



## FORMULATORS' ROUNDTABLE:

# Frequent Snacking Puts Focus on Sugar Content

## A snack is no longer considered an occasional treat – it's become part of consumers' daily diets.

In a trend that's been termed the “snackification” of America, 94% of consumers now consume smaller bites at least once daily, frequently in place of a more traditional meal.<sup>1</sup> With snacks contributing as much as one-third of daily calories, they can play an important role in overall nutrition.<sup>2</sup> Consequently, the bar is being raised on snacks' nutritional profiles – and sugar is squarely in the spotlight.

We sat down with several of Cargill's formulation experts – including Angela Bonnema, PhD, Senior Nutrition and Food Scientist; Wade Schmelzer, Principal Food Scientist; and Carla Saunders, Senior Marketing Manager – to discuss some of the pressures snack manufacturers are currently facing, as well as solutions they've developed to address new needs.

### Q. With snack foods often serving as meal replacements, would you say snacks are under more scrutiny?

**A. ANGELA:** Now that we've fully covered the sugar-sweetened beverage space, the focus is definitely on snacks. We've seen a ton of work around reducing sugars and added sugars, especially now that there's more distinction between “total” and “added” sugars on the label.

**WADE:** In the snack space, it's coming down to consumer perceptions of what's important. That may be sugar content in the single digits; it may be bringing health in through added protein. We're trying to manage against those expectations while delivering on a taste standpoint.

### Q. What types of snacks are you most commonly seeing customers being pressured to reduce sugar in?

**A. WADE:** When you're looking at replacing a meal, that's typically beverages or a bar product.

**ANGELA:** Consumers are very aware of protein and the fact that it can help them feel fuller longer. Beyond bars and beverages, we're seeing protein in chips, crisps, and trail mix. Gummies have also been huge. Parents consider them a healthy snack and want to see reduced sugar there. We've even been doing recent work in marshmallows – reducing sugar to less than 10 grams, so people can still enjoy that product without consuming excessive added sugar calories.

**WADE:** There are also times people want to treat themselves but feel better about it. Think about the ice cream space or caramel corn. When we can minimize the amount of sugar there, that makes it ok to indulge.

The global healthy snacks market is forecasted to reach

**\$32.9 billion**

by 2025, growing at a CAGR of 5.2%.<sup>3</sup>



**Q.** Is sugar content becoming even more important than calories on a label?

**A. WADE:** Six or seven years ago, there was a wave of 100-calorie snack packs. Today, calories are big and bold on the label, but it's not the end-all... because even when you add protein, it still contains calories. People are going to make a decision for a particular product based on how it fits with their perceptions and values.

**Q.** How far have you been able to go with reducing sugar in snacks?

**A. CARLA:** It really varies by category; a lot of factors come into play in consumer purchase behavior and what they're looking for. You have to ask who the target is that the brand is trying to reach and where does the sugar fall on the label – is it inherent sugars from fruit, or added sugars from a sweetener?

**WADE:** We like to talk about numbers like 25 to 50%, but we're continuing to see what's resonating with consumers.

**ANGELA:** A formulation can be zero grams of added sugar, but if it doesn't function – if it doesn't hold together – that doesn't work for us. We need it to function, taste good and be reduced sugar.

**Q.** What are some of the formulation challenges you encounter when reducing sugar in snacks?

**A. ANGELA:** It's hard to get away from sweeteners in bars and most snacks. As you modify the formula and take out some of the classic functional sweeteners, there are shelf-life considerations. You can start to see bars hardening or becoming dry and brittle.

**WADE:** In gummies, reducing the sugar levels can impact texture. You have to consider the experience you want when you bite in – should it be a short texture, spongy – and how you can deliver on that.

**ANGELA:** With cereals, you can reduce sugars in the cereal itself, but the coating is more of a challenge – that's where a lot of the sugars actually are. You're also dealing with appearance: should it be frosty or glassy? What do you want it to look like in the bowl?





**Q.** What are some of the solutions you've developed to address those challenges in sugar reduction?

**A. ANGELA:** It's a balancing act: there's the clean label aspect and acceptance of having the ingredient be pantry-familiar. There are a number of different ways to deliver sweetness.

**CARLA:** Stevia has such a good health halo.

**WADE:** There has become much more versatility and functionality of stevia sweeteners for deeper sugar reductions, which is attributable to ongoing improvements in the sweetness quality of stevia sweeteners within our portfolio. Ultimately, we're striving to deliver the most sugar-like profile as possible. In snacks, we've also worked on developing complementary solutions to help replicate the functionality of sugar in these types of applications. Our stevia sweeteners have a great, sugar-like taste. We've developed complementary solutions with a number of different sweeteners to replicate much of sugar's functionality.

**ANGELA:** Erythritol is an excellent way to reduce sugars in a bar formula, as well as some of the other snack formulas. It's really unique in that it brings the sweetness function and adds the bulk back in. Chicory root fiber functions beautifully in terms of keeping bars soft with the benefit of also increasing dietary fiber content. Our VerSyra™ reduced-sugar syrups have been a huge win for binding syrups, as they have the functionality, same total carbohydrates and calories, but less sugars.

**Q.** Any closing thoughts?

**A. ANGELA:** We need to balance all the "reduce the sugars," "zero-calorie," "no sugars added" messaging with the fact that we all do need sugars or glucose. In areas like sports nutrition, they're providing the rapidly required fuel for high-intensity and endurance activities.



**LEARN MORE:** [cargill.com/sugarreduction](https://cargill.com/sugarreduction)

Sources:

<sup>1</sup> Mintel, Snacking Motivations and Attitudes U.S., 2019.

<sup>2</sup> Njike, VY; Smith, TM; Shuval, O; et al. "Snack Food, Satiety and Weight." Advanced Nutrition. September 15, 2016; 7(5): 866-878.

<sup>3</sup> Grandview Research. Healthy Snacks Market Size Worth \$32.88 Billion by 2025. 2019.  
<https://www.grandviewresearch.com/press-release/global-healthy-snack-market>