



Achieving Sweet Success in Sugar Reduction

Translating consumer insights into winning formulations.



Understanding the contemporary consumer

Future-forward innovation requires continual monitoring into consumer values, culture and behaviors. These trends shape the sub-conscious and impact consumption choices.

The current landscape of food and beverage innovation continues to be driven by the need for better nutrition, quality sourcing and the connection that has to human longevity. Sugars, among other vices, are at the forefront of this conversation.

To get a pulse on the current consumer attitudes and behaviors around sugars, ADM deployed a robust Outside VoiceSM proprietary research study targeting U.S. adults to better analyze the decision-making process that impacts purchase and consumption habits.

This report contains actionable insights and your roadmap to successful formulation. Discover not just what consumers demand in terms of sugar reduction but how they are evaluating product labels, ingredient lists and how their perceptions and actions vary across categories.

It is our goal that this deep dive consumer analysis will spark new understanding and drive innovation to advance sugar reduction and sweetening solutions.

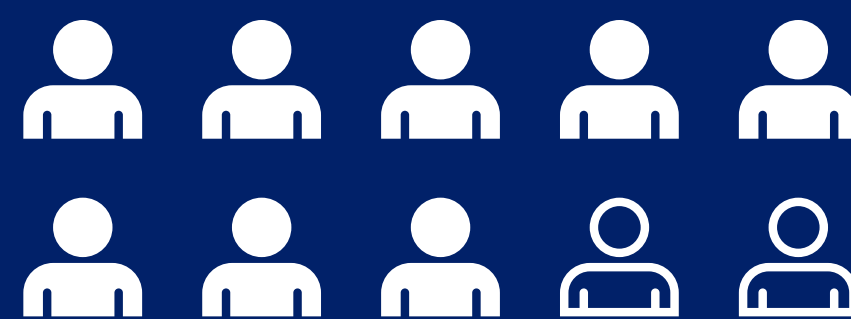
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In the driver's seat

Today's consumers are empowered, informed and selective. They have more transparency than ever into the ingredients they consume. They read labels, look for words they consider "real" and even evaluate the impact their consumption has on the environment. They're deliberate with how they approach food and beverages, becoming increasingly more educated on the connection between what they put in their bodies and the direct impact on their physical, mental and emotional health. They also have more options than ever before with new channels to make purchases. And more choices means the less consumers ultimately need to compromise.

Through ADM Outside VoiceSM proprietary research, it was found that 8 out of every 10 U.S. adults now intentionally avoid or reduce sugar in their diets with 16% stating it's the most important thing they're trying to reduce—making sugar the most demonized ingredient in the American diet.



*8/10 U.S. adults
intentionally avoid or reduce
sugar in their diets*



16%

*say sugar is the most
important nutrient they limit
(more than fat, sodium or carbohydrates)*

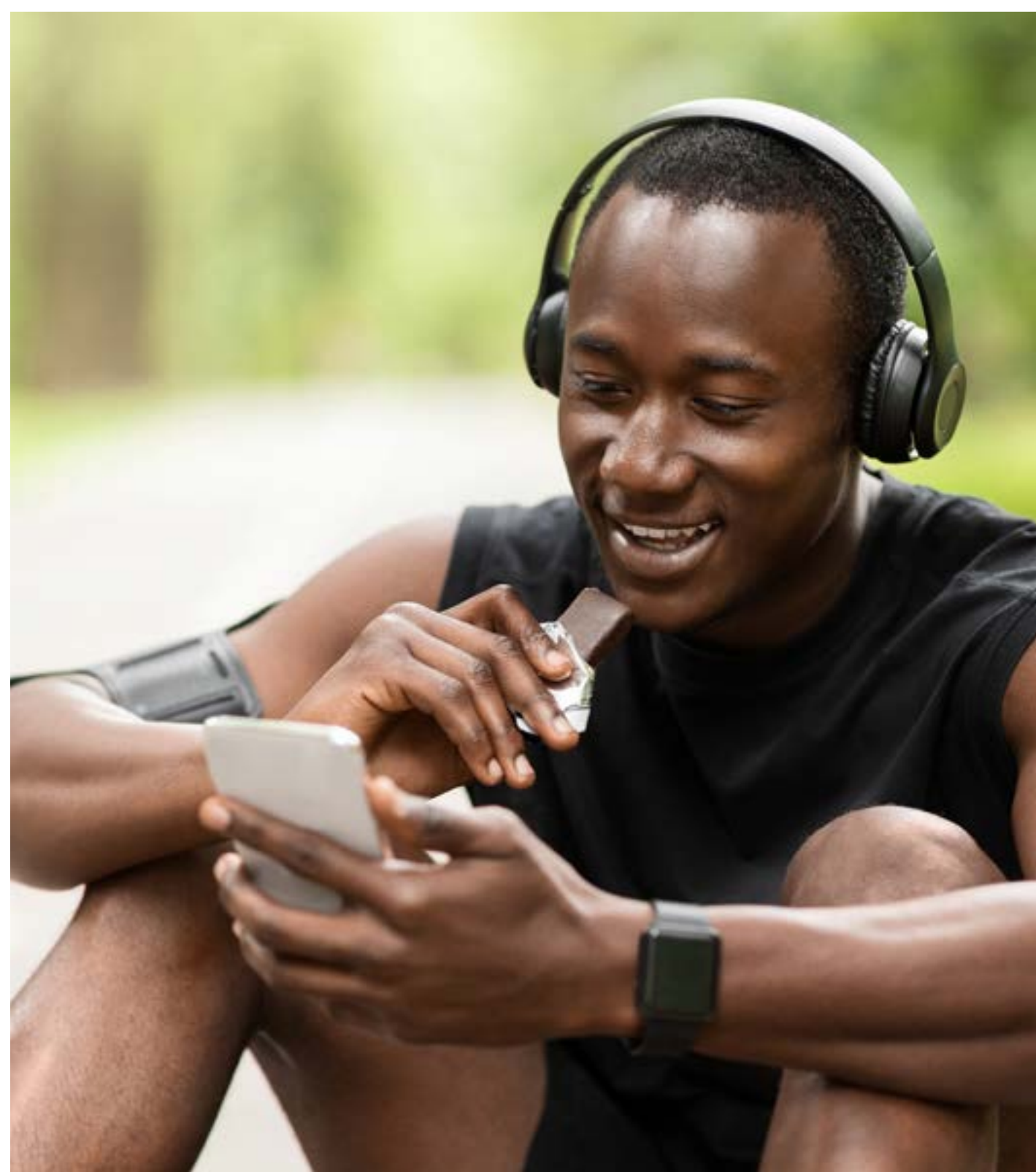
Reducing sugar is just as important as taste

As consumers continue to monitor their intake, they are opting to consume less sugars to prioritize their health and wellness, now more than ever.

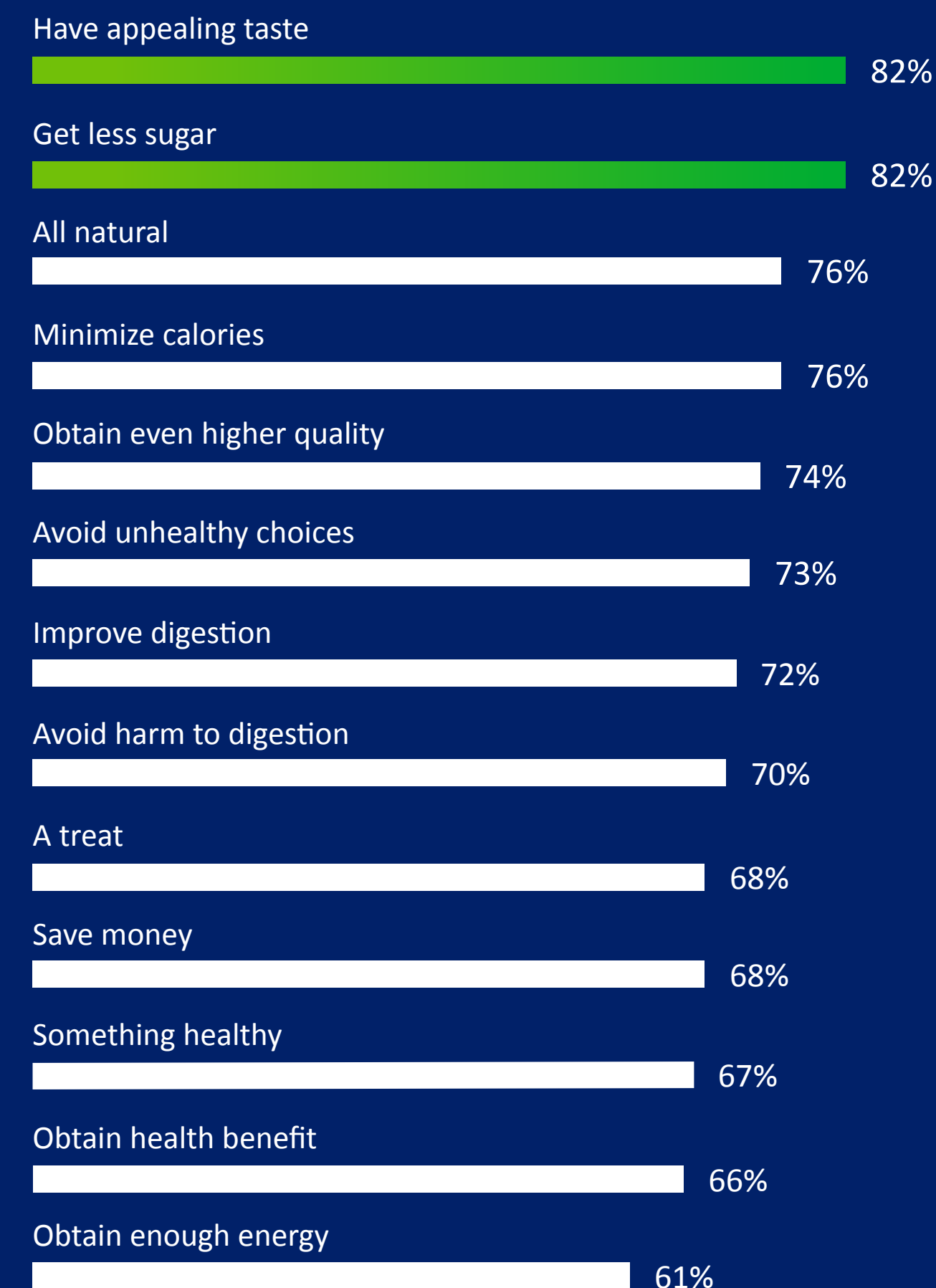
Taste has always reigned supreme when choosing food and beverages. But shoppers must consider many, and sometimes-competing, priorities when evaluating new options. They've even been conditioned to look for signs that taste may be compromised.

Our research suggests that now, less sugar is just as high of a priority as taste when consumers make new consumption purchases meaning – they expect it and won't compromise.

The fact is, if you don't deliver upon both dimensions of taste and reduced sugars, shoppers can, and will, find an alternative product that does.



PRIORITIES WHEN CHOOSING A NEW OPTION (Average Across 6 Categories)



Q. If you were looking for new [category] to try, what would be your priorities? (All categories- n= 2297)

Consumers seek sugar reduction PLUS so much more...

Sugar reduction as a concept doesn't exist in a vacuum and not all consumers approach shopping the same way. While sugars impact purchase decisions, it's the unique need states of consumers beyond sugar reduction that make it imperative to dig deeper. Understanding these mindsets allows us to develop solutions that can fulfill, and exceed, their expectations.

Sugar Reduction PLUS...



Nutrition Benefits

Choosing food and beverages that help them achieve a wide array of wellness goals, viewing it as part of the solution to a range of health concerns.

Sugar reduction is **62%** more important to these consumers when seeking low calorie foods and beverages.

- + Achieve wellness goals
- + Trade up for better nutrition
- + Support immune health
- + Obtain benefits from functional ingredients



Clean & Clear Labels

Looking for more 'positive' claims as they each define what clean label means to them. These shoppers focus on calorie 'quality' and food's intrinsic value.

Sugar reduction is **61%** more important to these consumers when seeking clean label foods and beverages.

- + Recognizable ingredients
- + Free-from products
- + Plant-based & botanicals
- + Search for sustainability



Balanced Lifestyle

Believe their quality of life is enhanced by offering sensory pleasure, connection with others and stress relief.

Sugar reduction is **56%** more important to them when seeking indulgent foods and beverages.

- + Desire for nostalgia and comfort
- + Discovering new flavors and textures
- + Justifiable indulgence as reward
- + Balance in pre-portioned packaging

Sugar reduction is highly variable

How consumers limit their sugars varies. Some shoppers deliberately review "total sugars" because they believe they sabotage their weight-management efforts or contribute to other health concerns. Others avoid "added sugars", perceiving them as unnecessary given the belief that much of the food we eat already contains high levels of sugar. And lastly, consumers also approach sugar reduction by limiting "the types of sweeteners" they consume, either because they dislike the taste or they deem certain sweeteners as unnatural.

Category plays a critical role too as broad categories vary in their sugar reduction requirements and constraints, with beverages, culinary sauces and sweet snacks most often under a higher level of scrutiny. Consumers are more forgiving on sugar content when interacting with indulgent categories, such as chocolate and baked goods, but it's here where the quality of the sugar source becomes increasingly more important. As formulators, it is our role to strike the proper balance among all the variables for the right consumer set.

Label Review Varies by Attribute

Nutrition Facts	
Serving Size	40g
Amount Per Serving	
Calories	170
Total Sugars: 5g	
Includes 4g Added Sugars	
Ingredient List:	
ALMONDS, SOLUBLE CORN FIBER, HONEY, GLUCOSE SYRUP, PALM KERNEL OIL, SUGAR, RICE FLOUR, MILK POWDER, SEA SALT, CAROB POWDER, NATURAL FLAVOR	

Consumers are shopping intentionally and reviewing labels in accordance with how they choose to limit sugars in their diets.

- Total Sugars
- Added Sugars
- Type of Sweeteners

Importance Varies by Category



66% Beverages



61% Sauces & Dressings



60% Bars & Snacks



56% Baked Goods



54% Dairy



44% Candies & Chocolate

The power of education

While consumers are actively seeking foods and beverages to meet specific needs, they are also more frequently reading labels and monitoring intake to deliberately avoid specific ingredients.

Whatever the personal reason shoppers use to evaluate purchase options, it's clear that almost no sweetener or sugar source is sought out for its own sake as a clear positive. ADM proprietary research shows that educating consumers can significantly increase acceptance if the right message is aligned with the distinct sweetener type.



Four distinctive sweetener classifications

Tailored messaging and education increases consumer acceptance.



Foundational Sweeteners

Information about how and where bulk sweeteners are grown and the role they play beyond sweetness, which have led to their popularity, help these sweeteners gain acceptance with consumers.

+9%

Average acceptance increase after education



Unfamiliar Sweeteners

Claims that compare unfamiliar or novel sweeteners like allulose directly to sucrose in terms of comparable taste and sweetness while reinforcing nutrition advantages win with consumers.

+10%

Average acceptance increase after education



Food-associated Sweeteners

Sweeteners with nominal food associations, like monk fruit and tapioca syrup, often benefit the most from added insight into the distinctive taste profile and sourcing.

+11%

Average acceptance increase after education



Branded Sweeteners

Sweeteners like stevia and sucralose are often known by consumers due to their recognizable brand names. Reinforcing their basic impacts on blood sugar levels and calorie content increase consumer acceptance.

+11%

Average acceptance increase after education

Our SweetEdge™ approach to sugar reduction

Meeting these evolving and nuanced consumer demands may seem daunting, but ADM is your single solution partner with the insights and innovation to meet consumer needs and formulation challenges head-on.

Our unparalleled sugar reduction toolbox is designed to not simply reduce sugars, but to replace, rebalance and rebuild the structural integrity lost to ensure sweet success every time. These building blocks deliver the taste, texture, stability and nutrition for winning food and beverages while delivering unmatched sweetness and label appeal.

Replace Sweetness

Rebalance Flavor

Rebuild Functionality

Discover insights to innovation across six key categories



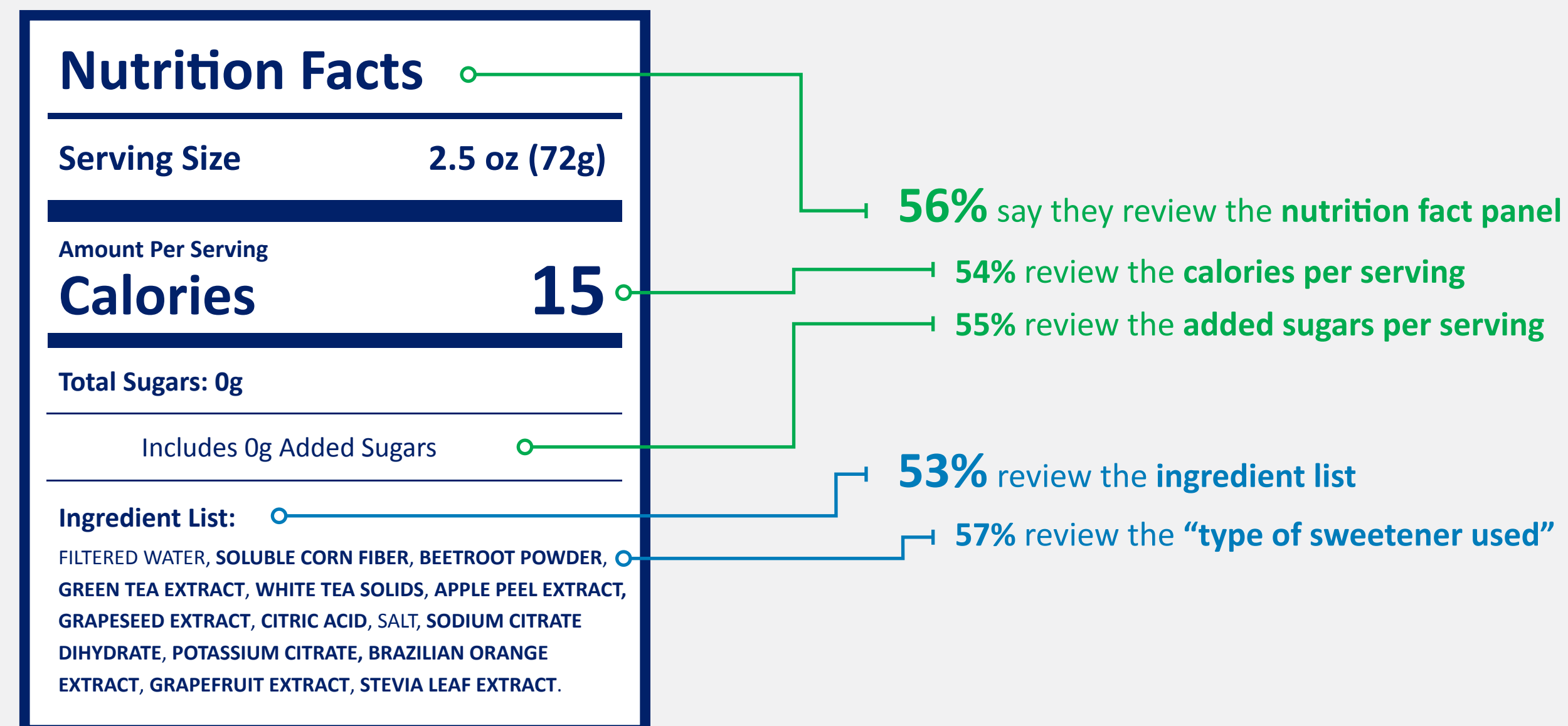
Beverages

Beverages receive the toughest scrutiny out of all categories measured. They are a primary contributor of added sugars in the American diet as well as the entry point for sugar substitutes, vetted for taste to gain acceptance into habitual consumption.

They also offer the greatest intentionality for sugar reduction with 66% of consumers stating sugar reduction is important for their beverages. And more beverage shoppers say they review the ingredient list and sweetener type than shoppers of any other category measured.

Beverages play a variety of roles and consumers are constantly seeking options for both indulgence and positive wellness. This means successful beverage development is tied to a deep understanding of the consumer needs and purchase intent for an appealing taste and label.

When evaluating new beverages...



Case Study:

Brazilian Orange Grapefruit Hydro-Immune Shot

A refreshing shot perfect before or after a workout – or anytime – for added hydration and a boost of immune support. This sweet, yet tangy thirst-quencher is a great alternative to products high in caffeine.

POTENTIAL FRONT OF PACK LABEL CLAIMS:

- + Prebiotic
- + 0 sugars, 15 calories
- + Contains beetroot powder, 120mg polyphenols, electrolytes and natural antioxidants
- + No colors, flavors or preservatives

KEY SUGAR REDUCTION INGREDIENTS:

- + SweetRight™ Edge Stevia
- + Botanical Extracts
- + Fibersol®

Type of sweetener is most important when choosing a new:



Culinary

Sauces, dressings and syrups add crave-worthy flavor and texture to dishes, playing the supporting or sometimes leading role in culinary masterpieces. While they aren't consumed by themselves, and consumers do not expect substantial nutrition from these products, they are often scrutinized for having hidden downsides for unwanted ingredients and smaller serving sizes that lead to an excess consumption of calories and sugar.

Because consumers are aware of hidden sugars in culinary ingredients, 61% say sugar reduction is important in sauces, syrups and dressings - making it our second-most scrutinized category. Solutions are primed for flavor innovations that help formulators rely less on sugar and can help shoppers meet additional health priorities while keeping meals crave-worthy.



Case Study:

Sweet 'n Smoky Sugar-Free BBQ Sauce

A full-bodied, finger-licking good BBQ sauce with vibrant mahogany color, rich flavor and perfect texture - with no added sugars and just 15 calories per serving - an 80% calorie reduction.

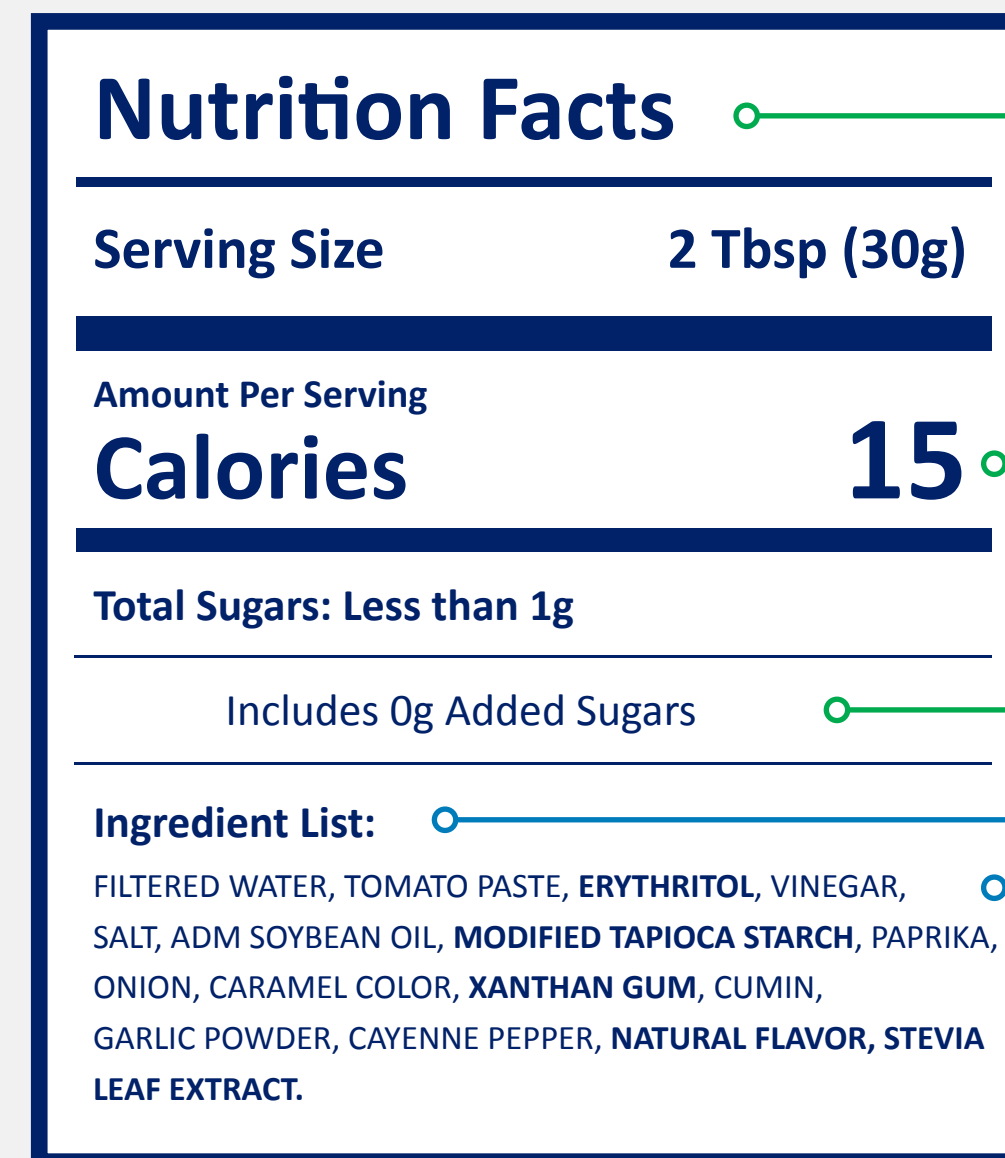
POTENTIAL FRONT OF PACK LABEL CLAIMS:

- + 0g added sugars
- + Non-GMO
- + Natural flavor

KEY SUGAR REDUCTION INGREDIENTS:

- + SweetRight™ Edge Stevia
- + SweetRight™ Erythritol
- + TexRight™ Max Tapioca Starch

When evaluating new sauces, syrups and dressings...



58% say they review the nutrition fact panel

50% review the calories per serving

51% review the added sugars per serving

50% review the ingredient list

47% review the "type of sweetener used"

Type of sweetener is most important when choosing a new:



Pancake syrup: 69% of category buyers



Salad dressings: 49%



Global culinary sauces: 43%

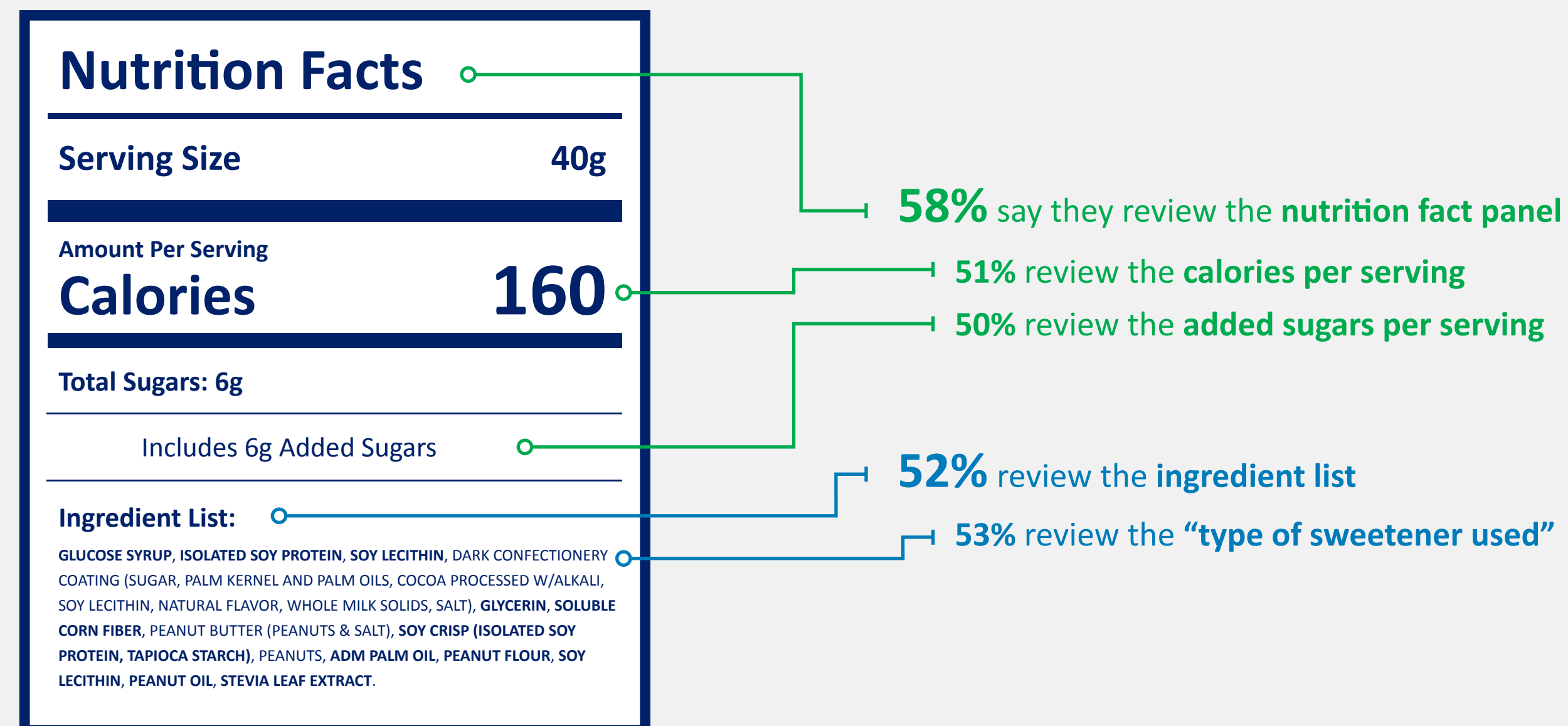
Bars & Snacks

Today's snack-food consumer often uses snacks for more positive health benefits, such as increasing energy or mental focus. Nutrition facts are highly reviewed by snack food consumers; only beverages receive more label reviews than snacks.

When asked to prioritize the most important characteristics in new snacks, 35% of shoppers report seeking to both obtain energy and minimize calories. This means the snack foods that are positioned with reduced sugars, while still promoting satiety and energy benefits are poised to gain greater acceptance with consumers.

The type of sweetener is more important when shopping for sweet bars or fruit snacks than for salty snacks. More shoppers review the "type of sweetener" than review the added sugars, suggesting an opportunity to call out the sweetener on the package.

When evaluating new bars and snacks...



Case Study:

Superstar Bar with a Standout Label

A bar with a less-is-more attitude—45% less sugars than its full-sugar cousin, quality ingredients you can see and a balanced soft and chewy texture that consumers will love.

POTENTIAL FRONT OF PACK LABEL CLAIMS:

- + Reduced sugar
- + 9g protein
- + Good source fiber

KEY SUGAR REDUCTION INGREDIENTS:

- + SweetRight™ Reduced Sugar Glucose Syrup
- + SweetRight™ Stevia RA80
- + Fibersol®

Type of sweetener is most important when choosing a new:



Nutrition/protein bars: 65% of category buyers



Fruit snacks/dried fruit: 63%



Cereal/granola bars: 61%

Baked Goods

Consumers have high expectations for the baked goods they purchase. They are prepared to enjoy indulgent desserts in moderation if they provide some benefit to overall emotional and mental health with consumers being more-forgiving on sugars in these joyful indulgences.

56% say sugar reduction is important and 23% of consumers are not satisfied with the current selection of baked goods, making this space open for powerful category innovations. Unlike confections, baked goods maintain baseline relevance for positive nutrition, and natural ingredients can convey the high-quality products shoppers seek.

This category is often comparable to goods shoppers can make in their own homes, raising the bar for the ingredient panel. Consumers are looking for “real” quality ingredients, making it imperative that they are either familiar or justified to be fully accepted.



Case Study:

Keto Chocolate Chip Cookie

Keto without compromise! These soft baked cookies not only deliver great taste and texture, but are also packed with fiber for enhanced nutritional benefits.

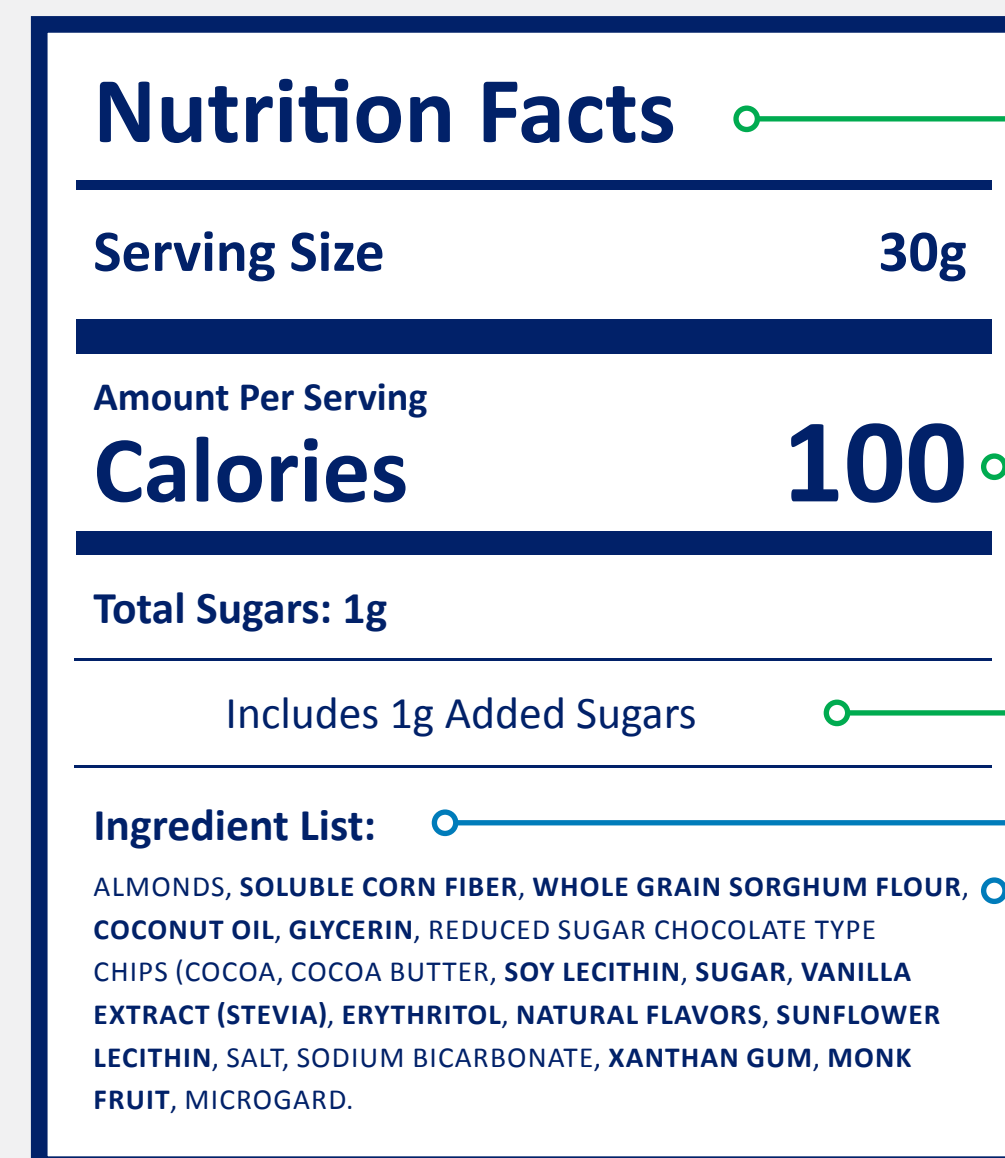
POTENTIAL FRONT OF PACK LABEL CLAIMS:

- + Keto
- + <4g net carbs
- + 1g added sugars
- + Excellent source fiber

KEY SUGAR REDUCTION INGREDIENTS:

- + SweetRight™ Monk Fruit
- + SweetRight™ Erythritol
- + TexRight™ Edge Tapioca Starch
- + Fibersol®

When evaluating new baked goods...



55% say they review the nutrition fact panel

47% review the calories per serving

49% review the added sugars per serving

51% review the ingredient list

53% review the “type of sweetener used”

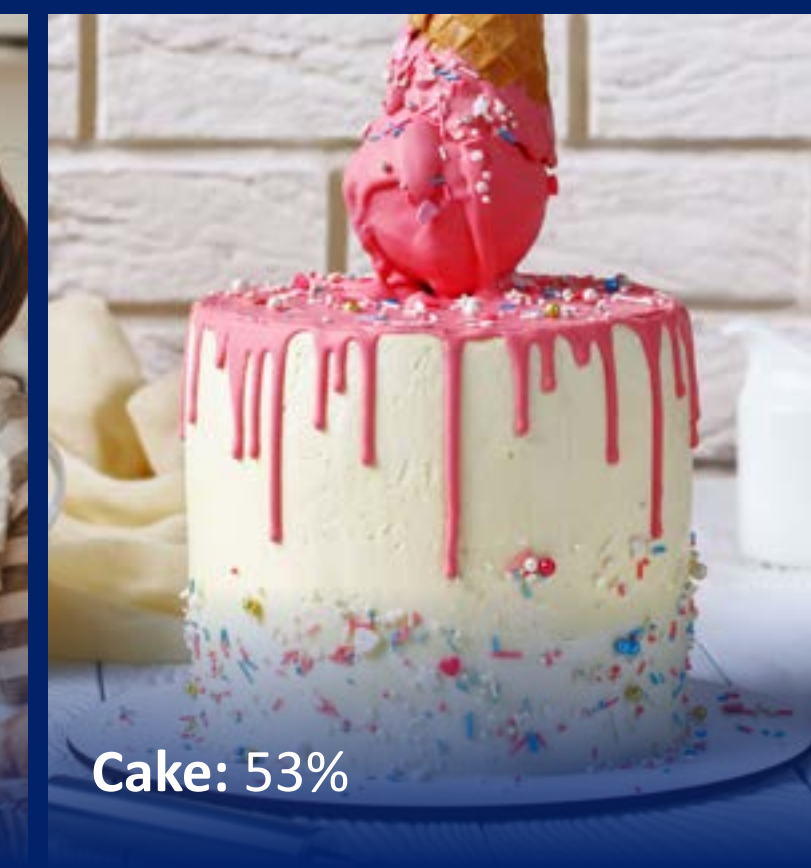
Type of sweetener is most important when choosing a new:



Fruit pies: 60% of category buyers



Cookies: 55%



Cake: 53%

Dairy

From a category perspective dairy has seen a substantial perception shift over the past few decades. Consumers no longer focus on fat reduction in dairy products due to a new understanding of “good fats” and their importance in holistic wellness. That ingredient scrutiny has now shifted to sugar content, with 54% reporting sugar reduction as important for their dairy products.

The demands on dairy to provide nutritional requirements continue to grow. Dairy alternatives offer a wider range of options, and clear health-positive attributes. Additionally, the desire for obtaining both a health benefit while also avoiding unhealthy options is the highest among all categories, an opportunity for ingredients with added wellness benefits.

Sweetener sources are more likely to be reviewed in milk alternatives, however consumers focus most on the product’s nutritional composition.



Case Study:

Guilt-Free Creamy Frozen Dessert

A deliciously sweet take on better-for-you vanilla frozen dessert — with 0g added sugars — that still delivers the indulgent taste and creaminess consumers expect.

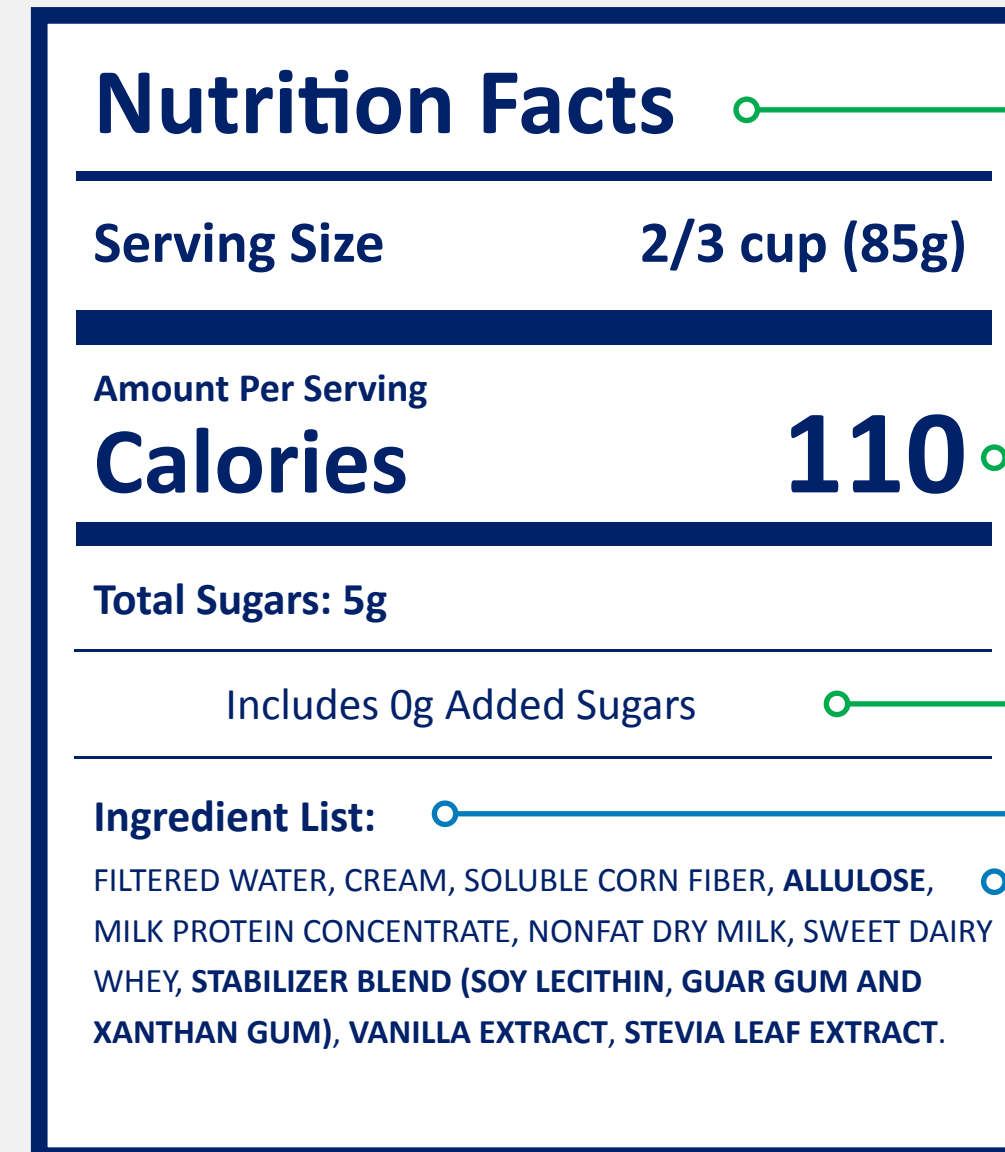
POTENTIAL FRONT OF PACK LABEL CLAIMS:

- + 0g added sugars per serving
- + <1g added sugars per pint
- + 8g excellent source of dietary fiber
- + 20g protein per pint

KEY SUGAR REDUCTION INGREDIENTS:

- + SweetRight™ Edge Stevia
- + SweetRight™ Allulose
- + Fibersol®

When evaluating new dairy...



54% say they review the nutrition fact panel

49% review the calories per serving

47% review the added sugars per serving

49% review the ingredient list

49% review the “type of sweetener used”

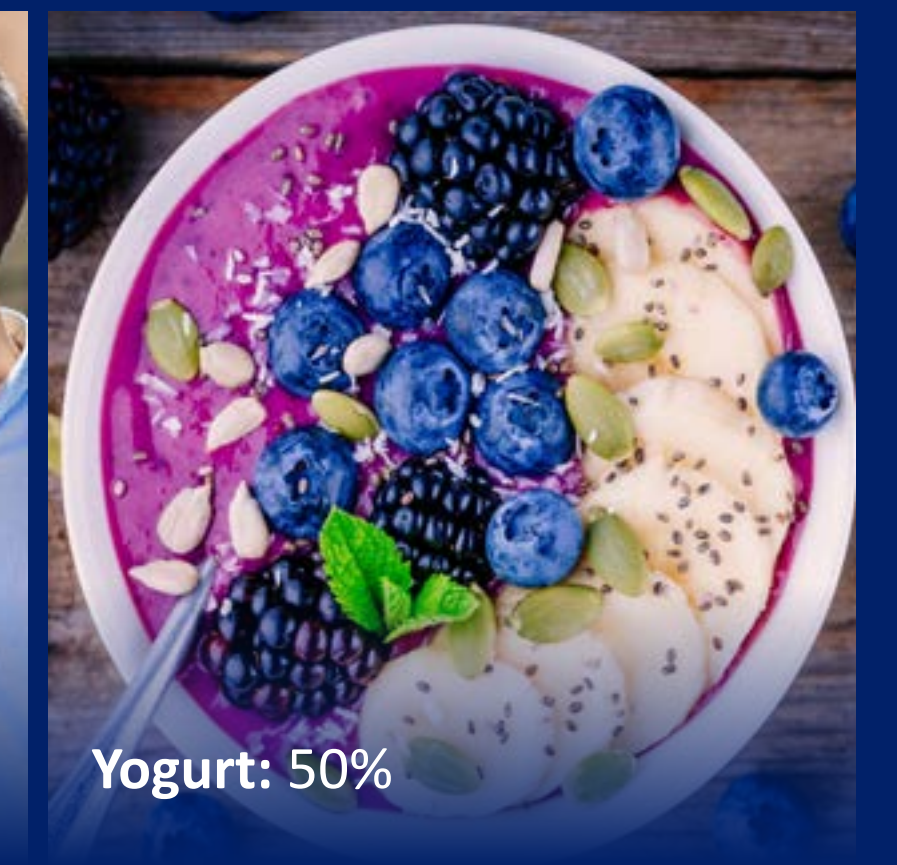
Type of sweetener is most important when choosing a new:



Milk alternatives: 59% of category buyers



Ice cream: 54%



Yogurt: 50%

Confections

Taste is a top priority for consumers when shopping for candies and chocolates. Consumers acknowledge these products are high in sugar, and therefore demand each indulgence is “worth it”. These high taste standards are now joined by high-quality aspirations, with 67% of shoppers reporting that they’re looking to obtain higher quality ingredients when seeking a new candy or chocolate product.

Confections are the least scrutinized for sugar reduction, with 44% saying it is important for their candies, gums and chocolates. But while the amount of sugars may be less important, the quality of ingredients is where consumers focus. The type of sweetener used is often the single most salient marker used to evaluate product quality in confections. Opportunities to evolve in this category include confections sourced from plant-based ingredients, as well as claims that meet holistic wellness opportunities like the antioxidants found in dark chocolate.



Case Study:

Sugar Reduced Salted Caramel Peanut Nougat

A reduced sugar, creamy, sweet and salty treat that indulges today’s salted caramel craze with label-friendly sweetness.

POTENTIAL FRONT OF PACK LABEL CLAIMS:

- + 25% sugar reduction
- + 100 calories
- + No sugar alcohols

KEY SUGAR REDUCTION INGREDIENTS:

- + SweetRight™ Allulose
- + SweetRight™ Organic Brown Rice Syrup
- + Vanilla Bean Extract

When evaluating new confections...



46% say they review the nutrition fact panel

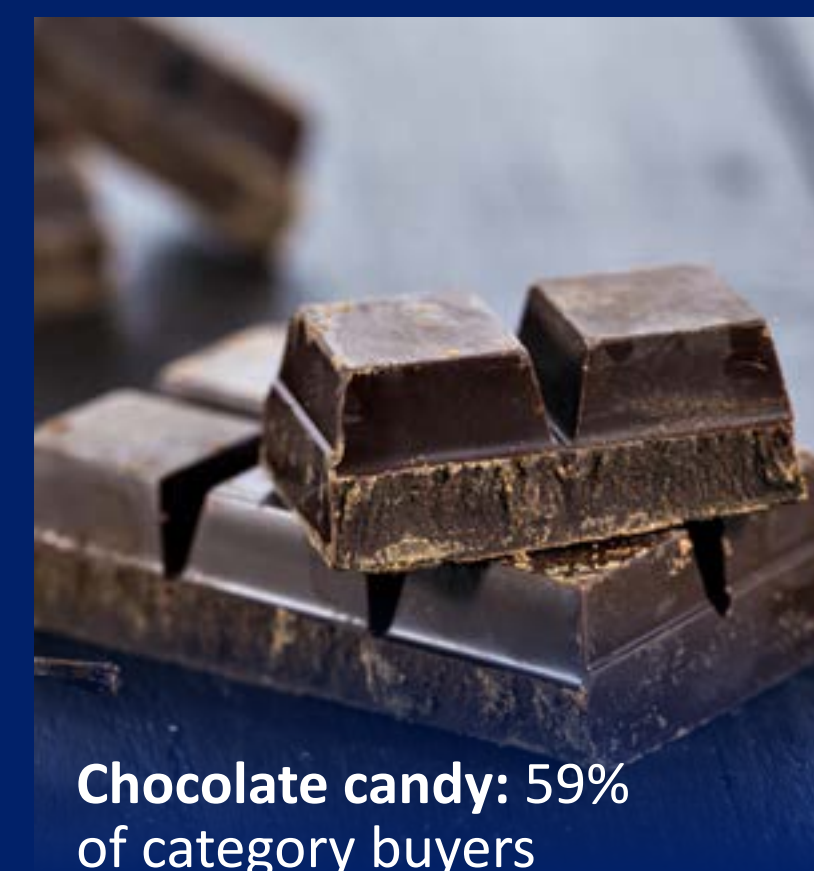
46% review the calories per serving

48% review the added sugars per serving

44% review the ingredient list

48% review the “type of sweetener used”

Type of sweetener is most important when choosing a new:



Chocolate candy: 59% of category buyers



Chewing gum: 57%



Non-chocolate candy: 52%

Sweetness without compromise

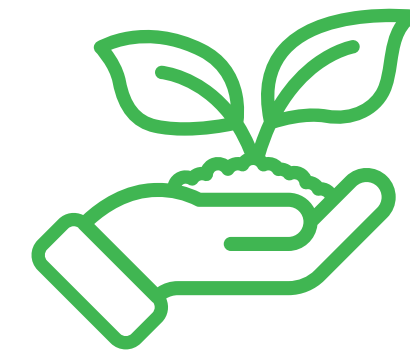
Better-for-you doesn't mean bland. We help you deliver delicious health-forward nutrition in delightful indulgences, with truly innovative solutions that give you an edge in today's dynamic marketplace.

ADM is your sweetening and sugar reduction innovation leader

- + SweetSavvy™ approach—equal parts technical expertise, ingenuity and innovation
- + Continued investment in our broad, unparalleled portfolio to help you meet changing market needs
- + Delivering the preferred sweetness, labels and sustainability consumers want next



ADM's vast portfolio of ingredients is **simply unmatched**



Sustainably sourced, non-GMO, organic and other options to meet all labeling and consumer preferences



A solution for every functional or nutrition-driven formulation **need**



The sugar reduction **tools and expertise** you need **for success**



Let's Collaborate.

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