

# Global Agricultural Biologicals Market | Types, Applications and Crops

<https://marketpublishers.com/r/G26BC18DA271EN.html>

Date: July 2025

Pages: 300

Price: US\$ 4,500.00 (Single User License)

ID: G26BC18DA271EN

## Abstracts

### Global Agricultural Biologicals Market Trends and Outlook

Agricultural biologicals are naturally derived crop inputs that improve plant health, productivity, and resilience by leveraging biological mechanisms rather than synthetic chemicals. These include biopesticides, biostimulants, biofertilizers, and emerging technologies like biological seed treatments, plant-incorporated protectants (PIPs), and synthetic microbial communities (SynComs). Applied through seed coatings, foliar sprays, or soil amendments, these inputs enhance nutrient uptake, promote growth, suppress pests, and improve soil health, all while minimizing ecological disruption. Biopesticides utilize microbes or natural substances to control pests with low toxicity; biostimulants enhance plant metabolism and stress tolerance; and biofertilizers biologically enrich soils through nitrogen fixation and phosphate solubilization. Their compatibility with organic farming, integration into diverse crop systems, and minimal residue make them key tools in sustainable agriculture.

The global agricultural biologicals market, estimated at US\$14.2 billion in 2024, is poised to grow to over US\$29 billion by 2030, registering a CAGR of 12.7% during 2024-2030. This growth is being driven by increasing regulatory pressure to reduce chemical use, heightened awareness of soil degradation, and rising consumer demand for organically grown, residue-free food. Government initiatives like India's National Mission for Sustainable Agriculture and global subsidy programs are supporting biological adoption. At the same time, advancements in synthetic biology, microbial genomics, and AI-powered precision farming are accelerating product innovation and field deployment. Rising costs of conventional agrochemicals are also prompting farmers to explore more sustainable, cost-effective alternatives. As integrated pest and nutrient management strategies evolve, agricultural biologicals are emerging as vital

components of next-generation crop input solutions, enabling environmentally responsible and economically viable farming.

## Agricultural Biologicals Regional Market Analysis

North America dominates the global agricultural biologicals market, holding an estimated 31.6% share in 2024, driven by a mature organic farming ecosystem, strong regulatory frameworks, and substantial investment in research and development. The region benefits from targeted USDA programs, stringent EPA and FDA oversight, and broad adoption of precision agriculture and integrated pest management practices, all of which reinforce its leadership in sustainable farming. Increasing consumer demand for organic, residue-free food and rising concerns over soil and groundwater degradation are accelerating the shift from chemical to biological inputs. Conversely, Asia-Pacific is projected to record the fastest growth, with a CAGR of 14.3% during the forecast period 2024-2030, fueled by rapid population growth, food security concerns, and government-backed sustainability initiatives. Countries like China, India, and Australia are promoting biofertilizers and biopesticides through subsidies and public-private partnerships, while consumer preference for organic food and rising environmental awareness are pushing regional adoption of sustainable farming inputs.

## Agricultural Biologicals Market Analysis by Type

The biopesticides segment accounts for the largest share of the agricultural biologicals market by type, with 50.4% in 2024, driven by growing demand for environmentally safe pest control, supportive regulations, and increased awareness of soil and pollinator health. Sourced from natural materials, they offer targeted, residue-free protection, especially suited for organic and high-value crops, with strong adoption in North America and Europe backed by IPM practices and formulation innovations. Meanwhile, the biostimulants segment is projected to grow at the fastest rate, with a CAGR of 13% from 2024 to 2030, driven by increasing demand for higher crop quality, better nutrient uptake, and improved plant resilience to environmental stress. With the growth of organic farming and a rising consumer demand for chemical-free food, biostimulants are becoming increasingly popular due to their capacity to enhance plant performance through environmentally responsible practices.

## Agricultural Biologicals Market Analysis by Application

In 2024, the foliar spray segment dominates the agricultural biologicals market with a 48.6% share, driven by its ease of application, rapid absorption, and effectiveness in

delivering nutrients and crop protection agents directly to plant foliage. Its compatibility with precision farming and ability to provide targeted action during key growth stages make it widely adopted, especially in high-value crops. Foliar sprays also support sustainable practices by minimizing input waste and environmental impact. Meanwhile, the seed treatment segment is expected to register the fastest CAGR of 13.3% from 2024 to 2030, supported by the growing demand for disease-resistant, high-yielding crops and advancements in biological coating technologies that enhance germination, root development, and early plant vigor.

### Agricultural Biologicals Market Analysis by Crop Type

In 2024, the cereals and grains segment leads the agricultural biologicals market with a 36.7% share, primarily driven by rising global demand for staple crops such as wheat, rice, and corn, combined with increasing adoption of biofertilizers like azotobacter and phosphate-solubilizing bacteria that improve nutrient efficiency and yield.

Microbiological innovations tailored to cereal crops, combined with a strategic shift away from chemical inputs to address soil degradation, are reinforcing the segment's dominance, particularly in major agricultural markets such as the US, China, and India. Conversely, the fruits and vegetables segment is expected to register the fastest CAGR of more than 13% from 2024 to 2030, propelled by surging consumer demand for organic and residue-free produce, stringent regulatory scrutiny on synthetic pesticide residues, and the need for frequent pest and disease control in short-cycle, high-value crops. The growing use of biopesticides, biostimulants, and biofertilizers in export-sensitive markets, along with the integration of these products into pest management strategies, is further accelerating growth in this segment.

### Agricultural Biologicals Market Report Scope

This global report on Agricultural Biologicals analyzes the market based on type, application, and crop type for the period 2021-2030 with projections from 2024 to 2030 in terms of value in US\$. In addition to providing profiles of major companies operating in this space, the latest corporate and industrial developments have been covered to offer a clear panorama of how and where the market is progressing.

### Key Metrics

Historical Period: 2021-2024

Base Year: 2024

Forecast Period: 2024-2030

Units: Value market in US\$  
Companies Mentioned: 35

### Agricultural Biologicals Market by Geographic Region

North America (The United States, Canada, and Mexico)

Europe (Germany, France, United Kingdom, Italy, Spain, and Rest of Europe)

Asia-Pacific (Japan, China, India, South Korea, and Rest of Asia-Pacific)

South America (Brazil, Argentina, and Rest of South America)

Rest of World

### Agricultural Biologicals Market by Type

Biopesticides

Biostimulants

Biofertilizers

Other Types (Including Biological Seed Treatments, Endophytes, Plant-Incorporated Protectants (PIPs), and Synthetic microbial communities (SynComs))

### Agricultural Biologicals Market by Application

Foliar Spray

Soil Treatment

Seed Treatment

Other Applications (Including Root Drenching, Drip Irrigation, Fertigation, Hydroponic Systems, Controlled Environment Agriculture, and Others)

## Agricultural Biologicals Market by Crop Type

Cereals & Grains

Oilseeds & Pulses

Fruits & Vegetables

Other Crop Types (Including Turf & Ornamental Plants, Plantation Crops,  
Medicinal Plants, and Others)

## Contents

### **PART A: GLOBAL MARKET PERSPECTIVE**

#### **1. INTRODUCTION**

- Product Outline
- Biostimulants Defined
- Biostimulant Active Ingredients
  - Acid-based
  - Seaweed Extracts
  - Microbial
  - Other Active Ingredients (Including Protein Hydrolysates, Chitosan and Biopolymers, Plant Extracts, Vitamins, Antioxidants, Biorationals, and Inorganic Compounds)
- Biostimulant Applications
  - Foliar Spray
  - Soil Treatment
  - Seed Treatment
  - Other Applications (Including Drip Irrigation/Fertigation, Hydroponic or Controlled Environment Applications, and Others)
- Biostimulants Use in Crops
  - Cereals & Grains
  - Oil Seeds & Pulses
  - Fruits & Vegetables
  - Other Crop Types (Including Turf & Ornamentals, Plantation Crops, Medicinal Plants, and Others)

#### **2. KEY MARKET TRENDS**

#### **3. KEY MARKET PLAYERS**

- BASF SE
- Bayer AG
- Biolchim S.P.A.
- Biostadt India Limited
- FMC Corporation
- Haifa Group
- Hello Nature Italia S.r.l.
- Isagro Group

Koppert B.V  
Novozymes A/S  
Rovensa Group  
Syngenta  
UPL Ltd.

#### **4. KEY BUSINESS & PRODUCT TRENDS**

#### **5. GLOBAL MARKET OVERVIEW**

Global Biostimulants Market Overview by Active Ingredient  
Biostimulants Active Ingredient Market Overview by Global Region  
Acid-based  
Seaweed Extracts  
Microbial  
Other Active Ingredients  
Global Biostimulants Market Overview by Application  
Biostimulants Application Market Overview by Global Region  
Foliar Spray  
Soil Treatment  
Seed Treatment  
Other Applications  
Global Biostimulants Market Overview by Crop Type  
Biostimulants Crop Type Market Overview by Global Region  
Cereals & Grains  
Oil Seeds & Pulses  
Fruits & Vegetables  
Other Crop Types

#### **PART B: REGIONAL MARKET PERSPECTIVE**

Global Biostimulants Market Overview by Geographic Region

#### **REGIONAL MARKET OVERVIEW**

#### **6. NORTH AMERICA**

North American Biostimulants Market Overview by Geographic Region  
North American Biostimulants Market Overview by Active Ingredient

North American Biostimulants Market Overview by Application  
North American Biostimulants Market Overview by Crop Type  
Country-wise Analysis of North American Biostimulants Market  
The United States  
United States Biostimulants Market Overview by Active Ingredient  
United States Biostimulants Market Overview by Application  
United States Biostimulants Market Overview by Crop Type  
Canada  
Canadian Biostimulants Market Overview by Active Ingredient  
Canadian Biostimulants Market Overview by Application  
Canadian Biostimulants Market Overview by Crop Type  
Mexico  
Mexican Biostimulants Market Overview by Active Ingredient  
Mexican Biostimulants Market Overview by Application  
Mexican Biostimulants Market Overview by Crop Type

## **7. EUROPE**

European Biostimulants Market Overview by Geographic Region  
European Biostimulants Market Overview by Active Ingredient  
European Biostimulants Market Overview by Application  
European Biostimulants Market Overview by Crop Type  
Country-wise Analysis of European Biostimulants Market  
Germany  
German Biostimulants Market Overview by Active Ingredient  
German Biostimulants Market Overview by Application  
German Biostimulants Market Overview by Crop Type  
France  
French Biostimulants Market Overview by Active Ingredient  
French Biostimulants Market Overview by Application  
French Biostimulants Market Overview by Crop Type  
The United Kingdom  
United Kingdom Biostimulants Market Overview by Active Ingredient  
United Kingdom Biostimulants Market Overview by Application  
United Kingdom Biostimulants Market Overview by Crop Type  
Italy  
Italian Biostimulants Market Overview by Active Ingredient  
Italian Biostimulants Market Overview by Application  
Italian Biostimulants Market Overview by Crop Type

Spain

Spanish Biostimulants Market Overview by Active Ingredient

Spanish Biostimulants Market Overview by Application

Spanish Biostimulants Market Overview by Crop Type

Rest of Europe

Rest of Europe Biostimulants Market Overview by Active Ingredient

Rest of Europe Biostimulants Market Overview by Application

Rest of Europe Biostimulants Market Overview by Crop Type

## **8. ASIA-PACIFIC**

Asia-Pacific Biostimulants Market Overview by Geographic Region

Asia-Pacific Biostimulants Market Overview by Active Ingredient

Asia-Pacific Biostimulants Market Overview by Application

Asia-Pacific Biostimulants Market Overview by Crop Type

Country-wise Analysis of Asia-Pacific Biostimulants Market

Japan

Japanese Biostimulants Market Overview by Active Ingredient

Japanese Biostimulants Market Overview by Application

Japanese Biostimulants Market Overview by Crop Type

China

Chinese Biostimulants Market Overview by Active Ingredient

Chinese Biostimulants Market Overview by Application

Chinese Biostimulants Market Overview by Crop Type

India

Indian Biostimulants Market Overview by Active Ingredient

Indian Biostimulants Market Overview by Application

Indian Biostimulants Market Overview by Crop Type

South Korea

South Korean Biostimulants Market Overview by Active Ingredient

South Korean Biostimulants Market Overview by Application

South Korean Biostimulants Market Overview by Crop Type

Rest of Asia-Pacific

Rest of Asia-Pacific Biostimulants Market Overview by Active Ingredient

Rest of Asia-Pacific Biostimulants Market Overview by Application

Rest of Asia-Pacific Biostimulants Market Overview by Crop Type

## **9. SOUTH AMERICA**

South American Biostimulants Market Overview by Geographic Region  
South American Biostimulants Market Overview by Active Ingredient  
South American Biostimulants Market Overview by Application  
South American Biostimulants Market Overview by Crop Type  
Country-wise Analysis of Asia-Pacific Biostimulants Market  
Brazil  
Brazilian Biostimulants Market Overview by Active Ingredient  
Brazilian Biostimulants Market Overview by Application  
Brazilian Biostimulants Market Overview by Crop Type  
Argentina  
Argentine Biostimulants Market Overview by Active Ingredient  
Argentine Biostimulants Market Overview by Application  
Argentine Biostimulants Market Overview by Crop Type  
Rest of South America  
Rest of South American Biostimulants Market Overview by Active Ingredient  
Rest of South American Biostimulants Market Overview by Application  
Rest of South American Biostimulants Market Overview by Crop Type

## **10. REST OF WORLD**

Rest of World Biostimulants Market Overview by Active Ingredient  
Rest of World Biostimulants Market Overview by Application  
Rest of World Biostimulants Market Overview by Crop Type

## **PART C: GUIDE TO THE INDUSTRY**

### **PART D: ANNEXURE**

#### **1. RESEARCH METHODOLOGY**

#### **2. FEEDBACK**

## I would like to order

Product name: Global Agricultural Biologicals Market | Types, Applications and Crops

Product link: <https://marketpublishers.com/r/G26BC18DA271EN.html>

Price: US\$ 4,500.00 (Single User License / Electronic Delivery)

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

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/G26BC18DA271EN.html>