BeverageDaily

The latest tech in the sugar reduction toolkit

By Rachel Arthur

From honey truffle protein to sugar separation solutions: advances in technology sweeten the deal for beverage reformulation.

Soda and other soft drinks have long been in the firing line in the war against sugar. They are, in many cases, the largest contributor to added sugar intake in many diets.

And yet, advances in tech provide beverage brands and manufacturers with an increasingly strong toolkit for sugar reduction. Beverages, already a key target for reformulation, can now benefit from novel ideas that can be tailored to each product.

Why reduce sugar? The health benefits are clear: high sugar intake contributes to weight gain and metabolic disorders. Consumers are demanding products with less sugar and fewer calories.

But there's also regulatory pressure: with governments around the globe looking to soda taxes or advertising restrictions to curb sugar reduction.

We take a look at just some of the latest tech for the beverage industry.

Honey truffle sweetness: coming in 2026

Honey Truffle Sweet Protein is a new, naturally derived, high-intensity sweetener that pledges to reshape sugar reduction.

Confronting one of the food industry's most critical challenges, MycoTechnology uncovered this sweet protein from the honey truffle, a uniquely sweet species of truffle that has been consumed for thousands of years.

Top selling points? "Honey Truffle Sweet Protein will offer an unparalleled solution to create food and beverages that are not only delicious and healthy, but also cost-effective and sustainable," the company told us. "It delivers a clean, sweet taste with minimal off-notes, offering a groundbreaking solution for low- and no-sugar products."

MycoTechnology's advanced fermentation technology ensures that Honey Truffle Sweet Protein can be produced sustainably, at scale, and at a competitive cost. The ingredient is currently in development including testing across various product applications and will be introduced to food and beverage markets in 2026.

Patented sugar separation tech

BlueTree Technologies offers a patented, FDA- and EU- approved sugar reduction technology that physically removes sugar from beverages without adding anything (enzymes, chemicals, water, etc.).

Launched as a prototype in 2022 and then boosted to an industrial scale in 2024, it reduces sugar by up to 50% in juices and 75% in milk, while preserving the beverage's original taste, texture, and nutritional value.

The patented technology combines different separation techniques to selectively eliminate sugar molecules from liquids. By focusing mainly on removal of specific sugar molecules, it can safeguard essential nutrients and maintain aroma, texture, and other molecule- derived sweetness levels.

The turnkey, modular system integrates directly into existing production lines with zero downtime and minimal workflow disruptions to manufacturing and production operations.

Designed for scalability, BlueTree supports both small- batch and large-scale production, allowing beverage makers to reduce sugar meaningfully as they grow, without sacrificing quality or efficiency.

The technology applies to a wide range of natural beverages, including juices, dairy products, and beer, and helps manufacturers meet growing consumer and regulatory demand for lower- sugar options while keeping products natural, great-tasting, and free from additives.

New stevia innovation

SteviUp M2 is Layn Natural Ingredients' latest stevia innovation, newly launched in July 2025, and developed to overcome the common taste and solubility challenges of traditional Reb M.

With FDA GRAS (GRN 1203) status, this next-gen sweetener delivers a cleaner sweetness (about 200 times sweeter than sugar) without the bitterness or lingering licorice notes often associated with stevia.

What makes SteviUp M2 stand out? The company told us the 'superior solubility and fast, complete dissolution with no clouding, ideal for clear and ready-to- mix beverages'. It's also highly formulation-friendly: standardized to 95% total steviol glycosides, non-GMO, and compatible with clean-label and special dietary needs including kosher, halal, gluten-free.

SteviUp M2 is suited to RTDs, powdered drink mixes, and a variety of functional beverages, especially where clarity, taste, and solubility matter most.

New launch: Softening sweetness curves

Imbibe has just expanded its SweetSense portfolio, a line of sweetness modulators designed to improve taste in today's most complex beverage applications. SweetSense enhances sugar-like perception, rounds off sharp sweetness peaks, and reduces bitterness or lingering off-notes often associated with high- intensity sweeteners such as stevia or monk fruit.

The latest addition, SweetSense PW-4, is specifically engineered to soften sweetness curves and deliver a more balanced, enjoyable flavor profile: helping developers achieve sugar reduction and clean label goals without compromising on taste.

What sets SweetSense apart is its ability to perform across a broad range of challenging formulations, including those with plant proteins, caffeine, botanical extracts, dairy alternatives, and high-nutrient density bases. Unlike conventional taste solutions, SweetSense works synergistically with other taste modulators to improve mouthfeel, balance, and overall flavor delivery.

Available in both liquid and powder formats, SweetSense is suitable for sports nutrition, functional and performance beverages, alcohol alternatives, and children's nutrition. Its versatility makes it a powerful tool for brands navigating reduced-sugar and better-for-you innovation.

Keeping it clean

Kerry's Tastesense Advanced, the latest innovation within its sweetness optimization portfolio, sets out to tackle the bitterness that often comes with high- intensity sweeteners.

The Tastesense Advanced technology enables manufacturers to achieve 'No Added Sugar' or 'Zero Sugar' declarations in beverages, going beyond 30% sugar reduction while maintaining a clean taste and label. This versatile solution addresses upfront sweetness, authentic mouthfeel, and challenges with bitter off-notes.

"What sets our solution apart is its clean taste compared to other market options," Guillaume Blancher (Global Portfolio Director, Tastesense) at Kerry, told us.

"Our proprietary production process provides greater control and flexibility over the sweetness taste profile. We understand that every taste challenge and beverage application is unique. The real breakthrough of our Tastesense Advanced platform lies in how our applications teams tailor this technology to meet each customer's specific taste challenges."

The tech promises to improve the taste of zero sugar beverages, enhancing the quality perception in Low & No Alcohol products, reducing sugar content in challenging applications like juice drinks and dairy, and improving taste in energy & functional drinks.

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