



## **SWEET SPOT:**

The growing interest in  
stevia sweeteners

Americans have a love/hate relationship with sugar. They love foods that taste sweet, but growing numbers of consumers now also realize that they need to eat less sugar and, at the same time, have mixed opinions about alternative sweeteners. What's a product manufacturer to do?

The situation is not as bleak as it seems. But it is true that American attitudes towards sugar and sweeteners are changing. For instance, increasing numbers of Americans now associate sugar with weight gain. According to the 2018 Food and Health Survey from the International Food Information Council Foundation (IFIC), one third of respondents now say that they see sugar as the source of calories most likely to cause weight gain (up from 25% in the 2016 survey) and more than three in four now say they are taking measures to limit or avoid sugars in their diets.

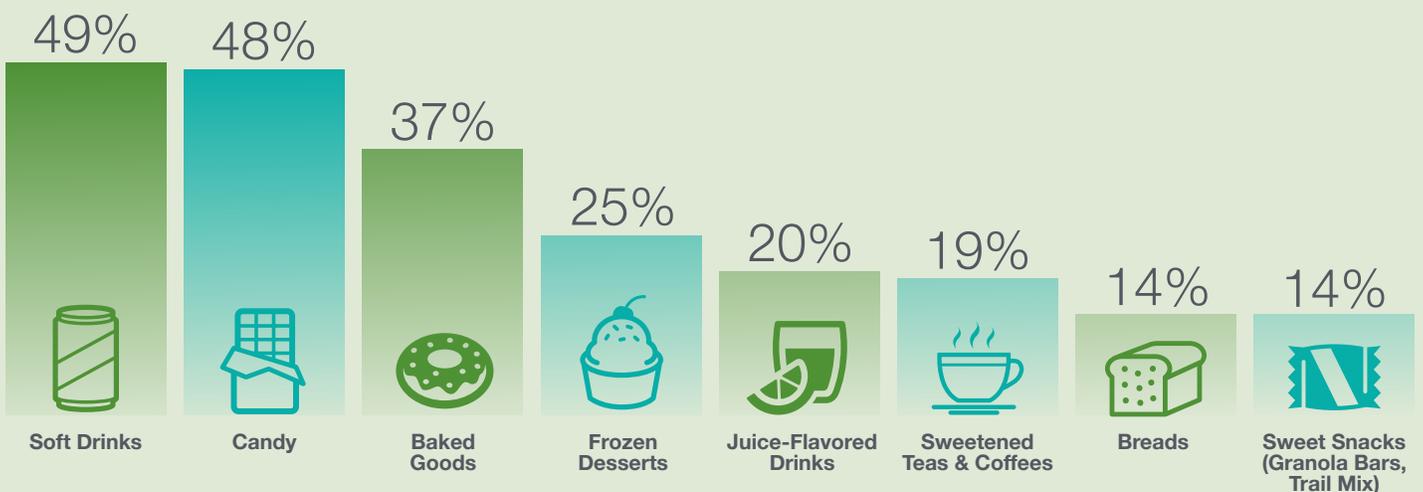
This has, not surprisingly, had an effect on brand sales and product development, with significant numbers of consumers now noting they are eliminating certain foods from their diets to reduce their sugar consumption.

With both sugar and artificial sweeteners suffering from poor perceptions, it leaves product developers with limited choices. However, natural sweeteners are viewed more favorably and are becoming a viable option. According to respondents in a 2016 Mintel survey, 26% of respondents indicated they would like to see more food and drinks that use naturally-sourced sugar substitutes (e.g. stevia).<sup>1</sup>

Consumers are increasingly interested in low- and no-calorie sweeteners, selecting products with these ingredients to help them consume less sugar, manage diabetes, consume fewer calories and lose weight, according to the 2018 IFIC survey. What's more, nearly one in four now have a positive opinion about low- and no-calorie sweeteners, with 17% saying their opinion about these sweeteners has become more positive in the past year.<sup>2</sup>

## Types of foods and beverages eliminated to reduce sugar consumption

(Of those eliminating foods and beverages to limit/avoid sugar)



Source: 2018 Food and Health Survey, IFIC

## Stevia hits the spot

This shift can be attributed, at least in part, to the growing use and interest in stevia-based sweeteners. From a consumer perspective, stevia provides an answer to several key demands – being extracted from the stevia plant, these sweeteners are label-friendly and provide a sweet taste without sugar or calories. For product formulators, it has become a versatile ingredient that can address both the technical issues of formulating without sugar, while also maintaining a label-friendliness in a variety of food and beverage applications.

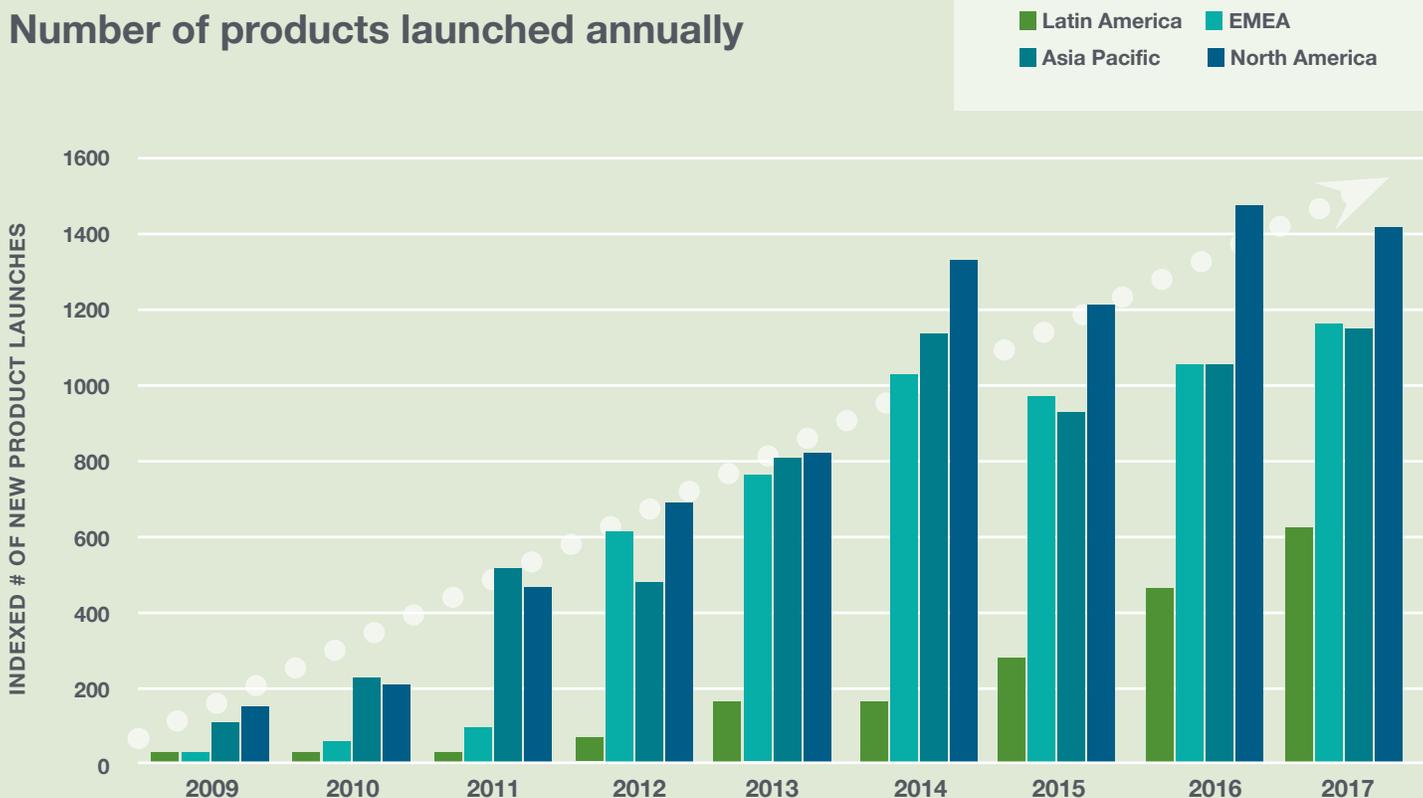
Stevia is a plant that is native to Latin America. High-purity stevia sweetener is extracted from the leaves of the plant species, *Stevia rebaudiana*, and is approved for commercial use in many regions around the world. The sweet parts of the stevia plant are called steviol glycosides, which are at least 150 times sweeter than sugar and heat-stable.

A variety of high-intensity sweeteners made with the high-purity stevia leaf extracts are now available and have a sweet taste similar to sugar, while keeping calories in line in numerous applications. Cargill is improving the capabilities of stevia ingredients by examining how they provide sweetness, and determining an optimal ratio of the over 50 different steviol glycosides in the stevia leaf for various product applications, while also reaching calorie-reduction goals from 30% to 100%.

## Next-generation steviol glycosides

In addition, a next-generation of steviol glycoside ingredients is now available, marketed under the EverSweet™ sweetener brand, and delivering the same Reb M and Reb D sweetness found in the stevia leaf, but made via fermentation. These compounds can reduce calories by up to 100%.

## Number of products launched annually



Source: Innova Database

Providing enough Reb M and Reb D for commercial development was initially a challenge. The problem was that these compounds make up only 1% of the stevia leaf, and would require immense quantities of the stevia plant to create the sweetener for commercial usage. Cargill solved this problem by using the age-old technique of fermentation to transform baker's yeast and simple sugars into the steviol glycosides Reb M and Reb D. The company's new Eversweet™ steviol glycoside sweetener is creating new classes of reduced-sugar products that taste great, are cost-efficient and are produced with the environment in mind.

Early on, stevia was first embraced by manufacturers in product categories that were on the front lines of the sugar reduction fallout – chiefly beverages, including juices, flavored waters and sodas. Stevia leaf extracts have become so popular in these categories that close to one in four global beverage launches now contain stevia-based sweeteners.<sup>3</sup>

These success stories, coupled with the advances in stevia-based extracts and steviol glycosides, have prompted further use of the ingredients across many product categories. According to Innova data from September 2017, overall stevia product launches have seen continuous growth globally since 2011 and spread to virtually all product categories.

As stevia-containing products gain familiarity and traction in the market, their perception is improving among consumers, which helps drive product purchases. According to Mintel, more than half of consumer

respondents now see stevia ingredients in juice products as healthy, natural and tasty, with nearly 50% calling them “exciting.”<sup>4</sup>

The majority of stevia product launches are in new products, not reformulations,<sup>5</sup> so these ingredients are also prompting significant innovation in many product categories, from energy drinks and baked goods to frozen treats and desserts. As a result, the market is now seeing expanding product launches featuring low-, no- or reduced-sugar claims, especially in segments like bakery and dairy products.<sup>6</sup>

With so much versatility from stevia leaf extracts and steviol glycosides, it is unlikely that the trend toward low- and reduced-sugar products will slow down anytime soon. But the good news is that, as manufacturers continue to hone in on the specific preferences of their customers for good taste, label-friendly ingredients and lower-sugar characteristics, they now have increasingly versatile and cost-effective stevia ingredient options for products across a wide spectrum of applications.

### References

- <sup>1</sup> Mintel. Sugar and Sweeteners, December, 2016.
- <sup>2</sup> International Food Information Council Foundation. 2018 Food and Health Survey, <https://www.foodinsight.org/2018-food-and-health-survey>
- <sup>3</sup> Innova Market Insights, 2015.
- <sup>4</sup> Dornblaser, L. “Understanding Consumer Perceptions to Sweetened New Products.” Mintel Research. <https://www.globalfoodforums.com/wp-content/uploads/2016/11/1-Understanding-Consumer-L.Dornblaser-1.pdf>
- <sup>5</sup> Innova North America. September, 2017
- <sup>6</sup> Dornblaser, L. “Trends in Sugar, Sugar Reduction and Sweetness. Prepared for the 34th Annual Sweetener Symposium.” Mintel GNPD. <https://sugaralliance.org/wp-content/uploads/2017/08/lynn-dornblaser.pdf>

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