

Agriculture Biotech Market By Type (Hybrid Seeds, Transgenic Crops, Bio-pesticides, Bio-fertilizers), By Technology (Genetic Engineering, Tissue Culture, Embryo Rescue, Somatic Hybridization, Molecular Diagnostics, Vaccine, Others), By Application (Crop Production, Crop Protection, Chemical Tolerance, Disease Resistance, Others): Global Opportunity Analysis and Industry Forecast, 2021-2031

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Report description:

The global agriculture biotech market is envisioned to garner \$214.6 billion by 2031, growing from \$93.1 billion in 2021 at a CAGR of 8.8% from 2022 to 2031.

It has become relatively vital to raise agricultural yields to meet the growing population's need for food. This is now feasible thanks to biotechnology, which has improved disease and drought resistance of crops. To make plants immune to various illnesses, scientists choose certain disease-resistance genes and inject them into the DNA of the plants. As an illustration, Cornell University and the University of Hawaii collaborated to create two papaya seed variants that were immune to the papaya ringspot virus; these seeds were commercially available in 1998 following many field experiments. Crops grown in arid settings also have a great requirement for drought tolerance.

Agricultural biotechnology is still in its infancy, and it is unclear how it will affect the environment. However, studies have indicated that it could cause an increase in herbicide-resistant weeds. As was previously said, genetic engineering entails the exchange of certain genes across species. In that aspect, the technique may introduce undesirable genes into pests and plants, making it harder to get rid of them. Additionally, it might result in the creation of new microbes like bacteria and viruses by transferring genes that increase their virulence. Plants that have been genetically modified create novel compounds like proteins that might be harmful to wildlife.

Augmented reality (AR) technology generates an enhanced version of reality by adding text, audio, visuals, and multimedia to immediate and real-time surroundings. Virtual reality, on the other hand, builds a completely new world and places you inside of

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it. Even though they are not biotechnologies, AR and VR are examples of advancements that are going to change the way that agriculture is done. Augmented and virtual realities might advance biotechnology development by assisting sample selection, in addition to enabling farmers to visually monitor fields, assist in training new farmers, and assist in tool appraisal.

The COVID-19 pandemic brought several uncertainties leading to severe economic losses as various businesses across the world were on a standstill. The COVID-19 pandemic caused problems for the agriculture biotech sector. The movement of goods both domestically and internationally was slowed down by lockdowns and limits on people's freedom of movement. Lockdowns also made it more difficult to get staff at ports to unload ships and perform other trade processes including physical inspections, testing, and certifications. At the same time, several countries changed the regulations controlling port access, resulting in delays from port closures and requests for more paperwork and quarantine processes.

The key players profiled in this report include KWS SAAT SE & Co. KGaA, ChemChina, Bayer AG, Corteva, Nufarm, Limagrain, MITSUI & CO., LTD, Evogene Ltd., Valent BioSciences LLC., and Marrone Bio Innovations.

Key Benefits For Stakeholders

- This report provides a quantitative analysis of the market segments, current trends, estimations, and dynamics of the agriculture biotech market analysis from 2021 to 2031 to identify the prevailing agriculture biotech market opportunities.
- The market research is offered along with information related to key drivers, restraints, and opportunities.
- Porter's five forces analysis highlights the potency of buyers and suppliers to enable stakeholders make profit-oriented business decisions and strengthen their supplier-buyer network.
- In-depth analysis of the agriculture biotech market segmentation assists to determine the prevailing market opportunities.
- Major countries in each region are mapped according to their revenue contribution to the global market.
- Market player positioning facilitates benchmarking and provides a clear understanding of the present position of the market players.
- The report includes the analysis of the regional as well as global agriculture biotech market trends, key players, market segments, application areas, and market growth strategies.

Key Market Segments

By Type

- Hybrid Seeds
- Transgenic Crops
- Bio-pesticides
- Bio-fertilizers

By Technology

- Genetic Engineering
- Tissue Culture
- Embryo Rescue
- Somatic Hybridization
- Molecular Diagnostics
- Vaccine
- Others

By Application

- Crop Production
- Crop Protection
- Chemical Tolerance
- Disease Resistance
- Others

By Region

- North America
- U.S.
- Canada

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- India
- South Korea
- Australia
- Rest of Asia-Pacific
- LAMEA
- Brazil
- United Arab Emirates
- Saudi Arabia
- South Africa
- Rest of LAMEA
- Key Market Players
- Bayer AG
- KWS SAAT SE & Co. KGaA
- Corteva Agriscience
- ChemChina
- Limagrain
- Marrone Bio Innovations, Inc.
- Valent BioSciences
- ADAMA
- VILMORIN & CIE
- Certis Biologicals

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