

Biological Organic Fertilizer Market Size & Share Analysis - Growth Trends and Forecast (2026 - 2031)

> **Industry:** Biologicals, Biopesticides & Crop Protection (Agriculture & Agribusiness)
> **Source:** https://www.mordorintelligence.com/industry-reports/biological-organic-fertilizers-market(https://www.mordorintelligence.com/industry-reports/biological-organic-fertilizers-market)
> **Scraped Date:** 2026-09-17

Executive Market Summary

Market Metric	Details
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Base Market Size	USD 13.79 billion
Projected Forecast (2031)	USD 13.79 billion
Growth Rate (CAGR)	8.58 %
Largest Market Region	N/A
Fastest-Growing Region	N/A

Market Visualizations & Infographics

![Major players in Biological Organic Fertilizer industry](images/chart_2.png)

![Biological Organic Fertilizer Market Size](images/chart_3.png)

![Biological Organic Fertilizer Market Share by Type, 2025](images/chart_4.png)

![Biological Organic Fertilizer Market Share by Application, 2025](images/chart_5.png)

![Biological Organic Fertilizer Market Growth Rate by Region](images/chart_6.png)

![Biological Organic Fertilizer Market Concentration](images/chart_7.png)

![Icon](images/chart_8.png)

![footer background image](images/chart_10.png)

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![ESOMAR](images/chart_17.png)

![GPTW](images/chart_19.png)

Comprehensive Research Analysis

Overview Points List Flex 49 Share Feature End

Market Overview

Study Period
|

2021 - 2031
|

Market Size (2026)
|

USD 13.79 Billion
|

Market Size (2031)
|

USD 20.81 Billion
|

Growth Rate (2026 - 2031)
|

8.58 %
|

Fastest Growing Market
|

Africa
|

Largest Market
|
Asia Pacific
|

Market Concentration
|
Medium
|

Major Players

*Disclaimer: Major Players sorted in no particular order

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Market Overview

Biological Organic Fertilizer Market Analysis by Mordor Intelligence

The biological organic fertilizer market size is projected to grow from USD 12.62 billion in 2025 to USD 13.79 billion in 2026 and is forecast to reach USD 20.81 billion by 2031 at an 8.58% CAGR over 2026-2031. Policy-driven incentives, stricter regulations on synthetic nutrients, and cost-saving innovations at the farm level are driving the adoption of biological inputs. The United States Department of Agriculture reimburses certified biological input costs, reducing growers' payback periods to under two years. This reimbursement program encourages farmers to transition to sustainable practices by offsetting initial investment costs. The European Union's Farm to Fork Strategy requires a 20% reduction in synthetic fertilizer use by 2030, increasing demand for microbial alternatives. This policy aligns with broader sustainability goals and promotes environmentally friendly farming methods across the region. India's National Mission on Natural Farming, launched in 2024, aims to bring 7.5 lakh hectares under biological inputs by 2027, boosting domestic cooperative sales. Concurrently, advancements in on-farm bioreactor platforms lower production costs, enabling localized manufacturing to become commercially viable, even for small-scale farmers. These platforms provide a cost-effective solution for producing biological inputs and support smallholders in adopting sustainable agricultural practices.

Key Report Takeaways

- * By type, microorganism led with 57.3% of the biological organic fertilizer market share in 2025, while the same segment is projected to advance at a 10.5% CAGR through 2031.
- * By application, grains and cereals accounted for 31.4% of the biological organic fertilizer market size in 2025, and fruits and vegetables are forecast to expand at a 9.2% CAGR through 2031.
- * By geography, Asia-Pacific accounted for 42.5% of the market size in 2025, whereas Africa is on track to post the fastest 8.8% CAGR through 2031.

Key Market Trends

Market Trends and Insights

Drivers Impact Analysis of Biological Organic Fertilizer Market*

Driver
|

(~) % Impact on CAGR Forecast
|

Geographic Relevance
|

Impact Timeline
|

Federal incentives for regenerative farming

|

+1.2%
|

North America, Europe, and India
|

Medium term (2-4 years)
|

Escalating restrictions on synthetic fertilizers

|

+1.0%
|

Global, led by Europe and India
|

Long term (≥ 4 years)

|

Rising demand from organic packaged-food processors

|

+0.8%

|

North America, Europe, and China

|

Short term (≤ 2 years)

|

Rapid adoption of microbial consortia blends

|

+0.9%
|

Global, centered in Asia-Pacific and North America
|

Medium term (2-4 years)
|

Farmer-led data cooperatives unlocking localized soil health insights

|

+0.7%
|

North America and Australia with spill-over to Brazil
|

Long term (≥ 4 years)
|

On-farm bioreactor platforms lowering production costs

|

+0.9%
|

North America, India, and Brazil
|

Medium term (2-4 years)

|

Source: Mordor Intelligence

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Competitive Landscape

Competitive Landscape

The biological organic fertilizer market remains moderate, with the top five firms dominating, leaving room for regional specialists. Novonesis Group, established through the merger of Novozymes and Chr. Hansen in 2024 holds the world's largest microbial strain library, comprising over 50,000 isolates. The company leverages this extensive library to develop innovative solutions across industries such as agriculture, food, and health. Bioceres Crop Solutions Corp and Corteva Agriscience incorporate biologicals into digital agronomy tools that utilize soil sensors and machine learning, enabling farmers to optimize crop yields and resource use. Indian cooperatives cater to the South Asian market on a large scale but have limited international presence, focusing primarily on meeting regional agricultural demands and supporting local farmers.

Strategic activities are centered on vertical integration, geographic expansion, and the formation of partnerships with processors. There are significant opportunities in row crops outside regions such as North America and Europe, where the adoption of biological inputs remains limited compared to traditional fertilizers. Furthermore, the turf and ornamentals segment presents growth potential, driven by municipal environmental regulations that are fostering demand. However, the distribution networks in this segment are still in the early stages of development.

Regulatory preparedness is the emerging moat. ISO 17033 will require sterile handling and traceability, compliance hurdles that smaller plants may struggle to clear. Companies with established quality management systems, such as Novonesis Group and Lallemand, Inc., are better equipped to meet these requirements with minimal additional costs. In contrast, smaller producers may face challenges securing the capital investments needed for compliance. Data cooperatives are an emerging competitive factor with significant potential. For instance, growers who share soil microbiome data with platforms managed by Corteva Agriscience or the Soil Health Institute receive tailored microbial prescriptions that deliver superior results compared to generic formulations. This creates network effects that may consolidate market power among a limited number of platform operators.

Biological Organic Fertilizer Industry Leaders

*

Bioceres Crop Solutions Corp

*

Lallemand, Inc.

*

UPL Limited

*

Premier Tech Ltd. (Gestion Bernard Belanger Ltee)

*

Novonesis Group

*

*Disclaimer: Major Players sorted in no particular order

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Scope Methodology P Space

This market covers biological organic fertilizers sold for crop and non-crop uses, where nutrient value comes from beneficial microorganisms and organic residue-based inputs that support soil fertility and plant nutrient uptake.

Scope exclusions: We exclude conventional synthetic fertilizers and micronutrient-only additives that are not sold as biological or organic fertilizer products.

Segmentation Container

*

By Type

*

Microorganism

*

Rhizobium

*

Azotobacter

*

Azospirillum

*

Blue-green Algae

*

Phosphate-Solubilizing Bacteria

*

Mycorrhiza

*

Other Microorganisms

*

Organic Residues

*

Green Manure

*

Fish Meal

*

Bone Meal

*

Oil Cakes

*
Others

*
By Application

*
Grains and Cereals

*
Pulses and Oilseeds

*
Fruits and Vegetables

*
Commercial Crops

*
Turf and Ornamentals

*
By Geography

*
North America

*
United States

*
Canada

*
Rest of North America

*
Europe

*
Germany

*
United Kingdom

*
France

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Spain

*
Italy

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Russia

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Rest of Europe

*
Asia-Pacific

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China

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India

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Japan

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Australia

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Rest of Asia-Pacific

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South America

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Brazil

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Argentina

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Rest of South America

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Middle East

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Saudi Arabia

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United Arab Emirates

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Rest of Middle East

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Africa

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South Africa

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Nigeria

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Rest of Africa

Frequently Asked Questions

How large will the biological organic fertilizer market be by 2031?

It is forecast to reach USD 20.81 billion by 2031, expanding at an 8.58% CAGR from 2026-2031.

Which product type leads revenue?

Microorganism-based formulations held 57.3% of 2025 revenue, making them the largest segment.

What is the fastest-growing crop application?

Fruits and vegetables are projected to grow at a 9.2% CAGR through 2031, the quickest among all applications.

Which region will grow the quickest?

Africa shows the highest regional CAGR at 8.8% over 2026-2031, although from a smaller base.

How will ISO 17033 affect suppliers?

The new standard mandates sterile handling and traceability, favoring firms that already run pharmaceutical-grade quality systems.