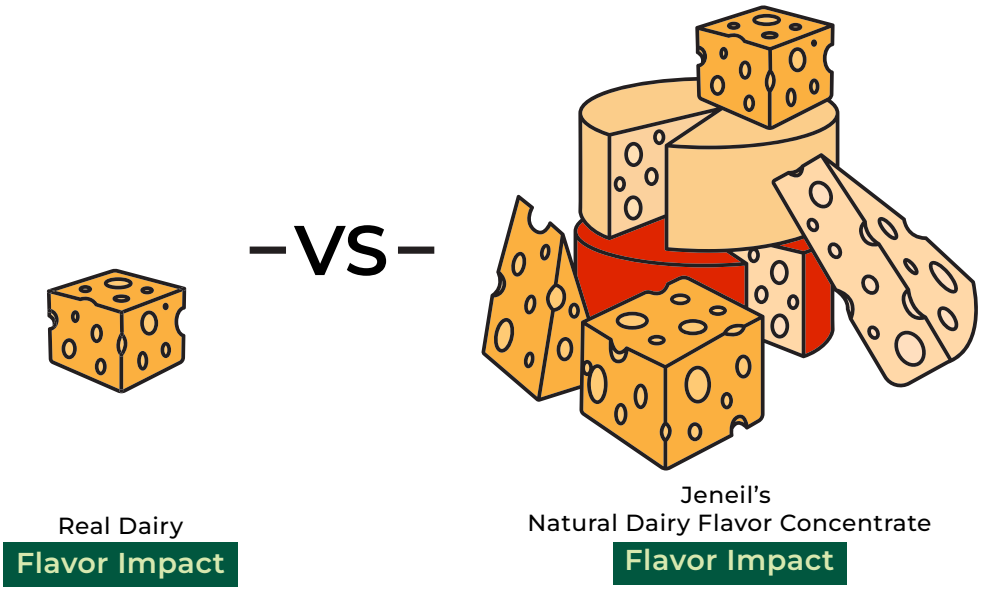
Applications:

Dairy flavors, concentrates or enzyme modified cheese products can be used in many different applications across the food industry. Traditionally, Natural Dairy Flavor Concentrates were used in the production of processed cheese, but today, they are used in several different applications, including but not limited to snacks, sauces, dips, dressings, bakery, and beverages. These flavors can help standardize and enhance many flavor profiles within these applications as well as the consumer's flavor experience.

Jeneil offers a wide range of dairy and cheese flavors such as Cheddar, mozzarella, parmesan, Swiss, Romano, Cream Cheese, Blue, Buttermilk, butter, cream, and specialty cheese types. Jeneil can also provide more specialty dairy flavors if it's a specific profile of cheddar or a specialty cheese type like Manchego or Langenburg.

Benefits:

The process of making Natural Dairy Flavor Concentrates optimizes the natural fermentation of cheese to produce a concentrated flavor in 2-5 days that can supply a high impact flavor at 0.5-2% usage rate in the finished formula. These products have 6-to-24-month shelf lives, providing an advantage of increased flavor stability when compared to traditional dairy ingredients.



Jeneil's Natural Dairy Flavor Concentrates not only add rich dairy flavors with better mouthfeel, texture, and overall flavor stability, but also help round out any harsh notes and mask off-flavors in several different applications. Jeneil offers a large selection of unique flavor profiles and functionalities that deliver consumer-pleasing products. For applications with harsh temperature treatments, such as retorting, Jeneil offers a unique line of high-heat stable flavors that provide a clean dairy flavor and mask many of the off-notes that are developed. Many of Jeneil's Natural Dairy Flavor Concentrates can also provide a variety of requirements and certifications many consumers are looking for in their food, from certified kosher to non-GMO and many more.

Natural Flavor · SMETA Sedex · Minority Owned Business Certified · EU Certifiable · Non-GMO Certifiable · SQF Certified · Kosher Certified · IFANCA Certified Halal

History:

Enzyme Modified Cheese products were developed in the late 1960s to achieve an aged cheese flavor with less time (2-5 days verse 6-12+ months). At the time, the world cheese production had more than doubled and more food products were using or wanting cheese flavors. This increased the demand for a higher intensity cheese flavor, which lead to the development of EMCs and Natural Dairy Flavor Concentrates[5].

Jeneil's founder, Dr. N. R. Gandhi, is considered the pioneer of Enzyme Modified Cheese, and participated with the FDA to aptly discuss its composition, define its applications in the industry, and choose a suitable name for this novel ingredient. To continue the legacy that Dr. N. R. Gandhi began, Jeneil's dedicated R&D continues to build on the foundations of fermentation technology to contribute additional specialization and product development to developing Natural Dairy Flavor Concentrates.

Commitment:

Jeneil is committed to providing high-quality authentic Natural Dairy Flavor Concentrates. These flavors provide functionality and flavor, create flavor solutions throughout a wide range of applications and keep overall costs low.

Partner With Jeneil

A Family Legacy
50+ Years of Expertise

Our pioneering innovation in microbial fermentation technologies and natural flavors yields breakthrough ingredient solutions. As a family-owned and operated solution provider, our quality proposition is trusted - second to none!
We serve the specialized natural ingredient needs of our valued global partnerships throughout Food & Beverage, Flavors & Fragrances, Human & Animal Health, and Agricultural industries.

Your limit is where our innovation begins. Discover our natural Solutions:

Contact Jeneil Biotech
Fill out our simple contact form to request a sample, phone call or visit.
Contact Us >
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