Global Whey Powder Market

Market size, segmentation, competitive landscape and outlook

2021-2031

September 2026

Moving forward, together

Every one of us has, at some point, heard the line from *Alice in Wonderland*: “It takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast.” Cliché as the quote has become, our world is changing at extraordinary speed. And yet, to my mind, it matters not only to run fast, but — more importantly — to know where you are running.

We see ourselves as the navigator, ready at the right moment to point out the correct course. By providing current, timely information for the decisions that matter, we aim to protect our clients from missteps and to help them find new opportunities.

It matters to us that you are satisfied with the work we have done. If you have any questions about this report, we will be glad to answer them.

ANDREY SHEVCHENKO, Managing Partner

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Market at a glance

This demo shows the **form and depth** of the report — real narrative with the detailed figures and tables masked as “XXX”. When you order the report, every figure is finalised and verified for your copy, and the full report is delivered within 24–72 hours.

Indicator	**Value**
Market size (2025)	USD 11.8 bn
Forecast (2031)	USD 18.9 bn
CAGR (2021-2031)	8.1%
Study period	2021-2031
Largest region	North America · 34.8%
Fastest-growing region	Asia-Pacific · 10.2%
Market concentration	Moderate
Licence	Individual / Company

The global whey powder market reached USD XXX billion in 2025 and is forecast to rise to USD XXX billion by 2031, advancing at an XX% CAGR. Whey protein concentrates command the largest product share as manufacturers shift cheese-whey streams toward higher-value nutrition ingredients. North America leads the market, while Asia-Pacific records the fastest growth through expanding sports nutrition, infant formula, clinical nutrition and protein-fortified food demand. Capacity additions increasingly favor isolates, functional concentrates and heat-stable proteins rather than commodity sweet whey powder.

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Executive summary

The global whey powder market reached USD XXX billion in 2025 and is forecast to rise to USD XXX billion by 2031, advancing at an XX% CAGR. Whey protein concentrates command the largest product share as manufacturers shift cheese-whey streams toward higher-value nutrition ingredients. North America leads the market, while Asia-Pacific records the fastest growth through expanding sports nutrition, infant formula, clinical nutrition and protein-fortified food demand. Capacity additions increasingly favor isolates, functional concentrates and heat-stable proteins rather than commodity sweet whey powder.

Indicator	Value
Market size 2025	XXX
Forecast 2031	XXX
CAGR	XXX
Largest region	XXX
Fastest region	XXX

Key findings

- The global whey powder market generated USD XXX billion in 2025 and will reach USD XXX billion by 2031.
- Whey protein concentrates represented XX% of 2025 market value, the largest product category.
- Whey protein isolates are forecast to expand at XX% CAGR, supported by premium sports, active-aging and medical-nutrition formulations.
- North America accounted for XX% of global revenue in 2025, supported by a large cheese-processing base and advanced membrane-filtration capacity.
- Asia-Pacific will grow at XX% CAGR and increase its global value share from XX% in 2025 to XX% in 2031.
- USDA reported XXX pounds of human-use dry whey production in 2024.
- USDA recorded XXX pounds of US whey protein concentrate production in 2024, including XXX pounds in the XX%-XX% protein range.
- US whey protein isolate production reached XXX pounds in 2024, rising XX% year on year according to USDA.

Market size and forecast

Market value by year, USD bn

Indicator	2026	2027	2028	2029	2030	2031	CAGR
Market value, USD bn	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Market volume	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Production	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Imports	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Exports	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Apparent consumption	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: XXX

Year-over-year value change

Indicator	2027	2028	2029	2030	2031	CAGR
Market value	X%	X%	X%	X%	X%	X%
Production	X%	X%	X%	X%	X%	X%
Imports	X%	X%	X%	X%	X%	X%
Exports	X%	X%	X%	X%	X%	X%

Source: XXX

Global Whey Powder Market Trends and Growth Drivers

Whey powder economics are being reshaped by the widening value gap between commodity solids and specialized proteins. Cheese manufacturers increasingly assess every whey stream against alternative returns from dry whey, lactose, permeate, WPC and WPI, making membrane configuration and product-mix flexibility central to profitability.

Demand is becoming less dependent on traditional sports supplements. Protein-fortified dairy, clear beverages, clinical products, healthy-aging nutrition and convenient snacks now create a broader, more resilient customer base, with functionality and sensory performance carrying greater weight in purchasing decisions.

The market nevertheless retains a strong commodity cycle. Cheese production, milk availability, energy costs, Chinese feed imports and global freight conditions influence plant utilization and regional pricing, while regulated infant and medical applications operate through longer qualification cycles and more stable customer relationships.

Growth drivers

High-protein diets enter the mainstream

Protein positioning has expanded from bodybuilding supplements into weight management, convenient breakfast, healthy snacking and everyday wellness. This enlarges the addressable customer base for instantized WPC and WPI while encouraging food brands to launch products carrying explicit protein claims.

Active nutrition broadens beyond athletes

Recreational consumers increasingly purchase protein powders, bars and ready-to-drink products for recovery, satiety and general fitness. Suppliers with clean-tasting isolates, clear-beverage proteins and strong dispersibility capture the highest-value specifications.

Healthy aging and medical nutrition scale

Population aging is increasing demand for nutrient-dense products designed to preserve muscle mass and support recovery. Whey's leucine content, digestibility and compact protein delivery strengthen its position in oral nutritional supplements and specialized clinical formulations.

Whey streams move up the value ladder

Cheese processors are installing membrane filtration, fractionation and advanced drying assets to convert whey into WPC, WPI and functional specialty powders. The strategy raises revenue per tonne and redirects solids away from lower-priced feed and commodity outlets.

Protein-fortified food and beverages proliferate

Heat-stable and low-viscosity whey systems allow higher protein loads in yogurt drinks, waters, coffee beverages, desserts and snacks. Application-ready ingredients shorten formulation cycles and give ingredient suppliers greater influence over customer product pipelines.

Infant-formula specifications support value

Demineralized whey powders and controlled whey-protein systems remain core tools for balancing minerals, protein quality and casein-to-whey ratios in infant nutrition. Traceable milk pools and validated food-safety systems sustain premium pricing despite weaker birth rates in several developed markets.

Restraints

Cheese-linked raw material volatility

Most conventional whey originates as a cheese-manufacturing co-product, tying ingredient supply to cheese economics rather than whey demand alone. Regional milk constraints, plant outages or shifts in cheese mix can tighten suitable whey streams and reduce utilization of downstream filtration assets.

Energy and processing costs pressure margins

Evaporation, filtration and spray drying require substantial energy, water and capital expenditure. Commodity producers have limited ability to pass rapid utility-cost increases through to customers, accelerating the advantage of efficient large-scale plants.

Allergen and lactose constraints limit formulations

Whey remains a milk-derived allergen and lower-protein powders can contain substantial lactose. These attributes exclude dairy-free consumers and create additional labeling, segregation and formulation requirements for food manufacturers.

Alternative proteins intensify competition

Soy, pea, rice and fermentation-derived proteins compete for protein-fortification budgets, particularly where vegan positioning or cost is decisive. Whey retains an amino-acid and functionality advantage, but blended systems can reduce the quantity used per finished product.

Trade disruption affects commodity whey

Low-protein whey is highly exposed to cross-border trade and Chinese feed demand. Tariffs, veterinary restrictions, customs reclassification and freight disruption can quickly redirect volumes and widen regional price spreads.

Whey Powder Market Driver and Restraint Impact on the Forecast

Drivers — impact on forecast

Driver	Impact on CAGR	Geography	Horizon
High-protein diets enter the mainstream	XXX	XXX	XXX
Active nutrition broadens beyond athletes	XXX	XXX	XXX
Healthy aging and medical nutrition scale	XXX	XXX	XXX
Whey streams move up the value ladder	XXX	XXX	XXX
Protein-fortified food and beverages proliferate	XXX	XXX	XXX
Infant-formula specifications support value	XXX	XXX	XXX

Source: XXX

Restraints — impact on forecast

Restraint	Impact on CAGR	Geography	Horizon
Cheese-linked raw material volatility	XXX	XXX	XXX
Energy and processing costs pressure margins	XXX	XXX	XXX
Allergen and lactose constraints limit formulations	XXX	XXX	XXX
Alternative proteins intensify competition	XXX	XXX	XXX
Trade disruption affects commodity whey	XXX	XXX	XXX

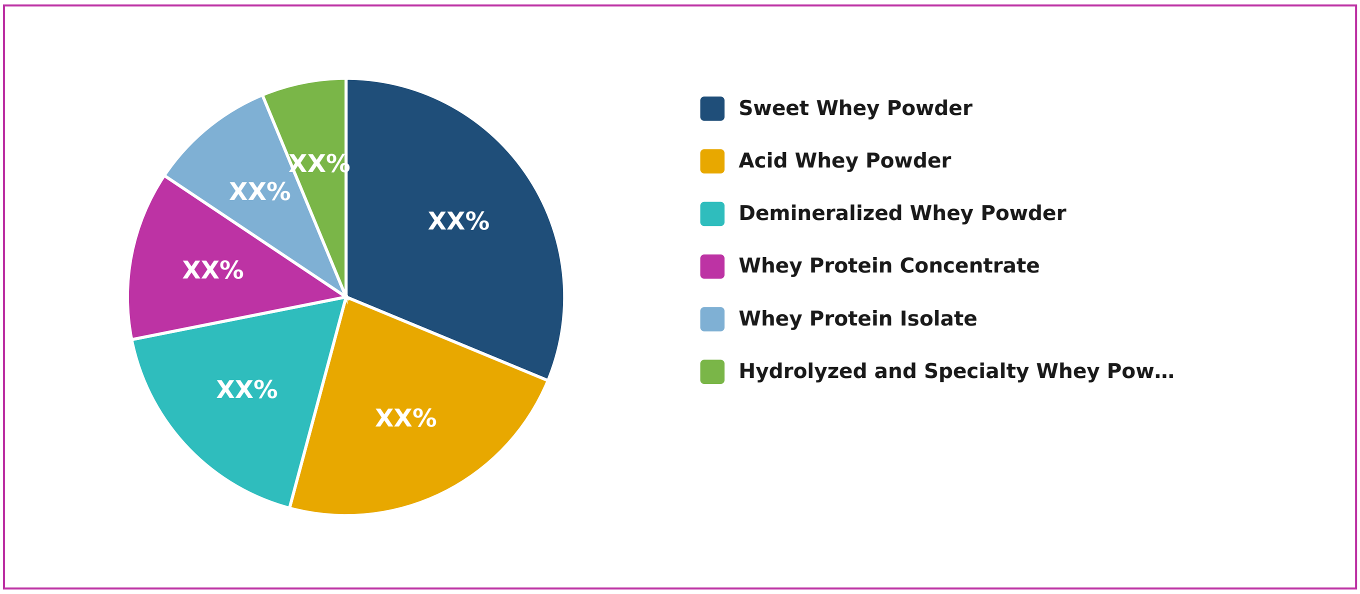
Source: XXX

Whey Powder Market Segmentation by Product, Application, Grade and Channel

By Product Type

WPC leads because it spans cost-efficient food fortification, sports nutrition and regulated nutrition across multiple protein concentrations. WPI and hydrolyzed powders command the strongest pricing through higher protein purity, low lactose and application-specific performance. Commodity sweet whey remains volume-intensive, but its value share will decline as processors direct suitable streams toward filtration.

Value share by product Type, 2025



Source: XXX

Value by product Type, USD bn

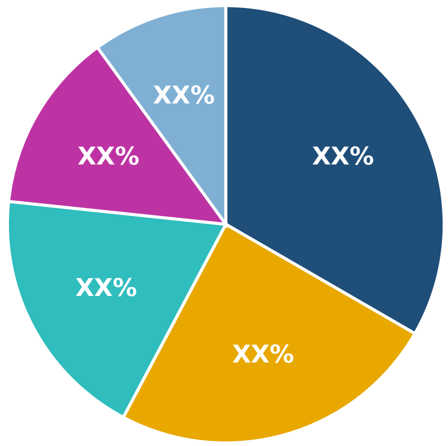
Segment	2026	2027	2028	2029	2030	2031	Share 2025	CAGR
Sweet Whey Powder	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Acid Whey Powder	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Demineralized Whey Powder	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Whey Protein Concentrate	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Whey Protein Isolate	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Hydrolyzed and Specialty Whey Powder	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: XXX

By Application

Sports and active nutrition leads as whey moves into mainstream fitness, healthy-weight and convenient lifestyle products. Food and beverage applications provide broad volume demand across bakery, confectionery, dairy and savory formulations. Clinical nutrition grows fastest because aging populations and recovery protocols favor digestible, leucine-rich protein in compact formats.

Value share by application, 2025



Source: XXX

Value by application, USD bn

Segment	2026	2027	2028	2029	2030	2031	Share 2025	CAGR
Sports and Active Nutrition	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Food and Beverages	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Infant Formula	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Clinical and Medical Nutrition	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Animal Feed and Pet Nutrition	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: XXX

By Grade

Food and beverage grade dominates through its use in mainstream nutrition, bakery, dairy and confectionery. Infant and medical grade carries the highest compliance burden and selling price because customers require tight microbiological, mineral and traceability specifications. Feed grade remains a major outlet for lower-value solids but grows below the market average.

Value by grade, USD bn

Segment	2026	2027	2028	2029	2030	2031	Share 2025	CAGR
Food and Beverage Grade	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Infant and Medical Grade	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Feed Grade	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: XXX

By Sales Channel

Direct sales dominate because industrial users negotiate annual volumes, quality parameters and technical support with producers. Distributors remain important for smaller food manufacturers, market entry and mixed-pallet supply. Digital B2B channels grow fastest as suppliers add transparent availability, forward contracting and smaller-lot purchasing.

Value by sales Channel, USD bn

Segment	2026	2027	2028	2029	2030	2031	Share 2025	CAGR
Direct Sales	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Ingredient Distributors	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Digital B2B Platforms	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: XXX

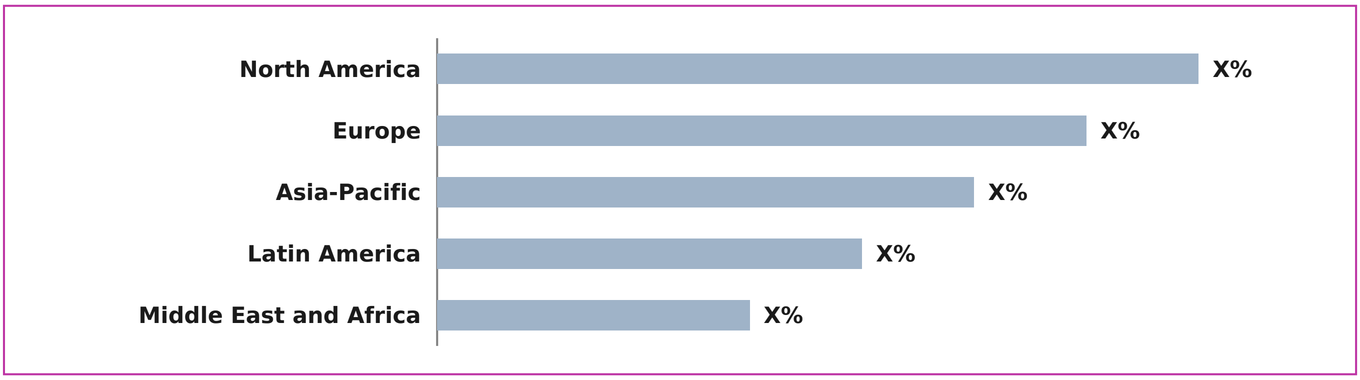
Whey Powder Market Regional Analysis and Country Outlook

North America held XX% of global market value in 2025. The United States combines abundant cheese whey, large-scale membrane filtration, established sports-nutrition demand and deep export links with China, Mexico, Japan and Southeast Asia. USDA's 2024 production data show the structural shift toward higher-value output: whey protein isolate production increased XX% even as human-use WPC production declined XX%.

Europe accounted for XX% of 2025 revenue and remains central to global demineralized whey, infant-nutrition and specialty-protein supply. Eurostat recorded XXX tonnes of whey in liquid equivalent from EU dairies in 2024, with the Netherlands, Germany, France, Poland, Ireland and Denmark supporting a dense processing ecosystem. Energy costs and mature domestic consumption moderate volume growth, but advanced fractionation and application-led products protect value creation.

Asia-Pacific is forecast to grow at XX% CAGR, the fastest regional pace. China remains the pivotal low-protein whey import market for feed while Japan and South Korea generate premium active-aging and functional-food demand; India and Southeast Asia provide the strongest runway for consumer protein adoption. Oceania supplies high-quality functional proteins into the region, while local Asian formulation centers increasingly tailor taste, solubility and pack formats to national preferences.

Growth rate by region, 2025-2031



Source: XXX

Market value by region, USD bn

Region	2026	2027	2028	2029	2030	2031	Share 2025	CAGR
North America	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Europe	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Asia-Pacific	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Latin America	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Middle East and Africa	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Source: XXX

Market value by leading country, USD bn

Country	2025	2031	Share 2025	CAGR
United States	XXX	XXX	XXX	XXX
Germany	XXX	XXX	XXX	XXX
United Kingdom	XXX	XXX	XXX	XXX
Belgium	XXX	XXX	XXX	XXX
Netherlands	XXX	XXX	XXX	XXX
Japan	XXX	XXX	XXX	XXX
China	XXX	XXX	XXX	XXX
Mexico	XXX	XXX	XXX	XXX

Source: XXX

Whey Powder Market Competitive Landscape and Company Share

The market is moderately concentrated: the ten leading suppliers controlled XX% of 2025 global revenue, while numerous regional cheese processors participate in commodity whey and mid-protein WPC. Fonterra, Lactalis Ingredients, Arla Foods Ingredients, Glanbia, FrieslandCampina Ingredients and Agropur combine secure whey access with filtration technology, global technical sales and regulated-nutrition capabilities.

Investment is moving toward premium protein capacity. Fonterra committed approximately NZD XXX to develop high-value protein production at Studholme, FrieslandCampina moved to acquire Wisconsin Whey Protein and its expanding WPI facility, and Arla Foods Ingredients contracted Valley Queen to manufacture microparticulate WPC in the United States. These moves strengthen regional supply resilience and reduce dependence on long-distance shipment of specialized ingredients.

Competition increasingly centers on functionality rather than protein percentage alone. Heat stability, clarity, low viscosity, instant dispersion, sensory neutrality and clinical documentation determine supplier selection in fast-growing applications. Digital contracting, customer application centers and verified environmental performance are becoming additional sources of differentiation.

Leading companies

Company	HQ	Est. revenue 2025	Market share 2025	YoY
Fonterra Co-operative Group	XXX	XXX	XXX	XXX
Arla Foods Ingredients	XXX	XXX	XXX	XXX
Lactalis Ingredients	XXX	XXX	XXX	XXX
Glanbia	XXX	XXX	XXX	XXX
FrieslandCampina Ingredients	XXX	XXX	XXX	XXX
Agropur	XXX	XXX	XXX	XXX
Hilmar	XXX	XXX	XXX	XXX
Saputo	XXX	XXX	XXX	XXX
Leprino Foods	XXX	XXX	XXX	XXX
Carbery Group	XXX	XXX	XXX	XXX

Source: XXX

Whey Powder Market Forecast and Strategic Opportunities to 2031

Global market value will increase by USD XXX billion between 2025 and 2031. WPC, WPI and hydrolyzed or specialty powders will supply USD XXX billion of that increase as protein upgrading outpaces commodity-whey growth. Isolates will gain the most share, while conventional sweet whey remains an important but slower-growing carrier for bakery, confectionery and feed.

The base-case forecast assumes continued cheese-output growth, sustained consumer protein adoption and progressive capacity commissioning. A stronger active-aging and GLP-1 nutrition response would lift demand for compact, high-quality protein, while prolonged dairy inflation or widespread substitution with lower-cost plant blends would soften volume growth.

Winning suppliers will control consistent whey streams, operate flexible fractionation assets and solve customers' formulation constraints. Local technical support in Asia, access to infant and medical specifications, and lower-emission drying will produce the clearest route to premium contracts through 2031.

Opportunities

- Clear whey beverages and shelf-stable high-protein RTDs
- Medical nutrition for sarcopenia and recovery
- Localized WPC and WPI capacity in Asia-Pacific
- Low-carbon whey powders using renewable energy and liquid intermediates
- Specialized hydrolysates and bioactive whey fractions
- Protein-enriched mainstream foods at accessible price points

> This preview shows the form and depth of the report. The full report contains every figure, segment- and country-level detail and full company profiles. On purchase all figures are finalised and verified, and the report is delivered within 24–72 hours.