

Biological Seed Treatment Market by Type (Microbials and Botanicals), Crop (Corn, Wheat, Soybean, Cotton, Sunflower, and Vegetable Crops), Function (Seed Protection and Seed Enhancement), and Region - Global Forecast to 2025

https://marketpublishers.com/r/BBD87DA0C22EN.html

Date: February 2021

Pages: 229

Price: US\$ 4,950.00 (Single User License)

ID: BBD87DA0C22EN

Abstracts

The biological seed treatment market is projected to reach USD 1.7 billion by 2025, from USD 0.9 billion in 2020, at a CAGR of 11.9%. The global biological seed treatment market is driven by factors such as providing an insurance to better crop yields, along with a reduction in the risk of exceeding the Maximum Residue Levels (MRLs). Low level of awareness about the benefits of biological seed treatment among farmers across the globe is a major restraint in this market.

"Corn segment is projected to account for the largest market share in the biological seed treatment market during the forecast period."

The demand for biological seed treatment in corn has been witnessing substantial growth in the European and American regions, due to the significant requirement of corn as animal protein and ethanol in the feed and automobile industries, respectively. Thus, the corn segment accounted for the major share in the biological seed treatment market.

"Microbials segment is projected to be the fastest-growing segment, by type, in the biological seed treatment market

Microbial seed treatment includes bacterial and fungal seed treatment. Seeds treatment provides an efficient mechanism for the placement of microbial inoculum in the soil environment, where they are appropriately positioned to colonize the seedling & roots



and protect them against soil-borne diseases and pests. Thus, the microbials segment is projected to grow at the highest rate during the forecast period.

The North America market is estimated to account for the largest market share due to the supportive government regulations in the region.

North America was the largest biological seed treatment market in 2020. The streamlined guidelines, procedures, and effective feedback adopted by North American agrochemical regulatory agencies have been supportive of the product registration process as compared to Europe. North America was followed by the European market in 2020 which has also witnessed a strong adoption trend of these products.

The breakdown of the primaries on the basis of company, designation, and region conducted during the research study, is as follows:

```
By Company type: Tier 1 - 60\%, Tier 2 - 30\%, and Tier 3 - 10\%
```

By Designation: CXOs – 40%, Managers – 30%, Executives* – 30%

By Region: North America – 20%, Europe – 30%, Asia Pacific – 35%, RoW -15%

*Others include sales managers, marketing managers, and product managers.

Note: Tier 1: Revenue >= USD 1 billion; Tier 2: USD 100 million to USD 1 billion; Tier 3: Revenue =

Leading players profiled in this report

BASF SE (Germany),

Bayer AG (Germany),

Novozymes A/S (Denmark),

Syngenta Group (Switzerland),

Corteva Agriscience (US),

UPL Ltd (India)



Koppert Biological Systems (Netherlands) Precision Laboratories, LLC (US) Italpollina (Italy) Rhizobacter (Argentina), Valent BioSciences (US) Verdesian Lifesciences (US), Plant Health Care (US), Bioworks (US), Certis Europe (US), Advanced Biological Marketing (US) Kan Biosys (India) Incotec (Netherlands) Marrone Bio Innovation (US) IPL Biologicals (India)

Research Coverage

This report segments the biological seed treatment market on the basis of type, crop, function and region. In terms of insights, this research report focuses on various levels of analyses—competitive landscape, end-use analysis, and company profiles—which together comprise and discuss the basic views on the emerging & high-growth segments of the seed treatment market, the high-growth regions, countries, government initiatives, market disruption, drivers, restraints, opportunities, and challenges.



Reasons to buy this report

To get a comprehensive overview of the biological seed treatmentmarket

To gain wide-ranging information about the top players in this industry, their product portfolios, and key strategies adopted by them

To gain insights about the major countries/regions, in which the biological seed treatmentmarket is flourishing



Contents

1 INTRODUCTION

- 1.1 OBJECTIVES OF THE STUDY
- 1.2 MARKET DEFINITION
- 1.3 STUDY SCOPE

FIGURE 1 BIOLOGICAL SEED TREATMENT MARKET SEGMENTATION

FIGURE 2 REGIONAL SEGMENTATION

- 1.4 INCLUSIONS & EXCLUSIONS
- 1.5 PERIODIZATION CONSIDERED
- 1.6 UNIT CONSIDERED

TABLE 1 USD EXCHANGE RATES, 2015-2019

- 1.7 STAKEHOLDERS
- 1.8 SUMMARY OF CHANGES

2 RESEARCH METHODOLOGY

2.1 RESEARCH DATA

FIGURE 3 RESEARCH DESIGN: BIOLOGICAL SEED TREATMENT MARKET

- 2.1.1 SECONDARY DATA
 - 2.1.1.1 Key Data from Secondary Sources
- 2.1.2 PRIMARY DATA
- 2.1.2.1 Key Data from Primary Sources
- 2.1.2.2 Breakdown of Primaries
- 2.2 MARKET SIZE ESTIMATION
 - 2.2.1 BOTTOM-UP APPROACH

FIGURE 4 MARKET SIZE ESTIMATION METHODOLOGY: BOTTOM-UP APPROACH

2.2.2 TOP-DOWN APPROACH

FIGURE 5 MARKET SIZE ESTIMATION METHODOLOGY: TOP-DOWN APPROACH

2.3 MARKET BREAKDOWN & DATA TRIANGULATION

FIGURE 6 DATA TRIANGULATION METHODOLOGY

- 2.4 RESEARCH ASSUMPTIONS & LIMITATIONS
 - 2.4.1 ASSUMPTIONS
 - 2.4.2 LIMITATIONS OF THE STUDY
- 2.5 MARKET SCENARIOS CONSIDERED FOR THE IMPACT OF COVID-19
- 2.6 SCENARIO-BASED MODELLING
- 2.7 COVID-19 HEALTH ASSESSMENT

FIGURE 7 COVID-19: GLOBAL PROPAGATION



FIGURE 8 COVID-19 PROPAGATION: SELECT COUNTRIES

2.8 COVID-19 ECONOMIC ASSESSMENT

FIGURE 9 REVISED GROSS DOMESTIC PRODUCT FORECASTS FOR SELECT G20 COUNTRIES IN 2020

2.9 COVID-19 ECONOMIC IMPACT ASSESSMENT: SCENARIO ASSESSMENT FIGURE 10 CRITERIA IMPACTING GLOBAL ECONOMY

FIGURE 11 SCENARIOS IN TERMS OF RECOVERY OF GLOBAL ECONOMY

3 EXECUTIVE SUMMARY

FIGURE 12 BIOLOGICAL SEED TREATMENT MARKET, BY FUNCTION, 2020 VS. 2025

FIGURE 13 BIOLOGICAL SEED TREATMENT MARKET, BY TYPE, 2020 VS. 2025 (USD MILLION)

FIGURE 14 BIOLOGICAL SEED TREATMENT MARKET, BY CROP TYPE, 2020 VS. 2025 (USD MILLION)

FIGURE 15 BIOLOGICAL SEED TREATMENT MARKET: REGIONAL SNAPSHOT

4 PREMIUM INSIGHTS

- 4.1 OPPORTUNITIES IN THE BIOLOGICAL SEED TREATMENT MARKET FIGURE 16 INCREASE IN COMBINED APPLICATION OF BIOLOGICAL SEED TREATMENT PRODUCTS WITH CHEMICAL SEED TREATMENT PRODUCTS TO DRIVE THE GROWTH OF THE BIOLOGICAL SEED TREATMENT MARKET 4.2 BIOLOGICAL SEED TREATMENT MARKET, BY TYPE FIGURE 17 MICROBIAL IS ESTIMATED TO BE THE MOST PREFERRED TYPE IN THE BIOLOGICAL SEED TREATMENT MARKET IN 2020
- 4.3 NORTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET, BY KEY COUNTRY AND CROP TYPE

FIGURE 18 CORN & SOYBEAN TO BE A KEY APPLICATION OF BIOLOGICAL SEED TREATMENT PRODUCTS IN THE NORTH AMERICAN REGION IN 2020 4.4 BIOLOGICAL SEED TREATMENT MARKET: MAJOR REGIONAL SUBMARKETS FIGURE 19 US AND BRAZIL TO ACCOUNT FOR THE LARGEST MARKET SHARE IN 2020

5 MARKET OVERVIEW

- 5.1 INTRODUCTION
- 5.2 MACROECONOMIC INDICATORS



5.2.1 INCREASED LAND AREA UNDER ORGANIC AGRICULTURE FIGURE 20 GLOBAL ORGANIC AGRICULTURE, BY REGION (2018)

5.2.2 GROWING AWARENESS PERTAINING TO PESTICIDE RESIDUAL LEVELS FIGURE 21 TOP 10 COUNTRIES WITH MAXIMUM PESTICIDE USE FOR AGRICULTURE, 2019 (TON)

5.2.3 INCREASE IN DEMAND FOR HIGH-VALUE INDUSTRIAL CROPS FIGURE 22 PRODUCTION/YIELD QUANTITIES OF FRESH FRUITS IN THE WORLD, 2016–2019

FIGURE 23 PRODUCTION SHARE OF FRESH FRUITS, BY REGION (AVG, 2016–2019)

5.3 MARKET DYNAMICS

FIGURE 24 BIOLOGICAL SEED TREATMENT MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES

5.3.1 DRIVERS

5.3.1.1 Environmental concerns associated with chemical seed treatment TABLE 2 KEY MICROBIAL BIOCONTROL AGENTS USED IN BIOLOGICAL SEED TREATMENT

5.3.1.2 Rising prices of high-quality seeds

5.3.2 RESTRAINTS

5.3.2.1 Government regulatory barriers

5.3.2.2 Safety concerns regarding the use of microbial

5.3.3 OPPORTUNITIES

5.3.3.1 Advent of innovative combination products

5.3.3.2 Use of bio-priming techniques for improved efficacy

5.3.4 CHALLENGES

5.3.4.1 Inconsistent performance and incompatibility with certain pesticides

5.3.4.2 Limited microbial shelf life

5.4 VALUE CHAIN ANALYSIS

FIGURE 25 VALUE CHAIN ANALYSIS

5.5 PATENT ANALYSIS

FIGURE 26 NUMBER OF PATENTS GRANTED FOR BIOLOGICAL SEED TREATMENT, 2015–2020

FIGURE 27 REGIONAL ANALYSIS OF PATENTS GRANTED IN THE BIOLOGICAL SEED TREATMENT MARKET, 2015–2020

TABLE 3 LIST OF A FEW PATENTS IN THE BIOLOGICAL SEED TREATMENT MARKET, 2015–2020

5.6 AVERAGE PRICE ANALYSIS

FIGURE 28 AVERAGE PRICE TRENDS FOR ACTIVE INGREDIENTS OF BIOLOGICAL SEED TREATMENT, 2018-2020, (USD/KG)



5.7 CASE STUDIES

5.7.1 USE OF BACILLUS STRAINS FOR THE PRODUCTION OF BIOFUNGICIDES FOR LONGER SHELF LIFE

TABLE 4 IDENTIFICATION OF MARKET OPPORTUNITIES FOR BIOFUNGICIDES IN EUROPE

5.7.2 USE OF NUTRIENT TECHNOLOGY IN CONJUNCTION WITH BIOLOGICAL SEED TREATMENT FOR IMPROVED CROP YIELDS

TABLE 5 IMPROVED CROP QUALITY THROUGH THE APPLICATION OF NUTRIENT TECHNOLOGY BASED PRODUCT IN BIOLOGICAL SEED TREATMENT 5.8 YC-YCC SHIFTS IN THE BIOLOGICAL SEED TREATMENT MARKET FIGURE 29 DEMAND FOR HIGHLY-EFFICIENT CROP PROTECTION PRODUCTS IS Δ

NEW HOT BET IN THE MARKET

5.9 COVID-19 IMPACT ON THE BIOLOGICAL SEED TREATMENT MARKET

5.10 MARKET ECOSYSTEM

FIGURE 30 MARKET ECOSYSTEM

5.10.1 PRODUCT MANUFACTURERS

5.10.2 REGULATORY BODIES

5.11 IMPACT OF COVID-19 ON BIOLOGICAL SEED TREATMENT MARKET FIGURE 31 IMPACT OF COVID-19 ON BIOLOGICAL SEED TREATMENT MARKET, PRE COVID-19 V/S POST COVID-19, 2020-2025 (USD MILLION)
TABLE 6 BIOLOGICAL SEED TREATMENT MARKET SIZE, PRE-COVID-19 V/S POST-COVID-19, 2020–2025 (USD MILLION)

6 BIOLOGICAL SEED TREATMENT MARKET, BY TYPE

6.1 INTRODUCTION

FIGURE 32 MICROBIAL SEGMENT PROJECTED TO DOMINATE THE MARKET DURING THE FORECAST PERIOD

TABLE 7 BIOLOGICAL SEED TREATMENT MARKET SIZE, BY TYPE, 2018–2025 (USD MILLION)

6.2 COVID-19 IMPACT ON THE BIOLOGICAL SEED TREATMENT MARKET, BY TYPE

TABLE 8 PRE-COVID-19: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY TYPE, 2020–2025 (USD MILLION)

TABLE 9 POST-COVID-19: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY TYPE, 2020–2025 (USD MILLION)

6.3 MICROBIAL

6.3.1 BACTERIAL



6.3.1.1 Eradication of pathogens and increase in the speed of germination driving the market for bacterial seed treatment

6.3.2 FUNGAL

6.3.2.1 Fungal seed treatment helps overcome the limitations of salinity and alkalinity on crop growth

TABLE 10 MICROBIAL MARKET SIZE, BY SUBTYPE, 2018–2025 (USD MILLION) TABLE 11 MICROBIAL MARKET SIZE, BY REGION, 2018–2025 (USD MILLION) 6.4 BOTANICALS & OTHERS

6.4.1 ECONOMICAL PRICE, ECO-FRIENDLY BENEFITS, AND NON-TOXICITY TO ANIMALS AND HUMANS DRIVING THE DEMAND

TABLE 12 BOTANICALS & OTHERS MARKET SIZE, BY REGION, 2018–2025 (USD MILLION)

7 BIOLOGICAL SEED TREATMENT MARKET, BY CROP

7.1 INTRODUCTION

FIGURE 33 CORN SEGMENT PROJECTED TO DOMINATE THE MARKET THROUGHOUT THE FORECAST PERIOD

TABLE 13 BIOLOGICAL SEED TREATMENT MARKET SIZE, BY CROP TYPE, 2018–2025 (USD MILLION)

7.2 CORN

7.2.1 CORN SEEDS ARE TREATED TO PREVENT SEED DECAY AND SEEDLING BLIGHTS CAUSED DUE TO FUNGI

TABLE 14 BIOLOGICAL SEED TREATMENT MARKET SIZE FOR CORN, BY REGION, 2018–2025 (USD MILLION)

7.3 WHEAT

7.3.1 WHEAT SEEDS ARE TREATED TO BOOST THEIR RESISTANCE AGAINST FUNGI AND BACTERIA

TABLE 15 BIOLOGICAL SEED TREATMENT MARKET SIZE FOR WHEAT, BY REGION, 2018–2025 (USD MILLION)

7.4 SOYBEAN

7.4.1 BIO-NEMATICIDE SEED TREATMENTS PROTECT THE ROOTS FROM SOYBEAN FROM NEMATODE

TABLE 16 BIOLOGICAL SEED TREATMENT MARKET SIZE FOR SOYBEAN, BY REGION, 2018–2025 (USD MILLION)

7.5 COTTON

7.5.1 BIOLOGICAL SEED TREATMENT HELPS ACCELERATE SEED GERMINATION AND PREVENTS DISEASES



8 BIOLOGICAL SEED TREATMENT MARKET, BY FUNCTION

8.1 INTRODUCTION

FIGURE 34 SEED ENHANCEMENT SEGMENT PROJECTED TO DOMINATE THE BIOLOGICAL SEED TREATMENT MARKET DURING THE FORECAST PERIOD TABLE 17 BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 18 BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

8.2 SEED ENHANCEMENT

TABLE 19 BIOLOGICAL SEED ENHANCEMENT MARKET SIZE, BY REGION, 2018–2025 (USD MILLION)

TABLE 20 BIOLOGICAL SEED ENHANCEMENT MARKET SIZE, BY REGION, 2018–2025 (KT)

- 8.2.1 BIOFERTILIZER
- 8.2.1.1 Developing countries witness high adoption of biofertilizers as they are costeffective
 - 8.2.2 BIOSTIMULANT
- 8.2.2.1 Biostimulants applied as seed treatment provide growth stimulation and enhanced germination

TABLE 21 BIOLOGICAL SEED ENHANCEMENT MARKET SIZE, BY TYPE, 2018–2025 (USD MILLION)

TABLE 22 BIOLOGICAL SEED ENHANCEMENT MARKET SIZE, BY TYPE, 2018–2025 (KT)

8.3 SEED PROTECTION

TABLE 23 BIOLOGICAL SEED PROTECTION MARKET SIZE, BY REGION, 2018–2025 (USD MILLION)

TABLE 24 BIOLOGICAL SEED PROTECTION MARKET SIZE, BY REGION, 2018–2025 (KT)

- 8.3.1 BIOINSECTICIDES
- 8.3.1.1 Bioinsecticides have reduced the reliance on synthetic agrochemical seed treatments
 - 8.3.2 BIOFUNGICIDES
 - 8.3.2.1 Biofungicides offer resistance to a variety of biotic and abiotic stresses
 - 8.3.3 OTHER FUNCTIONS

TABLE 25 BIOLOGICAL SEED PROTECTION MARKET SIZE, BY TYPE, 2018–2025 (USD MILLION)

TABLE 26 BIOLOGICAL SEED PROTECTION MARKET SIZE, BY TYPE, 2018–2025 (KT)



9 BIOLOGICAL SEED TREATMENT MARKET, BY REGION

9.1 INTRODUCTION

FIGURE 35 THE NETHERLANDS RECORDED THE HIGHEST GROWTH IN THE GLOBAL BIOLOGICAL SEED TREATMENT MARKET DURING THE FORECAST PERIOD

9.2 COVID-19 IMPACT ON BIOLOGICAL SEED TREATMENT MARKET, BY REGION TABLE 27 PRE-COVID-19: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY REGION, 2020–2025 (USD MILLION)

TABLE 28 POST-COVID-19: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY REGION, 2020–2025 (USD MILLION)

TABLE 29 BIOLOGICAL SEED TREATMENT MARKET SIZE, BY REGION, 2016–2019 (USD MILLION)

TABLE 30 BIOLOGICAL SEED TREATMENT MARKET SIZE, BY REGION, 2020–2025 (USD MILLION)

TABLE 31 BIOLOGICAL SEED TREATMENT MARKET SIZE, BY REGION, 2018–2025 (KT)

9.3 NORTH AMERICA

FIGURE 36 NORTH AMERICA: MARKET SNAPSHOT

TABLE 32 NORTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2016–2019 (USD MILLION)

TABLE 33 NORTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2020–2025 (USD MILLION)

TABLE 34 NORTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2018–2025 (KT)

TABLE 35 NORTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 36 NORTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

TABLE 37 NORTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY TYPE, 2018–2025 (USD MILLION)

TABLE 38 NORTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY CROP, 2018–2025 (USD MILLION)

9.3.1 REGULATIONS

9.3.1.1 US

9.3.1.2 Canada

9.3.2 TRADE ANALYSIS

9.3.2.1 Export scenario of insecticides and fungicides



FIGURE 37 NORTH AMERICA: INSECTICIDES AND FUNGICIDES EXPORTS, BY KEY COUNTRY, 2012–2019 (USD MILLION)

9.3.2.2 Import scenario of insecticides and fungicides

FIGURE 38 NORTH AMERICA: INSECTICIDES AND FUNGICIDES IMPORTS, BY KEY COUNTRY, 2012–2019 (USD MILLION)

9.3.3 US

9.3.3.1 Established players in the market are focusing on developing innovative seed enhancement products

TABLE 39 US: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 40 US: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.3.4 CANADA

9.3.4.1 Increase in demand for better quality crop products driving the demand for seed enhancement products

TABLE 41 CANADA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 42 CANADA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.3.5 MEXICO

9.3.5.1 Rise in the export of fruits & vegetables to the US increasing the adoption of biological seed treatment among small organic producers

TABLE 43 MEXICO: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 44 MEXICO: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.4 EUROPE

TABLE 45 EUROPE: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2016–2019 (USD MILLION)

TABLE 46 EUROPE: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2020–2025 (USD MILLION)

TABLE 47 EUROPE: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2018–2025 (KT)

TABLE 48 EUROPE: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 49 EUROPE: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

TABLE 50 EUROPE: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY TYPE, 2018–2025 (USD MILLION)



TABLE 51 EUROPE: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY CROP, 2018–2025 (USD MILLION)

FIGURE 39 EUROPE: MARKET SNAPSHOT

9.4.1 REGULATIONS

9.4.2 TRADE ANALYSIS

9.4.2.1 Export scenario of insecticides and fungicides

FIGURE 40 EUROPE: INSECTICIDES AND FUNGICIDES EXPORT, BY KEY COUNTRY, 2012–2019 (USD MILLION)

9.4.2.2 Import scenario of insecticides and fungicides

FIGURE 41 EUROPE: INSECTICIDES AND FUNGICIDES IMPORT, BY KEY COUNTRY, 2012–2019 (USD MILLION)

9.4.3 FRANCE

9.4.3.1 Favorable regulatory framework to support the use of biological seed treatment methods

TABLE 52 FRANCE: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 53 FRANCE: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.4.4 SPAIN

9.4.4.1 Rise in the organic production of fruits & vegetables driving the need for biological seed treatment

TABLE 54 SPAIN: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 55 SPAIN: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.4.5 GERMANY

9.4.5.1 Rising pest resistance to chemical pesticides driving the demand for biological seed treatment

TABLE 56 GERMANY: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 57 GERMANY: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.4.6 RUSSIA

9.4.6.1 High crop losses to boost the adoption of biological control products TABLE 58 RUSSIA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 59 RUSSIA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.4.7 ITALY



9.4.7.1 Government initiatives toward organic farming boosting the market growth TABLE 60 ITALY: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 61 ITALY: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.4.8 NETHERLANDS

9.4.8.1 Greenhouse cultivation of vegetables is increasing the adoption of biological seed treatment

TABLE 62 NETHERLANDS: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 63 NETHERLANDS: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.4.9 REST OF EUROPE

9.4.9.1 Need for sustainable agriculture practices to increase the application of biological seed treatment

TABLE 64 REST OF EUROPE: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 65 REST OF EUROPE: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.5 ASIA PACIFIC

TABLE 66 ASIA PACIFIC: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2016–2019 (USD MILLION)

TABLE 67 ASIA PACIFIC: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2020–2025 (USD MILLION)

TABLE 68 ASIA PACIFIC: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2018–2025 (TON)

TABLE 69 ASIA PACIFIC: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 70 ASIA PACIFIC: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (TON)

TABLE 71 ASIA PACIFIC: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY TYPE, 2018–2025 (USD MILLION)

TABLE 72 ASIA PACIFIC: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY CROP, 2018–2025 (USD MILLION)

9.5.1 REGULATIONS

9.5.1.1 Australia

9.5.1.2 China

9.5.1.3 India

9.5.2 TRADE ANALYSIS



9.5.2.1 Export scenario of insecticides and fungicides

FIGURE 42 ASIA PACIFIC: INSECTICIDES AND FUNGICIDES EXPORT, BY KEY COUNTRY, 2012–2019 (USD MILLION)

9.5.2.2 Import scenario of insecticides and fungicides

FIGURE 43 ASIA PACIFIC: INSECTICIDES AND FUNGICIDES IMPORT, BY KEY COUNTRY, 2012–2019 (USD MILLION)

9.5.3 AUSTRALIA

9.5.3.1 Dependency on pollinating insects is driving the demand for biological seed treatment

FIGURE 44 AUSTRALIA: CANOLA EXPORTS, 2012–18 (TONNES)

TABLE 73 AUSTRALIA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 74 AUSTRALIA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (TON)

9.5.4 CHINA

9.5.4.1 Increasing trend of utilizing biological seed treatment products to meet highquality export requirements

TABLE 75 CHINA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 76 CHINA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (TON)

9.5.5 INDIA

9.5.5.1 Rising awareness and market penetration of biologicals to drive the adoption of biological seed treatment solutions

FIGURE 45 PRODUCTION QUANTITY OF OILSEEDS IN INDIA, 2015-2019 (MILLION TONNES)

TABLE 77 INDIA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 78 INDIA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (TON)

9.5.6 JAPAN

9.5.6.1 Collaborative research projects to encourage the adoption of biological seed treatment

TABLE 79 JAPAN: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 80 JAPAN: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (TON)

9.5.7 THAILAND

9.5.7.1 Export of organic fruits & vegetables and increase in sustainable rice



cultivation practices to drive the market growth for biological seed treatment TABLE 81 THAILAND: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 82 THAILAND: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (TON)

9.5.8 REST OF ASIA PACIFIC

9.5.8.1 Increase in government initiatives to support exports driving the market growth

TABLE 83 REST OF ASIA PACIFIC: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 84 REST OF ASIA PACIFIC: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (TON)

9.6 SOUTH AMERICA

TABLE 85 SOUTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2016–2019 (USD MILLION)

TABLE 86 SOUTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2018–2025 (USD MILLION)

TABLE 87 SOUTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2018–2025 (KT)

TABLE 88 SOUTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 89 SOUTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

TABLE 90 SOUTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY TYPE, 2018–2025 (USD MILLION)

TABLE 91 SOUTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY CROP, 2018–2025 (USD MILLION)

9.6.1 REGULATIONS

9.6.1.1 Brazil

9.7 TRADE ANALYSIS

9.7.1 EXPORT SCENARIO OF INSECTICIDES AND FUNGICIDES
FIGURE 46 SOUTH AMERICA: INSECTICIDES AND FUNGICIDES EXPORT, BY KEY
COUNTRY, 2012–2019 (USD MILLION)

9.7.2 IMPORT SCENARIO OF INSECTICIDES AND FUNGICIDES FIGURE 47 SOUTH AMERICA: INSECTICIDES AND FUNGICIDES IMPORT, BY KEY COUNTRY, 2012–2019 (USD MILLION)

9.7.3 BRAZIL

9.7.3.1 Increase in exports and research activities is a significant boost for the biological seed treatment market growth



TABLE 92 BRAZIL: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 93 BRAZIL: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.7.4 ARGENTINA

9.7.4.1 High adoption of biologicals to improve the agro-industrial productivity drives the market growth for biological seed treatment

TABLE 94 ARGENTINA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 95 ARGENTINA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.7.5 CHILE

9.7.5.1 New product offerings by companies are increasing the use of biological seed treatment

TABLE 96 CHILE: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 97 CHILE: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.7.6 REST OF SOUTH AMERICA

9.7.6.1 Application of biological seed treatment on key export crops to witness an increase

TABLE 98 REST OF SOUTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 99 REST OF SOUTH AMERICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (KT)

9.8 REST OF THE WORLD

TABLE 100 ROW: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2016–2019 (USD MILLION)

TABLE 101 ROW: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2020–2025 (USD MILLION)

TABLE 102 ROW: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY COUNTRY, 2018–2025 (KT)

TABLE 103 ROW: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY TYPE, 2018–2025 (USD MILLION)

TABLE 104 ROW: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 105 ROW: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (TON)

TABLE 106 ROW: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY CROP,



2018-2025 (USD MILLION)

9.8.1 REGULATIONS

9.8.1.1 South Africa

9.8.1.2 Kenya

9.8.2 IMPORT-EXPORT

9.8.2.1 Export scenario of insecticides and fungicides

FIGURE 48 ROW: INSECTICIDES AND FUNGICIDES EXPORT, BY KEY COUNTRY, 2012–2019 (USD MILLION)

9.8.2.2 Import scenario of insecticides and fungicides

FIGURE 49 ROW: INSECTICIDES AND FUNGICIDES IMPORT, BY KEY COUNTRY, 2012–2019 (USD MILLION)

9.8.3 SOUTH AFRICA

9.8.3.1 Increase in the production of corn in a sustainable way to drive the market growth for biological seed treatment

FIGURE 50 PRODUCTION QUANTITY OF MAIZE, SUNFLOWER SEEDS, AND SOYBEANS IN SOUTH AFRICA, 2017-2019 (TON)

TABLE 107 SOUTH AFRICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 108 SOUTH AFRICA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (TON)

9.8.4 ETHIOPIA

9.8.4.1 Expansion of edible oil processing plants and decrease in the use of chemical pesticides to encourage the adoption of biological seed treatment

FIGURE 51 PRODUCTION QUANTITY OF OILSEEDS IN ETHIOPIA, 2017-2019 (TONS)

TABLE 109 ETHIOPIA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 110 ETHIOPIA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (TON)

9.8.5 KENYA

9.8.5.1 To protect seeds from bad weather condition, seed treatment is being adapted

TABLE 111 KENYA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)

TABLE 112 KENYA: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (TON)

9.8.6 OTHER COUNTRIES IN ROW

9.8.6.1 Biological seed treatment can help seeds survive inhospitable climate in these regions



TABLE 113 OTHER COUNTRIES IN ROW: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (USD MILLION)
TABLE 114 OTHER COUNTRIES IN ROW: BIOLOGICAL SEED TREATMENT MARKET SIZE, BY FUNCTION, 2018–2025 (TON)

10 COMPETITIVE LANDSCAPE

10.1 OVERVIEW

10.2 MARKET RANKING ANALYSIS, 2019

FIGURE 52 BASF SE DOMINATED THE BIOLOGICAL SEED TREATMENT MARKET IN 2019

10.3 COMPANY REVENUE ANALYSIS

FIGURE 53 REVENUE ANALYSIS OF KEY PLAYERS IN THE BIOLOGICAL SEED TREATMENT MARKET, 2017–2019 (USD MILLION)

10.4 COMPANY EVALUATION QUADRANT

10.4.1 STAR

10.4.2 EMERGING LEADERS

10.4.3 PERVASIVE

10.4.4 EMERGING COMPANIES

FIGURE 54 BIOLOGICAL SEED TREATMENT, COMPANY EVALUATION

QUADRANT, 2019 (OVERALL MARKET)

10.5 START-UPS/SME EVALUATION MATRIX

10.5.1 PROGRESSIVE COMPANIES

10.5.2 STARTING BLOCKS

10.5.3 RESPONSIVE COMPANIES

10.5.4 DYNAMIC COMPANIES

10.6 PRODUCT FOOTPRINT

TABLE 115 COMPANY TYPE FOOTPRINT

TABLE 116 COMPANY CROP FOOTPRINT

TABLE 117 COMPANY REGION FOOTPRINT

TABLE 118 PRODUCT FOOTPRINT (OVERALL)

FIGURE 55 BIOLOGICAL SEED TREATMENT, START-UPS/SME EVALUATION QUADRANT, 2019

10.7 COMPETITIVE SCENARIO

FIGURE 56 MARKET EVALUATION FRAMEWORK

FIGURE 57 KEY DEVELOPMENTS OF THE LEADING PLAYERS IN THE

BIOLOGICAL SEED TREATMENT MARKET, 2018-2020

10.7.1 NEW PRODUCT LAUNCHES

TABLE 119 NEW PRODUCT LAUNCHES, 2018-2020



10.7.2 EXPANSIONS & INVESTMENTS

TABLE 120 EXPANSIONS & INVESTMENTS, 2018-2020

10.7.3 ACQUISITIONS

TABLE 121 ACQUISITIONS, 2018-2020

10.7.4 PARTNERSHIPS, AGREEMENTS, AND COLLABORATIONS

TABLE 122 PARTNERSHIPS, AGREEMENTS, AND COLLABORATIONS, 2019–2020

11 COMPANY PROFILES

(Business overview, Products offered, Recent Developments, SWOT analysis, MNM view)*

11.1 KEY PLAYERS

11.1.1 BASF SE

FIGURE 58 BASF SE: COMPANY SNAPSHOT

FIGURE 59 SWOT ANALYSIS

11.1.2 BAYER

FIGURE 60 BAYER: COMPANY SNAPSHOT

FIGURE 61 SWOT ANALYSIS

11.1.3 SYNGENTA GROUP

FIGURE 62 SYNGENTA GROUP: COMPANY SNAPSHOT

FIGURE 63 SWOT ANALYSIS

11.1.4 CORVETA AGRISCIENCE

FIGURE 64 CORVETA AGRISCIENCE: COMPANY SNAPSHOT

11.1.5 NOVOZYMES A/S

FIGURE 65 NOVOZYMES A/S: COMPANY SNAPSHOT

11.1.6 UPL

FIGURE 66 UPL: COMPANY SNAPSHOT

FIGURE 67 SWOT ANALYSIS

11.1.7 MARRONE BIO INNOVATIONS

FIGURE 68 MARRONE BIO INNOVATION: COMPANY SNAPSHOT

11.1.8 CERTIS EUROPE

11.1.9 KOPPERT BIOLOGICAL SYSTEMS

11.1.10 VALENT

11.1.11 RIZOBACTER

11.2 OTHER PLAYERS

11.2.1 PLANT HEALTH CARE

FIGURE 69 PLANT HEALTH CARE: COMPANY SNAPSHOT

FIGURE 70 SWOT ANALYSIS

11.2.2 ITALPOLLINA



- 11.2.3 PRECISION LABORATORIES LLC
- 11.2.4 VERDESIAN LIFE SCIENCES
- **11.2.5 INCOTEC**
- 11.2.6 BIOWORKS INC
- 11.2.7 ADVANCED BIOLOGICAL MARKETING
- 11.2.8 IPL BIOLOGICALS
- 11.2.9 KAN BIOSYS
- *Details on Business overview, Products offered, Recent Developments, SWOT analysis, MNM view might not be captured in case of unlisted companies.

12 APPENDIX

- 12.1 DISCUSSION GUIDE
- 12.2 KNOWLEDGE STORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL
- 12.3 AVAILABLE CUSTOMIZATIONS
- 12.4 RELATED REPORTS
- 12.5 AUTHOR DETAILS



About

The report "Biological Seed Treatment Market by Type (Microbial & Botanicals), Crop Type (Cereals & Grains, Oilseeds, & Pulses, Fruit & Vegetables) & Region - Global Trends & Forecast to 2019" defines and segments the global market with analyses and projections of the size of the market.

The biological seed treatment market is estimated to be worth \$304.32 million in 2014, and is projected to reach \$560.98 million by 2019, at a CAGR of 13.0%.

Major players in the biological seed treatment market are

BASF SE

Bayer CropScience AG

Monsanto

Valent Biosciences Corporation

Syngenta AG

The microbial seed treatment segment accounted for the largest share and was followed by the botanicals segment, in 2013. All segmented types of biological treatments are essential for crop growth, yield enhancement, and to kill a variety of pests. In 2013, North America accounted for the largest share of the microbials segment. In the same year, Europe contributed the second-largest share.

On the basis of type, the biological seed treatment market has been segmented as follows:

Microbials



Botanicals

On the basis crop type, the biological seed treatment market has been segmented as follows:

Cereals & grains

Oilseeds & Pulses

Fruits & vegetables

Other crop types (turf, forage, plantation, and ornamental crops)

On the basis of region, the biological seed treatment market has been segmented as follows:

- North America
- Europe
- Asia-Pacific
- Latin America
- Rest of the World (RoW)



I would like to order

Product name: Biological Seed Treatment Market by Type (Microbials and Botanicals), Crop (Corn,

Wheat, Soybean, Cotton, Sunflower, and Vegetable Crops), Function (Seed Protection

and Seed Enhancement), and Region - Global Forecast to 2025

Product link: https://marketpublishers.com/r/BBD87DA0C22EN.html

Price: US\$ 4,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer

Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/BBD87DA0C22EN.html

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:	
Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at https://marketpublishers.com/docs/terms.html

To place an order via fax simply print this form, fill in the information below



and fax the completed form to +44 20 7900 3970