



Sweetener dreams: Top myths about alternative sweeteners

“Artificial sweeteners – I never touch the stuff.” Those are the thoughts of Jan, a kindergarten teacher in Colorado.

“I don’t use saccharine, but I never drink coffee without my Sweet ‘N Low,” said Paul, a retired police officer in upstate New York.

“Products with stevia have a bad aftertaste. I really wish I could find low-calorie and low-sugar products that don’t taste strange,” said Kathy, a millennial social worker in Seattle.

To be sure, many sweeteners have a long history, but it doesn’t seem to matter who you’re speaking to, consumer perceptions about sweeteners are wildly contradictory and emotional. They either love their sucralose, swear by agave or wouldn’t touch either with a 10-foot pole. It’s enough to give product formulators a nightmare.

And in this age of alarming health statistics and warnings from media and healthcare professionals, pressure is increasing to formulate products to help address these health issues. As demand for healthier products grows, alternative sweeteners do offer increasingly viable options to address both formulation challenges and consumer preferences in baked goods, beverages, desserts and spreads. But there also is a lot of conflicting information about how well these ingredients work, how much they affect a product’s taste, and how natural they really are. It is little wonder consumers are confused.

Here are some of the myths and facts about emerging sweetener ingredients:

MYTH: Many alternative sweeteners are not natural.

FACT: Now there are a variety of sweeteners made from natural sources that are incorporated into many foods and beverages.

- **Stevia is an herb that is native to Latin America.**

This sweetener is extracted from the leaves of the plant species, *Stevia rebaudiana*. The sweet compounds of the stevia leaf are called steviol glycosides, which are 150-350 times sweeter than sugar. Stevia leaf extract has made significant inroads in the marketplace as a useful, heat-stable, zero-calorie ingredient for beverages and baked goods as well as dairy.

- **Erythritol, a sugar alcohol, is naturally present in fruits like berries and certain vegetables.** It is commercially produced via fermentation. As a sugar substitute, erythritol can mask the aftertaste of intense sweeteners and is useful in many reduced-sugar and sugar-free products. Consumers may be wary of the chemical-sounding name, but erythritol is actually a naturally derived, zero-calorie sweetener made from plant-based sugars. It is not only a great alternative for taste and caloric reasons, it’s also proven to deliver oral health benefits plus it’s easy to digest.

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MYTH: Artificial and low-calorie sweeteners have an unpleasant aftertaste, especially at high usage.

FACT: Some sweeteners, such as saccharin and stevia, may have had a lingering, bitter aftertaste, but technology is addressing these issues, particularly with stevia leaf extract. There are now high-performance stevia ingredients that can be used at higher levels, while still achieving optimal taste and sweetness without the aftertaste. Cargill's ViaTech® stevia sweeteners, for example, can achieve a sugar reduction of 50 percent or more, even in difficult product applications, such as carbonated soft drinks. Cargill has spent years researching the interactions of steviol glycosides, the chemical compounds responsible for the sweet taste of the stevia plant's leaves. Having charted the various interactions of these compounds and how they taste together and alone, Cargill scientists have found the right combinations of interactions to emphasize sweetness while reducing the bitter and licorice side tastes. Its proprietary taste prediction model can pinpoint combinations of steviol glycosides for optimal sweetness with superior performance at higher usage levels.

MYTH: There are some great new sweetener solutions, but they make my product just too expensive.

FACT: It is sometimes true that to take out one ingredient, such as sugar, formulators have to add several others to make up for it, driving up the cost of a low-calorie or reduced-sugar product. While the taste-to-cost ratio of a product is always a challenge, some of these obstacles can be addressed by working with an established ingredient supplier that has a strong background in sweetener technologies, with broad resources for research and development, regulatory, and application expertise. This valuable experience can ensure a reliable supply, provide efficiencies in product development and regulatory support, while also keeping costs in line.

With so much misinformation and marketing hype about sweetener ingredients swirling around, some consumers are likely to remain confused and that does a disservice to the whole category. It boils down to companies and third party organizations communicating truthful, transparent and science-based facts about products. A step in the right direction is to look for ingredients with a solid scientific foundation and then understand what your customer most wants from a reduced-sugar product. Do they care more about low calories or a clean label? From there, science and performance will lead to successful, tasty and healthful products.

Though the search for new sweetener technologies will certainly continue, for the present, product developers need not lose sleep over reduced-sugar formulations.

For more information about Cargill's ingredients ideal for formulating products with reduced sugar visit [Cargill.com/sugarreduction](https://www.cargill.com/sugarreduction).

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