Powdered beverages combine flavor, function in an affordable package

Cargill® Helping the world thrive

Make no mistake, powdered beverage mixes have been around a long time.

Edwin Perkins gets credit for pioneering the idea in 1927, when he whipped up what came to be known as Kool-Aid® in his mother's kitchen. Then in the 1960s, NASA gave the category a rocket-powered boost by sending orange-flavored Tang® along on its Gemini and Apollo missions.

Today, the category has grown far beyond its sugar-laden roots, encompassing everything from fiber-fortified shakes to meal-replacement powder mixes, all available in a variety of packaging – including multi-serve canisters, single-serve packets and novel fizz tabs.

Cargill's Vince Cavallini, the company's beverage application manager, contends drink mixes offer several advantages over their ready-to-drink (RTD) cousins. Chief among them: price.

Powdered mixes are often significantly less expensive on a per-serving basis vs. their canned and bottled competition.

Lightweight and easy to ship, powdered beverages also appeal to environmentally conscious shoppers looking to reduce packaging waste.

Plus, they allow consumers a chance to individualize their beverage choice. "In an age where some consumers want more personalized options, dry beverage mixes are easy to customize," Cavallini notes. "With powdered mixes, shoppers can add extra protein or create their own, unique beverages enhanced with fresh fruit, yogurt or other add-ins."

Sweet on stevia

Cargill offers a wide range of ingredients that formulators rely on to create dry beverage mixes, including a number of options that can help beverage makers deliver on consumer interest in better-for-you products.

Sugar reduction is a prime example. "Whether crafting a powdered drink aimed at kids or creating a protein-packed mix for the health enthusiast, consumers are paying attention to sugar content," Cavallini explains. "Stevia products work great in these mixes, delivering the sweet taste consumers expect – with little or no added sugar."

Cargill's portfolio includes ViaTech® stevia leaf extracts, which enable up to 70% sugar reduction. Or, for even deeper sugar cuts (up to 100%), the company offers EverSweet™, a stevia sweetener made via fermentation.

"With EverSweet™, formulators can access the best-tasting parts of the stevia leaf, Reb M and Reb D," Cavallini says. "It's a dramatic step forward, providing a higher sweetness intensity, faster sweetness onset, and a more rounded and robust sweetness profile." The result is an improved sweetness quality without the bitterness or licorice aftertastes often associated with early attempts at deep sugar cuts using stevia.

"Taste is absolutely critical," Cavallini emphasizes. "If doesn't taste great, consumers won't drink it, and they certainly won't buy it again." Fortunately, Cargill's ViaTech® and EverSweet™ stevia products eliminate taste barriers, clearing the way for reduced- and no-sugar dry mixes that deliver on consumer taste expectations.

Power up for protein

Protein drink powders have long been a big part of the dry beverage mix space, and their popularity continues today. While soy and whey protein still have a place, consumers are increasingly embracing products made with some of the newer plant proteins.

“Many of these options come with inherent flavor challenges,” Cavallini warns. However, the beverage scientist says Cargill’s pea protein has a great taste profile. It’s sourced from yellow pea seed varieties especially selected to minimize the off-flavors normally attributed to pulses.

“We’ve completed quality descriptive analysis testing, and some of our customers have done their own comparison testing,” Cavallini adds. “Consistently, PURIS™ pea protein comes out on top.”

Dry beverage mixes can also serve as vehicles for fiber fortification. Chicory root fiber, with its neutral flavor, makes it easy to boost the beneficial dietary fiber content of most any powdered beverage. Fiber fortification can help reduce the well-recognized dietary fiber gap for consumers. Unlike many fiber choices, Cargill’s Oliggo-Fiber® chicory root fiber won’t add viscosity when mixed with water.

To round out dry beverage mix formulations, Cargill also offers hydrocolloids, starches and maltodextrins. Product developers rely on these products to add viscosity and mouthfeel – a necessity for many reduced-sugar beverage mixes.

“Drink powders made with high-intensity sweeteners tend to be a little ‘thin’ when used alone,” Cavallini explains, adding that Cargill can help formulators find the right texturizing solution to replace sugar’s bulk and recreate its mouthfeel.

Then there’s lecithin, which helps keep everything free-flowing. Beverage mixes have lecithin to thank for reducing lumps, preventing clumping and caking, and improving texture and mouthfeel. It also boasts emulsifying properties, helping to wet and disperse ingredients in cold water, milk and other liquids.

Powder purview

Once relegated to soccer team coolers and lemonade stands, powdered mixes can now be found in gym bags, purses and kitchen cabinets, with shoppers of all ages embracing them as a way to enhance the flavor and nutritional content of water, milk and other base beverages.

Their proliferation is proof that powdered drink mixes have plenty to offer, delivering convenience and value in an environmentally friendly package. Whether shoppers opt for single-serve packets or mega-sized canisters, these instant drinks provide an affordable way to refresh and rehydrate.

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