

Seed - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2026 - 2031)

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Report description:

Seed Market Analysis

Seed market size in 2026 is estimated at USD 81.1 billion, growing from 2025 value of USD 77 billion with 2031 projections showing USD 105.16 billion, growing at 5.33% CAGR over 2026-2031. Robust growth reflects a pressing need for high-performance seed varieties that increase yields, enhance climate resilience, and reduce input costs. Wider access to certified hybrids, accelerating deployments of digital breeding tools, and supportive government programs collectively spur demand. Hybrid dominance across corn, rice, and other staples anchors volume, while vegetables and specialty crops inject higher margins as dietary preferences evolve. The expansion of protected cultivation, vertical farms, and climate-controlled greenhouses further reshapes global production strategies, particularly in Asia-Pacific urban centers. Meanwhile, regulatory clarity on gene-edited seeds and AI-enabled phenotyping shortens innovation cycles and unlocks new trait portfolios.

Global Seed Market Trends and Insights

Increasing Adoption of Hybrid and GM Seed Varieties to Enhance Crop Yields

Hybrid penetration already exceeds 90% in the United States corn and hovers near 70% in Indian rice, confirming that farmers overwhelmingly recognize the 15-30% yield premium delivered by heterosis effects. Transgenic stacks that once focused on weed and insect control now bundle drought tolerance, improved amino acid balance, and longer shelf life, which collectively broaden the agronomic and commercial appeal of modern hybrids. Recent approvals for drought-tolerant corn in Argentina and

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Brazil indicate that regulators in major export economies are becoming more comfortable with climate-adaptive traits, encouraging private breeders to accelerate the development of multi-trait pipelines. Because hybrids need to be purchased every season, rising adoption also lifts certified seed replacement rates, which in turn attracts capital into breeding and distribution infrastructure. The virtuous cycle of higher productivity, dependable market access, and trait innovation keeps hybrid and GM seeds firmly at the core of commercial cropping systems. Continued investment in hybrid research secures a robust growth runway even where policy debates around gene editing remain unresolved.

Technological Advancements in Seed Coating and Treatment Solutions

Farmers are increasingly protecting their investment at the seed level, rather than applying multiple costly field sprays, which is pushing global seed treatment revenue into sustained double-digit growth. Modern coatings combine chemical fungicides with biological agents, micronutrients, and polymer matrices, delivering targeted protection and nutrition exactly when seedlings are most vulnerable. Controlled-release layers meter active ingredients over weeks, which lowers environmental runoff and satisfies stricter residue standards that now shape many export markets. Bayer and Corteva each expanded their microbial platforms in 2024, utilizing proprietary bacteria and fungi that enhance nutrient uptake and mitigate early-season stress. These biologicals work synergistically with chemical actives, creating blended formulas that enhance stand establishment without increasing the total input load. As sustainability reporting gains importance, distributors promote seed treatments as a cost-effective means of reducing broad-acre pesticide footprints while maintaining high yield potential.

Stringent Biosafety Regulations and Multi-Year Approval Timelines

Bringing a single GM trait from concept through international approval typically costs up to USD 150 million and seven years, which locks smaller innovators out of markets that most need yield breakthroughs. The European Union continues to employ a precautionary approach that limits new cultivation, while China's evolving guidelines still cap scale beyond pilot deployment. Such extensive data requirements and public-comment cycles escalate development budgets and delay global launch synchrony, forcing companies to stagger introductions. The time lag hampers farmer access to climate-ready genetics, prolonging exposure to weather risks and pest evolution. Regulatory fragmentation also drives redundant field trials and paperwork, thereby diluting research capital that could otherwise be used to fund additional trait discovery. Until greater alignment emerges, even well-capitalized firms will prioritize geographies with faster, science-based approval tracks.

Other drivers and restraints analyzed in the detailed report include:

Government Programs Boosting Certified Seed Replacement Rates
Rising Demand for High-Value Crops Driven by Population and Diet Shifts
Rising Seed Prices Limiting Access for Smallholder Farmers

For complete list of drivers and restraints, kindly check the Table Of Contents.

Segment Analysis

Hybrid seeds generated 72.65% of 2025 revenue within the seed market, and are projected to advance at a 5.47% CAGR through 2031. This dominance springs from heterosis gains that increase yields by up to 30%, encouraging farmers to absorb higher seed costs for dependable returns. In markets where GM regulation remains strict, non-transgenic hybrids still enjoy robust uptake as breeders select for disease tolerance through marker-assisted selection and genomic prediction. Digital phenotyping further accelerates hybrid cycles by pairing imaging data with genomic scores, trimming development timelines, and lowering unit costs.

Transgenic hybrids move fastest in South America and North America, where the approvals of drought-tolerant corn and insect-protected soybeans spread rapidly. The seed market size for transgenic hybrids is projected to expand steadily as stacked

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traits, including nitrogen-use efficiency and biofortification, clear regulatory hurdles. Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) edits, while still navigating policy uncertainties, promise higher precision and reduced linkage drag, widening the breeding toolbox beyond conventional hybridization.

The Seed Market Report is Segmented by Breeding Technology (Hybrids, Open Pollinated Varieties, and Hybrid Derivatives), by Cultivation Mechanism (Open Field and Protected Cultivation), by Crop Type (Row Crops and Vegetables), and by Geography (North America, Europe, Asia-Pacific, South America, and More). The Market Forecasts are Provided in Terms of Value (USD) and Volume (Metric Tons).

Geography Analysis

North America controls the largest portion of the seed revenue at 34.86% in 2025 and is also projected to record the quickest expansion with a 6.21% CAGR through 2031. Robust biotechnology frameworks and extensive digital agriculture tools allow growers to adopt new hybrids faster than any other region. Large commodity farms in the United States continue to invest in stacked-trait corn and soybean genetics, while Canadian programs add high-oil canola and winter-hardy wheat lines. Mexico contributes rising vegetable seed demand tied to greenhouse expansion along export corridors. These converging factors keep the region on a sturdy upward trajectory despite periodic volatility in fertilizer and fuel costs.

Europe maintains steady momentum as specialty vegetable hubs in the Netherlands, France, and Spain focus on flavor and shelf-life gains that meet premium retail standards. Strict regulations on genetically modified crops shift breeding budgets toward marker-assisted disease resistance and lower-input traits aligned with the European Green Deal. Organic acreage growth broadens interest in non-synthetic treatments and heritage cultivars, opening room for niche suppliers. The United Kingdom's evolving post-Brexit rules create additional scope for region-specific trait portfolios. Climate resilience remains a prime concern as the continent faces more frequent drought and heat episodes.

Asia-Pacific remains the second-largest revenue contributor because of China's and India's vast planted areas, even though growth now trails the Americas. Government subsidies in India and yield-oriented hybrid rice in Southeast Asia steadily lift replacement rates for certified seed. South America benefits from continued soybean and corn expansion in Brazil and rapid regulatory approval of drought-tolerant hybrids in Argentina. The Middle East and Africa follow with longer-term upside linked to irrigation projects and subsidy programs that improve farmer access to improved genetics. Together, these regions add scale, diversification, and risk-balancing depth to the worldwide seed value chain.

List of Companies Covered in this Report:

Bayer AG Corteva, Inc. Syngenta Group BASF SE Groupe Limagrain Holding KWS SAAT SE & Co. KGaA Sakata Seed Corporation Rijk Zwaan Zaadteelt en Zaadhandel B.V. Takii & Co., Ltd. Enza Zaden Beheer B.V. DLF Seeds A/S UPL Limited East-West Seed International B.V. Hunan Haili Longping Hi-Tech Seed Co., Ltd. Bejo Zaden B.V.

Additional Benefits:

 The market estimate (ME) sheet in Excel format
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Table of Contents:

- 1 INTRODUCTION
- 1.1 Study Assumptions and Market Definition
- 1.2 Scope of the Study

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1.3 Research Methodology

2 EXECUTIVE SUMMARY & KEY FINDINGS

3 REPORT OFFERS

4 KEY INDUSTRY TRENDS

4.1 Area Under Cultivation

4.1.1 Row Crops

4.1.2 Vegetables

4.2 Most Popular Traits

4.2.1 Alfalfa & Forage Corn

4.2.2 Cabbage, Pumpkin & Squash

4.2.3 Cotton, Canola, Rapeseed & Mustard

4.2.4 Rice & Corn

4.2.5 Soybean & Sunflower

4.2.6 Tomato & Cucumber

4.2.7 Wheat & Sorghum

4.3 Breeding Techniques

4.3.1 Row Crops & Vegetables

4.4 Regulatory Framework

4.5 Value Chain and Distribution Channel Analysis

4.6 Market Drivers

4.6.1 Increasing Adoption of Hybrid and GM Seed Varieties to Enhance Crop Yields

4.6.2 Technological Advancements in Seed Coating and Treatment Solutions

4.6.3 Government Programs Boosting Certified Seed Replacement Rates

4.6.4 Rising Demand for High-Value Crops Driven by Population and Diet Shifts

4.6.5 AI-Enabled Digital Phenotyping Shortening Breeding Cycles

4.6.6 Climate-Resilient Seed Traits Attracting Impact Capital

4.7 Market Restraints

4.7.1 Stringent Biosafety Regulations and Multi-Year Approval Timelines

4.7.2 Rising Seed Prices Limiting Access for Smallholder Farmers

4.7.3 Farmer-Led Seed-Saving Movements in Emerging Markets

4.7.4 Uncertain Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) Seed Policies in European Union and China

5 MARKET SIZE AND GROWTH FORECASTS (VALUE AND VOLUME)

5.1 By Breeding Technology

5.1.1 Hybrids

5.1.1.1 Non-Transgenic Hybrids

5.1.1.2 Transgenic Hybrids

5.1.1.2.1 Herbicide Tolerant Hybrids

5.1.1.2.2 Insect Resistant Hybrids

5.1.1.2.3 Other Traits

5.1.2 Open Pollinated Varieties & Hybrid Derivatives

5.2 By Cultivation Mechanism

5.2.1 Open Field

5.2.2 Protected Cultivation

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- 5.3 By Crop Type
 - 5.3.1 Row Crops
 - 5.3.1.1 Fiber Crops
 - 5.3.1.1.1 Cotton
 - 5.3.1.1.2 Other Fiber Crops
 - 5.3.1.2 Forage Crops
 - 5.3.1.2.1 Alfalfa
 - 5.3.1.2.2 Forage Corn
 - 5.3.1.2.3 Forage Sorghum
 - 5.3.1.2.4 Other Forage Crops
 - 5.3.1.3 Grains & Cereals
 - 5.3.1.3.1 Corn
 - 5.3.1.3.2 Rice
 - 5.3.1.3.3 Sorghum
 - 5.3.1.3.4 Wheat
 - 5.3.1.3.5 Other Grains & Cereals
 - 5.3.1.4 Oilseeds
 - 5.3.1.4.1 Canola, Rapeseed & Mustard
 - 5.3.1.4.2 Soybean
 - 5.3.1.4.3 Sunflower
 - 5.3.1.4.4 Other Oilseeds
 - 5.3.1.5 Pulses
 - 5.3.2 Vegetables
 - 5.3.2.1 Brassicas
 - 5.3.2.1.1 Cabbage
 - 5.3.2.1.2 Cauliflower & Broccoli
 - 5.3.2.1.3 Other Brassicas
 - 5.3.2.2 Cucurbits
 - 5.3.2.2.1 Cucumber & Gherkin
 - 5.3.2.2.2 Pumpkin & Squash
 - 5.3.2.2.3 Other Cucurbits
 - 5.3.2.3 Roots & Bulbs
 - 5.3.2.3.1 Garlic
 - 5.3.2.3.2 Onion
 - 5.3.2.3.3 Potato
 - 5.3.2.3.4 Other Roots & Bulbs
 - 5.3.2.4 Solanaceae
 - 5.3.2.4.1 Chilli
 - 5.3.2.4.2 Eggplant
 - 5.3.2.4.3 Tomato
 - 5.3.2.4.4 Other Solanaceae
 - 5.3.2.5 Unclassified Vegetables
 - 5.3.2.5.1 Asparagus
 - 5.3.2.5.2 Lettuce
 - 5.3.2.5.3 Carrot
 - 5.3.2.5.4 Okra
 - 5.3.2.5.5 Peas

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- 5.3.2.5.6 Spinach
- 5.3.2.5.7 Other Unclassified Vegetables
- 5.4 By Geography
 - 5.4.1 North America
 - 5.4.1.1 Canada
 - 5.4.1.2 Mexico
 - 5.4.1.3 United States
 - 5.4.1.4 Rest of North America
 - 5.4.2 Europe
 - 5.4.2.1 France
 - 5.4.2.2 Germany
 - 5.4.2.3 Italy
 - 5.4.2.4 Netherlands
 - 5.4.2.5 Poland
 - 5.4.2.6 Romania
 - 5.4.2.7 Russia
 - 5.4.2.8 Spain
 - 5.4.2.9 Turkey
 - 5.4.2.10 Ukraine
 - 5.4.2.11 United Kingdom
 - 5.4.2.12 Rest of Europe
 - 5.4.3 Asia-Pacific
 - 5.4.3.1 Australia
 - 5.4.3.2 Bangladesh
 - 5.4.3.3 China
 - 5.4.3.4 India
 - 5.4.3.5 Indonesia
 - 5.4.3.6 Japan
 - 5.4.3.7 Myanmar
 - 5.4.3.8 Pakistan
 - 5.4.3.9 Philippines
 - 5.4.3.10 Thailand
 - 5.4.3.11 Vietnam
 - 5.4.3.12 Rest of Asia-Pacific
 - 5.4.4 South America
 - 5.4.4.1 Argentina
 - 5.4.4.2 Brazil
 - 5.4.4.3 Rest of South America
 - 5.4.5 Middle East and Africa
 - 5.4.5.1 Iran
 - 5.4.5.2 Saudi Arabia
 - 5.4.5.3 Egypt
 - 5.4.5.4 Ethiopia
 - 5.4.5.5 Ghana
 - 5.4.5.6 Kenya
 - 5.4.5.7 Nigeria
 - 5.4.5.8 South Africa

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5.4.5.9 Tanzania

5.4.5.10 Rest of Middle East and Africa

6 COMPETITIVE LANDSCAPE

6.1 Key Strategic Moves

6.2 Market Share Analysis

6.3 Company Landscape

6.4 Company Profiles (Includes Global Level Overview, Market Level Overview, Core Segments, Financials as Available, Strategic Information, Market Rank/Share for Key Companies, Products and Services, and Recent Developments)

6.4.1 Bayer AG

6.4.2 Corteva, Inc.

6.4.3 Syngenta Group

6.4.4 BASF SE

6.4.5 Groupe Limagrain Holding

6.4.6 KWS SAAT SE & Co. KGaA

6.4.7 Sakata Seed Corporation

6.4.8 Rijk Zwaan Zaadteelt en Zaadhandel B.V.

6.4.9 Takii & Co., Ltd.

6.4.10 Enza Zaden Beheer B.V.

6.4.11 DLF Seeds A/S

6.4.12 UPL Limited

6.4.13 East-West Seed International B.V.

6.4.14 Hunan Haili Longping Hi-Tech Seed Co., Ltd.

6.4.15 Bejo Zaden B.V.

7 KEY STRATEGIC QUESTIONS FOR SEEDS CEOS

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