

Biopesticides Market by Type (Bioinsecticides, Biofungicides, Bionematicides), Crop Type (Cereals & Grains, Oilseeds & Pulses), Formulation (Liquid and Dry), Source (Microbials, Biochemicals), Mode of Application, & Region - Global Forecast to 2029

Market Report | 2025-02-01 | 367 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 biopesticides market is estimated at USD 7.72 billion in 2024 and is projected to reach USD 15.66 billion by 2029, at a CAGR of 15.2% during the forecast period. The adoption of AI in the biopesticides industry is transforming product development, enhancing pest control effectiveness, and optimizing market strategies. Companies, such as FMC Corporation, are using AI to rapidly discover and commercialize new biopesticides. In May 2024, FMC Corporation announced a collaboration with Optibrium, the lead AI solutions company for small molecule discovery, as part of its strategic move to expand its discovery process. Coupled with Optibrium's Augmented Chemistry AI technologies, this will speed up the discovery of promising compounds and optimize their properties in the development of new sustainable solutions for growers. As AI continues to play a critical role in sustainable product development, it positions the biopesticides market for significant growth and innovation.

Opportunities and disruption in the biopesticides market

Biopesticides offer significant business opportunities for both farmers and manufacturers, driven by the increasing shift toward sustainable agriculture. For the farmer, the use of biopesticides can reduce dependency on chemical pesticides, improve crop quality, and enjoy consumers' demand for ecological-friendly products, thus opening up improved profitability and access to markets. Manufacturer benefits from this trend in that the global demand for sustainable agricultural inputs, which are increasing in demand, provide opportunities to expand the product portfolios, invest in R&D, and tie up strategic alliances. Thus, the prospects of this emerging market landscape are promising and lead to long-term sustainability and growth across the agricultural supply chain. The biopesticides market is experiencing significant disruptions driven by technological advancements, regulatory changes, and evolving consumer preferences. Some of the key disruptions in the biopesticides market include:

- ☐ AI-driven product discovery: Artificial intelligence (AI) and machine learning are accelerating the identification and optimization of active compounds in biopesticides, which help in fast and efficient product development.

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

-□Advanced delivery technologies: Innovations like microencapsulation and controlled-release formulations improve the performance of biopesticides by enhancing their efficiency and durability.

-□Precision application technologies: The integration of drones, smart sensors, and GPS-based tools helps in accurate and efficient application of biopesticides, hence reducing the wastage of product.

"In 2023, Bioinsecticides stood as the major segment within the type segment of the biopesticides market. "

The bioinsecticides hold a major share in the segment type of biopesticides market because of their potential to target an enormous range of insect pests while remaining nontoxic to many other beneficial organisms. These include biopesticides emanating from natural sources, bacteria, fungi, and plant extracts that reportedly are harmless and serve as alternatives for chemical insecticides. Due to increasing awareness of pesticide resistance and lethal effects on the environment and human health from synthetic chemicals, bioinsecticides have emerged among the favored options for integrated pest management. Its aptitude for sustainable pest control delivery across different crops, especially high-valued fruit and vegetable production, sustained the leading edge in the biopesticides market.

"Within the formulation segment, liquid formulation holds the highest share."

Liquid formulation holds the maximum share in the biopesticides market due to its wide usage and versatility. They are preferred for the ease of application and better coverage of large acres. Liquid biopesticides provide a high active content, which is required in commercial formulation as they aid with spray drifting. Rovensa Next launched a new biofungicide named Milarum in Brazil in June 2024. FMC India introduced ENTAZIA biofungicide in August 2023. Both are liquid products in form, bringing extra versatility and value to their applications.

"Europe is expected to grow at the highest rate in the global biopesticides market."

The European region is expected to record the highest growth rate in the global pesticides market due to increasing demand for organic and sustainable farming practices, stringent environmental regulations, and strong governmental support towards environmental-friendly crop protection solutions. The regional market has concentrated on the decline in the utilization of chemical pesticides, increasing integrated pest management, thereby accelerating the demand for biopesticides and other alternative solutions in the region. The "Farm to Fork" strategy by the European Commission includes the ambition of using 25% of EU farmland for organic farming by 2030. An action plan is designed within the strategy that offers direct financial support to organic producers on a per-hectare payment basis, thus incentivizing the adoption and long-term maintenance of organic farming practices. This kind of incentive will go a long way in fast-tracking the conversion process to organic agriculture. These per-hectare payments are justified to incentivize the positive externalities associated with organic farming and are partly financed by pesticide taxes. This approach creates a favorable environment for the biopesticides market in Europe.

The Break-up of Primaries:

By Company Type: Tire 1- 35%, Tire 2- 40%, Tire 3- 25%

By Designation: CXOs - 30%, Managers - 50%, Executives - 20%

By Region: North America - 25%, Europe - 25%, Asia Pacific - 30%, South America - 10%, RoW - 10%

Key players in this market include BASF SE (Germany), Bayer AG (Germany), Syngenta Group (Switzerland), UPL (India), Corteva (US), FMC Corporation (US), Nufarm (Australia), Sumitomo Chemical Co., Ltd. (Japan), Certis USA L.L.C. (US), Bioceres Crop Solutions (Argentina), Novonosis Group (Denmark), Koppert (Netherlands), Biobest Group NV (Belgium), Gowan Company (US), and Lallemand Inc (Canada).

Research Coverage:

The report segments the biopesticides market based on type, crop type, mode of application, source, formulation, and region. In terms of insights, this report has focused on various levels of analyses-the competitive landscape, end-use analysis, and company profiles, which together comprise and discuss views on the emerging & high-growth segments of the biopesticides market, high-growth regions, countries, government initiatives, drivers, restraints, opportunities, and challenges. A detailed analysis of the key industry players has been done to provide insights into their business overview, solutions, services, key strategies, Contracts, partnerships, and agreements. New product launches, mergers and acquisitions, and recent developments associated with the biopesticides market. Competitive analysis of upcoming startups in the biopesticides market ecosystem is covered in this report.

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

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 biopesticides 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 (increase in exports of fruits & vegetables, chemical pesticide bans and awareness programs by government agencies, and increase in organic food sales) restraints (technological limitations to use biological products and slow and variable performance) opportunities (advancements in microbial research by key players and adaption and increase in IPM practices) and challenges (high cost of biopesticides compared to synthetic pesticides and lack of awareness and technical knowledge among farmers).
- Product Development/Innovation: Detailed insights on research & development activities and new product launches in the biopesticides market.
- Market Development: Comprehensive information about lucrative markets - the report analyses the biopesticides market across varied regions.
- Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the biopesticides market
- Competitive Assessment: In-depth assessment of market shares, growth strategies, and product offerings of leading players like BASF SE (Germany), Bayer AG (Germany), Syngenta Group (Switzerland), UPL (India), Corteva (US), FMC Corporation (US), Nufarm (Australia), Sumitomo Chemical Co., Ltd. (Japan), Certis USA L.L.C. (US), Bioceres Crop Solutions (Argentina), Novonosis Group (Denmark), Koppert (Netherlands), Biobest Group NV (Belgium), Gowan Company (US), and Lallemand Inc (Canada) in the biopesticides market.

Table of Contents:

1□INTRODUCTION□	31
1.1□STUDY OBJECTIVES□	31
1.1.1□MARKET DEFINITION□	31
1.2□MARKET SCOPE□	32
1.2.1□MARKET COVERED AND REGIONAL SCOPE□	32
1.2.2□INCLUSIONS AND EXCLUSIONS□	33
1.2.3□YEARS CONSIDERED□	34
1.2.4□UNIT CONSIDERED□	34
1.3□STAKEHOLDERS□	35
1.4□SUMMARY OF CHANGES□	36
2□RESEARCH METHODOLOGY□	37
2.1□RESEARCH DATA□	37
2.1.1□SECONDARY DATA□	38
2.1.1.1□Key data from secondary sources□	38
2.1.2□PRIMARY DATA□	38
2.1.2.1□Key data from primary sources□	39
2.1.2.2□Key industry insights□	40
2.1.2.3□Breakdown of primaries□	40
2.2□MARKET SIZE ESTIMATION□	41
2.2.1□BOTTOM-UP APPROACH□	41
2.2.1.1□Approach to estimate market size using bottom-up analysis□	41
2.2.2□TOP-DOWN APPROACH□	42
2.2.2.1□Approach to estimate market size using top-down analysis□	43

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

2.3	DATA TRIANGULATION	45
2.4	RESEARCH ASSUMPTIONS	46
2.5	RESEARCH LIMITATIONS	46
3	EXECUTIVE SUMMARY	47
4	PREMIUM INSIGHTS	52
4.1	ATTRACTIVE MARKET OPPORTUNITIES FOR PLAYERS IN BIOPESTICIDES MARKET	52
4.2	NORTH AMERICA: BIOPESTICIDES MARKET, BY SOURCE AND COUNTRY	53
4.3	BIOPESTICIDES MARKET: SHARE OF MAJOR COUNTRIES	53
4.4	BIOPESTICIDES MARKET, BY TYPE AND REGION	54
4.5	BIOPESTICIDES MARKET, BY FORMULATION AND REGION	55
4.6	BIOPESTICIDES MARKET, BY SOURCE AND REGION	56
4.7	BIOPESTICIDES MARKET, BY MODE OF APPLICATION AND REGION	57
4.8	BIOPESTICIDES MARKET, BY CROP TYPE AND REGION	58
5	MARKET OVERVIEW	59
5.1	INTRODUCTION	59
5.2	MACROECONOMIC OUTLOOK	59
5.2.1	GROWTH IN ORGANIC AGRICULTURAL PRACTICES	59
5.2.2	FAVORABLE AGRICULTURAL SUBSIDIES AND SUPPORT PROGRAMS FROM GOVERNMENTS ACROSS DIFFERENT COUNTRIES	60
5.3	MARKET DYNAMICS	61
5.3.1	DRIVERS	62
5.3.1.1	Increase in demand for fruits and vegetables	62
5.3.1.2	Chemical pesticide bans and awareness programs by government agencies	62
5.3.1.3	Increasing organic food sales	62
5.3.1.4	Advancements in biotechnology support biopesticides market growth	63
5.3.2	RESTRAINTS	64
5.3.2.1	Limited shelf life and storage constraints	64
5.3.2.2	Slow and variable performance	65
5.3.2.3	Complexity in commercialization and limited market establishment	65
5.3.3	OPPORTUNITIES	66
5.3.3.1	Advancements in microbial research undertaken by key players across regions	66
5.3.3.2	Adoption and increase in Integrated Pest Management (IPM) strategies	67
5.3.4	CHALLENGES	67
5.3.4.1	Higher cost of biopesticides than chemical pesticides	67
5.3.4.2	Lack of awareness and technical knowledge of biopesticides among farmers	68
5.4	IMPACT OF AI/GEN AI ON BIOPESTICIDES MARKET	68
5.4.1	INTRODUCTION	68
5.4.2	USE OF GEN AI IN BIOPESTICIDES	70
5.4.3	CASE STUDY ANALYSIS	71
5.4.3.1	Koppert's digital assistant revolutionizing crop protection in biopesticides market	71
5.4.3.2	Leveraging AI to revolutionize biopesticide discovery at Micropep	72
6	INDUSTRY TRENDS	73
6.1	INTRODUCTION	73
6.2	VALUE CHAIN ANALYSIS	73
6.2.1	RESEARCH & PRODUCT DEVELOPMENT	73
6.2.2	SOURCING	74
6.2.3	PRODUCTION	74
6.2.4	FORMULATION	74

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

6.2.5	DISTRIBUTION	74
6.2.6	END-USE APPLICATION	74
6.3	TRADE ANALYSIS	75
6.3.1	EXPORT SCENARIO (HS CODE 3808)	75
6.3.2	IMPORT SCENARIO (HS CODE 3808)	76
6.4	TECHNOLOGY ANALYSIS	77
6.4.1	KEY TECHNOLOGIES	77
6.4.1.1	Microbial inoculants	77
6.4.2	COMPLEMENTARY TECHNOLOGIES	78
6.4.2.1	Precision Agriculture Technologies	78
6.4.3	ADJACENT TECHNOLOGIES	79
6.4.3.1	Nanotechnology	79
6.4.3.2	RNAi Technology	79
6.5	PRICING ANALYSIS	80
6.5.1	AVERAGE SELLING PRICE TREND OF KEY PLAYERS, BY TYPE	80
6.5.2	AVERAGE SELLING PRICE TREND OF BIOINSECTICIDES, BY REGION	82
6.5.3	AVERAGE SELLING PRICE TREND OF BIOFUNGICIDES, BY REGION	83
6.5.4	AVERAGE SELLING PRICE TREND OF BIONEMATICIDES, BY REGION	84
6.5.5	AVERAGE SELLING PRICE TREND OF BIOHERBICIDES, BY REGION	85
6.5.6	AVERAGE SELLING PRICE TREND OF OTHER BIOPESTICIDES, BY REGION	86
6.6	ECOSYSTEM ANALYSIS	87
6.6.1	DEMAND SIDE	87
6.6.2	SUPPLY SIDE	87
6.7	TRENDS/DISRUPTIONS IMPACTING CUSTOMERS BUSINESSES	89
6.8	PATENT ANALYSIS	91
6.9	KEY CONFERENCES & EVENTS, 2025-2026	94
6.10	REGULATORY LANDSCAPE	95
6.10.1	REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS	95
6.10.2	US	98
6.10.3	CANADA	98
6.10.4	MEXICO	100
6.10.5	EUROPE	101
6.10.6	ASIA PACIFIC	102
6.10.6.1	India	103
6.10.6.2	Australia	103
6.10.6.3	Japan	103
6.10.7	SOUTH AMERICA	104
6.10.7.1	Brazil	104
6.10.7.2	Argentina	104
6.10.8	REST OF THE WORLD	105
6.11	PORTER'S FIVE FORCES ANALYSIS	106
6.11.1	INTENSITY OF COMPETITIVE RIVALRY	107
6.11.2	BARGAINING POWER OF SUPPLIERS	107
6.11.3	BARGAINING POWER OF BUYERS	107
6.11.4	THREAT OF SUBSTITUTES	107
6.11.5	THREAT OF NEW ENTRANTS	107
6.12	KEY STAKEHOLDERS AND BUYING CRITERIA	108

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

6.12.1	KEY STAKEHOLDERS IN BUYING PROCESS	108
6.12.2	BUYING CRITERIA	109
6.13	CASE STUDY ANALYSIS	110
6.13.1	KOPPERT BIOLOGICAL SYSTEMS ACQUIRED GEOCOM TO FOCUS ON PRECISION AGRIFARMING	110
6.13.2	ENHANCING BIOPESTICIDE PERFORMANCE WITH BASF'S AGNIQUE BIOHANCE ADJUVANTS	110
6.13.3	ADDRESSING CHALLENGES OF PHYTOSANITARY DEFENSE WITH SYNGENTA'S BIOSOLUTIONS	111
6.14	INVESTMENT AND FUNDING SCENARIO	112
7	BIOPESTICIDES MARKET, BY TYPE	113
7.1	INTRODUCTION	114
7.2	BIOINSECTICIDES	116
7.2.1	BACILLUS THURINGIENSIS	118
7.2.1.1	Wide-scale availability, target-specificity, and efficiency	118
7.2.2	BEAUVERIA BASSIANA	118
7.2.2.1	Availability in various formulations	118
7.2.3	METARHIZIUM ANISOPLIAE	119
7.2.3.1	Effective in controlling caterpillars	119
7.2.4	VERTICILLIUM LECANII	119
7.2.4.1	Wide applications in ornamentals, vegetable crops, nurseries, lawns, and vegetable field crops	119
7.2.5	BACULOVIRUS	120
7.2.5.1	Significant demand as effective biocontrol tool for IPM programs	120
7.2.6	OTHER BIOINSECTICIDES	120
7.3	BIOFUNGICIDES	121
7.3.1	TRICHODERMA	123
7.3.1.1	Easy availability and long shelf life encouraging adoption among farmers	123
7.3.2	BACILLUS	124
7.3.2.1	Development of bacillus-based products to witness significant demand for biofungicides	124
7.3.3	PSEUDOMONAS	125
7.3.3.1	Rise in demand for pseudomonas-based biofungicide for seed-borne diseases	125
7.3.4	STREPTOMYCES	125
7.3.4.1	Eliminate pathogenic antagonists by secreting volatile compounds	125
7.3.5	OTHER BIOFUNGICIDES	126
?		
7.4	BIONEMATOCIDES	127
7.4.1	PAECILOMYCES LILACINUS	129
7.4.1.1	Promising as biocontrol agent for controlling growth of root-knot nematodes	129
7.4.2	BACILLUS FIRMUS	129
7.4.2.1	Effective for larvae and adult nematodes	129
7.4.3	PASTEURIA SPECIES	129
7.4.3.1	Effective against plant-parasitic nematodes	129
7.4.4	OTHER BIONEMATOCIDES	130
7.5	BIOHERBICIDES	130
7.5.1	BEST ALTERNATIVE FOR WEED CONTROL	130
7.6	OTHER BIOPESTICIDES	132
8	BIOPESTICIDES MARKET, BY SOURCE	134
8.1	INTRODUCTION	135
8.2	MICROBES	137
8.2.1	REDUCED DEVELOPMENT COSTS FOR MICROBES, PEST-SPECIFICITY, AND RESIDUE-FREE NATURE BIOPESTICIDES	137

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

8.2.2	BACTERIA	138
8.2.3	FUNGI	139
8.2.4	VIRUS	139
8.2.5	PROTOZOA	139
8.3	BIOCHEMICALS	140
8.3.1	BROAD SPECTRUM ACTIVITY TO INCREASE ADOPTION	140
8.3.2	SEMIOCHEMICALS	141
8.3.3	PLANT EXTRACTS	141
8.3.4	ORGANIC ACIDS & OTHERS	142
8.4	BENEFICIAL INSECTS & OTHER MACROBIALS	142
8.4.1	NATURAL AND UNIQUE MODE OF ACTION AND CONVENIENT APPLICATION TO SPUR USAGE OF BENEFICIAL INSECTS	142
8.4.2	PREDATORS	144
8.4.3	PARASITOIDS	144
9	BIOPESTICIDES MARKET, BY FORMULATION	145
9.1	INTRODUCTION	146
9.2	LIQUID	147
9.2.1	EMULSIFIABLE CONCENTRATES	149
9.2.1.1	Ease of handling and requires less agitation	149
9.2.2	SUSPENSION CONCENTRATES	149
9.2.2.1	Suspension concentrates to be safe for operator and environment	149
9.2.3	SOLUBLE LIQUID CONCENTRATES	149
9.2.3.1	Soluble liquid concentrates tend to have lower viscosities than suspension concentrates	149
9.3	DRY	150
9.3.1	DRY GRANULES	151
9.3.1.1	Limited application under UV light	151
9.3.2	WATER-DISPERSIBLE GRANULES	151
9.3.2.1	Water-dispersible granules to be relatively dust-free with good storage viability	151
9.3.3	WETTABLE POWDERS	152
9.3.3.1	Fine wettable powders require adequate safety measures while handling	152
10	BIOPESTICIDES MARKET, BY MODE OF APPLICATION	153
10.1	INTRODUCTION	154
10.2	SEED TREATMENT	155
10.2.1	HIGH DEMAND FOR SEED COATING IN COMMERCIAL AGRICULTURE OPERATIONS	155
10.3	SOIL TREATMENT	156
10.3.1	LESSER SOIL CONTAMINATION AND INCREASING DEMAND FOR ORGANIC FOOD	156
10.4	FOLIAR SPRAY	157
10.4.1	QUICK, EFFECTIVE APPLICATION AND RISE IN DEMAND FOR HORTICULTURE CROPS	157
10.5	OTHER MODES OF APPLICATION	159
11	BIOPESTICIDES MARKET, BY CROP TYPE	160
11.1	INTRODUCTION	161
11.2	CEREALS & GRAINS	162
11.2.1	CORN	164
11.2.1.1	Corn affected by fall armyworm	164
11.2.2	WHEAT	164
11.2.2.1	Aphids causing severe damage to wheat crop	164
11.2.3	RICE	165
11.2.3.1	Bacillus thuringiensis to be effective against leaf folder and stem borer	165

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

11.2.4	OTHER CEREALS & GRAINS	165
11.3	OILSEEDS & PULSES	165
11.3.1	SOYBEAN	167
11.3.1.1	Infestation from root-knot nematodes to be severe in soybean crops	167
11.3.2	SUNFLOWER	167
11.3.2.1	Preference for sunflower oil and confectionery value of sunflower seed to drive demand	167
11.3.3	OTHER OILSEEDS & PULSES	168
11.4	FRUITS & VEGETABLES	168
11.4.1	ROOT & TUBER VEGETABLES	170
11.4.1.1	Range of pests, diseases, and nematodes cause economic losses in root & tuber vegetables	170
11.4.2	LEAFY VEGETABLES	170
11.4.2.1	Rapid use of bacillus subtilis, myrothecium verrucaria, and streptomyces lydicus	170
11.4.3	POME FRUITS	171
11.4.3.1	Biocontrol agents found to be effective on pome fruits	171
11.4.4	BERRIES	171
11.4.4.1	Biological solutions augmenting export of berries under increasingly stringent regulations	171
11.4.5	CITRUS FRUITS	171
11.4.5.1	Citrus canker disease boosting use of antagonists	171
11.4.6	OTHER FRUITS & VEGETABLES	172
11.5	OTHER CROP TYPES	172
12	BIOPESTICIDES MARKET, BY REGION	173
12.1	INTRODUCTION	174
12.2	NORTH AMERICA	180
12.2.1	US	185
12.2.1.1	Phase-out of key chemical pesticides	185
12.2.2	CANADA	186
12.2.2.1	Government support for Integrated Pest Management (IPM)	186
12.2.3	MEXICO	188
12.2.3.1	Higher export demand for organic food from US	188
12.3	EUROPE	189
12.3.1	FRANCE	195
12.3.1.1	Changes in legislation and authorization procedures for registering biocontrol products	195
12.3.2	GERMANY	196
12.3.2.1	Government support for organic farming	196
12.3.3	SPAIN	197
12.3.3.1	Collaborations between agriculture companies	197
12.3.4	ITALY	198
12.3.4.1	Expansion of organic farming sector to fuel demand for biopesticides	198
12.3.5	UK	199
12.3.5.1	Changing consumer preferences	199
12.3.6	NETHERLANDS	200
12.3.6.1	Genoeg scheme to accelerate growth of bio-based products	200
12.3.7	RUSSIA	201
12.3.7.1	Farmers to adopt biopesticides to prevent resistance against wheat aphids causing severe crop losses	201
12.3.8	REST OF EUROPE	202
12.4	ASIA PACIFIC	203
12.4.1	CHINA	208

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

12.4.1.1	Government drive for sustainable agriculture	208
12.4.2	INDIA	209
12.4.2.1	Innovative and effective biopesticide products	209
12.4.3	JAPAN	210
12.4.3.1	Government regulations to minimize usage of chemical pesticides	210
12.4.4	AUSTRALIA	211
12.4.4.1	Vast organic farmland demanding biopesticide products	211
12.4.5	THAILAND	212
12.4.5.1	Efforts to reduce maximum residue levels of pesticides	212
12.4.6	INDONESIA	214
12.4.6.1	Implementation of IPM practices for pest control	214
12.4.7	REST OF ASIA PACIFIC	215
12.5	SOUTH AMERICA	216
12.5.1	BRAZIL	220
12.5.1.1	Bio-input Program transforming agricultural sector with biobased solutions	220
12.5.2	ARGENTINA	221
12.5.2.1	Collaboration between companies to lead development of new biopesticide products	221
12.5.3	CHILE	222
12.5.3.1	Greater demand for organically grown fruits to increase adoption of biocontrol methods	222
12.5.4	REST OF SOUTH AMERICA	224
12.6	REST OF THE WORLD (ROW)	225
12.6.1	AFRICA	229
12.6.1.1	International organizations collaborating with biopesticide stakeholders to drive market	229
12.6.2	MIDDLE EAST	230
12.6.2.1	High demand for domestically produced organic foods to boost demand	230
13	COMPETITIVE LANDSCAPE	232
13.1	OVERVIEW	232
13.2	KEY PLAYERS' STRATEGIES/RIGHT TO WIN	233
13.3	SEGMENTAL REVENUE ANALYSIS	235
13.4	MARKET SHARE ANALYSIS, 2023	235
13.5	COMPANY EVALUATION MATRIX: KEY PLAYERS, 2023	237
13.5.1	STARS	237
13.5.2	EMERGING LEADERS	237
13.5.3	PERVASIVE PLAYERS	237
13.5.4	PARTICIPANTS	237
13.5.5	COMPANY FOOTPRINT: KEY PLAYERS, 2023	239
13.5.5.1	Company footprint	239
13.5.5.2	Region footprint	240
13.5.5.3	Type footprint	241
13.5.5.4	Formulation footprint	242
13.5.5.5	Source footprint	243
13.6	COMPANY EVALUATION MATRIX: STARTUPS/SMES, 2023	244
13.6.1	PROGRESSIVE COMPANIES	244
13.6.2	RESPONSIVE COMPANIES	244
13.6.3	DYNAMIC COMPANIES	244
13.6.4	STARTING BLOCKS	244
13.6.5	COMPETITIVE BENCHMARKING: STARTUPS/SMES, 2023	246

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

13.6.5.1	Detailed list of key startups/SMEs	246
13.6.5.2	Competitive benchmarking of key startups/SMEs	247
13.7	COMPANY VALUATION AND FINANCIAL METRICS	248
13.8	BRAND/PRODUCT/SERVICE ANALYSIS	249
13.9	COMPETITIVE SCENARIO	250
13.9.1	PRODUCT LAUNCHES	250
13.9.2	DEALS	252
13.9.3	EXPANSIONS	256
13.9.4	OTHER DEVELOPMENTS	257
14	COMPANY PROFILES	258
14.1	KEY PLAYERS	258
14.1.1	BASF SE	258
14.1.1.1	Business overview	258
14.1.1.2	Products/Solutions/Services offered	259
14.1.1.3	Recent developments	260
14.1.1.3.1	Product launches	260
14.1.1.3.2	Deals	260
14.1.1.3.3	Expansions	261
14.1.1.4	MnM view	261
14.1.1.4.1	Key strengths	261
14.1.1.4.2	Strategic choices	261
14.1.1.4.3	Weaknesses and competitive threats	262
14.1.2	BAYER AG	263
14.1.2.1	Business overview	263
14.1.2.2	Products/Solutions/Services offered	264
14.1.2.3	Recent developments	265
14.1.2.3.1	Product launches	265
14.1.2.3.2	Deals	265
14.1.2.3.3	Expansions	267
14.1.2.4	MnM view	267
14.1.2.4.1	Key strengths	267
14.1.2.4.2	Strategic choices	268
14.1.2.4.3	Weaknesses and competitive threats	268
14.1.3	CORTEVA	269
14.1.3.1	Business overview	269
14.1.3.2	Products/Solutions/Services offered	271
14.1.3.3	Recent developments	271
14.1.3.3.1	Product launches	271
14.1.3.3.2	Deals	272
14.1.3.4	MnM view	274
14.1.3.4.1	Key strengths	274
14.1.3.4.2	Strategic choices	274
14.1.3.4.3	Weaknesses and competitive threats	274
14.1.4	SYNGENTA GROUP	275
14.1.4.1	Business overview	275
14.1.4.2	Products/Solutions/Services offered	276
14.1.4.3	Recent developments	277

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

14.1.4.3.1	Product launches	277
14.1.4.3.2	Deals	278
14.1.4.3.3	Expansions	281
14.1.4.4	MnM view	282
14.1.4.4.1	Key strengths	282
14.1.4.4.2	Strategic choices	282
14.1.4.4.3	Weaknesses and competitive threats	282
14.1.5	FMC CORPORATION	283
14.1.5.1	Business overview	283
14.1.5.2	Products/Solutions/Services offered	284
14.1.5.3	Recent developments	285
14.1.5.3.1	Product launches	285
14.1.5.3.2	Deals	285
14.1.5.3.3	Expansions	287
14.1.5.3.4	Other developments	288
14.1.5.4	MnM view	288
14.1.5.4.1	Key strengths	288
14.1.5.4.2	Strategic choices	288
14.1.5.4.3	Weaknesses and competitive threats	288
14.1.6	UPL	289
14.1.6.1	Business overview	289
14.1.6.2	Products/Solutions/Services offered	291
14.1.6.3	Recent developments	292
14.1.6.3.1	Product launches	292
14.1.6.3.2	Deals	293
14.1.6.4	MnM view	294
?		
14.1.7	SUMITOMO CHEMICAL CO., LTD.	295
14.1.7.1	Business overview	295
14.1.7.2	Products/Solutions/Services offered	296
14.1.7.3	Recent developments	297
14.1.7.3.1	Deals	297
14.1.7.3.1	Expansions	298
14.1.7.4	MnM view	299
14.1.8	NUFARM	300
14.1.8.1	Business overview	300
14.1.8.2	Products/Solutions/Services offered	301
14.1.8.3	Recent developments	302
14.1.8.3.1	Deals	302
14.1.8.4	MnM view	303
14.1.9	NOVONESIS GROUP	304
14.1.9.1	Business overview	304
14.1.9.2	Products/Solutions/Services offered	307
14.1.9.3	Recent developments	307
14.1.9.3.1	Product launches	307
14.1.9.3.2	Deals	308
14.1.9.4	MnM view	309

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	BIOCERES CROP SOLUTIONS	310
14.1.10.1	Business overview	310
14.1.10.2	Products/Solutions/Services offered	311
14.1.10.3	Recent developments	312
14.1.10.3.1	Product launches	312
14.1.10.3.2	Deals	312
14.1.10.4	MnM view	313
14.1.11	KOPPERT	314
14.1.11.1	Business overview	314
14.1.11.2	Products/Solutions/Services offered	314
14.1.11.3	Recent developments	315
14.1.11.3.1	Deals	315
14.1.11.3.2	Expansions	317
14.1.11.4	MnM view	317
14.1.12	CERTIS USA L.L.C.	318
14.1.12.1	Business overview	318
14.1.12.2	Products/Solutions/Services offered	318
14.1.12.3	Recent developments	319
14.1.12.3.1	Product launches	319
14.1.12.3.2	Deals	320
14.1.12.3.3	Other developments	321
14.1.12.4	MnM view	321
14.1.13	GOWAN COMPANY	322
14.1.13.1	Business overview	322
14.1.13.2	Product/Solutions/Services offered	322
14.1.13.3	Recent developments	323
14.1.13.3.1	Product launches	323
14.1.13.3.2	Deals	323
14.1.13.4	MnM view	324
14.1.14	BIOBEST GROUP NV	325
14.1.14.1	Business overview	325
14.1.14.2	Product/Solutions/Services offered	325
14.1.14.3	Recent developments	326
14.1.14.3.1	Product launches	326
14.1.14.3.2	Deals	327
14.1.14.3.3	Expansions	329
14.1.14.4	MnM view	329
14.1.15	LALLEMAND INC	330
14.1.15.1	Business overview	330
14.1.15.2	Products/Solutions/Services offered	330
14.1.15.3	Recent developments	331
14.1.15.3.1	Product launches	331
14.1.15.3.2	Deals	331
14.1.15.4	MnM view	332
14.2	OTHER PLAYERS (SMES/STARTUPS)	333
14.2.1	IPL BIOLOGICALS	333
14.2.1.1	Business overview	333

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

14.2.1.2	Products/Solutions/Services offered	333
14.2.1.3	Recent developments	334
14.2.1.3.1	Product launches	334
14.2.1.3.2	Deals	335
14.2.1.3.3	Expansions	336
14.2.1.3.4	Other developments	336
14.2.2	ROVENSA NEXT	337
14.2.2.1	Business overview	337
14.2.2.2	Products/Solutions/Services offered	337
14.2.2.3	Recent developments	338
14.2.2.3.1	Product launches	338
14.2.2.3.2	Deals	339
14.2.2.3.3	Expansions	339
14.2.2.3.4	Other developments	340
?		
14.2.3	VESTARON CORPORATION	341
14.2.3.1	Business overview	341
14.2.3.2	Products/Solutions/Services offered	341
14.2.3.3	Recent developments	342
14.2.3.3.1	Product launches	342
14.2.3.3.2	Deals	342
14.2.4	AGRILIFE	344
14.2.4.1	Business overview	344
14.2.4.2	Product/Solutions/Services offered	344
14.2.5	STK BIO-AG TECHNOLOGIES	346
14.2.5.1	Business overview	346
14.2.5.2	Products/Solutions/Services offered	346
14.2.5.3	Recent developments	346
14.2.5.3.1	Product launches	346
14.2.6	KAY BEE BIO ORGANICS PVT. LTD.	347
14.2.7	ANDERMATT GROUP AG	348
14.2.8	GENICA	349
14.2.9	SEIPASA, S.A.	350
14.2.10	BOTANO HEALTH	351
15	ADJACENT AND RELATED MARKETS	352
15.1	INTRODUCTION	352
15.2	LIMITATIONS	352
15.3	AGRICULTURAL BIOLOGICALS MARKET	352
15.3.1	MARKET DEFINITION	352
15.3.2	MARKET OVERVIEW	352
15.4	BIORATIONAL PESTICIDES MARKET	354
15.4.1	MARKET DEFINITION	354
15.4.2	MARKET OVERVIEW	354
15.5	BIOCONTROL MARKET	356
15.5.1	MARKET DEFINITION	356
15.5.2	MARKET OVERVIEW	356
16	APPENDIX	359

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

16.1 DISCUSSION GUIDE 359

16.2 KNOWLEDGESTORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL 363

16.3 CUSTOMIZATION OPTIONS 365

16.4 RELATED REPORTS 365

16.5 AUTHOR DETAILS 366

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com

Biopesticides Market by Type (Bioinsecticides, Biofungicides, Bionematicides), Crop Type (Cereals & Grains, Oilseeds & Pulses), Formulation (Liquid and Dry), Source (Microbials, Biochemicals), Mode of Application, & Region - Global Forecast to 2029

Market Report | 2025-02-01 | 367 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

2025-05-19

Signature

Scotts International. EU Vat number: PL 6772247784

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

www.scotts-international.com