Precision Farming Market by Offering (Hardware {Drones, GPS, Yield Monitors, Sensors}, Software, Services), Technology (Guidance Technology, Remote Sensing Technology and Variable Rate Technology), Application and Region - Global Forecast to 2031

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Report description:

The global precision farming market is projected to grow from USD 9.7 billion in 2023 to USD 21.9 billion by 2031; it is expected to grow at a CAGR of 10.7% from 2023 to 2031.
" Increasing demand for global food production to drive the growth of precision farming market"
The growth of the precision farming market is driven by rising food demand due to global population growth and limited arable land. Precision farming technologies enable efficient resource utilization, yield enhancement, reduced costs, and data-driven decision-making, optimizing agricultural practices to meet demand sustainably. As governments and organizations prioritize sustainable agriculture, precision farming's alignment with these goals further accelerates its adoption, making it a pivotal solution in increasing food production while minimizing environmental impact.
" Services segment to record highest CAGR in the precision farming market between 2023 and 2031"
The primary driver behind the expansion of the precision farming market is the swift integration of cutting-edge technologies to lower labor expenses. Additionally, the growing utilization of Internet of Things (IoT) devices in farming, significant cost savings linked to precision farming, the imperative to address climate change and food demand, and global governmental advocacy for precision farming methods contribute to this growth. Nonetheless, challenges such as the initial high costs of modern agricultural equipment and the constrained technical proficiency of farmers are anticipated to impede market advancement.
"Variable Rate Technology To exhibit Highest CAGR in the precision farming market between 2023 and 2031 "
Variable Rate Technology (VRT) is projected to grow at the highest CAGR during the forecast period, as it encompasses both standalone VRT and integrated variable rate technologies. These technologies can be incorporated into GPS/GNSS devices. The

essential components of VRT technology-driven agricultural solutions encompass a handheld computer, software, controller, and global positioning system (GPS). VRT technology empowers the adaptable application of inputs, enabling farmers to regulate input quantities for specific locations. The core constituents of the VRT-based tool consist of a computer, software, controller, and differential global positioning system (DGPS). VRT can function autonomously or in tandem with GPS/GNSS integration. When implemented on equipment, VRT allows for dynamic adjustment of input application rates across fields, facilitating site-specific field management to reduce input usage and environmental impact, enhance efficiency, and confer economic advantages. Furthermore, this technology aids in management choices, encompassing machinery investment, drainage system deployment, paddock layouts, and fertilizer allocation, thereby augmenting overall productivity and profitability enhancements.
"Weather Tracking and Forecasting application to grow at highest CAGR from 2023 to 2031 "
Weather tracking and forecasting application is expected to grow at the highest CAGR during the forecast period. It is a pivotal parameter. This facet of precision farming furnishes real-time insights into prevalent weather conditions encompassing temperature, rainfall, wind speed and direction, and solar radiation. A variety of tools, ranging from handheld devices to on-field weather stations, find utility in this application. Weather tracking enables proactive decision-making in anticipation of severe and potentially hazardous conditions, safeguarding both the welfare of farmers' families and the continuity of their businesses.
"The precision farming market APAC to register highest CAGR from 2023-2031
The precision farming market in the Asia-Pacific region is set to witness significant growth, driven by a robust demand for automation within the agricultural sector, which holds paramount importance in countries like China, Japan, India, Vietnam, and South Korea. Asia Pacific, encompassing technologically advanced nations like China, South Korea, and Thailand, is expected to experience a surge in the adoption of precision farming technologies, notably drones. Furthermore, developed countries in Asia, including Japan, prioritize implementing autonomous tractors. The confluence of factors such as rapid population growth, available arable land, and government support through subsidies collectively contribute to the widespread adoption of precision farming across Asia Pacific. Noteworthy is the significant role played by governmental initiatives that promote agricultural automation, substantively driving the expansion of the precision farming market in this region.
Breakdown of profiles of primary participants:
-By Company: Tier 1 = 35%, Tier 2 = 40%, and Tier 3 = 25%
-By Designation: C-level Executives = 30%, Directors = 40%, and Others (sales, marketing, and product managers, as well as members of various organizations) = 30%
-By Region: Americas = 40%, Europe=32%, Asia Pacific= 23%, and Rest of the World=5%
Major players profiled in this report:
The precision farming market is dominated by established players such as Deere & Company (US), Trimble Inc. (US), AGCO Corporation (US), AgJunction LLC (US), Raven Industries, Inc. (US), AG Leader Technology (US), Teejet Technologies (US), Topcon (US), Taranis (Israel), AgEagle Aerial Systems Inc (US), ec2ce (Spain), Descartes Labs, Inc. (US), Granular Inc. (US), Hexagon AB (Brazil), Climate LLC (US), and CropX Inc. (Israel).
Research coverage
This report offers detailed insights into the precision farming market based on Technology (Guidance, Remote Sensing Technology and Variable Rate Technology), Application (Yield Monitoring, Crop Scouting, Field Mapping, Variable Rate Application, Weather tracking and Forecasting, Inventory Management, Farm Labor Management, and Financial Management), Offering (Hardware, Software and Services) and Geography (Americas, Europe, Asia Pacific, and Rest of the World).
The report also comprehensively reviews market drivers, restraints, opportunities, and challenges in the precision farming market. The report also covers qualitative aspects in addition to the quantitative aspects of these markets.
Reasons to buy the report:
The report will help the leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall market and the sub-segments. 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 precision farming market's pulse and provides information on key market drivers, restraints, challenges, and opportunities.
The report provides insights on the following pointers:

-Analysis of key drivers (Rapid adoption of advanced technologies in precision farming to reduce labor cost; Increased adoption of Internet of Things (IoT) devices in agricultural fields; Substantial cost savings associated with precision farming; Climate change and need to meet rising demand for food; Increasing promotion of precision farming techniques by governments worldwide; Integration of precision farming technologies with existing farm machinery), restraints (High costs of precision farming equipment; Small size of landholdings and limited availability of skilled labor; Lesser reliability of internet connectivity and infrastructure for precision farming), opportunities (Growing adoption of technologically advanced equipment and tools in agriculture industry; Integration of smartphone applications with precision farming equipment; Rising use of AI-based solutions in precision farming; Rising usage of digital agricultural platforms along with rising demand for sustainable agriculture) and challenges (Difficulty in collecting and analyzing multiple farm data; Lack of standardization in precision farming industry; Lacking data privacy and increased security concerns).
-Product Development/Innovation: Detailed insights on upcoming technologies, research & development activities, and new product launches in the precision farming market
-Market Development: Comprehensive information about lucrative markets ? the report analyses the precision farming market across varied regions
-Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the precision farming market
-Competitive Assessment: In-depth assessment of market shares, growth strategies, and product offerings of leading players like Deere & Company (US), Trimble Inc. (US), AGCO Corporation (US), AgJunction LLC (US), Raven Industries, Inc. (US), AG Leader Technology (US), Teejet Technologies (US), Topcon (US), Taranis (Israel), AgEagle Aerial Systems Inc (US), ec2ce (Spain), Descartes Labs, Inc. (US), Granular Inc. (US), Hexagon AB (Brazil), Climate LLC (US), and CropX Inc. (Israel).

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