

Feed Additives Market by Livestock, Type (Amino Acids, Probiotics, Vitamins, Acidifiers, Enzymes, Flavors & Sweeteners, Mycotoxin Detoxifiers, Minerals, and Antioxidants), Form, Source, Function, and Region - Global Forecast to 2029

Market Report | 2025-01-15 | 398 pages | MarketsandMarkets

AVAILABLE LICENSES:

- Single User \$7150.00
- Multi User \$8500.00
- Corporate License \$9650.00
- Enterprise Site License \$11000.00

Report description:

The global feed additives market is estimated to be valued at USD 45.38 billion in 2024 and is projected to reach USD 59.82 billion by 2029 at a CAGR of 5.7%.

The feed additives market is also benefiting from ongoing innovation and technological advancements. Companies are investing heavily in research and development to create new and improved products that cater to the evolving needs of the livestock industry. In December 2023, Adisseo (France) inaugurated its European R&I Centre, ELISE (European Lab for Innovation, Science & Expertise), located in Lyon, France. The center consolidates Research and Innovation teams focused on process chemistry, engineering, and nutrition research. With 100 researchers, the facility aims to foster collaboration with universities and regional technology partners. Additional research activities remain in Commentary, La Rochelle, and Toulouse, while Adisseo's global R&I workforce spans France, China, Singapore, and the USA.

The development of new feed additives aimed at reducing methane emissions is significantly contributing to the growth of the feed additives market. In January 2024, Clemson University, in partnership with the University of Florida and Auburn University, launched a project to develop safe, effective, and affordable feed additives to mitigate enteric methane emissions in grass-fed cattle. Methane is a potent greenhouse gas produced during ruminant digestion. Funded by a USD 5 million USDA grant, the project supports sustainability efforts and enhances demand for innovative feed solutions.

Innovations such as artificial intelligence and advanced enzyme formulations are enhancing feed performance and livestock management. These technologies are designed to address specific challenges in animal nutrition and health, providing more precise and effective solutions. In March 2023, MASCO (US) introduced AI audio sensors that revolutionized swine production by continuously monitoring respiratory events, thereby reducing mortality rates and improving herd health management. This system delivers real-time, objective alerts for timely intervention. Additionally, Danisco Animal Nutrition & Health, a business unit

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

of IFF (US), has launched Aextra PRIME, an enzyme blend formulated to address key digestibility challenges in piglet production. This blend, which includes xylanase, beta-glucanase, alpha-amylase, and protease, enhances nutrient digestion and gut health, supporting faster growth and better performance during stressful periods such as weaning. These advancements reflect the industry's commitment to leveraging technology to optimize animal health and feed efficiency.

"Disruptions in Feed Additives Market"

Raw material supply challenges in the feed additives market are exacerbated by various global factors, including volatile costs and supply chain disruptions. According to Alltech's 2024 Agri-Food Outlook, overall feed production slightly declined by 0.2% in 2023, reflecting the tightening margins and reduced demand for animal feed. This decline is linked to increasing production costs, geopolitical tensions, and changing consumption patterns driven by inflation. Additionally, certain sectors like beef feed witnessed more pronounced decreases due to stricter sustainability policies in Europe and shifts in cattle cycles in the U.S. Meanwhile, feed efficiency improvements are helping offset raw material disruptions in some regions, but fluctuations in costs and availability remain critical challenges impacting production and pricing globally.

The Key representative of animal nutrition at ADM (US) outlines four critical factors influencing the feed additives market in 2023: geopolitical tensions, food security, energy challenges, and the rise of plant-based protein. Heightened tensions between nations, notably the US-China rivalry and the Ukraine-Russia conflict, have disrupted global supply chains, creating significant challenges for feed ingredients like vitamins and amino acids, which are predominantly manufactured in China. Additionally, soaring energy costs have increased production and transportation expenses, further straining the industry. The growing development of plant-based and cultured proteins is also shifting demand away from animal protein, particularly in emerging markets. These dynamics disrupt the feed additives market by increasing operational costs, complicating supply chain logistics, and reducing demand for traditional animal-based feed additives. However, opportunities remain in enhancing feed conversion efficiency, meeting consumer preferences for antibiotic-free livestock, and driving sustainability through innovations like methane-reducing seaweed additives. While growth is expected in aquaculture and poultry production across Asia and Africa, the market faces long-term hurdles such as slower growth rates, industry consolidation, and a pressing need to focus on sustainability and animal health.

"Poultry emerges as the dominant livestock segment during the forecast period."

Poultry has emerged as the dominant segment in the livestock industry due to its significant economic contribution and steady production growth. According to USDA, In 2023, the combined value of production from broilers, eggs, turkeys, and chickens reached USD 67.1 billion, with broilers alone contributing 64% of this total, equivalent to USD 42.6 billion. This dominance is driven by the consistent demand for poultry meat, which is favored for its affordability and versatility compared to other meats. Broiler production amounted to 9.16 billion birds, with a total live weight of 59.7 billion pounds, reflecting a steady increase from the previous year. The egg sector followed, contributing 27% to the total value, underscoring the essential role of poultry in the global diet.

Key players are actively enhancing their offerings to meet rising consumer demand and improve production efficiency. In December 2023, Cargill introduced tailored solutions to improve poultry health and performance, including innovative feed additives like Dia V MBPRO and postbiotics. These advancements aim to reduce antibiotic use while addressing consumer preferences for healthier poultry products. Additionally, Cargill launched REVEAL Layers, a patent-pending NIR technology that provides real-time, mobile-accessible insights into the relationship between body fat and egg production in laying poultry. This tool allows for the optimization of diet composition, enhancing profitability and contributing to the segment's growth and innovation.

"Amino acids are estimated to dominate the feed additives market during the forecast period"

Amino acids are fundamental to animal growth and development. They are the building blocks of proteins, which are crucial for muscle development, tissue repair, and overall health in livestock. For instance, L-lysine and DL-methionine are essential amino acids often supplemented in poultry feed to meet the specific nutritional needs of broilers and layers. By ensuring that the diet contains adequate levels of these amino acids, producers can enhance growth rates and egg production. For example, L-lysine supplementation in broiler diets has been shown to improve weight gain and feed conversion ratios, leading to more efficient production and better economic returns.

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

Amino acids help in optimizing feed efficiency and reducing feed costs. By supplementing animal feeds with specific amino acids, feed manufacturers can formulate more balanced and nutrient-dense diets. This approach reduces the need for protein-rich ingredients such as soybean meal, which are often more expensive. Companies such as ADM (US) are innovating by offering amino acids in liquid and encapsulated forms. These formats improve nutritional absorption, reduce dust in feed mills, and enhance feed efficiency. Liquid lysine allows for accurate dosing and minimizes waste, contributing to a cleaner production environment.

"US is estimated to dominate the feed additives market in the North American region during the forecasted period"

Feed additives in North America are currently being dominated by the United States. With estimates indicating a rise in poultry meat, poultry products, and swine meat, investment towards the expansion of production capacities is expected to rise in the United States. Another reason for increased expenditure on livestock nutrition is the growing acceptance of precision feeding practices in order to satisfy high-quality feed demand. This has been a major factor in the increased use of effective feed additives in the region.

In June 2024, Kemin Industries Inc. (US) introduced FORMYL, a feed acidifier for swine in the US market. According to Kemin, FORMYL combines calcium formate and citric acid into a single product that will beneficially affect gut health, lead to the defeat of pathogens, and enhance digestion.

The strategic licensing deal Alltech (US) has formed with EnviroEquine (US) in September 2024, would be used in introducing the latter's equine nutritional supplements using Alltech's advanced technologies. The products would be strengthened with science-based solutions for greater efficacy while brand presence in North America and Europe is consolidated. It is according to the two companies' mutual commitment to sustainability and quality in animal nutrition. The initiatives by Kemin Industries and the partnership between Alltech and EnviroEquine clearly demonstrate the growing demand for feed additives in the North American market.

The break-up of the profile of primary participants in the feed additives market:

? By Company Type: Tier 1 ? 25%, Tier 2 ? 45%, and Tier 3 ? 30%

? By Designation: Directors ? 20%, Managers ? 50%, Others - 30%

? By Region: North America ? 25%, Europe ? 30%, Asia Pacific ? 20%, South America ? 15% and Rest of the World ? 10%

Prominent companies include Cargill, Incorporated (US), ADM (US), International Flavors & Fragrances Inc. (US), Evonik Industries AG (Germany), BASF SE (Germany), dsm-firmenich (Switzerland), Ajinomoto Co., Inc. (Japan), Novonesis Group (Denmark), Adisseo (France), Solvay (Belgium), Nutreco (Netherlands), Kemin Industries, Inc. (US), Lallemand Inc. (Canada), BRF Global (Brazil), Bentoli (US), VITALAC (France), Alltech (US), Neospark Drugs and Chemicals Private Limited (India), Tex Biosciences (P) Ltd. (India), Volac International Ltd. (England), Global Nutrition International (France), Centafarm SRL (Italy), NUQO Feed additives (France), Palital Feed Additives B.V. (Netherlands), Novus International, Inc. (US) among others.

Research Coverage:

This research report categorizes the feed additives market by Type (Amino Acids, Phosphates, Vitamins, Acidifiers, Carotenoids, Enzymes, Mycotoxin Detoxifiers, Flavors & sweeteners, Antibiotics, Minerals, Antioxidants, Nonprotein Nitrogen, Phytogenics, Preservatives, and Probiotics), Source (Natural and Synthetic), Form (Dry and Liquid), Livestock (Ruminants, Swine, Poultry, Aquatic Animals, Other Livestock), Functions (Gut Health, Palatability Enhancers, Growth Boosters, Immune System Support, Other Functions), and Region (North America, Europe, Asia Pacific, South America, and Rest of the World).

The report covers information about the key factors, such as drivers, restraints, opportunities, and challenges impacting the growth of the feed additives market. It also provides a detailed analysis of the major players in the market, including their business overview, products offered; key strategies; partnerships, new product launches, expansions, and acquisitions.

Competitive benchmarking of upcoming startups in the feed additives market 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 feed additives 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.

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

The report provides insights on the following pointers:

• Analysis of key drivers (Increase in demand and consumption of livestock-based products), restraints (Ban on antibiotics in different nations), opportunities (Developing countries emerge as strong consumers of feed additives), and challenges (High Sustainability of feed and livestock chain) influencing the growth of the feed additives market.

• Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product launches in the feed additives market.

• Market Development: Comprehensive information about lucrative markets ? the report analyses the feed additives market across varied regions.

• Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the feed additives market.

• Competitive Assessment: In-depth assessment of market shares, growth strategies, and service offerings of leading players such as Cargill, Incorporated (US), ADM (US), International Flavors & Fragrances Inc. (US), Evonik Industries AG (Germany), BASF SE (Germany), dsm-firmenich (Switzerland), Ajinomoto Co., Inc. (Japan), Novonesis Group (Denmark), Adisseo (France), Solvay (Belgium), Nutreco (Netherlands), Kemin Industries, Inc. (US), Lallemand Inc. (Canada), BRF Global (Brazil), Bentoli (US), VITALAC (France), and Alltech (US), among others in the feed additives market strategies. The report also helps stakeholders understand the feed additives market and provides them with information on key market drivers, restraints, challenges, and opportunities.

Table of Contents:

1	INTRODUCTION	33
1.1	STUDY OBJECTIVES	33
1.2	MARKET DEFINITION	33
1.3	STUDY SCOPE	34
1.3.1	MARKET SEGMENTATION	34
1.3.2	INCLUSIONS AND EXCLUSIONS	35
1.3.3	REGIONS COVERED	38
1.3.4	YEARS CONSIDERED	38
1.4	UNITS CONSIDERED	39
1.4.1	CURRENCY CONSIDERED	39
1.4.2	VOLUME UNIT CONSIDERED	39
1.5	STAKEHOLDERS	40
1.6	SUMMARY OF CHANGES	40
2	RESEARCH METHODOLOGY	42
2.1	RESEARCH DATA	42
2.1.1	SECONDARY DATA	43
2.1.1.1	Key data from secondary sources	43
2.1.2	PRIMARY DATA	43
2.1.2.1	Key data from primary sources	44
2.1.2.2	Breakdown of primary profiles	44
2.1.2.3	Key insights from industry experts	45
2.2	MARKET SIZE ESTIMATION	46
2.2.1	APPROACH ONE: BOTTOM-UP (BASED ON TYPES AND SUBTYPES, BY REGION)	47
2.2.2	APPROACH TWO: TOP-DOWN (BASED ON GLOBAL MARKET)	48
2.2.3	SUPPLY-SIDE ANALYSIS	49
2.3	DATA TRIANGULATION	50
2.4	RESEARCH ASSUMPTIONS	51
2.5	RESEARCH LIMITATIONS AND ASSOCIATED RISKS	52
3	EXECUTIVE SUMMARY	53

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

4	PREMIUM INSIGHTS	59
4.1	ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN FEED ADDITIVES MARKET	59
4.2	ASIA PACIFIC: FEED ADDITIVES MARKET, BY TYPE AND COUNTRY	59
4.3	FEED ADDITIVES MARKET, BY TYPE	60
4.4	FEED ADDITIVES MARKET, BY FORM	61
4.5	FEED ADDITIVES MARKET, BY SOURCE	61
	?	
4.6	FEED ADDITIVES MARKET, BY LIVESTOCK AND REGION	62
4.7	FEED ADDITIVES MARKET, BY KEY COUNTRY	63
5	MARKET OVERVIEW	64
5.1	INTRODUCTION	64
5.2	MACROECONOMIC OUTLOOK	64
5.2.1	RISE IN DEMAND FOR COMPOUND FEED	64
5.2.2	GROWTH OPPORTUNITIES IN DEVELOPING REGIONS	65
5.3	MARKET DYNAMICS	66
5.3.1	DRIVERS	66
5.3.1.1	Increase in demand and consumption of livestock-based products	66
5.3.1.2	Growth in feed production	68
5.3.1.3	Rise in awareness about feed quality	69
5.3.1.4	Rise in global demand for naturally produced feed and feed additives	70
5.3.1.5	Standardization of meat products owing to disease outbreaks	70
5.3.1.6	Implementation of innovative animal husbandry practices to improve meat quality	71
5.3.2	RESTRAINTS	72
5.3.2.1	Ban on antibiotics in different nations	72
5.3.2.2	Volatile raw material prices	73
5.3.2.3	Stringent regulatory framework	73
5.3.3	OPPORTUNITIES	74
5.3.3.1	Shift toward natural growth promoters	74
5.3.3.2	Increase in demand for nutritional supplements for monogastric animals	75
5.3.4	CHALLENGES	75
5.3.4.1	Quality control of genetic feed additive products manufactured by Asian companies	75
5.3.4.2	Sustainability of feed and livestock chain	76
5.4	IMPACT OF GEN AI ON ANIMAL NUTRITION	77
5.4.1	INTRODUCTION	77
5.4.2	USE OF GEN AI IN ANIMAL NUTRITION	77
5.4.3	CASE STUDY ANALYSIS	78
5.4.3.1	Revolutionizing dairy nutrition through AI innovations	78
5.4.3.2	Enhancing livestock feed formulation through decision support tools	78
5.4.4	IMPACT ON FEED ADDITIVES MARKET	79
5.4.5	ADJACENT ECOSYSTEM WORKING ON GEN AI	79
6	INDUSTRY TRENDS	80
6.1	INTRODUCTION	80
6.2	SUPPLY CHAIN ANALYSIS	80
6.3	VALUE CHAIN ANALYSIS	81
6.3.1	RESEARCH AND PRODUCT DEVELOPMENT	81
6.3.2	RAW MATERIAL SOURCING	81
6.3.3	PRODUCTION	82

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

6.3.4	QUALITY CONTROL & SAFETY	82
6.3.5	DISTRIBUTION & LOGISTICS	82
6.3.6	MARKETING & SALES	82
6.3.7	END USERS	83
6.4	TRADE ANALYSIS	83
6.4.1	EXPORT SCENARIO OF ANIMAL FEEDING RELATED TO FEED ADDITIVES	83
6.4.2	IMPORT SCENARIO OF ANIMAL FEEDING RELATED TO FEED ADDITIVES	84
6.5	TECHNOLOGY ANALYSIS	86
6.5.1	KEY TECHNOLOGIES	86
6.5.1.1	Agglomeration (pelletizing)	86
6.5.1.2	Dosing systems	87
6.5.2	COMPLEMENTARY TECHNOLOGY	87
6.5.2.1	Animal health monitoring systems	87
6.5.3	ADJACENT TECHNOLOGIES	88
6.5.3.1	Precision nutrition	88
6.6	PRICING ANALYSIS	88
6.6.1	INTRODUCTION	88
6.6.2	INDICATIVE PRICE TREND AMONG KEY PLAYERS	89
6.6.3	AVERAGE SELLING PRICE TREND, BY LIVESTOCK, 2020-2024	90
6.6.4	AVERAGE SELLING PRICE TREND, BY REGION, 2020-2024	91
6.7	ECOSYSTEM ANALYSIS/MARKET MAP	92
6.7.1	DEMAND SIDE	92
6.7.2	SUPPLY SIDE	92
6.8	TRENDS/DISRUPTIONS IMPACTING BUYERS	94
6.9	PATENT ANALYSIS	95
6.9.1	LIST OF MAJOR PATENTS	96
6.10	KEY CONFERENCES AND EVENTS, 2024-2025	99
6.11	TARIFF AND REGULATORY LANDSCAPE	100
6.11.1	TARIFF RELATED TO FEED ADDITIVES	100
6.11.2	REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	100
6.11.3	REGULATIONS	105
6.11.3.1	Feed additives regulatory approval from European Union	105
6.11.3.2	Time duration for feed additives in register	106
6.11.3.3	Registration of feed additives	106
6.11.3.4	Packaging of feed additives	106
6.11.3.5	Labeling of feed additives	107
6.11.3.6	Manufacture and sale of feed additives	107
6.11.3.7	Import of feed additives	108
6.11.3.8	Revaluation of feed additives	108
6.11.4	REGULATORY FRAMEWORK, BY COUNTRY	108
6.11.4.1	US	108
6.11.4.1.1	Labeling	109
6.11.4.1.2	Association of American Feed Control Officials (AAFCO)	109
6.11.4.2	Canada	109
6.11.4.2.1	Legal authorities	109
6.11.4.3	China	110
6.11.4.4	European Union	110

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 6.11.4.5 Japan 111
- 6.11.4.6 South Africa 111
- 6.12 PORTER'S FIVE FORCES ANALYSIS 111
 - 6.12.1 INTENSITY OF COMPETITIVE RIVALRY 112
 - 6.12.2 BARGAINING POWER OF SUPPLIERS 113
 - 6.12.3 BARGAINING POWER OF BUYERS 113
 - 6.12.4 THREAT OF SUBSTITUTES 113
 - 6.12.5 THREAT OF NEW ENTRANTS 113
- 6.13 KEY STAKEHOLDERS & BUYING CRITERIA 114
 - 6.13.1 KEY STAKEHOLDERS IN BUYING PROCESS 114
 - 6.13.2 BUYING CRITERIA 114
- 6.14 CASE STUDIES 115
 - 6.14.1 DSM EXPANSION IN INDIA TO OFFER NUTRIENT-RICH FEED ADDITIVES 115
 - 6.14.2 RISING ANIMAL HEALTH RELATED PROBLEMS DRIVES THE DEMAND FOR FEED ADDITIVES 116
 - 6.14.3 PICHIA GUILLIERMONDII IN AQUACULTURE FEED BY ADM 116
- 6.15 INVESTMENT & FUNDING SCENARIO 117
- 7 FEED ADDITIVES MARKET, BY TYPE 118
 - 7.1 INTRODUCTION 119
 - 7.2 AMINO ACIDS 123
 - 7.2.1 METHIONINE 123
 - 7.2.1.1 Ability to tailor amino acid supplements for livestock to drive market 123
 - 7.2.2 LYSINE 123
 - 7.2.2.1 Relatively high value and digestibility of lysine to boost market 123
 - 7.2.3 THREONINE 124
 - 7.2.3.1 Role in providing optimal protein synthesis to boost market 124
 - 7.2.4 TRYPTOPHAN 124
 - 7.2.4.1 Ability to improve protein utilization and stress reduction in livestock to drive market 124
 - 7.2.5 OTHER AMINO ACIDS 124
 - 7.3 PHOSPHATES 126
 - 7.3.1 DICALCIUM PHOSPHATE 127
 - 7.3.1.1 Role in regulating energy metabolism and maintaining adequate dietary levels for livestock to drive market 127
 - 7.3.2 MONOCALCIUM PHOSPHATE 127
 - 7.3.2.1 Ability to prevent abnormal development of bones in livestock to propel market 127
 - 7.3.3 MONO-DICALCIUM PHOSPHATE 127
 - 7.3.3.1 Enhancement of functioning of immune system to drive market 127
 - 7.3.4 DEFLUORINATED PHOSPHATE 127
 - 7.3.4.1 Role in reducing fluorine content in animal feed to boost market 127
 - 7.3.5 TRICALCIUM PHOSPHATE 128
 - 7.3.5.1 Role in enhancement of immune system and energy regulation of livestock to drive market 128
 - 7.3.6 OTHER PHOSPHATES 128
 - 7.4 VITAMINS 130
 - 7.4.1 FAT-SOLUBLE VITAMINS 130
 - 7.4.1.1 Role of vitamins as a key constituent of metabolic functions to drive market 130
 - 7.4.2 WATER-SOLUBLE VITAMINS 131
 - 7.4.2.1 Significance of water-soluble vitamins for optimum growth and development of livestock to drive market 131
 - 7.5 ACIDIFIERS 133
 - 7.5.1 PROPIONIC ACID 133

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 7.5.1.1 Role in silage production and prevention of fertility disorders in livestock to drive market 133
- 7.5.2 FORMIC ACID 133
 - 7.5.2.1 Role in consistent feed formulations and feed preservation to drive market 133
- 7.5.3 CITRIC ACID 134
 - 7.5.3.1 Importance of citric acid in enhancing immunity of vaccinated broilers to boost market 134
- 7.5.4 LACTIC ACID 134
 - 7.5.4.1 Significance of lactic acid in improving animal health and productivity to drive market 134
- 7.5.5 SORBIC ACID 134
 - 7.5.5.1 Importance of sorbic acid in feed preservation to drive market 134
- 7.5.6 MALIC ACID 134
 - 7.5.6.1 Role as cost-efficient preservative and acidity regulator to drive market 134
- 7.5.7 BENZOIC ACID 134
 - 7.5.7.1 Strong antimicrobial properties and low pungency to drive market 134
- 7.5.8 OTHER ACIDIFIERS 135
- 7.6 CAROTENOIDS 137
 - 7.6.1 ASTAXANTHIN 137
 - 7.6.1.1 Health benefits of astaxanthin to fuel market growth 137
 - 7.6.2 CANTHAXANTHIN 138
 - 7.6.2.1 Role of canthaxanthin in providing consistent egg color to boost market 138
 - 7.6.3 LUTEIN 138
 - 7.6.3.1 Health benefits of lutein and improvement of feed palatability to drive market 138
 - 7.6.4 BETA CAROTENE 138
 - 7.6.4.1 Improvement of reproductive performance of ruminants and protection against oxidative stress to accelerate market growth 138
 - 7.6.5 OTHER CAROTENOIDS 138
- 7.7 ENZYMES 140
 - 7.7.1 PHYTASE 141
 - 7.7.1.1 Low cost and nutritional benefits to boost growth 141
 - 7.7.2 CARBOHYDRASE 141
 - 7.7.2.1 Significance in the improvement of digestibility of carbohydrates in feed ingredients to drive market 141
 - 7.7.3 PROTEASE 141
 - 7.7.3.1 Role in reduction of dietary protein levels of livestock to drive market 141
 - 7.7.4 OTHER ENZYMES 141
- 7.8 MYCOTOXIN DETOXIFIERS 144
 - 7.8.1 BINDERS 144
 - 7.8.1.1 Increase in awareness regarding benefits of binders to drive market 144
 - 7.8.2 MODIFIERS 145
 - 7.8.2.1 Enhancement of feed by conversion of mycotoxin into lesser toxic compounds to drive market 145
- 7.9 FLAVORS & SWEETENERS 147
 - 7.9.1 FEED FLAVORS 147
 - 7.9.1.1 Rise in focus on improving livestock performance to drive market 147
 - 7.9.2 FEED SWEETENERS 147
 - 7.9.2.1 Role of sweeteners to mask undesired taste of feed to drive market 147
- 7.10 ANTIBIOTICS 149
 - 7.10.1 TETRACYCLINE 150
 - 7.10.1.1 Role in improvement of egg production and feed efficiency to drive market 150
 - 7.10.2 PENICILLIN 150

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 7.10.2.1 Significance of penicillin as antibiotic to drive market 150
- 7.10.3 OTHER ANTIBIOTICS 150
- 7.11 MINERALS 152
- 7.11.1 POTASSIUM 152
- 7.11.1.1 Regulation of metabolism of proteins and carbohydrates to boost market 152
- 7.11.2 CALCIUM 152
- 7.11.2.1 Role of calcium in strengthening of bones and improvement of eggshell quality to drive market 152
- 7.11.3 PHOSPHORUS 153
- 7.11.3.1 Vital role of phosphorus in egg production and prevention of skeletal deformities to drive market 153
- 7.11.4 MAGNESIUM 153
- 7.11.4.1 Necessity of magnesium for bone growth and stability to drive market 153
- 7.11.5 SODIUM 153
- 7.11.5.1 Role of sodium in regulation of acid-base equilibrium and maintenance of osmotic pressure to drive market 153
- 7.11.6 IRON 153
- 7.11.6.1 Significance of iron in formation of hemoglobin and myoglobin to drive market 153
- 7.11.7 ZINC 153
- 7.11.7.1 Role of zinc in development of immune system and reproductive capacity to drive market 153
- 7.11.8 COPPER 154
- 7.11.8.1 Health benefits of copper and vital role in cellular respiration to boost market 154
- 7.11.9 MANGANESE 154
- 7.11.9.1 Role in efficient functioning of mitochondria in cells and prevention of oxidative stress to drive market 154
- 7.11.10 OTHER MINERALS 154
- 7.12 ANTIOXIDANTS 156
- 7.12.1 SYNTHETIC ANTIOXIDANTS 157
- 7.12.1.1 Role in protection of fat-soluble vitamins against oxidative degradation to drive market 157
- 7.12.2 NATURAL ANTIOXIDANTS 157
- 7.12.2.1 Fewer side effects than synthetic antioxidants to drive market 157
- 7.13 NONPROTEIN NITROGEN 159
- 7.13.1 UREA 159
- 7.13.1.1 Low cost and easy availability to drive market 159
- 7.13.2 AMMONIA 159
- 7.13.2.1 Role of ammonia in improving digestibility and increasing feed intake to drive market 159
- 7.13.3 OTHER NONPROTEIN NITROGEN 160
- 7.14 PHYTOGENICS 162
- 7.14.1 ESSENTIAL OILS 162
- 7.14.1.1 Role in improvement of gut health and healthy digestion in poultry to boost market 162
- 7.14.2 FLAVONOIDS 162
- 7.14.2.1 Improvement of gut health and heart stress control in livestock to boost market 162
- 7.14.3 SAPONINS 163
- 7.14.3.1 Role of saponins in suppressing intestinal and ruminal ammonia production to drive market 163
- 7.14.4 OLEORESINS 163
- 7.14.4.1 Role of oleoresins in imparting color, flavor, and aroma to livestock feed to drive market 163
- 7.14.5 OTHER PHYTOGENICS 163
- 7.15 PRESERVATIVES 165
- 7.15.1 MOLD INHIBITORS 166
- 7.15.1.1 Role of mold inhibitors in preventing mold growth and contamination to drive market 166
- 7.15.2 ANTICAKING AGENTS 166

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

7.15.2.1	Significance of anticaking agents in preventing accumulation of feed nutrients to drive market	166
7.16	PROBIOTICS	168
7.16.1	LACTOBACILLI	169
7.16.1.1	Potential to replace antibiotic growth promoters to drive market	169
7.16.2	BIFIDOBACTERIA	169
7.16.2.1	Benefits to adult livestock, such as controlling pH level of large intestine to accelerate market growth	169
7.16.3	STREPTOCOCCUS THERMOPHILUS	169
7.16.3.1	Usage in manufacture of various feed probiotic products to drive market	169
7.16.4	YEAST & FUNGI	169
7.16.4.1	Role in increased production of milk in dairy cattle to drive market	169
8	FEED ADDITIVES MARKET, BY LIVESTOCK	172
8.1	INTRODUCTION	173
8.2	POULTRY	175
8.2.1	RISE IN DEMAND FOR HIGH-QUALITY CHICKEN AND EGGS TO DRIVE MARKET	175
8.2.2	BROILERS	175
8.2.3	LAYERS	176
8.2.4	BREEDERS	176
8.3	RUMINANTS	177
8.3.1	INCREASE IN CONSUMPTION OF DAIRY PRODUCTS AND BEEF TO DRIVE DEMAND	177
8.3.2	CALF	178
8.3.3	DAIRY	178
8.3.4	BEEF	178
8.3.5	OTHER RUMINANTS	178
8.4	SWINE	180
8.4.1	RISE IN PORK TRADE AND CONCERNS OVER MEAT SAFETY TO BOOST MARKET	180
8.4.2	STARTERS	180
8.4.3	GROWERS	180
8.4.4	SOWS	180
8.5	AQUATIC ANIMALS	182
8.5.1	INCREASE IN AQUAFEED PRODUCTION TO DRIVE MARKET	182
8.5.2	FISH	182
8.5.3	CRUSTACEANS	182
8.5.4	MOLLUSKS	183
8.5.5	OTHER AQUATIC ANIMALS	183
8.6	OTHER LIVESTOCK	185
9	FEED ADDITIVES MARKET, BY SOURCE	187
9.1	INTRODUCTION	188
9.2	SYNTHETIC	189
9.2.1	COST-EFFECTIVENESS AND HIGH STABILITY PROPERTIES TO PROPEL GROWTH	189
9.3	NATURAL	190
9.3.1	ANTIBIOTIC CONCERNS TO DRIVE MARKET	190
10	FEED ADDITIVES MARKET, BY FORM	192
10.1	INTRODUCTION	193
10.2	DRY	194
10.2.1	CONVENIENCE IN STORAGE, HANDLING, AND TRANSPORTATION TO DRIVE MARKET	194
10.3	LIQUID	195
10.3.1	UNIFORM MIXING AND PRECISE DOSING OF LIQUID FEED ADDITIVES TO PROPEL MARKET	195

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

11	FEED ADDITIVES MARKET, BY FUNCTION	197
11.1	INTRODUCTION	197
11.2	GUT HEALTH	197
11.2.1	INCREASED DEMAND FOR HEALTHY GUT MICROBIOTA TO IMPROVE DIGESTION AND PREVENT GASTROINTESTINAL DISEASES	197
11.3	PALATABILITY ENHANCERS	197
11.3.1	IMPROVED TASTE, SMELL, AND OVERALL APPEAL OF ANIMAL FEED TO DRIVE DEMAND	197
11.4	GROWTH BOOSTERS	198
11.4.1	RIISING DEMAND FOR MEAT TO DRIVE DEMAND FOR GROWTH BOOSTERS	198
11.5	IMMUNE SYSTEM SUPPORT	198
11.5.1	INCREASED DISEASE INCIDENCES TO DRIVE DEMAND	198
11.6	OTHER FUNCTIONS	198
12	FEED ADDITIVES MARKET, BY REGION	199
12.1	INTRODUCTION	200
12.2	NORTH AMERICA	203
12.2.1	MACROECONOMIC OUTLOOK FOR NORTH AMERICA	203
12.2.2	US	209
12.2.2.1	Increasing trend of precision feeding techniques to boost demand for effective feed additives	209
12.2.3	CANADA	210
12.2.3.1	Rise in demand for meat and lenient regulations pertaining to use of growth promoters to boost market	210
12.2.4	MEXICO	212
12.2.4.1	Significant rise in livestock production to drive feed additive consumption in Mexico	212
12.3	EUROPE	213
12.3.1	MACROECONOMIC OUTLOOK FOR EUROPE	213
12.3.2	SPAIN	218
12.3.2.1	Increased preference for meat and dairy products to boost market	218
12.3.3	RUSSIA	219
12.3.3.1	Increasing feed production rate to drive market	219
12.3.4	GERMANY	220
12.3.4.1	Technological advancements in livestock management to drive market	220
12.3.5	FRANCE	222
12.3.5.1	High domestic demand for meat products to drive market	222
12.3.6	ITALY	223
12.3.6.1	Focus on improving animal health and nutrition to drive market	223
12.3.7	UK	224
12.3.7.1	Rising demand for high-quality meat and dairy products to boost market	224
12.3.8	REST OF EUROPE	226
12.4	ASIA PACIFIC	227
12.4.1	MACROECONOMIC OUTLOOK FOR ASIA PACIFIC & OCEANIA	227
12.4.2	CHINA	233
12.4.2.1	Large feed production to drive market	233
12.4.3	INDIA	234
12.4.3.1	Increased consumption of meat and dairy products to drive market	234
12.4.4	JAPAN	236
12.4.4.1	Increasing consumer demand for premium animal-based products to drive market	236
12.4.5	THAILAND	237
12.4.5.1	Export opportunities in poultry and aquaculture industry to drive market	237

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

12.4.6	INDONESIA	239
12.4.6.1	High demand for feed due to growing poultry sector to drive market	239
12.4.7	REST OF ASIA PACIFIC	240
12.5	SOUTH AMERICA	241
12.5.1	MACROECONOMIC OUTLOOK FOR LATIN AMERICA	242
12.5.2	BRAZIL	246
12.5.2.1	Brazil's thriving meat export industry to drive market	246
12.5.3	ARGENTINA	247
12.5.3.1	High consumption of meat and thriving livestock industry to drive market	247
12.5.4	REST OF SOUTH AMERICA	248
?		
12.6	REST OF THE WORLD (ROW)	249
12.6.1	MACROECONOMIC OUTLOOK FOR ROW	250
12.6.2	MIDDLE EAST	254
12.6.2.1	Rising demand for animal-based products to drive market	254
12.6.3	AFRICA	256
12.6.3.1	Increase in disease outbreaks to drive market	256
13	COMPETITIVE LANDSCAPE	258
13.1	OVERVIEW	258
13.2	KEY PLAYER STRATEGIES/RIGHT TO WIN	259
13.3	REVENUE ANALYSIS, 2021-2023	260
13.4	MARKET SHARE ANALYSIS, 2023	261
13.5	COMPANY EVALUATION MATRIX: KEY PLAYERS, 2023	264
13.5.1	STARS	264
13.5.2	EMERGING LEADERS	264
13.5.3	PERVASIVE PLAYERS	264
13.5.4	PARTICIPANTS	265
13.5.5	COMPANY FOOTPRINT: KEY PLAYERS, 2023	266
13.5.5.1	Company footprint	266
13.5.5.2	Region footprint	267
13.5.5.3	Type footprint	268
13.5.5.4	Livestock footprint	269
13.5.5.5	Form footprint	270
13.5.5.6	Source footprint	271
13.6	COMPANY EVALUATION MATRIX: STARTUPS/SMES, 2023	272
13.6.1	PROGRESSIVE COMPANIES	272
13.6.2	RESPONSIVE COMPANIES	272
13.6.3	DYNAMIC COMPANIES	272
13.6.4	STARTING BLOCKS	272
13.6.5	COMPETITIVE BENCHMARKING: KEY STARTUPS/SMES, 2023	274
13.6.5.1	Detailed list of key startups/SMEs	274
13.6.5.2	Competitive benchmarking of key startups/SMEs	274
13.7	COMPANY VALUATION AND FINANCIAL METRICS	276
13.7.1	COMPANY VALUATION	276
13.7.2	EV/EBITDA	276
13.8	BRAND COMPARISON ANALYSIS	277
13.8.1	CARGILL, INCORPORATED (DELACON)	277

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 13.8.2 ADM (PANCOSMA) 277
- 13.8.3 NUTRECO (SELKO) 278
- 13.8.4 ADISSEO (RHODIMET) 278
- 13.8.5 DSM-FIRMENICH (MYCOFIX) 278
- ?
- 13.9 COMPETITIVE SCENARIO AND TRENDS 278
- 13.9.1 PRODUCT LAUNCHES 279
- 13.9.2 DEALS 280
- 13.9.3 EXPANSIONS 281
- 13.9.4 OTHERS 282
- 14 COMPANY PROFILES 283
- 14.1 KEY PLAYERS 283
- 14.1.1 CARGILL, INCORPORATED 283
- 14.1.1.1 Business overview 283
- 14.1.1.2 Products/Solutions/Services offered 284
- 14.1.1.3 Recent developments 286
- 14.1.1.3.1 Deals 286
- 14.1.1.3.2 Expansions 288
- 14.1.1.4 MnM view 288
- 14.1.1.4.1 Key strengths 288
- 14.1.1.4.2 Strategic choices 288
- 14.1.1.4.3 Weaknesses and competitive threats 288
- 14.1.2 ADM 289
- 14.1.2.1 Business overview 289
- 14.1.2.2 Products/Solutions/Services offered 290
- 14.1.2.3 Recent developments 294
- 14.1.2.3.1 Product launches 294
- 14.1.2.3.2 Deals 295
- 14.1.2.3.3 Expansions 295
- 14.1.2.4 MnM view 295
- 14.1.2.4.1 Key strengths 295
- 14.1.2.4.2 Strategic choices 296
- 14.1.2.4.3 Weaknesses and competitive threats 296
- 14.1.3 INTERNATIONAL FLAVORS & FRAGRANCES INC. 297
- 14.1.3.1 Business overview 297
- 14.1.3.2 Products/Solutions/Services offered 298
- 14.1.3.3 Recent developments 300
- 14.1.3.3.1 Product launches 300
- 14.1.3.3.2 Expansions 301
- 14.1.3.4 MnM view 302
- 14.1.3.4.1 Key strengths 302
- 14.1.3.4.2 Strategic choices 302
- 14.1.3.4.3 Weaknesses and competitive threats 302
- ?
- 14.1.4 EVONIK INDUSTRIES AG 303
- 14.1.4.1 Business overview 303
- 14.1.4.2 Products/Solutions/Services offered 304

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

14.1.4.3	Recent developments	306
14.1.4.3.1	Product launches	306
14.1.4.3.2	Deals	306
14.1.4.3.3	Expansions	307
14.1.4.4	MnM view	308
14.1.4.4.1	Key strengths	308
14.1.4.4.2	Strategic choices	308
14.1.4.4.3	Weaknesses and competitive threats	308
14.1.5	BASF SE	309
14.1.5.1	Business overview	309
14.1.5.2	Products/Solutions/Services offered	310
14.1.5.3	Recent developments	313
14.1.5.3.1	Product launches	313
14.1.5.3.2	Deals	313
14.1.5.4	MnM view	314
14.1.5.4.1	Right to win	314
14.1.5.4.2	Strategic choices	314
14.1.5.4.3	Weaknesses and competitive threats	314
14.1.6	DSM-FIRMENICH	315
14.1.6.1	Business overview	315
14.1.6.2	Products/Solutions/Services offered	316
14.1.6.3	Recent developments	319
14.1.6.3.1	Deals	319
14.1.6.3.2	Expansions	321
14.1.6.4	MnM view	321
14.1.7	ALLTECH	322
14.1.7.1	Business overview	322
14.1.7.2	Products/Solutions/Services offered	323
14.1.7.3	Recent developments	324
14.1.7.3.1	Product launches	324
14.1.7.3.2	Deals	325
14.1.7.4	MnM view	325
14.1.8	AJINOMOTO CO., INC.	326
14.1.8.1	Business overview	326
14.1.8.2	Products/Solutions/Services offered	328
14.1.8.3	Recent developments	328
14.1.8.3.1	Deals	328
14.1.8.4	MnM view	328
?		
14.1.9	NOVONESIS GROUP	329
14.1.9.1	Business overview	329
14.1.9.2	Products/Solutions/Services offered	330
14.1.9.3	Recent developments	334
14.1.9.3.1	Deals	334
14.1.9.4	MnM view	334
14.1.10	ADISSEO	335
14.1.10.1	Business overview	335

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

- 14.1.10.2 Products/Solutions/Services offered 336
- 14.1.10.3 Recent developments 338
 - 14.1.10.3.1 Deals 338
 - 14.1.10.3.2 Expansions 339
- 14.1.10.4 MnM view 339
- 14.1.11 JUBILANT INGREVIA LIMITED 340
 - 14.1.11.1 Business overview 340
 - 14.1.11.2 Products/Solutions/Services offered 342
 - 14.1.11.3 Recent developments 342
 - 14.1.11.4 MnM view 342
- 14.1.12 NUTRECO 343
 - 14.1.12.1 Business overview 343
 - 14.1.12.2 Products/Solutions/Services offered 343
 - 14.1.12.3 Recent developments 345
 - 14.1.12.3.1 Deals 345
 - 14.1.12.3.2 Expansions 347
 - 14.1.12.4 MnM view 347
- 14.1.13 BRF GLOBAL 348
 - 14.1.13.1 Business overview 348
 - 14.1.13.2 Products/Solutions/Services offered 349
 - 14.1.13.3 Recent developments 350
 - 14.1.13.3.1 Deals 350
 - 14.1.13.4 MnM view 350
- 14.1.14 VOLAC INTERNATIONAL LTD. 351
 - 14.1.14.1 Business overview 351
 - 14.1.14.2 Products/Solutions/Services offered 351
 - 14.1.14.3 Recent developments 353
 - 14.1.14.3.1 Expansions 353
 - 14.1.14.3.2 Others 353
 - 14.1.14.4 MnM view 353
- ?
- 14.1.15 KEMIN INDUSTRIES, INC. 354
 - 14.1.15.1 Business overview 354
 - 14.1.15.2 Products/Solutions/Services offered 355
 - 14.1.15.3 Recent developments 357
 - 14.1.15.3.1 Product launches 357
 - 14.1.15.3.2 Deals 358
 - 14.1.15.3.3 Expansions 358
 - 14.1.15.4 MnM view 358
- 14.1.16 LALLEMAND INC. 359
 - 14.1.16.1 Business overview 359
 - 14.1.16.2 Products/Solutions/Services offered 359
 - 14.1.16.3 Recent developments 361
 - 14.1.16.3.1 Deals 361
 - 14.1.16.4 MnM view 361
- 14.1.17 BENTOLI 362
 - 14.1.17.1 Business overview 362

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

14.1.17.2	Products/Solutions/Services offered	362
14.1.17.3	Recent developments	364
14.1.17.3.1	Deals	364
14.1.17.4	MnM view	364
14.1.18	NEOSPARK DRUGS AND CHEMICALS PRIVATE LIMITED	365
14.1.18.1	Business overview	365
14.1.18.2	Products/Solutions/Services offered	365
14.1.18.3	Recent developments	366
14.1.18.4	MnM view	366
14.1.19	NOVUS INTERNATIONAL, INC.	367
14.1.19.1	Business overview	367
14.1.19.2	Products/Solutions/Services offered	367
14.1.19.3	Recent developments	369
14.1.19.3.1	Deals	369
14.1.19.4	MnM view	370
14.1.20	GLOBAL NUTRITION INTERNATIONAL	371
14.1.20.1	Business overview	371
14.1.20.2	Products/Solutions/Services offered	371
14.1.20.3	Recent developments	373
14.1.20.4	MnM view	373
14.2	OTHER PLAYERS	374
14.2.1	VITALAC	374
14.2.2	TEX BIOSCIENCES (P) LTD.	375
14.2.3	CENTAFARM SRL	376
14.2.4	NUQO FEED ADDITIVES	378
?		
14.2.5	PALITAL FEED ADDITIVES B.V.	379
14.2.6	PHYTOBIOTICS FUTTERZUSATZSTOFFE GMBH	380
15	ADJACENT AND RELATED MARKETS	381
15.1	INTRODUCTION	381
15.2	LIMITATIONS	381
15.3	AQUAFEED MARKET	381
15.3.1	MARKET DEFINITION	381
15.3.2	MARKET OVERVIEW	382
15.4	FEED PHOSPHATES MARKET	383
15.4.1	MARKET DEFINITION	383
15.4.2	MARKET OVERVIEW	383
15.5	COMPOUND FEED MARKET	384
15.5.1	MARKET DEFINITION	384
15.5.2	MARKET OVERVIEW	384
16	APPENDIX	385
16.1	DISCUSSION GUIDE	385
16.2	KNOWLEDGESTORE: MARKETSandMARKETS' SUBSCRIPTION PORTAL	394
16.3	CUSTOMIZATION OPTIONS	396
16.4	RELATED REPORTS	396
16.5	AUTHOR DETAILS	397

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

Feed Additives Market by Livestock, Type (Amino Acids, Probiotics, Vitamins, Acidifiers, Enzymes, Flavors & Sweeteners, Mycotoxin Detoxifiers, Minerals, and Antioxidants), Form, Source, Function, and Region - Global Forecast to 2029

Market Report | 2025-01-15 | 398 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	\$7150.00
	Multi User	\$8500.00
	Corporate License	\$9650.00
	Enterprise Site License	\$11000.00
		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

2026-03-05

Signature

A large, empty rectangular box intended for a signature.

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com