

Emphasize the unique benefits of dairy proteins

Companies and consumers can win with U.S. dairy.



By Kara McDonald

As consumers worldwide look for ways to increase their protein intake throughout the day, multinational food and beverage companies are looking to diversify sourcing. Selecting a single protein source has advantages. Many types of meat, dairy, egg, plant and single-cell proteins are marketed for use, and with so many choices, food formulators need to be well informed to deliver what consumers want.

U.S. dairy proteins uniquely address formulator needs to meet consumer demands for sustainably produced, nutritious, functional, versatile and securely sourced ingredients. They also work well with vegetarian and flexitarian food preferences.

Simple formula

While all animal-based and most plant-based foods contain some amount of protein, not all proteins are created equal. Proteins differ in their quality based on amino acid content, digestibility and bioavailability.

Dairy proteins are considered high-quality complete proteins since they contain nutritionally significant quantities of all the essential amino acids (EAAs). Except for soy protein, plant proteins are typically considered lower quality and incomplete due to deficiencies in EAA quantities required by the body.

While blending proteins with EAA content can address gaps in protein quality, having a single-source protein mitigates potential ingredient-to-ingredient interactions.

Upon consumption, the human body digests protein into amino

acids for further absorption and use. While all EAAs are critical to the support of muscle protein synthesis (MPS) to build, grow and repair body tissues, the amino acid leucine is key in stimulating the initiation of MPS. Dairy-based proteins generally contain more leucine than plant-based proteins do. Because dairy protein ingredients contain concentrated levels of leucine, fewer grams and fewer calories may be required for efficacy within a formulation.

Simple ingredient list

Unlike plant/nut-based sources, dairy proteins are naturally found in liquid form (milk). Therefore, physically separating and isolating them is easily accomplished without extra milling steps or the addition of chemicals to keep them in solution.

In addition to fewer processing steps, the fresh, neutral flavor and creamy texture of proteins from U.S. milk easily enhance a variety of products that people enjoy. In many applications, plant proteins require the use of flavor maskers and stabilizers to achieve consumer acceptance, resulting in longer and more complicated ingredient statements.

Superior sensory experience

Dairy protein ingredients consistently meet the processing requirements of food companies and the sensory needs of consumers. Many new protein sources are still working through these challenges.

According to research conducted by North Carolina State University, U.S. dairy proteins are mild-flavored and exhibit sweet, aromatic and milky

attributes, while some plant sources exhibit stronger and less desirable beany, earthy, sulfurous and sour notes. These differences mean dairy proteins can offer more versatile sensory experiences because they complement rather than overpower the flavors of the foods and beverages to which they are added.

Tasteful solutions

U.S. dairy proteins are uniquely positioned to add nutrition to foods that aren't naturally high in protein, delivering on consumer demand without compromising enjoyment. To provide consumers with more options, food manufacturers are developing innovative products that incorporate dairy proteins into various snacks, baking mixes, beverages and more.

Beyond taste, formulators see added benefits from utilizing dairy protein ingredients, including improved appearance, shelf life and texture. Consumers can also easily incorporate whey protein into their diets directly by combining it with smoothies, yogurt, oatmeal, pasta and more to increase their protein consumption throughout the day.

As the world's largest producer of dairy proteins, the U.S. dairy industry can help formulators meet consumer demand for clean labels and day-to-day convenience at production scale.

Visit ThinkUSAdairy.org for more information about nutrition and applications with U.S. dairy products and ingredients. ■

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