

Plant Growth Regulators Market by Type (Auxins, Cytokinins, Gibberellins, And Ethylene), Function (Plant Growth Promoters, And Plant Growth Inhibitors), Crop Type (Cereals, Oilseeds Fruits, Turfs), Formulation and Region - Global Forecast to 2029

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Abstracts

The global market for plant growth regulators is estimated at USD 3.3 billion in 2024 and is projected to reach USD 4.6 billion by 2029, at a CAGR of 7.2% during the forecast period. Shifting consumer preferences towards organic and sustainably produced food products are further fueling the demand for plant growth regulators. These regulators allow farmers to reduce the reliance on chemical fertilizers and pesticides, aligning with the growing trend towards environmentally friendly farming practices. Furthermore, the expansion of the horticulture and floriculture industries, particularly in urban areas, is driving the need for plant growth regulators to ensure optimal plant growth and flowering. Additionally, government initiatives and policies promoting sustainable agriculture are encouraging the adoption of plant growth regulators among farmers worldwide. These initiatives aim to address food security concerns, promote agricultural sustainability, and mitigate the environmental impact of farming activities. Overall, the combination of increasing food demand, technological advancements, changing consumer preferences, and supportive government policies is driving the growth of the plant growth regulators market, with promising prospects for further expansion in the future.

"Strong demand for high-value crops."

The increasing demand for high-value crops, driven by factors such as rising incomes,



rapid urbanization, and growing health consciousness, serves as a significant driver for the plant growth regulators market. High-value crops like fruits, vegetables, and plantation crops are sought after due to their economic value and nutritional benefits. With the global production of primary crops on the rise, particularly high-value crops like sugar cane, corn, wheat, and rice, there is a growing need to optimize their growth and yield. Plant growth regulators play a crucial role in enhancing the productivity and quality of these crops by promoting uniform growth, improving resilience to environmental stressors, and optimizing resource utilization. As farmers strive to meet the increasing demand for high-value crops on limited arable land, the adoption of plant growth regulators becomes indispensable for maximizing yields and ensuring consistent supply to meet market demands. Therefore, the strong demand for high-value crops serves as a driving force behind the growing utilization of plant growth regulators in modern agriculture.

"In 2023, plant growth promoters dominated the plant growth regulators market within the function segment."

Plant growth promoters encompass various substances, including beneficial microorganisms like plant growth-promoting rhizobacteria (PGPR), mycorrhizal fungi, and biostimulants, which stimulate plant growth and development through various mechanisms. These substances enhance nutrient uptake, improve stress tolerance, and stimulate hormonal activity within plants, leading to increased vigor, yield, and overall health. Several factors contributed to the prominence of plant growth promoters in 2023. Firstly, there was a growing emphasis on sustainable agricultural practices, driven by environmental concerns and regulatory pressures. Plant growth promoters offer ecofriendly solutions that reduce the reliance on chemical fertilizers and pesticides, aligning with the principles of sustainable agriculture. Additionally, advancements in biotechnology and microbiology facilitated the development of novel plant growthpromoting products with enhanced efficacy and specificity, further boosting their adoption in the market. Moreover, increasing awareness among farmers about the benefits of biologicals and plant microbiome interactions fueled the demand for plant growth promoters. As growers sought alternatives to conventional agricultural inputs, they turned to plant growth promoters to improve soil health, enhance crop resilience, and achieve better yields.

"Within the formulation segment of plant growth regulators market, solutions form is expected to grow constantly during the forecast period."

In the formulation segment of the plant growth regulators market, the solutions form is



anticipated to witness continuous growth throughout the forecast period. This trend can be attributed to several factors driving the preference for solutions over other forms of formulations. Firstly, solutions offer convenience and ease of application, making them popular among farmers and agricultural professionals. With solutions, plant growth regulators can be easily mixed with water and applied through various methods such as foliar spray, soil drenching, or irrigation, ensuring efficient and uniform distribution across crops. Solutions provide versatility in dosage and application, allowing for precise control over the concentration and timing of plant growth regulator application. This flexibility enables growers to tailor their treatment strategies according to specific crop requirements, growth stages, and environmental conditions, thereby optimizing the effectiveness of the plant growth regulators and maximizing crop yields.

"The plant growth regulators market in North America is anticipated to maintain consistent growth throughout the forecast period."

The anticipated consistent growth of the plant growth regulators market in North America can be attributed to several factors. Firstly, there is a growing emphasis on sustainable agricultural practices in North America, driven by concerns over environmental conservation and food security. Plant growth regulators play a vital role in sustainable agriculture by enhancing crop yield, improving stress tolerance, and optimizing resource utilization. Additionally, advancements in agricultural technology and research are leading to the development of innovative plant growth regulator products with improved efficacy and safety profiles, further driving market growth. Moreover, increasing investments in agriculture, supportive government policies, and rising demand for high-quality and high-yield crops are expected to fuel the adoption of plant growth regulators across US, Canada, and Mexico. This combination of factors is likely to sustain the growth trajectory of the plant growth regulators market in North America over the forecast period.

The Break-up of Primaries:

By Value Chain Side: Demand Side – 41% and Supply Side – 59%

By Designation: CXOs – 31%, Managers – 24%, Executives – 45%

By Region: North America – 25%, Europe – 25%, APAC – 25%, South America – 15%, and RoW - 10%



Key players in this market include BASF SE (Germany), Corteva Agriscience (US), Syngenta Group (Switzerland), FMC Corporation (US), Nufarm (Australia), Bayer AG (Germany), Tata Chemicals Ltd. (India), UPL (India), Sumitomo Chemical Co., Ltd. (Japan), Nippon Soda Co., Ltd. (Japan), Sipcam Oxon Spa (Italy), De Sangosse (France), DHANUKA AGRITECH LTD (India), Sichuan Guoguang Agrochemical Co., Ltd. (China), and Zagro (Singapore).

Research Coverage:

The report segments the plant growth regulators market based on crop type, function, formulation, type, and region. In terms of insights, this report has focused on various levels of analyses—the competitive landscape, end-use analysis, and company profiles, which together comprise and discuss views on the emerging & high-growth segments of the plant growth regulators market, high-growth regions, countries, government initiatives, drivers, restraints, opportunities, and challenges. A detailed analysis of the key industry players has been done to provide insights into their business overview, solutions, services, key strategies, contracts, partnerships, and agreements. New product launches, mergers and acquisitions, and recent developments associated with the plant growth regulators market. Competitive analysis of upcoming startups in the plant growth regulators market ecosystem is covered in this report.

Reasons to buy this report:

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall plant growth regulators market and the subsegments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report also helps stakeholders understand the pulse of the market and provides them with information on key market drivers, restraints, challenges, and opportunities. The report provides insights on the following pointers:

Analysis of key drivers (strong demand for high-value crops, rise in resistance development in certain pest and insect species to drive market, and rise in trading requirements for industrial activities), restraints (Long approval period for new products and threat to human health from residue production) opportunities (increasing importance of sustainable food production globally and increased production and yield of crops), and challenges (identification of plant growth regulator-modulated genetic/multigenic expressions and lack of awareness



among growers regarding benefits of plant growth regulators).

Product Development/Innovation: Detailed insights on research & development activities and new product launches in the plant growth regulators market.

Market Development: Comprehensive information about lucrative markets – the report analyses the plant growth regulators market across varied regions.

Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the plant growth regulators market.

Competitive Assessment: In-depth assessment of market shares, growth strategies, and product offerings of leading players like BASF SE (Germany), Corteva Agriscience (US), Syngenta Group (Switzerland), FMC Corporation (US), Nufarm (Australia), Bayer AG (Germany), Tata Chemicals Ltd. (India), UPL (India), Sumitomo Chemical Co., Ltd. (Japan), Nippon Soda Co., Ltd. (Japan), Sipcam Oxon Spa (Italy), De Sangosse (France), DHANUKA AGRITECH LTD (India), Sichuan Guoguang Agrochemical Co., Ltd. (China), Zagro (Singapore), Chemicals Direct (Australia), Hangzhou Tianlong Biotechnology Co., Ltd. (China), sikkoindia (India), Barclay Chemicals (Ireland), PBI-Gordon Companies, Inc., (US), Chaitanya Agro Biotech Pvt. Ltd. (India), Aristo Biotech (India), Redox Industries Limited (India), WinField United (US), and OMEX Agriculture Inc. (Canada).



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