

Precision Planting Market Forecasts to 2032 – Global Analysis By Offering (Hardware, Software and Services), Equipment Type (Planters, Seed Drills, Planting Attachments and Add-Ons and Other Equipment Types), System Type, Drive Type, Farm Size, Technology, Application and By Geography

<https://marketpublishers.com/r/P9C6CF7B9B2EEN.html>

Date: July 2025

Pages: 150

Price: US\$ 4,150.00 (Single User License)

ID: P9C6CF7B9B2EEN

Abstracts

According to Statistics MRC, the Global Precision Planting Market is accounted for \$7.32 billion in 2025 and is expected to reach \$16.29 billion by 2032 growing at a CAGR of 12.1% during the forecast period. Precision planting is a leading agricultural technology company that specializes in developing innovative solutions to enhance planting accuracy and maximize crop yields. The company focuses on data-driven tools and equipment upgrades that help farmers manage field variability, maximize seed placement, and increase input efficiency. With tools like downforce systems, seed meters, and real-time data monitoring platforms, Precision Planting gives growers the ability to make wise decisions, cut waste, and increase output. With the help of their technologies, advanced precision agriculture can be accessed without the need for complete machinery replacements by retrofitting existing equipment.

According to the U.S. Department of Agriculture (USDA), adoption of precision agriculture technologies has increased substantially on U.S. row-crop farms: in 2016, 58 % of corn-planted acreage used automated guidance technologies and 44 % used yield mapping.

Market Dynamics:

Driver:

Cost effectiveness and economic advantages

Farmers are drawn to precision planting because it allows for quantifiable financial gains. The USDA Economic Research Service states that it has been demonstrated that the combination of yield mapping and GPS technology can boost corn farm profitability by as much as 5.6%. Farmers can save money and prevent over application by applying inputs only where needed owing to Variable Rate Technology for seeds, fertilizer, and pesticides. Additionally, more consistent emergence, robust root systems, and higher yields are the results of planting at exact depths and spacing. Row shutoff technologies have been used by farmers to reduce seed overlaps, resulting in savings of thousands of dollars per season.

Restraint:

High equipment costs and initial investment

A major barrier to the widespread use of precision planting systems is the high initial cost of the technology. Planters with GPS guidance, variable-rate seeders, and real-time monitoring systems are examples of advanced equipment that can cost tens of thousands of dollars to purchase. Without financial aid or subsidies, these expenses may be unaffordable for small and medium-sized farms. Along with the equipment itself, there are expenses for data subscriptions, software licensing, and any required repairs or modifications to already existing machinery. Many farmers are reluctant to invest in precision planting technologies because of the lack of immediate return on investment, particularly in areas with low crop prices or restricted market access, even though these technologies have long-term advantages.

Opportunity:

Developments in AI, machine learning, and remote sensing

Cutting-edge developments in satellite imagery, machine learning algorithms, and predictive analytics are increasingly helping precision planting. Now, multispectral satellite data, soil health indicators, and weather forecasts can all be combined by AI-driven decision support systems to create personalized planting recommendations. Moreover, precision planting becomes more scalable across regions owing to these systems, which also increase efficiency and lessen the need for agronomists and field scouts. Big data, sensors, and automation come together to allow for a more accurate,

flexible planting strategy that maximizes potential yield and reduces waste, which is crucial as climate variability increases.

Threat:

Supply chain interruptions and shortages of components

A large number of the electronic, GPS, sensor, hydraulic, and software components used in precision planting equipment are sourced from around the world. Any interruption to the global supply chain, whether brought on by pandemics, labor shortages, geopolitical unrest, or restrictions on raw materials, can cause production to be delayed and costs to increase. Agtech equipment's susceptibility to wider supply dynamics is exemplified by the 2020–2022 semiconductor shortage that affected industries around the world. Additionally, delivery delays of critical spare parts or system components can impact planting schedules, erode trust in the long-term dependability of the system, and result in backlogs for end users and manufacturers alike.

Covid-19 Impact:

Due to lockdowns and a lack of workers, the COVID-19 pandemic initially limited field operations, delayed equipment deliveries, and upset global supply chains, all of which had a mixed effect on the precision planting market. Amid economic uncertainty and limited access to financing, many farmers delayed capital investments in precision planting technologies. The pandemic did, however, also hasten the digital transformation of agriculture by emphasizing the necessity of data-driven decision-making, automation, and remote monitoring. Because precision planting solutions increase input efficiency and decrease reliance on manual labor, they have gained more attention in the post-pandemic recovery.

The planters segment is expected to be the largest during the forecast period

The planters segment is expected to account for the largest market share during the forecast period due to the fact that it is widely used for row crop cultivation on large-scale commercial farms. Accurate seed placement, depth control, and spacing are made possible by planters, which are essential for maximizing yields and reducing input waste. owing to developments in GPS guidance, variable-rate seeding, and smart sensors, contemporary planters provide fast, precise planting options that are perfect for crops like cotton, corn, and soybeans. Additionally, their smooth integration with precision farming software improves productivity and decision-making.

The automated planting systems segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the automated planting systems segment is predicted to witness the highest growth rate, motivated by the quick uptake of semi-autonomous and autonomous equipment in contemporary farming. Through real-time data and AI-driven adjustments, these systems enable precise control over planting depth, spacing, and speed while reducing labor dependency. Automated planters with robotics, onboard computers, and sophisticated sensors increase operational efficiency, decrease input waste, and improve consistency. Their popularity is rising, particularly in large-scale farms looking for scalability and in developed areas with a labor shortage. The robust growth trajectory of this segment is further supported by ongoing investments and innovations in agri-automation.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, mostly as a result of its highly technologically advanced and mechanized agricultural sector. Precision agriculture techniques have become widely used in nations like the US and Canada owing to extensive commercial farming, advantageous infrastructure, and encouraging government programs. The region's domination is further reinforced by the existence of significant agri-tech firms and ongoing advancements in planting technologies, such as GPS-guided systems, variable-rate technology, and autonomous planting equipment. Additionally, investment in precision planting is being driven throughout North America by rising awareness of environmental sustainability, resource optimization, and the need to increase yield per acre.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, driven by the need for greater crop productivity, growing population pressure, and the quick modernization of agriculture. To solve issues with labor shortages, water scarcity, and land fragmentation, nations like China, Australia, and India are making significant investments in smart farming technologies. Adoption is being accelerated by government assistance through training initiatives, subsidies, and digital agriculture missions, particularly among forward-thinking farmers and agribusinesses. Furthermore, the region's market is expanding steadily due to the rise of agri-tech startups and the development of scalable, reasonably priced precision planting systems designed for

smallholder farms.

Key players in the market

Some of the key players in Precision Planting Market include Buhler Industries Inc, Deere & Company, Kinze Manufacturing, Inc., AGCO Corporation, Trimble Inc., CNH Industrial N.V., Lemken GmbH & Co. KG, Kubota Corporation, Dickey-John Corporation, Ag Leader Technology Inc, Salford Group, Kasco Manufacturing Inc, Ecorobotix SA, FlyPard Analytics GmbH and Kverneland Group.

Key Developments:

In February 2025, Buhler Industries Inc. is pleased to announce that it has executed a definitive Amalgamation Agreement with ASKO Sinai ve Teknoloji Uretim Sanayi Ticaret Anonim Sirketi ('ASKO') and a wholly-owned subsidiary of ASKO ('Newco') pursuant to which the Company would be taken private by way of an amalgamation. ASKO owns 24,184,586 Class A common shares representing approximately 96.7% of the Company's 25,000,000 issued and outstanding Common Shares.

In October 2024, Trimble and Caterpillar Inc. announced the extension of their long-standing joint venture. The agreement includes expanded distribution of grade control solutions in the construction sector to accelerate innovation and customer adoption. The Caterpillar Trimble Control Technologies (CTCT) joint venture has led the industry in grade control solutions, delivering products that contribute to jobsite safety and productivity.

In July 2024, AGCO Corporation announced it has entered into a definitive agreement to sell the majority of its Grain & Protein business to American Industrial Partners ('AIP') in an all-cash transaction valued at \$700 million, subject to working capital and other customary closing adjustments.

Offerings Covered:

Hardware

Software

Services

Equipment Types Covered:

Planters

Seed Drills

Planting Attachments and Add-Ons

Other Equipment Types

System Types Covered:

High-Speed Precision Planting Systems

Precision Air Seeders

Drones

Other System Types

Drive Types Covered:

Electric Drive

Hydraulic Drive

Farm Sizes Covered:

Below 400 ha

Above 400 ha

Technologies Covered:

GPS/GNSS-based Precision Planting Systems

Variable Rate Planting Systems

Automated Planting Systems

Remote Sensing Technologies

Other Technologies

Applications Covered:

Crop Farming

Horticulture

Forestry

Greenhouse Farming

Other Applications

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical

presence, and strategic alliances

Contents

1 EXECUTIVE SUMMARY

2 PREFACE

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
 - 2.4.1 Data Mining
 - 2.4.2 Data Analysis
 - 2.4.3 Data Validation
 - 2.4.4 Research Approach
- 2.5 Research Sources
 - 2.5.1 Primary Research Sources
 - 2.5.2 Secondary Research Sources
 - 2.5.3 Assumptions

3 MARKET TREND ANALYSIS

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Technology Analysis
- 3.7 Application Analysis
- 3.8 Emerging Markets
- 3.9 Impact of Covid-19

4 PORTERS FIVE FORCE ANALYSIS

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

5 GLOBAL PRECISION PLANTING MARKET, BY OFFERING

- 5.1 Introduction
- 5.2 Hardware
 - 5.2.1 Automation and Control
 - 5.2.2 Sensing and Monitoring
- 5.3 Software
 - 5.3.1 SaaS
 - 5.3.2 PaaS
- 5.4 Services
 - 5.4.1 System Integration & Consulting
 - 5.4.2 Managed Services
 - 5.4.3 Connected Services
 - 5.4.4 Assisted Professional Services

6 GLOBAL PRECISION PLANTING MARKET, BY EQUIPMENT TYPE

- 6.1 Introduction
- 6.2 Planters
- 6.3 Seed Drills
- 6.4 Planting Attachments and Add-Ons
- 6.5 Other Equipment Types

7 GLOBAL PRECISION PLANTING MARKET, BY SYSTEM TYPE

- 7.1 Introduction
- 7.2 High-Speed Precision Planting Systems
- 7.3 Precision Air Seeders
- 7.4 Drones
- 7.5 Other System Types

8 GLOBAL PRECISION PLANTING MARKET, BY DRIVE TYPE

- 8.1 Introduction
- 8.2 Electric Drive
- 8.3 Hydraulic Drive

9 GLOBAL PRECISION PLANTING MARKET, BY FARM SIZE

- 9.1 Introduction
- 9.2 Below 400 ha
- 9.3 Above 400 ha

10 GLOBAL PRECISION PLANTING MARKET, BY TECHNOLOGY

- 10.1 Introduction
- 10.2 GPS/GNSS-based Precision Planting Systems
- 10.3 Variable Rate Planting Systems
- 10.4 Automated Planting Systems
- 10.5 Remote Sensing Technologies
- 10.6 Other Technologies

11 GLOBAL PRECISION PLANTING MARKET, BY APPLICATION

- 11.1 Introduction
- 11.2 Crop Farming
 - 11.2.1 Row Crops
 - 11.2.2 Cereals, Oilseeds, and Pulses
- 11.3 Horticulture
- 11.4 Forestry
- 11.5 Greenhouse Farming
- 11.6 Other Applications

12 GLOBAL PRECISION PLANTING MARKET, BY GEOGRAPHY

- 12.1 Introduction
- 12.2 North America
 - 12.2.1 US
 - 12.2.2 Canada
 - 12.2.3 Mexico
- 12.3 Europe
 - 12.3.1 Germany
 - 12.3.2 UK
 - 12.3.3 Italy
 - 12.3.4 France
 - 12.3.5 Spain
 - 12.3.6 Rest of Europe
- 12.4 Asia Pacific

- 12.4.1 Japan
- 12.4.2 China
- 12.4.3 India
- 12.4.4 Australia
- 12.4.5 New Zealand
- 12.4.6 South Korea
- 12.4.7 Rest of Asia Pacific
- 12.5 South America
 - 12.5.1 Argentina
 - 12.5.2 Brazil
 - 12.5.3 Chile
 - 12.5.4 Rest of South America
- 12.6 Middle East & Africa
 - 12.6.1 Saudi Arabia
 - 12.6.2 UAE
 - 12.6.3 Qatar
 - 12.6.4 South Africa
 - 12.6.5 Rest of Middle East & Africa

13 KEY DEVELOPMENTS

- 13.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 13.2 Acquisitions & Mergers
- 13.3 New Product Launch
- 13.4 Expansions
- 13.5 Other Key Strategies

14 COMPANY PROFILING

- 14.1 Buhler Industries Inc
- 14.2 Deere & Company
- 14.3 Kinze Manufacturing, Inc.
- 14.4 AGCO Corporation
- 14.5 Trimble Inc.
- 14.6 CNH Industrial N.V.
- 14.7 Lemken GmbH & Co. KG
- 14.8 Kubota Corporation
- 14.9 Dickey-John Corporation
- 14.10 Ag Leader Technology Inc

- 14.11 Salford Group
- 14.12 Kasco Manufacturing Inc
- 14.13 Ecorobotix SA
- 14.14 FlyPard Analytics GmbH
- 14.15 Kverneland Group

List Of Tables

LIST OF TABLES

- Table 1 Global Precision Planting Market Outlook, By Region (2024-2032) (\$MN)
- Table 2 Global Precision Planting Market Outlook, By Offering (2024-2032) (\$MN)
- Table 3 Global Precision Planting Market Outlook, By Hardware (2024-2032) (\$MN)
- Table 4 Global Precision Planting Market Outlook, By Automation and Control (2024-2032) (\$MN)
- Table 5 Global Precision Planting Market Outlook, By Sensing and Monitoring (2024-2032) (\$MN)
- Table 6 Global Precision Planting Market Outlook, By Software (2024-2032) (\$MN)
- Table 7 Global Precision Planting Market Outlook, By SaaS (2024-2032) (\$MN)
- Table 8 Global Precision Planting Market Outlook, By PaaS (2024-2032) (\$MN)
- Table 9 Global Precision Planting Market Outlook, By Services (2024-2032) (\$MN)
- Table 10 Global Precision Planting Market Outlook, By System Integration & Consulting (2024-2032) (\$MN)
- Table 11 Global Precision Planting Market Outlook, By Managed Services (2024-2032) (\$MN)
- Table 12 Global Precision Planting Market Outlook, By Connected Services (2024-2032) (\$MN)
- Table 13 Global Precision Planting Market Outlook, By Assisted Professional Services (2024-2032) (\$MN)
- Table 14 Global Precision Planting Market Outlook, By Equipment Type (2024-2032) (\$MN)
- Table 15 Global Precision Planting Market Outlook, By Planters (2024-2032) (\$MN)
- Table 16 Global Precision Planting Market Outlook, By Seed Drills (2024-2032) (\$MN)
- Table 17 Global Precision Planting Market Outlook, By Planting Attachments and Add-Ons (2024-2032) (\$MN)
- Table 18 Global Precision Planting Market Outlook, By Other Equipment Types (2024-2032) (\$MN)
- Table 19 Global Precision Planting Market Outlook, By System Type (2024-2032) (\$MN)
- Table 20 Global Precision Planting Market Outlook, By High-Speed Precision Planting Systems (2024-2032) (\$MN)
- Table 21 Global Precision Planting Market Outlook, By Precision Air Seeders (2024-2032) (\$MN)
- Table 22 Global Precision Planting Market Outlook, By Drones (2024-2032) (\$MN)
- Table 23 Global Precision Planting Market Outlook, By Other System Types

(2024-2032) (\$MN)

Table 24 Global Precision Planting Market Outlook, By Drive Type (2024-2032) (\$MN)

Table 25 Global Precision Planting Market Outlook, By Electric Drive (2024-2032) (\$MN)

Table 26 Global Precision Planting Market Outlook, By Hydraulic Drive (2024-2032) (\$MN)

Table 27 Global Precision Planting Market Outlook, By Farm Size (2024-2032) (\$MN)

Table 28 Global Precision Planting Market Outlook, By Below 400 ha (2024-2032) (\$MN)

Table 29 Global Precision Planting Market Outlook, By Above 400 ha (2024-2032) (\$MN)

Table 30 Global Precision Planting Market Outlook, By Technology (2024-2032) (\$MN)

Table 31 Global Precision Planting Market Outlook, By GPS/GNSS-based Precision Planting Systems (2024-2032) (\$MN)

Table 32 Global Precision Planting Market Outlook, By Variable Rate Planting Systems (2024-2032) (\$MN)

Table 33 Global Precision Planting Market Outlook, By Automated Planting Systems (2024-2032) (\$MN)

Table 34 Global Precision Planting Market Outlook, By Remote Sensing Technologies (2024-2032) (\$MN)

Table 35 Global Precision Planting Market Outlook, By Other Technologies (2024-2032) (\$MN)

Table 36 Global Precision Planting Market Outlook, By Application (2024-2032) (\$MN)

Table 37 Global Precision Planting Market Outlook, By Crop Farming (2024-2032) (\$MN)

Table 38 Global Precision Planting Market Outlook, By Row Crops (2024-2032) (\$MN)

Table 39 Global Precision Planting Market Outlook, By Cereals, Oilseeds, and Pulses (2024-2032) (\$MN)

Table 40 Global Precision Planting Market Outlook, By Horticulture (2024-2032) (\$MN)

Table 41 Global Precision Planting Market Outlook, By Forestry (2024-2032) (\$MN)

Table 42 Global Precision Planting Market Outlook, By Greenhouse Farming (2024-2032) (\$MN)

Table 43 Global Precision Planting Market Outlook, By Other Applications (2024-2032) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

I would like to order

Product name: Precision Planting Market Forecasts to 2032 – Global Analysis By Offering (Hardware, Software and Services), Equipment Type (Planters, Seed Drills, Planting Attachments and Add-Ons and Other Equipment Types), System Type, Drive Type, Farm Size, Technology, Application and By Geography

Product link: <https://marketpublishers.com/r/P9C6CF7B9B2EEN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/P9C6CF7B9B2EEN.html>