

SUGAR REDUCTION TECHNICAL TIPS

With Senior Scientist Sandy Scaliatine

Formulating sweet treats and beverages for consumers is more complicated than ever. With demands for indulgent, sweet taste that also meets health expectations, consumers want the best of both worlds. While there is no one perfect solution to replace sugar, there are various options you can explore with your flavor house to overcome taste challenges.

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

Sandy Scaliatine
Senior Food Scientist



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; and many formulas pair sugar alcohols with high-intensity sweeteners like stevia, monk fruit, sucralose, or aspartame—sweeteners with a lingering sweetness and notorious bitter or metallic after-taste. Adding taste masker to a formula like this 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 to ensure the appropriate masking agents are recommended for your formula.

TIP 3

Protect Your Maillard Reaction

Sugar not only provides sweet taste, but also creates structure, texture, mouthfeel and color in a product. One way it does this is through 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 2

Leverage Sweetness Enhancers & Complimentary Flavors

Some product developers prefer to not replace sugar in their products with alternative sweeteners because it doesn't align with their portfolio or brand, but 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 added sugar, and flavors like vanilla, maple, or caramel can have a similar effect by boosting the perceived sweetness of a product.

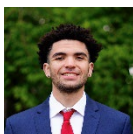
TIP 4

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 its own unique flavor profile. 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 flavor house creates the right flavor or custom modifiers to meet your product's taste target without the added sugar.

Searching for sweet victory?

We can help. Contact your account manager, or Josiah Gartner:



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