NUT & SEED BUTTERS REPORT 2025

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Overview

Nut and seed butter have grown in popularity as tasty, nutritious, and versatile alternatives to dairy butter. Once mainly enjoyed as roasted snacks, they are now processed into many value-added products, with butter being one of the most common (Gorrepati, Balasubramanian, & Chandra, 2014; Clevenger, 2025). The term plant-based nut or seed butter typically refers to a product containing at least 90% nut or seed content (Gorrepati, Balasubramanian, & Chandra, 2014). These butters offer rich flavor and creamy texture, new snack options, and allergy-friendly choices for people with peanut or tree nut allergies (Clevenger, 2025). Natural nut and seed butters are made by roasting and grinding the nuts or seeds into a smooth paste, often with no added ingredients or preservatives. They can be refrigerated to keep them fresh and preserve their nutrients (Rektorisova, Tomaniova, & Hajslova, 2022; Gorrepati, Balasubramanian, & Chandra, 2014; Gray, 2025).

Nuts and seeds are naturally packed with nutrients, which make their butters a concentrated source of protein, fiber, healthy fats, and essential vitamins and minerals (Gorrepati, Balasubramanian, & Chandra, 2014; Rektorisova, Tomaniova, & Hajslova, 2022). Many varieties are also rich in antioxidants, and because they are energy-dense and satisfying, nut and seed butters have earned a reputation as “superfoods”. Their consumption may help reduce the risk of chronic conditions such as heart disease, diabetes, gallstone disease, and certain types of cancer (Gorrepati, Balasubramanian, & Chandra, 2014; Rektorisova, Tomaniova, & Hajslova, 2022; Blomhoff, Carlsen, Andersen, & Jacobs, 2006).

Market Growth

The global nut butters market, valued at approximately USD 2.2 billion in 2025, is projected to surpass USD 45.4 billion by 2035, representing a CAGR of 35.3% (Future Market Insights, 2025). The almond butter segment currently holds the largest share of the nut butter market, and market analysts predict steady growth in almond-based foods (Future Market Insights, 2025; Market Research Future, 2022). Rapid growth in nut butters is primarily driven by younger consumers seeking nutrient-dense, natural products that are protein-rich, plant-based, gluten-free, low sugar, and support healthier lifestyles. The prevalence of chronic health concerns, combined with the versatility of nut butters, further contributes to market expansion (Verified Market Research, 2025; Market Report Analytics, 2025; Future Market Insights, 2025; Vene, Lumi, Alas, & Huseynli, 2025).

North America, particularly the U.S. and Canada, leads the market due to high purchasing power, advanced retail networks, and strong consumer demand for clean-label, organic, and functional products. Ongoing product innovation, such as new flavor combinations, fortified formulations, and expanded distribution through supermarkets and e-commerce, continues to enhance the appeal and accessibility of nut butters (Market Report Analytics, 2025; Verified Market Research, 2025).

Seed butters are emerging as one of the fastest-growing segments within this broader market. Increasing rates of nut allergies and intolerances have shifted consumers toward allergen-friendly alternatives, positioning seed butters as safe, nutritious, and versatile options (Verified Market Research, 2025; Market Report Analytics, 2025). With their protein, fiber, and healthy fats levels, seed butters align with vegan, vegetarian, and sustainability-focused diets (Market Report Analytics, 2025). However, the industry faces challenges, including higher production costs than traditional nut butters, potential allergic reactions in some individuals despite being marketed as hypoallergenic, limited consumer awareness and taste familiarity, and competition from established nut butter brands with strong consumer loyalty.

Examples

While peanut butter remains the classic favorite, advances in food technology and growing interest in plant-based diets have paved the way for a wide variety of nut and seed butters, including almond, cashew, pistachio, pumpkin seed, sunflower seed, sesame, and soy varieties (Gorrepati, Balasubramanian, & Chandra, 2014; Gray, 2025). Highly versatile, these butters can be spread on toast, pancakes, or fruit, blended into smoothies, used in baked goods and sauces, or enjoyed as a snack. Their rich flavor, creamy texture, and nutritional benefits have helped boost their popularity in home kitchens and professional food settings (Verified Market Research, 2025).

Almond Butter

Almond butter, made from finely ground almonds (Prunus dulcis), is a nutrient-dense spread that has become a popular alternative to traditional peanut butter (Gray, 2025; Clevenger, 2025). With its rich flavor, thicker texture, and versatility in baking, cooking, or simply as a spread, almond butter continues to gain recognition as a functional food and premium plant-based product (Gray, 2025; Clevenger, 2025). Almond butter is typically made by roasting almonds and grinding them into a smooth paste. However, raw varieties from unroasted almonds are also available, offering a slightly different flavor profile (Clevenger, 2025).

Almonds are naturally packed with beneficial nutrients, including monounsaturated fats, protein, vitamin E, magnesium, calcium, potassium, and dietary fiber (Beck, 2020; Gray, 2025; Spiller, et al., 2003; Clevenger, 2025; Gorrepati, Balasubramanian, & Chandra, 2014). More than half of the fat in almond butter is monounsaturated, the heart-healthy type known to lower bad cholesterol while supporting higher levels of good cholesterol, thereby reducing the risk of heart disease (Gorrepati, Balasubramanian, & Chandra, 2014; Spiller, et al., 2003; Gray, 2025; Beck, 2020). Research also shows that incorporating almonds or almond butter into a balanced diet provides antioxidants and bioactive compounds that protect cells from damage and reduce inflammation, reinforcing their role in preventative nutrition (Gray, 2025; Beck, 2020; Clevenger, 2025). However, since almonds are a common allergen, alternatives should be sought by individuals allergic to almonds (Gray, 2025).

Major food companies have recently expanded their almond butter offerings in response to consumer demand. RXBAR introduced single-serving sachets in 2023, targeting busy, on-the-go consumers seeking convenient and nutritious options (Market Research Future, 2022). Nutella entered the almond butter space the same year, diversifying its product line to appeal to health-conscious markets (Market Research Future, 2022). Meanwhile, Barney Butter released a no-sugar-added variety designed for individuals following keto or low-sugar diets (Market Research Future, 2022). These innovations highlight how brands leverage almond butter's nutritional appeal and market potential to capture a growing share of the plant-based and functional foods market.

Soy Butter

Soy butter, also known as soy nut butter, is a plant-based spread made from soybeans (Glycine max) and has emerged as a healthy alternative to peanut butter, particularly for individuals with peanut or tree nut allergies (Gorrepati, Balasubramanian, & Chandra, 2014; Abd-Elsattar & Abdel-Haleem, 2016). Although relatively new and not as widely available as traditional nut butters, soy butter is an allergen-friendly, nutrient-dense spread that is versatile and can be used as a spread, incorporated into baked goods, or added to savory recipes (Gorrepati, Balasubramanian, & Chandra, 2014; Abd-Elsattar & Abdel-Haleem, 2016; Murugkar, Kotwaliwale, Kumar, & Gupta, 2013).

Its preparation generally involves soaking the soybeans, removing their skin, roasting them to develop flavor and color, and grinding them into a paste with added oil for texture (Murugkar, Kotwaliwale, Kumar, & Gupta, 2013; Gorrepati, Balasubramanian, & Chandra, 2014; Redden, 2023; Gray, 2025). Variants include raw or sprouted soybean butters, which offer different flavors and textures (Gorrepati, Balasubramanian, & Chandra, 2014; Redden, 2023). While some commercial products include added salt or sugar, unsweetened and low-sodium options are available for health-conscious consumers (Gray, 2025). Although its taste is sometimes criticized compared to peanut butter, pairing soy butter with jams or complementary spreads can enhance its flavor (Redden, 2023).

Soybeans are valued for their high-quality protein, providing all essential amino acids required by both children and adults, nutrients the body cannot produce on its own (Gorrepati, Balasubramanian, & Chandra, 2014; Abd-Elsattar & Abdel-Haleem, 2016). Soy butter contains less fat than many commercial peanut butters and is rich in unsaturated fats and low in saturated fats (Abd-Elsattar & Abdel-Haleem, 2016; Redden, 2023; Gray, 2025). It is also a good source of fiber, vitamin B, folic acid, calcium, iron, and antioxidants, which support bone strength and may lower the risk of cardiovascular disease, cancer, and osteoporosis (Abd-Elsattar & Abdel-Haleem, 2016; Redden, 2023).

Sunflower Seed Butter

Sunflowers (Helianthus annuus L.), widely grown for their oil, are increasingly recognized for their broader nutritional and functional properties in food production. One of the most popular value-added products from sunflower seeds is sunflower seed butter, a creamy, allergen-friendly alternative to traditional nut butters (Vene, Lumi, Alas, & Huseynli, 2025; Redden, 2023). Sunflower seed butter offers a safe and appealing choice for individuals

with nut allergies or those seeking plant-based options (Redden, 2023). Beyond serving as a spread, it is a versatile ingredient for baked goods, candies, dairy-free spreads, high-protein snacks, salad dressings, pesto, and sauces (Vene, Lumi, Alas, & Huseynli, 2025).

Sunflower seed butter is typically prepared by roasting high-quality sunflower seeds to enhance their nutty flavor and release natural oils for a smoother consistency (Munoz, 2024). Seeds are roasted at around 350°F until golden brown, then finely ground into a powder and blended into a paste. Additional ingredients such as salt, honey, or oil may be added to adjust taste and texture (El-Din & Nasef, 2024). Variations range from simple three-ingredient spreads with seeds, salt, and vanilla extract to indulgent options flavored with coconut sugar, cinnamon, or cocoa (Munoz, 2024). Sunflower seed butter is a creamy, nutritious spread that, with continued innovation and effective marketing, could expand its presence as a household staple and a key ingredient in the global food industry (Vene, Lumi, Alas, & Huseynli, 2025).

Nutritionally, sunflower seed butter is packed with beneficial compounds, including protein, fiber, unsaturated fats, vitamins, and minerals such as selenium, zinc, folate, iron, copper, and other phytochemicals (Vene, Lumi, Alas, & Huseynli, 2025; El-Din & Nasef, 2024). Its antioxidant properties support overall health by lowering the risk of chronic diseases such as cancer, obesity, hypertension, hypercholesterolemia, rheumatoid arthritis, diabetes, and osteoarthritis (El-Din & Nasef, 2024). These antioxidants also contribute to food stability and extended shelf life (Vene, Lumi, Alas, & Huseynli, 2025).

Rural Economic Development

The nut butter industry offers significant opportunities for rural economic development. Farmers benefit from direct partnerships with manufacturers and agricultural cooperatives at the production stage, which create reliable markets for nuts, seeds, and other raw materials. These partnerships provide farmers with more stable incomes, support small- and medium-scale operations, and help strengthen rural economies (Nu Flower, 2023; WK Information, 2025).

Processing and manufacturing further contribute to rural economic growth by generating local jobs in production facilities. Establishing these plants in rural communities helps reduce unemployment, provides workforce training, and develops valuable skills in food processing and quality assurance. By adding value locally, more economic benefits remain within the communities where raw materials are grown (Nu Flower, 2023; WK Information, 2025). A strong example is the almond industry, which has contributed about 97,000 jobs to the Central Valley economy, an important boost for a region that has long faced high unemployment (Sumner, Matthews, Medellín-Azuara, & Bradley, 2014). Farms and processors also create ripple effects throughout the local economy by purchasing goods and services from other businesses. The income earned by employees is then reinvested into their communities through the purchase of consumer goods, services, and tax payments at both the local and state levels (Sumner, Matthews, Medellín-Azuara, & Bradley, 2014)

Beyond production, distribution channels such as wholesale markets, retail chains, e-commerce platforms, and specialty food stores offer rural enterprises new ways to connect with national and international consumers. Participation in these networks allows rural producers to expand market reach, foster entrepreneurship, and build stronger local brands, further enhancing community economic resilience (WK Information, 2025).

Climate Adaptation

Nut and seed butters offer significant potential to reduce climate change impacts compared with animal-based products. Studies show that plant-based spreads, including nut butters, generally produce lower greenhouse gas emissions, require less land, and consume less water per serving than dairy butter or red meat, despite variations in production methods and regions (Liao, et al., 2020; Tapsell, et al., 2023). Among protein sources, nuts rank among the lowest for greenhouse gas emissions and eutrophication potential, a measure of the excess nitrogen and phosphorus runoff that can lead to harmful algae blooms and oxygen depletion in water bodies (Tapsell, et al., 2023). Incorporating nut and seed butters into daily diets can promote environmentally sustainable eating patterns, supporting food and nutrition security for current and future generations (Tapsell, et al., 2023).

While water use concerns certain nuts, sustainable agricultural practices can help minimize these impacts. Nuts grown in traditional or extensive systems typically require fewer chemical inputs and less intensive irrigation than those produced in large-scale industrial operations (Tapsell, et al., 2023). Furthermore, the water footprint of some nuts, such as peanuts, is lower than that of most animal-based proteins when measured per gram of protein. Careful selection of production regions also plays a key role, as growing nuts in areas with adequate water resources helps reduce pressure on local supplies and supports more resilient production systems (Tapsell, et al., 2023). Nut and seed butters can serve as a valuable component of climate-smart and environmentally responsible food systems by prioritizing sustainable sourcing and water-efficient production.

Valorizing nut and seed processing waste offers another avenue for improving sustainability and reducing environmental impacts. Transforming by-products such as shells, skins, hulls, and leafy covers into organic compost, biofuels, functional food ingredients, or bioactive compounds helps reduce reliance on synthetic additives, lowers the cost of natural additives, and diverts waste from landfills (Prorec, n.d.; Tomar, Gundogan, Karaca, & Nickerson, 2023). Incorporating nutshell waste into biodegradable polymers can decrease energy consumption during production and greenhouse gas emissions while producing lightweight, low-cost materials for packaging, automotive, biomedical, and agricultural applications (McNeill, et al., 2024).

Additionally, nut by-products also offer practical benefits within the agricultural sector. Hulls and shells can be used as livestock feed or animal bedding, further extending the value chain. For instance, the fuzzy hulls surrounding almond shells contain a relatively

high energy value for ruminant animals, making them a useful feed component for dairy farmers. Typically, alfalfa hay accounts for about 17% of dairy cow feed rations; however, incorporating almond hulls can reduce dependence on alfalfa, a water-intensive crop (Sumner, Matthews, Medellín-Azuara, & Bradley, 2014). Such practices create new economic opportunities and strengthen the circular economy by turning agricultural by-products into valuable resources rather than waste.

Beyond production, nut and seed butters also have environmental advantages at the consumption stage. Whole nuts and minimally processed butters have a long shelf life, require little to no refrigeration, and consume less energy during storage and transport (Gray, 2025; Tapsell, et al., 2023). They also generate minimal waste since they are consumed almost entirely, further reducing their environmental footprint (Tapsell, et al., 2023). These attributes make nut and seed butters sustainable, climate-friendly foods that align with global efforts to promote energy-efficient, low-waste, and resource-conscious dietary practices.

Opportunities and Challenges for Nut Butters

Opportunities

The nut and seed butter market offers strong growth opportunities driven by innovation, convenience, health, and sustainability. Product diversification remains a key driver, as manufacturers move beyond traditional single-nut spreads to create multi-nut blends and superfood-enriched varieties that appeal to adventurous and health-conscious consumers (Market Research Future, 2022). Functional butters fortified with omega-3s, probiotics, and other nutrients continue gaining traction alongside broader preventative health trends. Meanwhile, advances in artificial intelligence and machine learning are helping producers personalize nutrition, improve taste and texture, extend shelf life, and enhance sustainable sourcing and supply chain efficiency (Future Market Insights, 2025)

Convenience-driven innovation is also reshaping the market. The demand for portable, nutrient-dense snacks has fueled growth in single-serve packets and ready-to-eat formats that suit busy lifestyles. This trend reflects a broader shift toward on-the-go consumption, where consumers expect nutritional quality to match convenience and speed (Market Research Future, 2022). At the same time, reduced-fat, sugar-free, and protein-fortified options are meeting the needs of low-calorie, health-focused, and athletic consumers seeking quick yet nutritious choices (Gorrepati, Balasubramanian, & Chandra, 2014; Future Market Insights, 2025).

Sustainability and transparency further strengthen long-term opportunities. Organic and clean-label nut butters, projected to grow at a CAGR of 5.55%, are increasingly favored for their food safety, environmental responsibility, and natural ingredients (Market Research Future, 2022). Products made from pesticide-free, non-GMO nuts and free from artificial additives align with growing consumer demand for ethically sourced and minimally processed foods. Partnerships with organic cooperatives and specialty

processors will be key to maintaining competitiveness as the market evolves (Future Market Insights, 2025).

Challenges

Despite their growing popularity, nut and seed butters face several challenges affecting product quality and market expansion. One of the main technical challenges is maintaining product stability. Their unsaturated fat content makes them prone to lipid oxidation and hydrolysis, which can cause rancidity, off-flavors, nutrient loss, and the formation of potentially harmful compounds (Rektorisova, Tomaniova, & Hajslova, 2022). These reactions are strongly influenced by processing and storage conditions, including roasting temperature, grinding, and exposure to light, oxygen, and heat during storage (Gorrepati, Balasubramanian, & Chandra, 2014; Rektorisova, Tomaniova, & Hajslova, 2022). Pure nut and seed butters without stabilizers or added antioxidants are especially vulnerable, and although stabilizers can help extend shelf life, strict control of processing and storage remains essential to preserve nutritional value and quality (Rektorisova, Tomaniova, & Hajslova, 2022).

In addition to technical concerns, allergen risks present a significant barrier to market growth. Peanuts and tree nuts are among the most common allergens, affecting millions of people, particularly children (Redden, 2023). Many nut butters are produced in shared facilities, creating cross-contamination risks that require rigorous allergy-control procedures. These safety measures increase production costs and limit the potential consumer base (Verified Market Research, 2025; Redden, 2023). While non-allergenic seed butters offer safer alternatives, consumer awareness and product availability remain inconsistent (Gray, 2025).

Economic and market pressures add further complexity. Rising competition from alternative spreads, including fruit-based and plant-protein options, has increased market saturation and pricing pressures (Future Market Insights, 2025). Global fluctuations in nut prices also directly impact production costs and retail pricing. At the same time, producers must comply with stringent food safety and labeling regulations from authorities such as the Food and Drug Administration (FDA), particularly due to the allergenic nature of many nuts (Future Market Insights, 2025).

Finally, while nut and seed butters are prized for their nutritional density, consumers should moderate their intake due to their high caloric content. Eating the recommended serving size, typically two tablespoons, helps prevent excessive calorie consumption (Gray, 2025). These technical, allergenic, and economic challenges collectively underscore the need for continued innovation in processing, formulation, and product differentiation to support the sustainable growth of the nut and seed butter industry.

Conclusion

Nut and seed butters emerge as innovative, value-added alternatives to traditional peanut and dairy. They are highly nutritious, versatile, and climate-friendly, and meet growing consumer demand for plant-based, clean-label, and functional foods. Their lower environmental footprint and potential for valorizing processing waste make them key contributors to sustainable and climate-smart food systems.

These products also offer significant opportunities for rural economic development by creating markets for farmers, supporting local processing, and fostering entrepreneurship in rural communities. Through multi-nut blends and efficient and convenient organic options, continued innovation will strengthen their market presence. However, allergen risks and competition remain challenges. Overall, nut and seed butters demonstrate how sustainability, health, and rural innovation can align to create resilient and profitable food systems.

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