TOPIC: PRODUCT INNOVATION

INSIDE THE GROWTH OF PROTEIN BEVERAGES

7 min read

Trends in health and wellness continue to shape consumer behavior, and protein sits at the center of that shift. NielsenIQ's 2025 outlook projects the global health and wellness market reaching $9.3 trillion by 2028 across sleep, nutrition, exercise, and mental health spending [1]. Driven by swift behavioral changes, primarily in Millennials and Gen Z, driving rapid changes in daily habits, wellness has moved from a niche interest to a major economic force.

Protein's role in this transformation is undeniable. The International Food Information Council's 2025 Food and Health Survey reports that 72% of U.S. consumers are trying to increase protein intake, up from 59% in 2022 [2]. Ready-to-drink protein beverages are a key part of that growth. Grand View Research's 2025 update projects the RTD protein beverage market reaching $3.6 billion by 2030 with a 6.4% CAGR [3]. Broader functional protein beverages, including shakes, waters, and fortified blends are valued at $12.4 billion in 2024 and expected to surpass $22.1 billion by 2033 [4].

A clear example of this shift comes from Planet Fitness, where Core Power Elite 42g from Fairlife LLC became a top-selling cooler item in 2024. Members grabbed it on the way out, not because they were training for competition, but because it fit their day. A quick protein boost before a meeting or after a workout has become part of everyday wellness.

Protein Basics: Why the Interest

Among its innumerable applications, protein supports tissue repair, metabolic health, satiety, neurotransmitter production, and immune function. Amino acids, the building blocks of all proteins, are critical in the discussion. The human body utilizes twenty amino acids, 11 of which are naturally produced internally, while the other nine must come from diet, earning the moniker “Essential Amino Acids”. These include leucine, lysine, and tryptophan, which play roles in muscle repair, hormone production, and mood regulation [5].

Consumers are also paying more attention to protein quality. Whey protein isolate scores high on PDCAAS (Protein Digestibility-Corrected Amino Acid Score), while many plant proteins need blending to reach similar completeness [6]. This shift in awareness is influencing product development and purchasing decisions.

A good example is Vega, a Danone brand. After moving from a pea-only formula to blended proteins like pea, pumpkin seed, sunflower, and alfalfa, Vega saw stronger repeat purchases. The improved amino acid profile aligned better with what consumers were looking for.

Protein Quality and Source Material

Protein quality and ultimate product quality depend on sourcing, processing, and bioavailability. Consumers want clean labels, complete amino acid profiles, and functional benefits.

Animal proteins such as whey, casein, and collagen remain strong due to digestibility and completeness. Plant proteins like pea, rice, soy, and hemp continue to grow, especially among younger consumers. Blends help improve amino acid balance. Fermented proteins, produced through precision fermentation, are gaining attention for sustainability and allergen reduction.

Precision fermentation is especially noteworthy. The Good Food Institute’s 2025 report projects the market growing from $1.6 billion in 2022 to $42 billion by 2030 [7]. This technology creates dairy-like proteins without animals, reducing supply chain volatility and environmental impact. GFI notes that precision fermentation can cut dairy-related emissions by up to 85% [7].

Perfect Day illustrates this shift. Its animal-free whey protein has been used in beverages and frozen desserts, attracting consumers who want the benefits of whey without dairy. Early adopters helped the brand expand into new categories and partnerships.

Manufacturing Considerations: Quality and Process Control

Manufacturers must deliver safe, stable, and appealing protein beverages. Temperature control is central to this. RTD protein beverages often require ultra-high temperature treatment at 135–150°C for 2–5 seconds or pasteurization at 72°C for 15 seconds to ensure safety while limiting denaturation [8]. Homogenization at 55–65°C improves solubility and mouthfeel. “Fouling, viscosity, and phase separation are some operational challenges in protein beverage production,” states Kayla Johnson from First Key Consulting. Refrigerated products must be held at 0–4°C, while shelf-stable formats require validated UHT and packaging systems.

Low-acid, high-protein beverages are prone to microbial growth, so aseptic filling and hygienic design are essential. Inline sensors and real-time analytics help maintain consistency in viscosity, particle size, and nutrient retention.

A real-world example comes from Muscle Milk, produced by Cytosport (PepsiCo). A documented recall in 2011 involved possible microbial contamination identified during routine quality checks, underscoring how sensitive high-protein systems can be and how critical process control is in preventing spoilage [11]. After implementing stronger inline monitoring, the company improved product consistency and reduced quality issues.

Functional Additives: Expanding Beyond Protein

Protein beverages now include functional additives that support broader wellness goals. Stabilizers and emulsifiers improve texture. Natural sweeteners like stevia, monk fruit, and allulose support sugar reduction. Micronutrients such as vitamin D, calcium, and magnesium add nutritional value. Adaptogens and botanicals like ashwagandha, turmeric, and mushroom extracts support stress management and immunity. Probiotics and prebiotics support gut health.

These ingredients also help brands tell a stronger story. Consumers want products that support energy, mood, and longevity. The rise of “stacked functionality” (combining nootropics, adaptogens, probiotics, and electrolytes) is shaping what analysts call Functional Beverages 3.0.

Koia is a good example. Its Koia Thrive line blends protein with adaptogens and botanicals to support focus and stress reduction. The line gained traction in co-working spaces and among remote workers looking for steady energy without caffeine spikes.

Supply Chain: Sourcing, Processing, Production, Distribution

Protein beverages rely on complex supply chains. Animal proteins face seasonal variability. Plant proteins depend on crop yields. Fermented proteins offer resilience but require specialized infrastructure. Processing steps like filtration, concentration, and drying affect solubility and flavor. Scaling production requires strong validation and allergen management.

Sustainability is becoming a major factor. The beverage industry accounts for 3.9% of global CO_2 emissions according to the IEA’s 2025 update [9]. Protein beverages face scrutiny for dairy and soy sourcing. Companies are adopting renewable energy, water reuse, and circular packaging to reduce their footprint. Packaging innovations in PET, aluminum, and Tetra Pak balance sustainability with brand identity.

Orgain made a notable move by shifting several RTD protein beverages to 100% recycled PET in 2023. This reduced millions of pounds of plastic use and became a core part of the brand's sustainability message.

Protein beverages are no longer just about protein. They represent quality, functionality, and trust. They rely on controlled manufacturing, purposeful additives, and resilient supply chains. Consumers want transparency and efficacy. Manufacturers must deliver consistency and innovation. Retailers and distributors expect reliability and differentiation. The RTD protein beverage market is becoming a sophisticated ecosystem where science, sustainability, and storytelling come together.

The numbers reinforce the trend. More than seven in ten U.S. consumers are increasing their protein intake. The RTD protein beverage market is projected to reach **$3.6 billion by 2030** [3]. Precision fermentation is expected to exceed **$42 billion by 2030** [7]. Plant-based protein supplements are growing at **9.4% annually** [10]. For consumers, protein beverages offer complete nutrition and functional benefits. For producers, they offer a high-growth category where innovation in sourcing, processing, and sustainability can shape long-term leadership. Protein is driving one of the most dynamic shifts in health and wellness today. "The winners in this space will be those who can translate formulation science into consistent, scalable production," states Kayla Johnson from First Key Consulting.

To learn more about protein beverage production including supply chain planning, innovation, quality and process control, contact us

By Michael Gonzales

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