

Protein Alternatives Market by Source (Plant Protein, Microbial Protein, Insect Protein), Application (Food & Beverages, Animal Feed, Pet Food), Form, Nature, Production Process (Qualitative), & Region - Global Forecast to 2029

Market Report | 2024-07-01 | 380 pages | MarketsandMarkets

AVAILABLE LICENSES:

- Single User \$4950.00
- Multi User \$6650.00
- Corporate License \$8150.00
- Enterprise Site License \$10000.00

Report description:

The global market for protein alternatives is estimated to be valued at USD 15.7 billion in 2024 and is projected to reach USD 25.2 billion by 2029, at a CAGR of 9.9% during the forecast period. The increasing demand for protein alternatives is driven by several key factors, particularly the growing consumer preference for natural and clean-label ingredients in food and beverages. As health becomes a top priority, there is a rising desire for products perceived as natural and nutritious. Protein alternatives derived from plants like soy, peas, and lentils fit perfectly with this trend. These plant-based proteins not only serve as natural additives but also offer functional benefits, making them appealing for use in a wide variety of food and beverage products.

Additionally, there is a heightened awareness and adoption of plant-based diets, emphasizing the importance of protein-rich plant sources. Plant-based protein diets are known for their numerous health benefits, including better weight management, improved digestive health, and a reduced risk of chronic diseases such as heart disease and diabetes. Plant-based proteins from legumes, nuts, and seeds meet these dietary needs while offering sustainable and ethical alternatives to animal-based proteins, further driving their popularity in the market.

In May 2023, ADM (US) and Air Protein Inc (US) entered into a Strategic Development Agreement (SDA) to collaborate on developing new protein sources for nutrition. Air Protein specializes in producing protein from the air without the need for traditional agriculture, reducing supply chain risks. This partnership leverages ADM's expertise in nutrition, formulation, and research with Air Protein's innovative landless agriculture platform to scale up cost-effective protein ingredients for meat substitutes. The agreement includes plans to build and operate the world's first commercial-scale Air Protein plant. ADM's investment in Air Protein and other partners has advanced the development of Air Protein's technology, including its Bay Area Air Farm. This agreement highlights the companies' commitment to sustainable food systems and meeting the protein demand of a growing global population.

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

"The conventional segment is projected to dominate the market in the nature segment during the forecast period."

The market for protein alternatives is witnessing substantial growth as more consumers transition from animal-based proteins to plant-based options. This trend has significantly increased the demand for alternative protein products. Conventional crops, due to the use of fertilizers, pesticides, and synthetic chemicals in their cultivation, generally exhibit higher protein levels compared to organic crops. Thus, conventional plant-based proteins are well-positioned to meet this rising demand.

Health concerns and allergies associated with soy and wheat have led manufacturers to innovate. In January 2022, NuCicer, a US-based company, introduced a line of chickpea protein products as a more sustainable and cost-effective alternative. This high-protein, gluten-free products are intended to serve as viable substitutes for traditional protein sources such as soy, wheat, and peas. As demand for alternative proteins grows, companies are increasingly investing in research and development to broaden their product portfolios and address consumer preferences. In addition to chickpeas, other novel sources like hemp, algae, and quinoa are gaining popularity for their nutritional and sustainable qualities.

Technological advancements in food production are enhancing the taste, texture, and functionality of alternative protein products, further driving consumer acceptance and market expansion. With continuous innovation and growth in the protein alternatives sector, the future promises significant opportunities for both consumers and manufacturers.

"The dry sub-segment in the form of the segment is estimated to grow at a significant CAGR during the forecast period."

The dry form of protein alternatives is experiencing substantial growth, marked by a significant compound annual growth rate (CAGR) during the forecasted period. This surge is driven by increasing consumer demand for sustainable and plant-based protein sources, coupled with advancements in food technology that enhance the taste, texture, and nutritional profile of these products. The versatility and convenience of dry protein alternatives, such as powders and flakes, make them ideal for incorporation into a wide range of food products, including snacks, baked goods, and meal replacements. Additionally, the growing awareness of health and wellness trends, alongside environmental concerns associated with traditional animal-based proteins, further propels the market. As a result, manufacturers are increasingly investing in research and development to innovate and expand their product offerings, thereby fueling the continued growth and adoption of dry protein alternatives globally.

"Europe has consistently held a substantial market share within the protein alternatives sector during the period studied."

The European region is at the forefront of the booming protein alternatives market, showcasing impressive growth and shifting consumer preferences. As health consciousness, environmental sustainability, and ethical considerations gain traction, European consumers are increasingly opting for plant-based protein alternatives over traditional animal-derived sources. This dietary shift is driven by growing awareness of the health benefits of plant-based diets, such as reduced risk of chronic diseases and improved environmental sustainability. Consequently, the protein alternatives market in Europe has experienced significant expansion, with a wide array of innovative products emerging to meet diverse consumer needs and preferences.

Additionally, the rising trend of adopting plant-based proteins extends to animal feed. With increasing concerns about the environmental impact and ethical implications of livestock farming, there is a growing demand for sustainable alternatives in animal agriculture. Plant protein-based animal feed presents a viable solution, offering a nutritious and eco-friendly substitute for conventional animal-derived feed ingredients. This trend is further supported by regulatory initiatives aimed at promoting sustainable agriculture and minimizing the ecological footprint of livestock production. As a result, the European market for plant-based animal feed is witnessing steady growth, creating lucrative opportunities for stakeholders across the agricultural value chain.

In January 2024, Roquette Freres (France) expanded its NUTRALYS plant protein portfolio by introducing four new pea protein ingredients, including isolates, hydrolysates, and textured variants. These multifunctional pea proteins are designed to address formulation challenges in plant-based foods and high-protein nutritional products, paving the way for innovation in applications such as nutritional bars, protein drinks, and plant-based meat and dairy alternatives. This innovation is set to drive further growth and diversification in the protein alternatives market, enabling the development of more varied and appealing plant-based options for consumers.

The break-up of the profile of primary participants in the protein alternatives market:

- By Company Type: Tier 1 - 25%, Tier 2 - 45%, and Tier 3 - 30%
- By Designation: CXO's - 20%, Managers - 50%, Executives- 30%
- By Region: North America - 25%, Europe - 20%, Asia Pacific - 30%, South America - 15% and Rest of the World -10%

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Prominent companies ADM (US), Cargill (US), International Flavors & Fragrances Inc. (US), Ingredion (US), Roquette Freres (France), Wilmar International Ltd. (Singapore), Glanbia plc (Ireland), Kerry Group PLC (Ireland), DSM (Netherlands), AGT Food and Ingredients (Canada), Burcon (Canada), InnovaFeed (France), Emsland Group (Germany), Global Bugs (Thailand), Ynsect (France), Tate & Lyle (UK).

Other players include BENE0 GmbH (Germany), SOTEXPRO (France), Shandong Jianyuan group (China), AMCO Proteins (US), Emsland Group (Germany), COSUCRA (Belgium), Australian Plant Proteins Pty Ltd (Australia), PURIS (US), Mycorena (Sweden), CEAMSA (Spain), nextProtein (France), Hexafly (Ireland).

Research Coverage:

This research report categorizes the protein alternatives market by Source (plant protein, microbial protein, insect protein), by Form (dry, liquid), by Nature (conventional, organic), by application (food & beverages, animal feed, pet food) and by region (North America, Europe, Asia Pacific, South America, RoW). The scope of the report covers detailed information regarding the major factors, such as drivers, restraints, challenges, and opportunities, influencing the growth of the protein alternatives market. A detailed analysis of the key industry players has been done to provide insights into their business overview, services, key strategies, contracts, partnerships, and agreements. New service launches, mergers and acquisitions, and recent developments associated with the protein alternatives market. Competitive analysis of upcoming startups in the protein alternatives market ecosystem is covered in this report.

Reasons to buy this report:

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall protein alternatives market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

- Analysis of key drivers (Growing interest in health-centric food and beverages), restraints (Possibilities of nutritional & vitamin deficiencies among vegans), opportunities (Effective marketing strategies and correct positioning of plant-based proteins), and challenges (Concerns regarding taste and texture of plant-based protein) influencing the growth of the plant-based protein market.
- New product launch/Innovation: Detailed insights on research & development activities and new product launches in the protein alternatives market.
- Market Development: Comprehensive information about lucrative markets - the report analyses the protein alternatives market across varied regions.
- Market Diversification: Exhaustive information about new services, untapped geographies, recent developments, and investments in the protein alternatives market.
- Competitive Assessment: In-depth assessment of market shares, growth strategies and product offerings of leading players like ADM (US), Cargill, Incorporated (US), International Flavors & Fragrances Inc. (US), Ingredion (US), Roquette Freres (France) and others in the protein alternatives market strategies.

Table of Contents:

1	INTRODUCTION	50
1.1	STUDY OBJECTIVES	50
1.2	MARKET DEFINITION	50
1.3	STUDY SCOPE	51
1.3.1	MARKET SEGMENTATION	51
1.3.2	INCLUSIONS AND EXCLUSIONS	52
1.3.3	REGIONS COVERED	53
1.3.4	YEARS CONSIDERED	54

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

1.4	CURRENCY CONSIDERED	54
TABLE 1	USD EXCHANGE RATES, 2020-2023	55
1.5	UNITS CONSIDERED	55
1.6	STAKEHOLDERS	56
1.6.1	RECESSION IMPACT ANALYSIS	56
2	RESEARCH METHODOLOGY	57
2.1	RESEARCH DATA	57
FIGURE 1	PROTEIN ALTERNATIVES MARKET: RESEARCH DESIGN	57
2.1.1	SECONDARY DATA	58
2.1.1.1	Key data from secondary sources	58
2.1.2	PRIMARY DATA	58
2.1.2.1	Key data from primary sources	59
2.1.2.2	Breakdown of primary profiles	60
FIGURE 2	BREAKDOWN OF PRIMARY INTERVIEWS, BY COMPANY TYPE, DESIGNATION, AND REGION	60
2.1.2.3	Key insights	61
FIGURE 3	INSIGHTS FROM KEY INDUSTRY EXPERTS	61
2.2	MARKET SIZE ESTIMATION	61
2.2.1	TOP-DOWN APPROACH	62
FIGURE 4	MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH	62
2.2.2	SUPPLY-SIDE ANALYSIS	62
FIGURE 5	MARKET SIZE CALCULATION: SUPPLY SIDE	63
2.2.3	BOTTOM-UP APPROACH (DEMAND SIDE)	63
FIGURE 6	MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH	64
2.3	DATA TRIANGULATION	65
FIGURE 7	DATA TRIANGULATION	65
2.4	RESEARCH ASSUMPTIONS	66
2.5	LIMITATIONS AND RISK ASSESSMENT	66
2.6	RECESSION IMPACT ANALYSIS	67
2.6.1	MACROECONOMIC INDICATORS OF RECESSION	68
FIGURE 8	MACROECONOMIC INDICATORS OF RECESSION	68
FIGURE 9	GLOBAL INFLATION RATE, 2011-2022	68
FIGURE 10	GLOBAL GDP, 2011-2022 (USD TRILLION)	69
FIGURE 11	RECESSION INDICATORS AND THEIR IMPACT ON PROTEIN ALTERNATIVES MARKET	70
FIGURE 12	GLOBAL PROTEIN ALTERNATIVES MARKET: EARLIER FORECAST VS. RECESSION FORECAST	71
3	EXECUTIVE SUMMARY	72
TABLE 2	PROTEIN ALTERNATIVES: MARKET SHARE SNAPSHOT, 2024 VS. 2029 (USD MILLION)	73
FIGURE 13	PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2024 VS. 2029 (USD MILLION)	73
FIGURE 14	PROTEIN ALTERNATIVES MARKET, BY APPLICATION, 2024 VS. 2029 (USD MILLION)	74
FIGURE 15	PROTEIN ALTERNATIVES MARKET, BY NATURE, 2024 VS. 2029 (USD MILLION)	74
FIGURE 16	PROTEIN ALTERNATIVES MARKET, BY FORM, 2024 VS. 2029	75
FIGURE 17	PROTEIN ALTERNATIVES MARKET SHARE AND GROWTH RATE, BY REGION	75
4	PREMIUM INSIGHTS	77
4.1	ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN PROTEIN ALTERNATIVES MARKET	77
FIGURE 18	NEW PRODUCT DEVELOPMENTS AND FACILITY EXPANSION TO DRIVE PROTEIN ALTERNATIVES MARKET	77
4.2	ASIA PACIFIC: PROTEIN ALTERNATIVES MARKET, BY APPLICATION AND COUNTRY	78
FIGURE 19	CHINA AND FOOD & BEVERAGES SEGMENT TO ACCOUNT FOR SIGNIFICANT SHARES IN 2024	78
4.3	PROTEIN ALTERNATIVES MARKET, BY SOURCE	78

FIGURE 20	PLANT PROTEIN SEGMENT TO DOMINATE MARKET DURING FORECAST PERIOD	78
4.4	PROTEIN ALTERNATIVES MARKET, BY FORM	79
FIGURE 21	DRY SEGMENT TO DOMINATE MARKET DURING FORECAST PERIOD	79
4.5	PROTEIN ALTERNATIVES MARKET, BY NATURE	79
FIGURE 22	CONVENTIONAL SEGMENT TO DOMINATE MARKET DURING FORECAST PERIOD	79
4.6	PROTEIN ALTERNATIVES MARKET, BY APPLICATION	80
FIGURE 23	FOOD & BEVERAGES SEGMENT TO DOMINATE MARKET DURING FORECAST PERIOD	80
4.7	PROTEIN ALTERNATIVES MARKET, BY APPLICATION AND REGION	80
FIGURE 24	FOOD & BEVERAGES SEGMENT TO LEAD MARKET DURING FORECAST PERIOD	80
4.8	PROTEIN ALTERNATIVES MARKET: REGIONAL SNAPSHOT	81
FIGURE 25	US TO DOMINATE PROTEIN ALTERNATIVES MARKET IN 2024	81
5	MARKET OVERVIEW	82
5.1	INTRODUCTION	82
5.2	MACROECONOMIC INDICATORS	83
5.2.1	GLOBAL PRODUCTION OF PEA CROPS AND GREEN PEAS AND BOOST IN INNOVATION	83
FIGURE 26	GLOBAL PRODUCTION OF CHICKPEAS AND GREEN PEAS, 2018-2022 (MILLION TONNES)	83
FIGURE 27	GLOBAL PEA PRODUCTION, BY COUNTRY, 2021 (MILLION TONNES)	84
5.2.2	INCREASE IN SOYBEAN PRODUCTION	84
FIGURE 28	SOYBEAN PRODUCTION, BY KEY COUNTRY, 2018-2023 (MILLION TONNES)	85
5.2.3	CONSUMER SHIFT TOWARD PROTEIN ALTERNATIVES	85
5.2.4	INCREASING COLLABORATIONS & INVESTMENTS IN R&D BETWEEN MARKET LEADERS AND STARTUPS	85
TABLE 3	LIST OF INVESTMENTS IN INSECT PROTEIN MARKET, 2019-2023 (USD MILLION)	86
5.3	MARKET DYNAMICS	86
FIGURE 29	PROTEIN ALTERNATIVES MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES	87
5.3.1	DRIVERS	87
5.3.1.1	Increase in interest in health-centric food and beverages	87
5.3.1.2	Growth in consumer preferences toward veganism	88
5.3.1.3	Rise in cases of lactose intolerance	88
TABLE 4	PERCENTAGE OF LACTOSE-INTOLERANT PEOPLE, BY ETHNICITY	89
5.3.1.4	Increased preference for meat alternatives	89
5.3.1.5	Rise in lactose intolerance to boost use of wheat protein as dairy alternative	89
FIGURE 30	ESTIMATED PREVALENCE OF LACTOSE MALABSORPTION, BY COUNTRY, 2022	90
5.3.2	RESTRAINTS	91
5.3.2.1	Allergies associated with plant-based protein sources	91
5.3.2.2	Nutritional and vitamin deficiencies among vegans	91
5.3.2.3	Consumers' unacceptance of insect-based proteins	92
5.3.3	OPPORTUNITIES	92
5.3.3.1	Focus on aquatic plants as new and emerging sources of protein	92
5.3.3.2	Effective marketing strategies and correct positioning of plant-based proteins	93
5.3.3.3	Lifestyle changes	93
5.3.3.4	Opportunities for food equipment manufacturers in insect rearing	94
5.3.4	CHALLENGES	94
5.3.4.1	Concerns over quality of food and beverages due to adulteration of GM ingredients	94
5.3.4.2	Economic constraints	95
5.3.4.3	Concerns related to taste and texture offered by plant-based protein	95
6	INDUSTRY TRENDS	96
6.1	INTRODUCTION	96

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

6.2	SUPPLY CHAIN ANALYSIS	96
FIGURE 31	PROTEIN ALTERNATIVES MARKET: SUPPLY CHAIN ANALYSIS	96
6.3	VALUE CHAIN ANALYSIS	97
FIGURE 32	PROTEIN ALTERNATIVES MARKET: VALUE CHAIN ANALYSIS	97
6.3.1	RESEARCH & PRODUCT DEVELOPMENT	98
6.3.2	RAW MATERIAL SOURCING	98
6.3.3	PRODUCTION & PROCESSING	98
6.3.4	DISTRIBUTION	98
6.3.5	MARKETING & SALES	99
6.3.6	END USERS	99
6.4	TRADE ANALYSIS	99
6.4.1	IMPORT SCENARIO OF SOYBEANS	99
FIGURE 33	IMPORT OF SOYBEANS, BY KEY COUNTRY, 2019-2023 (USD)	100
TABLE 5	IMPORT SCENARIO FOR HS CODE: 1201, BY COUNTRY, 2019-2023 (USD)	100
6.4.2	EXPORT SCENARIO OF SOYBEANS	100
FIGURE 34	EXPORT OF SOYBEANS, BY KEY COUNTRY, 2019-2023 (USD)	101
TABLE 6	EXPORT SCENARIO FOR HS CODE: 1201, BY COUNTRY, 2019-2023 (USD)	101
6.4.3	IMPORT SCENARIO OF PEAS	101
FIGURE 35	IMPORT OF PEAS, BY KEY COUNTRY, 2019-2023 (USD)	102
TABLE 7	IMPORT SCENARIO FOR HS CODE: 071310, BY COUNTRY, 2019-2023 (USD)	102
6.4.4	EXPORT SCENARIO OF PEAS, BY KEY COUNTRY	102
FIGURE 36	EXPORT OF PEAS, BY KEY COUNTRY, 2019-2023 (USD)	103
TABLE 8	EXPORT SCENARIO FOR HS CODE: 071310, BY COUNTRY, 2019-2023 (USD)	103
6.4.5	IMPORT SCENARIO OF WHEAT & MESLIN	103
FIGURE 37	IMPORT OF WHEAT & MESLIN, BY KEY COUNTRY, 2019-2023 (USD)	104
TABLE 9	IMPORT SCENARIO FOR HS CODE: 1001, BY COUNTRY, 2019-2023 (USD)	104
6.4.6	EXPORT SCENARIO OF WHEAT & MESLIN	104
FIGURE 38	EXPORT OF WHEAT & MESLIN, BY KEY COUNTRY, 2019-2023 (USD)	105
TABLE 10	EXPORT SCENARIO FOR HS CODE: 1001, BY COUNTRY, 2019-2023 (USD)	105
6.4.7	IMPORT SCENARIO OF RICE	105
FIGURE 39	IMPORT OF RICE, BY KEY COUNTRY, 2019-2023 (USD)	106
TABLE 11	IMPORT SCENARIO FOR HS CODE: 1006, BY COUNTRY, 2019-2023 (USD)	106
6.4.8	EXPORT SCENARIO OF RICE	106
FIGURE 40	EXPORT OF RICE, BY KEY COUNTRY, 2019-2023	107
TABLE 12	EXPORT SCENARIO FOR HS CODE: 1006, BY COUNTRY, 2019-2023 (USD)	107
6.4.9	IMPORT SCENARIO OF OATS	107
FIGURE 41	IMPORT OF OATS, BY KEY COUNTRY, 2019-2023	108
TABLE 13	IMPORT SCENARIO FOR HS CODE: 1004, BY COUNTRY, 2019-2023 (USD)	108
6.4.10	EXPORT SCENARIO OF OATS	108
FIGURE 42	EXPORT OF OATS, BY KEY COUNTRY, 2019-2023 (USD)	109
TABLE 14	EXPORT SCENARIO FOR HS CODE: 1004, BY COUNTRY, 2019-2023 (USD)	109
6.4.11	IMPORT SCENARIO OF MUSHROOMS	110
FIGURE 43	IMPORT OF MUSHROOMS, BY KEY COUNTRY, 2019-2023 (USD)	110
TABLE 15	IMPORT SCENARIO FOR HS CODE: 2003, BY COUNTRY, 2019-2023 (USD)	110
6.4.12	EXPORT SCENARIO OF MUSHROOMS	111
FIGURE 44	EXPORT OF MUSHROOMS, BY KEY COUNTRY, 2019-2023 (USD)	111
TABLE 16	EXPORT SCENARIO FOR HS CODE: 2003, BY COUNTRY, 2019-2023 (USD)	111

6.5	TECHNOLOGY ANALYSIS	112
6.5.1	KEY TECHNOLOGIES	112
6.5.1.1	Extrusion	112
6.5.1.2	Use of membrane technology to produce differentiated wheat proteins	112
6.5.2	COMPLEMENTARY TECHNOLOGIES	112
6.5.2.1	High-pressure Processing (HPP)	112
6.5.2.2	U-Loop	112
6.5.3	ADJACENT TECHNOLOGIES	113
6.5.3.1	Wet processing method for producing dairy alternative milk	113
6.6	PRICING ANALYSIS	113
6.6.1	AVERAGE SELLING PRICE TRENDS OF KEY PLAYERS, BY SOURCE	113
FIGURE 45	AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY SOURCE, 2023 (USD/KG)	114
TABLE 17	AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY SOURCE, 2023 (USD/KG)	114
6.6.2	AVERAGE SELLING PRICE TREND, BY REGION	114
FIGURE 46	AVERAGE SELLING PRICE TREND, BY REGION, 2020-2023 (USD/KG)	115
TABLE 18	AVERAGE SELLING PRICE TREND, BY REGION, 2020-2023 (USD/KG)	115
6.6.3	AVERAGE SELLING PRICE TREND, BY SOURCE	115
FIGURE 47	AVERAGE SELLING PRICE TREND, BY SOURCE, 2020-2023 (USD/KG)	116
TABLE 19	AVERAGE SELLING PRICE TREND, BY SOURCE, 2020-2023 (USD/KG)	116
6.7	ECOSYSTEM	116
6.7.1	DEMAND SIDE	116
6.7.2	SUPPLY SIDE	117
FIGURE 48	KEY PLAYERS IN PROTEIN ALTERNATIVES MARKET	117
TABLE 20	PROTEIN ALTERNATIVES MARKET: ECOSYSTEM	118
6.8	TRENDS/DISRUPTIONS IMPACTING CUSTOMERS' BUSINESSES	119
FIGURE 49	TRENDS/DISRUPTIONS IMPACTING CUSTOMERS' BUSINESSES	119
6.9	PATENT ANALYSIS	120
TABLE 21	LIST OF MAJOR PATENTS PERTAINING TO MARKET, 2014-2024	120
FIGURE 50	NUMBER OF PATENTS GRANTED FOR PROTEIN ALTERNATIVES, 2014-2024	123
FIGURE 51	REGIONAL ANALYSIS OF PATENTS GRANTED FOR PROTEIN ALTERNATIVES	124
6.10	KEY CONFERENCES & EVENTS	124
TABLE 22	PROTEIN ALTERNATIVES MARKET: LIST OF KEY CONFERENCES & EVENTS, 2024-2025	124
6.11	TARIFF AND REGULATORY LANDSCAPE	125
6.11.1	TARIFF DATA FOR SOY	125
TABLE 23	TARIFF FOR HS CODE: 120190	125
6.11.2	TARIFF DATA FOR PEAS	125
TABLE 24	TARIFF FOR HS CODE: 071310	125
6.11.3	REGULATORY BODIES, AGENCIES, AND OTHER ORGANIZATIONS	125
TABLE 25	NORTH AMERICA: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	126
TABLE 26	EUROPE: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	126
TABLE 27	ASIA PACIFIC: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	126
TABLE 28	SOUTH AMERICA: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	126
TABLE 29	ROW: REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	127
6.11.4	REGULATORY FRAMEWORK	127
6.11.4.1	North America	127
6.11.4.1.1	US	127
6.11.4.2	Feed Application	129

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

6.11.4.3	Food Application	129
6.11.4.3.1	Canada	129
6.11.4.4	Europe	129
6.11.4.5	Asia Pacific	133
6.12	PORTER'S FIVE FORCES ANALYSIS	134
TABLE 30	PORTER'S FIVE FORCES ANALYSIS	134
FIGURE 52	PORTER'S FIVE FORCES ANALYSIS	135
6.12.1	THREAT OF NEW ENTRANTS	135
6.12.2	THREAT OF SUBSTITUTES	135
6.12.3	BARGAINING POWER OF SUPPLIERS	136
6.12.4	BARGAINING POWER OF BUYERS	136
6.12.5	INTENSITY OF COMPETITIVE RIVALRY	136
6.13	KEY STAKEHOLDERS & BUYING CRITERIA	136
6.13.1	KEY STAKEHOLDERS IN BUYING PROCESS	137
FIGURE 53	INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP THREE SOURCES	137
TABLE 31	INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP THREE SOURCES	137
6.13.2	BUYING CRITERIA	138
TABLE 32	KEY CRITERIA FOR SELECTING SUPPLIERS/VENDORS	138
FIGURE 54	KEY CRITERIA FOR SELECTING SUPPLIERS/VENDORS	138
6.14	CASE STUDY ANALYSIS	139
6.14.1	BLUE DIAMOND GROWERS PARTNERED WITH GROUP LALA TO ESTABLISH NETWORK IN MEXICO	139
6.14.2	KERRY GROUP PLC REVOLUTIONIZED PLANT-BASED PRODUCTS IN ASIA PACIFIC MARKET	139
6.14.3	ADM OFFERED NEW PLANT-BASED PROTEINS TO MEET GROWING CONSUMER DEMAND	140
6.14.4	GLANBIA LAUNCHED ITS GRAIN PORTFOLIO TO ADDRESS CONSUMERS' RISING HEALTH CONCERNS	140
6.14.5	MGP INGREDIENTS USED WHEAT PROTEIN ISOLATE TO IMPROVE DOUGH STRENGTH AND FREEZER STABILITY	140
TABLE 33	IMPROVED DOUGH POROSITY AND EXTENSIBILITY FOR LONGER PERIOD	140
6.15	INVESTMENT AND FUNDING SCENARIO	141
FIGURE 55	GLOBAL ALTERNATIVE PROTEIN INVESTMENT TREND, 2018-2022	141
7	PROTEIN ALTERNATIVES MARKET, BY SOURCE	142
7.1	INTRODUCTION	143
FIGURE 56	PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2024 VS. 2029 (USD MILLION)	143
TABLE 34	PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2020-2023 (USD MILLION)	143
TABLE 35	PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2024-2029 (USD MILLION)	144
TABLE 36	PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2020-2023 (KT)	144
TABLE 37	PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2024-2029 (KT)	144
7.2	PLANT PROTEIN	144
7.2.1	DIVERSE ARRAY OF PLANT PROTEIN SOURCES WITH SUBSTANTIAL INCREASE IN NEWER SOURCES	144
TABLE 38	PLANT-BASED PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2020-2023 (USD MILLION)	145
TABLE 39	PLANT-BASED PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2024-2029 (USD MILLION)	145
TABLE 40	PLANT-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	146
TABLE 41	PLANT-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	146
TABLE 42	PLANT-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (KT)	146
TABLE 43	PLANT-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (KT)	147
TABLE 44	PLANT-BASED PROTEIN ALTERNATIVES MARKET, BY TYPE, 2020-2023 (USD MILLION)	147
TABLE 45	PLANT-BASED PROTEIN ALTERNATIVES MARKET, BY TYPE, 2024-2029 (USD MILLION)	147
7.2.2	SOY	147
TABLE 46	SOY-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	148

TABLE 47	SOY-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	148
TABLE 48	SOY-BASED PROTEIN ALTERNATIVES MARKET, BY TYPE, 2020-2023 (USD MILLION)	149
TABLE 49	SOY-BASED PROTEIN ALTERNATIVES MARKET, BY TYPE, 2024-2029 (USD MILLION)	149
7.2.3	WHEAT	149
TABLE 50	WHEAT-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	150
TABLE 51	WHEAT-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	150
TABLE 52	WHEAT-BASED PROTEIN ALTERNATIVES MARKET, BY TYPE, 2020-2023 (USD MILLION)	150
TABLE 53	WHEAT-BASED PROTEIN ALTERNATIVES MARKET, BY TYPE, 2024-2029 (USD MILLION)	151
7.2.4	PEAS	151
TABLE 54	PEA-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	151
TABLE 55	PEA-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	152
TABLE 56	PEA-BASED PROTEIN ALTERNATIVES MARKET, BY TYPE, 2020-2023 (USD MILLION)	152
TABLE 57	PEA-BASED PROTEIN ALTERNATIVES MARKET, BY TYPE, 2024-2029 (USD MILLION)	152
7.2.5	CANOLA, RICE, OATS, AND POTATOES	152
TABLE 58	CANOLA-, RICE-, OAT-, AND POTATO-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	153
TABLE 59	CANOLA-, RICE-, OAT-, AND POTATO-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	153
TABLE 60	CANOLA-, RICE-, OAT-, AND POTATO-BASED PROTEIN ALTERNATIVES MARKET, BY TYPE, 2020-2023 (USD MILLION)	154
TABLE 61	CANOLA-, RICE-, OAT-, AND POTATO-BASED PROTEIN ALTERNATIVES MARKET, BY TYPE, 2024-2029 (USD MILLION)	154
7.2.6	BEANS & SEEDS	154
TABLE 62	BEAN- & SEED-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	155
TABLE 63	BEAN- & SEED-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	155
TABLE 64	BEAN- & SEED-BASED PROTEIN ALTERNATIVES MARKET, BY TYPE, 2020-2023 (USD MILLION)	155
TABLE 65	BEAN- & SEED-BASED PROTEIN ALTERNATIVES MARKET, BY TYPE, 2024-2029 (USD MILLION)	156
7.2.7	OTHER PLANT PROTEINS	156
TABLE 66	OTHER PLANT PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	156
TABLE 67	OTHER PLANT PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	157
TABLE 68	OTHER PLANT PROTEIN ALTERNATIVES MARKET, BY TYPE, 2020-2023 (USD MILLION)	157
TABLE 69	OTHER PLANT PROTEIN ALTERNATIVES MARKET, BY TYPE, 2024-2029 (USD MILLION)	157
7.3	INSECT PROTEIN	157
7.3.1	RISE IN AWARENESS OF PROTEIN CONTENT IN EDIBLE INSECTS HAMPERED BY INFRASTRUCTURAL CONSTRAINTS	157
TABLE 70	INSECT PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2020-2023 (USD MILLION)	158
TABLE 71	INSECT PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2024-2029 (USD MILLION)	158
TABLE 72	INSECT PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	158
TABLE 73	INSECT PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	159
TABLE 74	INSECT PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (KT)	159
TABLE 75	INSECT PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (KT)	159
7.3.2	CRICKETS	160
TABLE 76	CRICKET-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	160
TABLE 77	CRICKET-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	160
7.3.3	MEALWORMS	161
TABLE 78	MEALWORM-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	161
TABLE 79	MEALWORM-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	161
7.3.4	LOCUSTS	162
TABLE 80	LOCUST-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	162
TABLE 81	LOCUST-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	163
7.3.5	OTHER INSECT PROTEINS	163
TABLE 82	OTHER INSECT PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	164

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

TABLE 83	OTHER INSECT PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	164
7.4	MICROBIAL PROTEIN	164
7.4.1	GROWTH IN ACCEPTANCE OF MICROBIAL PROTEIN IN AQUACULTURE AS FISHMEAL REPLACEMENT	164
TABLE 84	MICROBIAL PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2020-2023 (USD MILLION)	165
TABLE 85	MICROBIAL PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2024-2029 (USD MILLION)	165
TABLE 86	MICROBIAL PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	165
TABLE 87	MICROBIAL PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	166
TABLE 88	MICROBIAL PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (KT)	166
TABLE 89	MICROBIAL PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (KT)	166
7.4.2	ALGAE	167
TABLE 90	ALGAE-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	167
TABLE 91	ALGAE-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	167
7.4.3	FUNGI	168
TABLE 92	FUNGI-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	168
TABLE 93	FUNGI-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	168
7.4.4	BACTERIA	169
TABLE 94	BACTERIA-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	169
TABLE 95	BACTERIA-BASED PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	169
7.4.5	OTHER MICROBIAL PROTEINS	170
TABLE 96	OTHER MICROBIAL PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	170
TABLE 97	OTHER MICROBIAL PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	170
8	PROTEIN ALTERNATIVES MARKET, BY NATURE	171
8.1	INTRODUCTION	172
FIGURE 57	PROTEIN ALTERNATIVES MARKET, BY NATURE, 2024 VS. 2029 (USD MILLION)	172
TABLE 98	PROTEIN ALTERNATIVES MARKET, BY NATURE, 2020-2023 (USD MILLION)	172
TABLE 99	PROTEIN ALTERNATIVES MARKET, BY NATURE, 2024-2029 (USD MILLION)	173
8.2	CONVENTIONAL	173
8.2.1	GROWTH IN UTILIZATION OF PLANT-BASED FOOD PRODUCTS IN FOOD AND FEED INDUSTRIES	173
TABLE 100	CONVENTIONAL PLANT-BASED PROTEIN MARKET, BY REGION, 2020-2023 (USD MILLION)	173
TABLE 101	CONVENTIONAL PLANT-BASED PROTEIN MARKET, BY REGION, 2024-2029 (USD MILLION)	174
8.3	ORGANIC	174
8.3.1	GROWTH OF ORGANIC PLANT-BASED PROTEIN PRODUCTS TO BE FUELED BY RISING DEMAND FOR CLEAN-LABEL INGREDIENTS	174
TABLE 102	ORGANIC PLANT-BASED PROTEIN MARKET, BY REGION, 2020-2023 (USD MILLION)	175
TABLE 103	ORGANIC PLANT-BASED PROTEIN MARKET, BY REGION, 2024-2029 (USD MILLION)	175
9	PROTEIN ALTERNATIVES MARKET, BY FORM	176
9.1	INTRODUCTION	177
FIGURE 58	PROTEIN ALTERNATIVES MARKET, BY FORM, 2024 VS. 2029 (USD MILLION)	177
TABLE 104	PROTEIN ALTERNATIVES MARKET, BY FORM, 2020-2023 (USD MILLION)	177
TABLE 105	PROTEIN ALTERNATIVES MARKET, BY FORM, 2024-2029 (USD MILLION)	178
9.2	DRY	178
9.2.1	GREATER VERSATILITY TO INCREASE APPLICATION OF DRY PROTEIN IN PLANT-BASED FOOD & BEVERAGE INDUSTRY	178
TABLE 106	DRY PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	179
TABLE 107	DRY PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	179
9.3	LIQUID	179
9.3.1	HIGHER PROTEIN ENRICHMENT REQUIREMENTS IN LIQUID NUTRITIONAL SUPPLEMENTS	179
TABLE 108	LIQUID PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	180

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

TABLE 109	LIQUID PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	180
10	PROTEIN ALTERNATIVES MARKET, BY APPLICATION	181
10.1	INTRODUCTION	182
FIGURE 59	PROTEIN ALTERNATIVES MARKET, BY APPLICATION, 2024 VS. 2029 (USD MILLION)	182
TABLE 110	PROTEIN ALTERNATIVES MARKET, BY APPLICATION, 2020-2023 (USD MILLION)	183
TABLE 111	PROTEIN ALTERNATIVES MARKET, BY APPLICATION, 2024-2029 (USD MILLION)	183
10.2	FOOD & BEVERAGES	183
10.2.1	RISE IN CONSUMPTION OF PLANT-BASED MEAT AND DAIRY ALTERNATIVES	183
TABLE 112	PROTEIN ALTERNATIVES MARKET IN FOOD & BEVERAGES, BY REGION, 2020-2023 (USD MILLION)	184
TABLE 113	PROTEIN ALTERNATIVES MARKET IN FOOD & BEVERAGES, BY REGION, 2024-2029 (USD MILLION)	185
TABLE 114	PROTEIN ALTERNATIVES MARKET IN FOOD & BEVERAGES, BY SUBTYPE, 2020-2023 (USD MILLION)	185
TABLE 115	PROTEIN ALTERNATIVES MARKET IN FOOD & BEVERAGES, BY SUBTYPE, 2024-2029 (USD MILLION)	185
10.2.2	MEAT ALTERNATIVES	186
TABLE 116	PROTEIN ALTERNATIVES MARKET IN MEAT ALTERNATIVES, BY REGION, 2020-2023 (USD MILLION)	186
TABLE 117	PROTEIN ALTERNATIVES MARKET IN MEAT ALTERNATIVES, BY REGION, 2024-2029 (USD MILLION)	187
10.2.2.1	Meatballs & nuggets	187
10.2.2.2	Sausages	188
10.2.2.3	Burgers	188
10.2.2.4	Other Meat Alternatives	188
FIGURE 60	PROTEIN ALTERNATIVES MARKET SHARE IN MEAT ALTERNATIVES, BY SUBAPPLICATION, 2023	188
10.2.3	DAIRY ALTERNATIVES	189
TABLE 118	PROTEIN ALTERNATIVES MARKET IN DAIRY ALTERNATIVES, BY REGION, 2020-2023 (USD MILLION)	189
TABLE 119	PROTEIN ALTERNATIVES MARKET IN DAIRY ALTERNATIVES, BY REGION, 2024-2029 (USD MILLION)	189
10.2.3.1	Milk Substitute	190
FIGURE 61	PLANT-BASED MILK SALES GROWTH, 2016-2022 (USD MILLION)	190
10.2.3.2	Cheese Alternatives	190
10.2.3.3	Yogurt Substitutes	191
10.2.3.4	Ice-cream Substitutes	191
FIGURE 62	PROTEIN ALTERNATIVES MARKET SHARE IN DAIRY ALTERNATIVES, BY SUBAPPLICATION, 2023	191
10.2.4	PROTEIN SUPPLEMENTS	192
TABLE 120	PROTEIN ALTERNATIVES MARKET IN PROTEIN SUPPLEMENTS, BY REGION, 2020-2023 (USD MILLION)	192
TABLE 121	PROTEIN ALTERNATIVES MARKET IN PROTEIN SUPPLEMENTS, BY REGION, 2024-2029 (USD MILLION)	192
10.2.4.1	Bars	192
10.2.4.2	Powders	193
10.2.4.3	Protein Shakes	193
10.2.4.4	Other Protein Supplements	193
FIGURE 63	PROTEIN ALTERNATIVES MARKET SHARE IN PROTEIN SUPPLEMENTS, BY SUBAPPLICATION, 2023	193
10.2.5	FUNCTIONAL FOOD	194
TABLE 122	PROTEIN ALTERNATIVES MARKET IN FUNCTIONAL FOOD, BY REGION, 2020-2023 (USD MILLION)	194
TABLE 123	PROTEIN ALTERNATIVES MARKET IN FUNCTIONAL FOOD, BY REGION, 2024-2029 (USD MILLION)	194
10.2.5.1	Fortified Cereals	195
10.2.5.2	RTD Beverages	195
10.2.5.3	Other Functional Food	195
FIGURE 64	PROTEIN ALTERNATIVES MARKET IN FUNCTIONAL FOOD, BY SUBAPPLICATION, 2023	195
10.2.6	CONVENIENCE FOOD	196
TABLE 124	PROTEIN ALTERNATIVES MARKET IN CONVENIENCE FOOD, BY REGION, 2020-2023 (USD MILLION)	196
TABLE 125	PROTEIN ALTERNATIVES MARKET IN CONVENIENCE FOOD, BY REGION, 2024-2029 (USD MILLION)	196

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

10.2.6.1	Baked Goods	197
10.2.6.2	Snacks	197
10.2.6.3	Sauces, Gravies, and Soups	197
10.2.6.4	Spreads	197
10.2.6.5	Other Convenience Foods	198
FIGURE 65 PROTEIN ALTERNATIVES MARKET IN CONVENIENCE FOOD, BY SUBAPPLICATION, 2023		
10.3	ANIMAL FEED	198
10.3.1	GROWING DEMAND FOR CLEAN-LABEL AND SUSTAINABLE FEED PRODUCTS	198
TABLE 126	PROTEIN ALTERNATIVES MARKET IN ANIMAL FEED, BY REGION, 2020-2023 (USD MILLION)	199
TABLE 127	PROTEIN ALTERNATIVES MARKET IN ANIMAL FEED, BY REGION, 2024-2029 (USD MILLION)	199
TABLE 128	PROTEIN ALTERNATIVES MARKET IN ANIMAL FEED, BY SUBTYPE, 2020-2023 (USD MILLION)	199
TABLE 129	PROTEIN ALTERNATIVES MARKET IN ANIMAL FEED, BY SUBTYPE, 2024-2029 (USD MILLION)	200
10.3.2	POULTRY	200
TABLE 130	PROTEIN ALTERNATIVES MARKET IN POULTRY FEED, BY REGION, 2020-2023 (USD MILLION)	201
TABLE 131	PROTEIN ALTERNATIVES MARKET IN POULTRY FEED, BY REGION, 2024-2029 (USD MILLION)	201
10.3.3	SWINE	201
TABLE 132	PROTEIN ALTERNATIVES MARKET IN SWINE FEED, BY REGION, 2020-2023 (USD MILLION)	202
TABLE 133	PROTEIN ALTERNATIVES MARKET IN SWINE FEED, BY REGION, 2024-2029 (USD MILLION)	202
10.3.4	RUMINANTS	202
TABLE 134	PROTEIN ALTERNATIVES MARKET IN RUMINANT FEED, BY REGION, 2020-2023 (USD MILLION)	203
TABLE 135	PROTEIN ALTERNATIVES MARKET IN RUMINANT FEED, BY REGION, 2024-2029 (USD MILLION)	203
10.3.5	AQUACULTURE	203
TABLE 136	PROTEIN ALTERNATIVES MARKET IN AQUAFEED, BY REGION, 2020-2023 (USD MILLION)	204
TABLE 137	PROTEIN ALTERNATIVES MARKET IN AQUAFEED, BY REGION, 2024-2029 (USD MILLION)	204
10.4	PET FOOD	205
10.4.1	VARIETY OF ALTERNATIVE PROTEINS AVAILABLE ALLOWS FOR DIVERSIFICATION AND INNOVATION IN PET FOOD PRODUCTS	205
TABLE 138	PROTEIN ALTERNATIVES MARKET IN PET FOOD, BY REGION, 2020-2023 (USD MILLION)	205
TABLE 139	PROTEIN ALTERNATIVES MARKET IN PET FOOD, BY REGION, 2024-2029 (USD MILLION)	205
TABLE 140	PROTEIN ALTERNATIVES MARKET IN PET FOOD, BY SUBTYPE, 2020-2023 (USD MILLION)	206
TABLE 141	PROTEIN ALTERNATIVES MARKET IN PET FOOD, BY SUBTYPE, 2024-2029 (USD MILLION)	206
10.4.2	CAT FOOD	206
TABLE 142	PROTEIN ALTERNATIVES MARKET IN CAT FOOD, BY REGION, 2020-2023 (USD MILLION)	206
TABLE 143	PROTEIN ALTERNATIVES MARKET IN CAT FOOD, BY REGION, 2024-2029 (USD MILLION)	207
10.4.3	DOG FOOD	207
TABLE 144	PROTEIN ALTERNATIVES MARKET IN DOG FOOD, BY REGION, 2020-2023 (USD MILLION)	207
TABLE 145	PROTEIN ALTERNATIVES MARKET IN DOG FOOD, BY REGION, 2024-2029 (USD MILLION)	208
10.4.4	OTHER PET FOOD	208
TABLE 146	PROTEIN ALTERNATIVES MARKET IN OTHER PET FOOD, BY REGION, 2020-2023 (USD MILLION)	208
TABLE 147	PROTEIN ALTERNATIVES MARKET IN OTHER PET FOOD, BY REGION, 2024-2029 (USD MILLION)	209
11	PROTEIN ALTERNATIVES MARKET, BY PRODUCTION PROCESS	210
11.1	INTRODUCTION	210
11.2	PLANT PROTEIN PRODUCTION PROCESS	210
11.2.1	EXTRUSION	210
11.2.1.1	Protein extraction	210
11.2.1.2	Protein purification	210
11.2.1.3	Heat treatment	210

11.2.1.4	Starch/fiber processing	211
11.2.1.5	Whey treatment system	211
11.3	INSECT PROTEIN PRODUCTION PROCESS	211
11.3.1	ULTRASONIC EXTRACTION	211
11.3.1.1	Preparation of Insect Larvae	211
11.3.1.2	Larval Disruption	211
11.3.1.3	Defatting	211
11.3.1.4	Ultrasonication	211
11.3.1.5	Centrifugation or Filtration	212
11.3.1.6	Protein Analysis and Storage	212
11.4	MICROBIAL PROTEIN PRODUCTION PROCESS	212
11.4.1	ULTRASOUND-ASSISTED EXTRACTION (UAE)	212
12	PROTEIN ALTERNATIVES MARKET, BY REGION	213
12.1	INTRODUCTION	214
FIGURE 66	THAILAND TO RECORD HIGHEST GROWTH DURING FORECAST PERIOD	215
TABLE 148	PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (USD MILLION)	215
TABLE 149	PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (USD MILLION)	216
TABLE 150	PROTEIN ALTERNATIVES MARKET, BY REGION, 2020-2023 (KT)	216
TABLE 151	PROTEIN ALTERNATIVES MARKET, BY REGION, 2024-2029 (KT)	216
12.2	NORTH AMERICA	217
FIGURE 67	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET SNAPSHOT	218
12.2.1	NORTH AMERICA: RECESSION IMPACT ANALYSIS	218
FIGURE 68	NORTH AMERICA: INFLATION RATES, BY COUNTRY, 2017-2022	219
FIGURE 69	NORTH AMERICA: RECESSION IMPACT ANALYSIS	220
TABLE 152	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET, BY COUNTRY, 2020-2023 (USD MILLION)	220
TABLE 153	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET, BY COUNTRY, 2024-2029 (USD MILLION)	221
TABLE 154	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2020-2023 (USD MILLION)	221
TABLE 155	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2024-2029 (USD MILLION)	221
TABLE 156	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2020-2023 (KT)	221
TABLE 157	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2024-2029 (KT)	222
TABLE 158	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET FOR PLANT PROTEIN, BY TYPE, 2020-2023 (USD MILLION)	222
TABLE 159	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET FOR PLANT PROTEIN, BY TYPE, 2024-2029 (USD MILLION)	222
TABLE 160	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET FOR INSECT PROTEIN, BY TYPE, 2020-2023 (USD MILLION)	223
TABLE 161	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET FOR INSECT PROTEIN, BY TYPE, 2024-2029 (USD MILLION)	223
TABLE 162	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET FOR MICROBIAL PROTEIN, BY TYPE, 2020-2023 (USD MILLION)	223
TABLE 163	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET FOR MICROBIAL PROTEIN, BY TYPE, 2024-2029 (USD MILLION)	224
TABLE 164	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET, BY APPLICATION, 2020-2023 (USD MILLION)	224
TABLE 165	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET, BY APPLICATION, 2024-2029 (USD MILLION)	224
TABLE 166	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET, BY FORM, 2020-2023 (USD MILLION)	224
TABLE 167	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET, BY FORM, 2024-2029 (USD MILLION)	225
TABLE 168	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET, BY NATURE, 2020-2023 (USD MILLION)	225
TABLE 169	NORTH AMERICA: PROTEIN ALTERNATIVES MARKET, BY NATURE, 2024-2029 (USD MILLION)	225
12.2.2	US	225
12.2.2.1	Rise in awareness regarding environmental and personal health benefits to drive preference for plant and insect protein	225
TABLE 170	US: PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2020-2023 (USD MILLION)	226
TABLE 171	US: PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2024-2029 (USD MILLION)	227

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

12.2.3CANADA227

12.2.3.1Rise in investments by prominent players to drive production227

TABLE 172CANADA: PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2020-2023 (USD MILLION)228

TABLE 173CANADA: PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2024-2029 (USD MILLION)228

12.2.4MEXICO228

12.2.4.1Evolving consumer preferences and increasing demand for nutritious pet foods228

TABLE 174MEXICO: PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2020-2023 (USD MILLION)229

TABLE 175MEXICO: PROTEIN ALTERNATIVES MARKET, BY SOURCE, 2024-2029 (USD MILLION)229

Protein Alternatives Market by Source (Plant Protein, Microbial Protein, Insect Protein), Application (Food & Beverages, Animal Feed, Pet Food), Form, Nature, Production Process (Qualitative), & Region - Global Forecast to 2029

Market Report | 2024-07-01 | 380 pages | MarketsandMarkets

To place an Order with Scotts International:

- ☐ - Print this form
- ☐ - Complete the relevant blank fields and sign
- ☐ - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User	\$4950.00
	Multi User	\$6650.00
	Corporate License	\$8150.00
	Enterprise Site License	\$10000.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Date

2025-05-20

Signature

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com