



# Protein economics: How nutrient density can support premium packaged goods in the US

## RaboResearch

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## Summary

Nutrient density is emerging as a unifying concept in the US food and beverage arena. It connects consumers' health and longevity goals, the growing adoption of GLP-1 medication, affordability pressures, regulatory scrutiny of ultra-processed foods (UPFs), and weakening loyalty to legacy brands. Underlying these shifts is a common question: What am I actually paying for when I buy food?

This report examines the growing role of nutrient density in consumer decision-making and in packaged food manufacturers' marketing, portfolio, and innovation strategies, using both nutritional and economic perspectives. Early indications suggest that nutrient-dense products can deliver stronger perceived value by providing more macro- and micronutrients per calorie and, importantly, per dollar spent.

Under this framing, nutrient density can help reposition premiumization as an efficiency play rather than a luxury one, which may help explain why certain premium offerings – especially protein-packed ones – continue to perform relatively well even as discretionary income and food volumes come under pressure.

## What is nutrient density, and why now?

The term "nutrient density" was coined in the early 2000s – though rooted in earlier nutrition science – to describe variation in nutrient content between foods. In technical terms, it refers to the concentration of essential macro- and micronutrients – such as protein, fiber, vitamins, and minerals – relative to either energy content (calories) or food weight.

Put more simply, the concept shifts the consumer question from "how many calories are in this?" to "what do I get for those calories?" This reframing aligns with a broader shift in consumer thinking toward more intentional eating, rather than simply counting and reducing caloric intake.

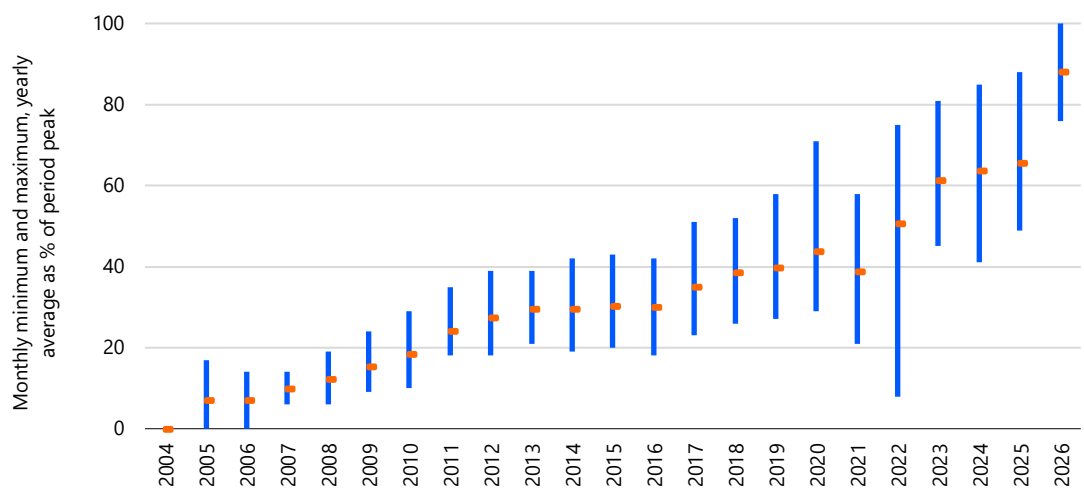
Several formal scoring systems attempt to operationalize this concept. One commonly referenced framework is the Nutrient Rich Foods Index (NRF 9.3), which scores foods as the sum of the percentage of recommended daily intake of nine positive nutrients (protein, fiber, vitamins A, C, and E, calcium, iron, magnesium, and potassium), while deducting the three nutrients to limit (saturated fat, added sugar, and sodium). These scoring systems are complex, have their flaws (for instance, they can reward the absence of negatives more than the presence of desirable nutrients), and remain relatively unfamiliar to most consumers. Nevertheless, the intuition behind them is increasingly visible in everyday behavior, including "protein per calorie" comparisons on

social media and more frequent scanning of nutrition facts labels for specific attributes such as protein, fiber, or added sugar.

In popular discourse, “nutrient-dense” is often used interchangeably with “healthy,” even though the two are not synonymous. The term is commonly bundled with adjacent cues such as minimally processed, natural, whole foods, or clean ingredients. This usage combines multiple factors – processing, energy density, ingredient familiarity, and satiety – into a simplified framework, remaining relevant because consumers tend to act on simplified indications rather than technical definitions. A good example is the surge in popularity of label-reading apps such as Yuka, where consumers can easily access food ratings on a scale from 0 to 100, along with classifications such as Excellent, Good, Poor, or Bad. This provides a simplistic view that is easy to understand for non-experts, which in turn has led experts to note certain limitations.<sup>1</sup>

Search data suggests that attention to nutrient density has accelerated over recent years, particularly since the early 2020s, consistent with broader momentum around nutrition awareness, GLP-1 adoption, and label engagement.<sup>2</sup> The growing visibility of the term signals rising relevance, even if consumer understanding remains limited.

**Figure 1: Online searches for “nutrient density” grew substantially in the first months of 2026**



\*Note: Search interest displayed on a relative scale from 0 to 100, where 100 signifies the peak interest for the time period of the chart.

Source: Google Trends, RaboResearch 2026

“Nutrient density” as a trending term resonates because it provides a single framework connecting health outcomes, economic value, and product formulation. In that sense, it functions more as an underlying concept and meta-trend, in which multiple structural changes can be interpreted.

<sup>1</sup> Common criticisms of Yuka argue that it oversimplifies nutrition, ignores portion context, and may promote food anxiety by labeling products as “bad.” Key concerns include: 1) Additive scoring focuses on potential hazard rather than real-world exposure or dosage, sometimes diverging from regulatory assessments (such as the European Food Safety Authority, and the US Food and Drug Administration); 2) Misleading scores, as many nutrient-dense foods (e.g., nuts, dairy) can be penalized for fat or calorie content despite proven health benefits; 3) Organic status accounts for 10% of the score, even though it is not a direct measure of nutritional quality; 4) A uniform scoring system fails to reflect individual dietary needs (e.g., athletes, diabetics, clinical diets).

<sup>2</sup> According to the Public Health and Safety Organization (NSF), in May 2025, 83% of US consumers reported reading food labels before purchasing, and 64% say they pay more attention to labels than five years ago.

From the consumer side, awareness of the links between diet, metabolic health, and long-term wellbeing has increased. Consumers are more actively reading nutrition facts panels and ingredient lists as confidence in the safety of the US food system declines, impacting trust in major brands.<sup>3</sup> This has created a dynamic of higher engagement paired with lower baseline trust.

On the institutional side, policymakers and regulators are [revisiting dietary guidance](#), supporting public scrutiny of many processed food staples, and rising the requirements of nutrient intakes such as protein and fiber.

Market forces further reinforce this momentum. Prolonged inflation has changed how consumers define value, particularly in a polarized spending environment. At the same time, GLP-1 therapies are altering how some consumers experience hunger, satiety, and the perceived worth of calories. When total intake declines, the [nutritional contribution of each calorie becomes more salient](#), further supporting nutrient-density-based evaluations.

## Nutrient efficiency: Leveraging nutrition as an economic concept

Historically, premium packaged foods have often differentiated themselves by adding value through softer attributes such as brand equity, organic positioning, sustainability narratives, elevated packaging, or indulgence cues. Nutrient density introduces a more tangible economic proposition centered on nutrient efficiency.

Under this framework, “nutrient efficiency” reflects two related dynamics. First, it refers to optimizing nutrition, whereby fewer calories are required to reach a desired nutrient intake. Second, it refers to economic efficiency, defined as a lower cost per unit of targeted nutrients, often assessed on a calorie-adjusted basis.

Table 1 illustrates selected examples of packaged goods alongside their premium counterparts, comparing protein value on both a per-dollar and per-calorie basis. A key takeaway is that choosing nutrient dense versions pays off for consumers as the cost required to obtain a given amount of a target nutrient – protein in this case – typically declines as consumers trade up to nutritionally enhanced alternatives, despite higher prices per pack or per weight. Moreover, across all examples, protein density increases meaningfully, meaning more protein is delivered per calorie (or, conversely, fewer calories are required to achieve the same protein intake).

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<sup>3</sup> According to the International Food Information Council (IFIC), confidence in the US food supply has declined meaningfully: Only 55% of Americans report being confident today, down from 70% in 2023 and 78% in 2012. Just 11% say they are “very confident,” a sharp drop from 24% in 2022. Notably, 59% of consumers believe that profit is prioritized over safety.

**Table 1: Protein economics in practice: In most cases, unitary nutrient costs drop or remain the same with premium alternatives, while calorie intake per nutrient drops considerably**

	<i>CLIF BAR Energy Protein Bars, Cool Mint Chocolate with Caffeine</i>	<i>CLIF BUILDERS Protein Bars Chocolate Mint Flavor, Plant Protein, Gluten Free Bars</i>
Price	USD 6.38	USD 9.98
Content	5 bars (USD 1.28 /bar)	6 bars (USD 1.66 /bar)
Calories per bar	250 kcal	280 kcal
Protein per bar	10 grams	20 grams
Cost of 100g protein	USD 12.76	USD 8.32
Calories per 100g protein	2,500 kcal	1,400 kcal

	<i>Doritos Nacho Cheese Flavored Tortilla Chips</i>	<i>Doritos Protein Nacho Cheese Tortilla Chips Bag</i>
Price	USD 3.97	USD 4.47
Content	1 bag (9.25 oz)	1 bag (7.0 oz)
Calories per bag	1,350 kcal	1,050 kcal
Protein per bag	18 grams	70 grams
Cost of 100g protein	USD 22.06	USD 6.39
Calories per 100g protein	7,500 kcal	1,500 kcal

	<i>Great Value Original Vanilla Low-fat Yogurt</i>	<i>Oikos Pro 20g Protein, Vanilla Yogurt-Cultured Ultra-Filtered Milk</i>
Price	USD 2.26	USD 5.97
Content	4 cups (6.0 oz each)	4 cups (5.3 oz each)
Calories per cup	130 kcal	130 kcal
Protein per cup	5 grams	20 grams
Cost of 100g protein	USD 11.30	USD 7.46
Calories per 100g protein	2,600 kcal	650 kcal

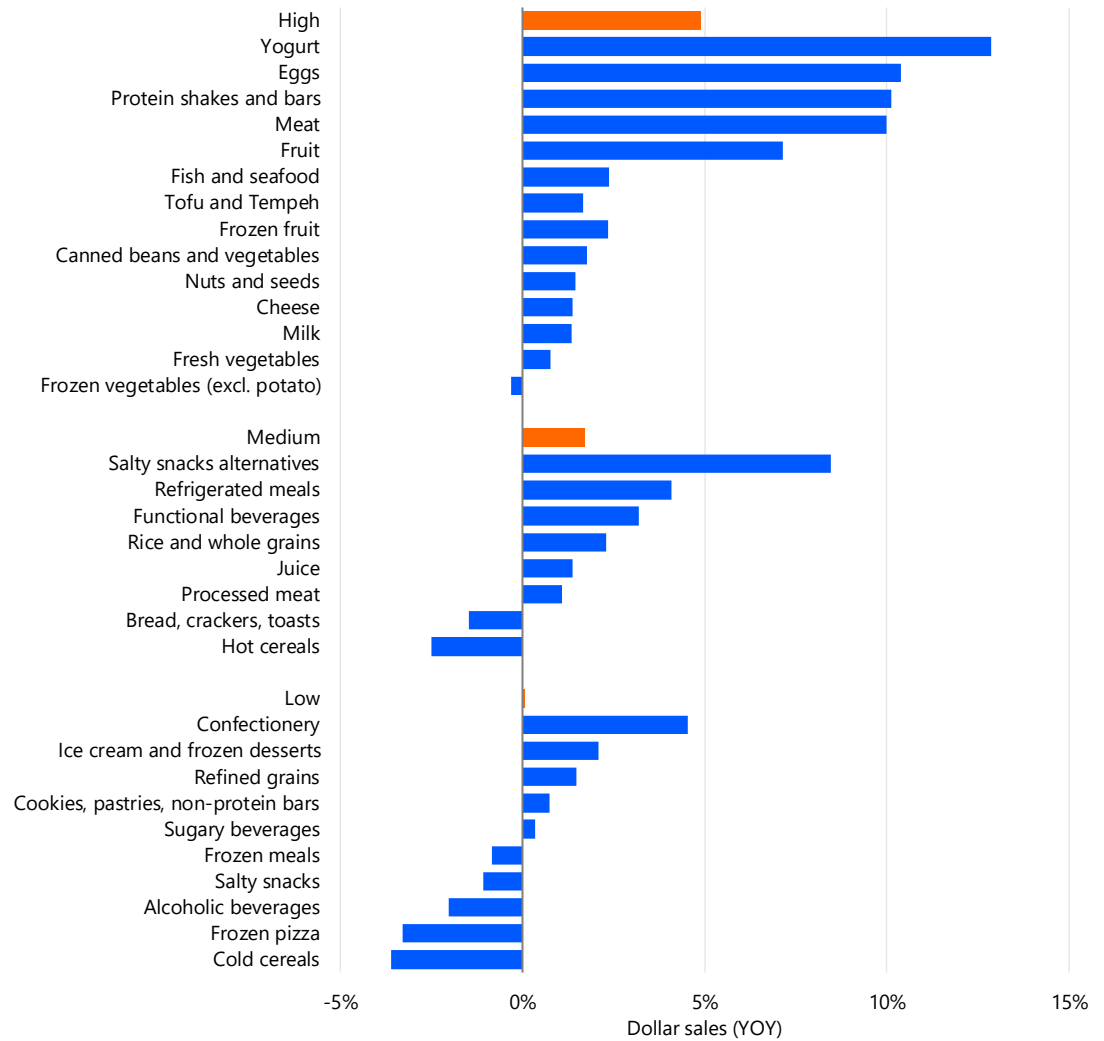
Source: Walmart.com, RaboResearch 2026

In our view, consumers who are focused on maximizing their daily intake of specific nutrients will increasingly make this (often complex) calculation. We expect that – likely with the support of nutrition label-scanning mobile apps – these consumers will ultimately conclude that the higher shelf price is justified. This helps explain why, even amid broad volume pressure in packaged foods, categories with higher nutrient density often exhibit more resilient performance (see figure 2). It also helps explain the recent success of brands and protein-focused product lines that use nutrient efficiency as a core differentiating factor.

What may appear to be a purely health-driven shift could also reflect economically rational substitution toward products that offer clearer nutritional value, particularly at a time when consumers are more carefully managing their spending. This shift can include nutritionally enhanced private label offerings, more home cooking, and reduced snacking. In essence, it reflects a move toward paying more for nutrition and less for products seen as “empty calories”.

For manufacturers, this reframing positions nutrient density not only as a health proposition, but also as an innovation pathway, supporting growth across different demographics and helping justify higher price points.

Figure 2: In the US, nutrient-dense foods outperformed in 2025



Source: SPINS, RaboResearch 2026. US retail sales, 52 weeks ending January 25, 2026. Category classification estimated by RaboResearch based on the Nutrient-Rich Foods (NRF9.3) index. High, medium, and low represent the weighted average for the corresponding categories.

## Protein emerges as the winning nutrient in packaged foods

Protein has emerged as the most visible and actionable nutrient in the current consumer landscape. Protein enjoys an unusually strong and durable positive perception among US consumers today because it sits at the intersection of intuitive biology, cultural familiarity and preferences, and current health trends, with GLP-1 drugs amplifying many of these dynamics.

Consumers feel they can directly experience the benefits of protein as a nutrient through greater satiety, sustained energy, and a sense of physical resilience, reinforcing trust through lived experience rather than abstract claims and complex science. Over successive diet cycles – from low-fat to low-carb, clean eating, calorie counting, and now GLP-1-influenced behaviors – protein has remained largely unchallenged, emerging as a safe and consistently “good” nutrient while others were alternately vilified or rehabilitated. Its appeal is further strengthened by simplicity. Protein is easy to quantify, compare, and communicate in grams per serving, per calorie, or per dollar, reducing cognitive load at shelf and enables quick value judgments. Protein-rich products are also often highly palatable, which has helped them earn a central place on the plate.

Modern eating patterns favor fewer eating occasions, more snacking, and functional or meal-replacement formats, all of which align well with protein's ability to signal nutritional payoff in smaller volumes. The rapid adoption of GLP-1 drugs has added a new dimension to this perception by elevating concerns around muscle loss during weight reduction. Protein is increasingly framed not just as filling or healthy, but as essential for muscle protection and preservation, a message reinforced by healthcare professionals and widely circulating in consumer media. This has broadened protein's relevance beyond fitness into aging, metabolic health, and clinical nutrition, further normalizing higher intake across demographics. More recently, the 2025-2030 Dietary Guidelines for Americans has boosted recommended protein intake by 50% to 100% from previous editions.

Together, these factors explain why protein has become the leading entry point for nutrient-density thinking and why its positive perception remains uniquely resilient in the current US food landscape. As a result, consumers increasingly evaluate what it costs to meet protein targets relative to total calories and spending, making "protein economics" a useful shorthand for the broader shift toward nutrient-based evaluation.

While protein currently dominates because consumer behavior, industry formulation, and communication strategies are most developed in this area, we believe the same logic will eventually extend to other nutrients – such as fiber, probiotics, or micronutrients.

## How brands and industry players are responding

Across the packaged food landscape, most major manufacturers are reengaging with nutrition, although strategies vary depending on brand permission, portfolio structure, and consumer trust. Observable responses include:

- the proliferation of nutrient-forward claims, particularly around protein and fiber. For example, recently launched ready-to-drink protein shakes can have as much as 42g of protein for a 14oz bottle.
- the rise of challenger brands that reposition stagnant legacy categories through altered nutrition profiles. Notable examples include high-fiber, high-protein mac and cheese and a new generation of sodas emphasizing probiotic content and reduced added sugar.
- incumbent brands seeking credible health-and-wellness extensions without undermining core attributes such as taste, familiarity, and convenience. Examples include category leaders expanding into baked alternatives to traditionally deep-fried salty snacks and introducing no-sugar cookie variants.

### A critical caveat: Nutritional profiling is often unfair to packaged foods

While nutrient density is analytically useful, many existing scoring systems and some popular label-scanning apps can unintentionally disadvantage ready-to-eat and packaged foods. Most frameworks assess nutrients as consumed based on label disclosures, meaning added fat, sodium, or sugar are penalized upfront. In practice, consumers often add similar ingredients during home preparation through cooking oils, salt, sauces, or condiments.

As a result, packaged foods tend to internalize these additions on the label, while home-prepared foods externalize them to the point of consumption, where they are less visible in standardized assessments. This can create uneven comparisons in which ready-to-eat products appear less favorable despite comparable or even lower total intake.

This limitation does not invalidate nutrient density as a concept, but it highlights the importance of consumption context, preparation assumptions, and methodological transparency. If nutrient density frameworks increasingly influence labeling, regulation, or consumer-facing scoring, these issues warrant further analytical refinement.

The central strategic tension is that consumers increasingly demand nutritional improvement while still expecting affordability, palatability, and ease of use. Successful innovation tends to emerge where these demands overlap rather than compete.

When communicating the attributes of their products, manufacturers are relying on two broad communication strategies around nutrient density. One centers on direct quantification, with protein – and increasingly dietary fiber - content highlighted prominently on the front of product packaging to simplify comparison and reduce cognitive load. The other emphasizes retention rather than addition, focusing on simple processing, recognizable ingredients, and dietary patterns associated with minimal intervention: “naturally” rich in nutrients. Both approaches can be effective, but they signal different value propositions and depend on different credibility foundations.

## Nutrient density as the next frontier in food processing

A growing share of Americans are reassessing their relationship with food. GLP-1 adoption, new dietary guidelines, internet food gurus, online discussion forums, recurring diet habits such as keto and intermittent fasting, and generational behavior shifts are reshaping consumers’ evaluation of calories and ingredients. At the same time, calorie consumption appears to have peaked, suggesting that future growth in food manufacturing is more likely to depend on quality and efficiency than on quantity alone. We see a higher focus on nutrition and greater scrutiny of ingredient lists and nutrition facts, driving a structural shift in how and what Americans eat.

Institutionally, the involvement of federal and local governments in nutrition standards and school food policies is expanding, while sustained inflation has intensified concerns about food affordability and access. At retail, fragmentation toward online channels and private label-centered discount grocers and wholesale clubs has reduced the effectiveness of traditional trade marketing and reinforced structural pressure on volumes for branded packaged food.

Against this backdrop, manufacturers are leaning more heavily on nutrition enhancement as both a defensive and offensive strategy. The prevalence of nutrition claims among new product launches – exceeding 70% in certain categories<sup>4</sup> – reflects this shift.

The concept of nutrient density can be instrumental in reframing the processing debate away from a binary opposition between ultra-processed and natural foods. Food processing undoubtedly delivers tangible benefits – safety, shelf life, affordability, convenience, and taste – and can also support reformulation and targeted nutritional gains. The relevant distinction lies less in whether food is processed and more in the intent and outcome of that processing.

In this context, future value creation will likely come from smarter processing that balances convenience and taste with clear nutritional improvements. It spans along minimal processing (to retain natural benefits), reformulation (with cleaner labels or less sugar, salt, and unhealthy fats), nutritional enhancement (e.g., added protein, fiber, or micronutrients), and more personalized,

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<sup>4</sup> Innova Market Insights, 2025

health-focused solutions (e.g., targeted nutrition and functional benefits such as gut health, immunity, or cognitive support).

Consistent with our [latest publication](#) on food processing, ultra-processed foods are likely to remain central to American diets, but adaptation toward “better” UPFs appears necessary to meet rising scrutiny and evolving consumer expectations. Mindful processing aimed at improving nutritional profiles and delivering defined functional benefits can provide a clear economic rationale for premiumization, reframing higher unit prices as an efficiency gain rather than a discretionary luxury. In this sense, trading up can make rational sense for consumers – both financially (nutrition per dollar spent) and in terms of calorie efficiency (nutrition per calories consumed).

If a significant share of consumers begins to evaluate food purchases based on nutrient density – whether influenced by nutrition literature, expert guidance, social media, or simple barcode scanning – rather than focusing primarily on portion size or calorie count, traditional volume-based metrics may lose some of their predictive relevance. In response, reformulation efforts are likely to shift toward delivering nutrients more efficiently, rather than emphasizing volume expansion through cost-minimizing scale in a saturated demand environment. For food manufacturers, this shift underscores the importance of value creation and differentiation.

## Conclusion: It is just getting started

Several open questions remain. Will nutrient density emerge as an explicit consumer claim? How consistently will consumers evaluate nutritional returns on spending?<sup>5</sup> How can scoring systems better reflect real-world consumption, and what risks arise if nutrient density becomes overly simplified or gamed? These questions point to avenues for future research rather than definitive conclusions.

For now, nutrient density should be viewed not as an endpoint, but as an emerging analytical lens that is increasingly shaping how processing, value, and growth are assessed in the packaged food industry. It serves as a framework that can guide innovation, strengthen differentiation, and support more resilient growth in a slower-volume environment. Early adoption of the concept offers a tangible opportunity for players to act:

- Manufacturers can embed nutrient density metrics directly into R&D and reformulation pipelines, prioritizing improvements in nutrients per calorie and per dollar.
- Portfolio strategy can be reoriented toward nutrient efficiency, where premiumization is supported by measurable functional benefits, particularly in protein, fiber, and other high-salience nutrients.
- Clearer front-of-pack communication and simplified value propositions (e.g., grams of protein per serving, per calorie, or per dollar) can help reduce consumer friction and justify price premiums.
- This lens can also be used to reassess pricing architecture, trade strategy, and pack sizes in a context where consumers are increasingly optimizing spend against nutritional outcomes.
- Finally, early engagement with nutrient profiling systems, retailer scoring frameworks, and label-scanning apps can help shape how products are evaluated, rather than reacting to external standards.

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<sup>5</sup> We believe label-scanning apps could significantly impact this behavior.

# Imprint

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