Technical Tips When **Reducing Sugar**



Formulating sweet treats and beverages for consumers is more complicated than ever. With demands for indulgent, sweet taste profiles that also meets health expectations, consumers want the best of both worlds. While there isn't one perfect solution to replace sugar, there are various options you can explore to overcome taste challenges.

At McCormick Flavor Solutions, we understand the technical challenges of sugar reduction. Check out the tips below to help you develop and define taste impact when sugar is reduced.

Tip 1: Taste Maskers + Sugar Alcohols & High Intensity Sweeteners

The biggest challenge when using a sugar alcohol is it tends to have a cooling mouthfeel. Many formulas pair sugar alcohols with high-intensity sweeteners such as stevia, monk fruit, sucralose, or aspartame—sweeteners with a lingering sweetness and notorious bitter or metallic after-taste. Adding a taste masker to a formula can cover aftertastes and off-notes associated with sugar alcohols and high intensity sweeteners.

Communicating your sweetener ingredients and desired taste profile to your flavor supplier is key. This ensures the appropriate masking agents are recommended for your formula.

Tip 2: Leverage Sweetness Enhancers & Complimentary Flavors

Some product developers prefer not to replace sugar in their products with alternative sweeteners because it doesn't align with their portfolio or brand, however, they still want to reduce the amount of sugar in their product. In this case, formulators may want to consider adding sweetness enhancers or complimentary flavors. Sweetness enhancers help modify the intensity of a perceived taste without adding any characterizing notes or sugar, and flavors like vanilla, maple, or caramel can have a similar effect by boosting the perceived sweetness of a product.

Tip 3: Protect your Maillard Reaction

Sugar not only provides a sweet taste, but also creates structure, texture, mouthfeel, and color in a product. One way it does this is through the Maillard reaction—a chemical reaction between an amino acid and a reducing sugar in the presence of heat. This is what gives baked, toasted, or caramelized food its brown color and distinct taste profile. When sugar is reduced, some of these unique flavor notes will be lost. Adding sweet brown notes as part of your flavor system can help maintain the taste profile associated with Maillard reaction without compromising the taste integrity of your product.

Tip 4: Be Specific: Sugar Types Matter

Different types of sugar have varying sweetness impact and taste profiles. Light Brown Sugar, Dark Brown Sugar, Molasses, Turbinado, Muscovado, and Demerara each have their own unique flavor profiles. Communicating the type of sugar being reduced or removed from your formula and the desired sweet profile you're looking for is another important key to ensure your McCormick flavor house creates the right flavor or custom modifiers

Having taste challenges when reducing sugar? We're happy to help.

Contact us or click to request a FREE sweetness modifier sample

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