

Precision Farming - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

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Report description:

The Precision Farming Market size is estimated at USD 14.77 billion in 2025, and is expected to reach USD 26.86 billion by 2030, at a CAGR of 12.7% during the forecast period (2025-2030).

Some of the main drivers for adopting precision farming are climate change, growing demand for food, more technology adoption in global agriculture sector and government initiatives to improve farmers' efficiency by means of new technologies.

Key Highlights

- Precision farming is an agricultural management concept which focuses on the observation, measurement and response to crop variability between fields. Production of plants is focused on the areas defined by property lines, expected crop yields in a given field and geographical and environmental factors.
- Moreover, Precision farming, which will overtake other advances in agriculture by the end of 2030, is predicted to be an important trend. Through the mobile app, real time information on equipment is available through remote sensing and ground communication. (VRTs) has allows farmers to make more specific land management decisions, so that inputs like seeds, fertilisers and pesticides can be used more effectively in the context of changing weather conditions.
- Most broad-market vendors offer guidance systems, climate-weather predictions, and input applications equipment. Small vendors mainly target smart irrigation and field monitoring techniques specializing in IoT solutions. North America is the early adopter of technology and has a significant adoption rate of many innovative technologies used in precision farming. The region is a substantial adopter of IoT, big data, drones, and robotics in agriculture.
- Moreover, growing investments in technologies such as driverless tractors, guidance systems, and GPS sensing systems are also anticipated to contribute to the precision agriculture market scope growth during the study period.
- High costs have made it tough for small-scale farmers to deploy the tools, thereby, restricting them to only large farms.

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However, variable rate application (VRA) and controlled traffic systems (CTF) help in enhanced utilization of crop nutrients, improvement of crop quality, and the reduction of overlap, thus resulting in better production economy.

- However, more significant adoption could result from deploying remote sensing and farm management software technologies after COVID-19. Businesses have already started concentrating more on wireless platforms to support real-time decision-making for crop health monitoring, yield monitoring, irrigation scheduling, field mapping, and harvesting management. This may propel the studied market demand in the forecasted period.

Precision Farming Market Trends

Soil Monitoring is Expected to Hold Significant Share

- By means of reliable communication, soil sensors are capable of measuring the essential properties of soils and transmitting them to a display unit. In order to create field maps based on the soil's characteristics, soil sensors are usually used in combination with velocity applications or GPS. Soil sensors are essential for monitoring the viability of crop growth at harvest time.
- After analysing the data, sensors provide real time information which changes the application rate accordingly. It is considered that traditional models of using the map approach are more efficient. In the following steps, they enable a problem analysis to be carried out and variable rate applications to be adapted. The various type of sensors being integrated for soil monitoring purposes includes electromagnetic, optical, mechanical, acoustic, and electrochemical, as far as industrial research has reached.
- Moreover, in view of the increasing use of different soil monitoring sensors by forward thinking farmers from around the world, ground surveillance systems are expected to be a major demand throughout the forecast period. The market share of ground monitoring is high because it does not require a lot of expertise. Improvements in intelligent sensor technologies and their integration with the Internet of Things modules have led to a growing demand for integrated agriculture.
- Furthermore, technological advancement in farming may further propel the studied market growth. According to ETNO, the number of IoT active connections in agriculture was expected to increase in the European Union through the years. It was recorded at 46.92 million connections in 2022 and is expected to reach 70.26 million by 2025. Some uses for IoT devices in agriculture would be drone usage for surveillance or distributing seeds.

Asia-Pacific to Experience Significant Market Growth

- In particular due to government initiatives in developing countries encouraging the use of modern precision farming technologies, which is aimed at maximising productivity, this region is expected to experience significant growth over the projected period.
- According to IBEF, from INR 1,931,288.7 crore USD 263 billion last month on the back of government initiatives like Pradhan Mantri Kisan Sampada Yojana and plans for a 1 trillion dollar infrastructure, India's processing food market is projected to increase to INR 3,451,352.5 cr USD 470 billion by 2025.
- In many Asian countries, service providers are rapidly moving to improve their application methods and make Asia agriculture the main focus of study market vendors. Smart tractors, UAVs, ground leveling services, pesticide application, satellite imaging, irrigation services, and handheld decision diagnostics along with In this region, without investment in costly infrastructure, decision support is becoming more easily available for small farmers.
- The market growth is being driven by some of the main factors in Asia-Pacific are augmented yield and profitability, which are pushing farmers toward crop monitoring technology in precision farming.
- Australia holds the major share of market in this region. The market is yet to catch up with its growing demand for food crops

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and the anticipated growth in the variable rate applications (VRA) market. Some of the opportunities in the region are application of drones and unmanned aerial vehicles (UAVs) in precision farming practices and the growing environmental issues.

Precision Farming Industry Overview

The precision farming market is highly fragmented, with numerous participants involved. Key players in the market include AgJunction Inc., Raven Industries Inc., DICKEY-john Corporation., TeeJet Technologies., and others. These companies are engaged in market expansion activities and adopting organic and inorganic growth strategies to maximize their revenue across different regions.

- In October 2023, Deere & Co teams with 2 Sweden-based Delaval on the Milk Sustainability Center and Norway-based Yara on digital precision agriculture tools for sustainability, where the partnerships aim to help farmers track livestock and fertilizer data so they can make smarter business decisions that are better for the environment.
- In April 2023 AGCO Corporation, a one of global agriculture equipment provider, and Hexagon, an industrial technology solution provider declared their strategic collaboration. The collaboration is focused on the expansion of AGCO's factory-fit and aftermarket guidance offerings.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

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