

# **United Kingdom Precision Farming Market By Technology (Guidance Technology, Remote Sensing Technology, Variable Rate Application), By Application (Yield Monitoring, Crop Scouting, Field Mapping, Weather Tracking & Forecasting, Farm Labor Management, Others), By Region, Competition, Forecast & Opportunities, 2019-2029F**

<https://marketpublishers.com/r/UF38CD6A650AEN.html>

Date: December 2024

Pages: 83

Price: US\$ 3,500.00 (Single User License)

ID: UF38CD6A650AEN

## **Abstracts**

United Kingdom Precision Farming Market was valued at USD 118.56 million in 2023 and is expected to reach USD 146.42 million by 2029 with a CAGR of 3.54% during the forecast period. Precision farming, also known as precision agriculture, is a modern farming approach that leverages advanced technologies like satellite imaging, GPS, data analytics, and IoT devices to optimize crop yields and profitability while reducing waste and environmental impact. By precisely managing factors such as irrigation, fertilization, and pest control, precision farming enables farmers to make data-driven decisions, resulting in higher productivity and sustainability levels.

Several factors are fueling the rapid growth of the precision farming market in the UK. Increased adoption of innovative techniques such as yield monitoring, crop scouting, field mapping, weather tracking, and forecasting is among these drivers. These precision farming techniques offer farmers accurate, real-time insights into their crops, enabling timely interventions and resource optimization for better outcomes.

The UK's precision farming market is on a robust growth trajectory, driven by technological advancements, widespread adoption of precision farming techniques, and the broader trend of agricultural digitalization. These trends promise a bright future for precision farming in the UK, presenting exciting opportunities for farmers, technologists,

and investors to contribute to sustainable and efficient agricultural practices.

## Key Market Drivers

### Growing Demand for High Crop-Yield

The precision farming market in the United Kingdom is steadily expanding, fueled by the rising need for enhanced crop yields. With global population growth accelerating, ensuring food security through efficient and sustainable agricultural practices is paramount. Precision farming, leveraging technology to optimize crop production, emerges as a promising solution to address this challenge.

Precision farming, also referred to as precision agriculture, surpasses conventional farming methods by integrating digital technology and data analytics to monitor and optimize crop growth. This involves utilizing advanced tools like GPS, GIS, remote sensing, and on-ground sensors to collect and analyze data on soil conditions, weather patterns, and crop health. With these technologies, farmers can make informed decisions and implement precise interventions, enhancing the accuracy, control, and overall productivity of their farming operations.

A key driver behind the precision farming market's growth is the mounting pressure to boost food production without expanding agricultural land. With limited arable land and growing environmental concerns, maximizing crop yield per unit of land is imperative. Precision farming offers a viable solution by enabling farmers to apply the right inputs such as water, fertilizer, and pesticides at the right time and place, minimizing waste and reducing the environmental impact of conventional farming. The increasing adoption of advanced agricultural technologies contributes to the precision farming market's expansion in the UK. Technologies such as drones, autonomous tractors, and satellite imagery are becoming commonplace, revolutionizing farm management practices. These technologies not only enhance productivity but also assist farmers in optimizing resource allocation, leading to improved efficiency and sustainability.

Government support for agricultural innovation and digitization is another crucial factor driving the precision farming market's growth. Through various initiatives and funding schemes, the government encourages farmers to embrace precision farming technologies and realize the benefits of increased productivity and environmental stewardship. This supportive environment fosters the adoption and advancement of precision farming practices in the UK. The growing demand for enhanced crop yields and the imperative to balance food production with environmental sustainability propel

the expansion of the precision farming market in the United Kingdom. As farmers seek to address the challenges of feeding a growing population while minimizing agriculture's ecological footprint, precision farming is poised to play a pivotal role in shaping the UK's agricultural future.

### Surge in Technological Advancements

In the UK, the farming sector is undergoing a significant transformation with the introduction of cutting-edge technologies. Innovations such as drones, autonomous tractors, and satellite imagery are revolutionizing traditional farming methods. Drones, equipped with advanced sensors, efficiently monitor crop health, identify potential issues, and apply targeted treatments like pesticides or fertilizers. Autonomous tractors can perform various tasks, including ploughing, planting, and harvesting, with minimal human intervention. Satellite imagery provides farmers with valuable insights into soil health, crop growth patterns, and real-time weather conditions.

The integration of data analytics and Artificial Intelligence (AI) has become a game-changer in precision farming. These technologies empower farmers to make informed decisions on optimal sowing times, precise fertilizer and water usage, and timely harvesting. This not only enhances crop yields but also reduces waste and minimizes environmental impact.

The Internet of Things (IoT) has emerged as a key trend driving the UK's precision farming market. IoT devices collect real-time data on critical factors like soil moisture, temperature, and nutrient levels, allowing farmers to remotely monitor and control their crops with precision and efficiency. This interconnected network of devices improves operational efficiency, optimizes resource utilization, and promotes sustainable farming practices. The convergence of these technologies is reshaping the agricultural landscape in the UK, paving the way for a more productive, sustainable, and technologically advanced future for farmers and the entire industry.

### Key Market Challenges

#### Surge in Regulatory and Data Privacy Concerns

The United Kingdom's precision farming market is experiencing a remarkable growth trajectory, fueled by continuous technological advancements and the ever-increasing demand for high crop yields. As farmers and agricultural professionals strive to optimize their operations, precision farming, also known as smart farming, has emerged as a

game-changer.

Precision farming relies on cutting-edge technologies such as GPS, remote sensing, and IoT devices to collect and analyze an extensive array of data, encompassing crucial factors like soil quality, weather conditions, and crop health. By harnessing these advanced tools, farmers can make data-driven decisions that maximize efficiency and productivity.

Also, along with its undeniable benefits, precision farming also brings forth a set of challenges that must be navigated. One significant hurdle is the surge in regulatory and data privacy concerns surrounding the use of technology in agriculture. As the agricultural sector becomes increasingly digitized, regulatory frameworks governing the implementation of these technologies are still evolving. The United Kingdom, having recently departed from the European Union, now operates under the General Data Protection Regulation (GDPR), which imposes stringent rules on data collection, processing, and storage. However, there remains ambiguity regarding how these rules should be applied to the agricultural data collected through precision farming techniques. This regulatory uncertainty poses a challenge for farmers and technology companies operating in the precision farming market, as they strive to comply with data privacy regulations while harnessing the full potential of advanced farming technologies. Data privacy emerges as a crucial concern within the realm of precision farming. With vast amounts of data being collected, including sensitive information such as precise field locations, crop yields, and soil conditions, the risk of mishandling or unauthorized access becomes apparent. If this valuable data were to be misused or fall into the wrong hands, it could have severe implications for farmers and their competitive standing in the market. Protecting the privacy and security of this wealth of information becomes paramount as precision farming continues to evolve and expand.

While precision farming holds immense promise for revolutionizing agricultural practices and driving higher crop yields, it is crucial to address the regulatory and data privacy challenges that accompany this technological advancement. By establishing clear and comprehensive regulations that safeguard data privacy and security, the United Kingdom can foster an environment conducive to the sustainable growth and success of the precision farming market.

## Key Market Trends

### Growing Focus on Sustainability

The rising demand for sustainably produced food is driven by various factors that are shaping the future of the UK's precision farming market. One of the main drivers is the increasing awareness among consumers about the environmental impact of their food choices. As consumers become more conscious, they are actively seeking out products that are sustainably produced. This growing demand for sustainable food is pushing farmers to adopt precision farming practices.

Precision farming enables farmers to meet the demand for sustainably produced food by using resources more efficiently and reducing waste. By applying the right amount of inputs, such as water, fertilizer, and pesticides, at the right time and place, precision farming improves crop yields while minimizing the environmental impact. This aligns perfectly with the increasing focus on sustainability in agriculture.

In addition to consumer demand, another driving factor is the growing concern about climate change and its impacts on agriculture. Precision farming technologies can help farmers adapt to changing weather patterns and mitigate the effects of climate change on crop production. By providing real-time data and insights, precision farming enables farmers to make informed decisions and take proactive measures to protect their crops from extreme weather events and other climate-related challenges.

As the need to balance food production with environmental sustainability becomes more pressing, precision farming is set to play an even more significant role in the UK's agricultural landscape. It not only addresses the rising demand for sustainable food but also helps farmers adapt to the challenges posed by climate change. With its potential to increase productivity and minimize environmental impact, precision farming offers a promising pathway towards a more sustainable and resilient agricultural future.

## Segmental Insights

## Technology Insights

Based on technology, the variable rate application segment emerged as the dominant player in the United Kingdom market for precision farming in 2023. Variable Rate Technology (VRT), a crucial component of precision farming, empowers farmers to finely tune input application rates based on specific field requirements. This encompasses inputs like fertilizers, pesticides, and water. By customizing the application of these inputs to address the unique needs of different parts of a field, farmers can optimize resource utilization and enhance crop yields.

The implementation of variable rate application not only bolsters farming efficiency but also ensures that resources are allocated precisely where they are most needed. This targeted approach minimizes wastage of inputs, reduces costs, and maximizes productivity. By exerting precise control over the amount and location of inputs, farmers can foster improved crop health and achieve higher yields.

Also, variable rate application plays a vital role in supporting environmental sustainability, which is an increasingly pressing concern in today's world. By curbing the over-application of fertilizers and pesticides, VRT helps minimize runoff into nearby water sources and reduce greenhouse gas emissions. This alignment with the global push towards more sustainable farming practices further reinforces the significance of variable rate technology in contemporary agriculture.

## Regional Insights

London emerged as the dominant region in the United Kingdom Precision Farming Market in 2023, holding the largest market share in terms of value. London, the vibrant capital of the United Kingdom, is not only renowned for its rich history and iconic landmarks, but also for being a thriving hub of tech start-ups and innovation. With a bustling tech scene and a supportive ecosystem, London provides an ideal environment for the development and adoption of precision farming technologies. Entrepreneurs and innovators in the city have access to cutting-edge software solutions and advanced hardware devices, empowering them to drive technological innovation in the field of precision farming.

As a global financial center, London offers unparalleled access to capital for companies operating in the precision farming market. This easy access to funding enables businesses to invest in extensive research and development, scale up their operations, and bring innovative products to market more efficiently. London's financial prowess further cements its position as a leading player in the precision farming industry.

London's strength in precision farming also lies in its diverse and highly skilled workforce. The city's prestigious universities and colleges produce a constant stream of graduates with expertise in key areas such as data science, engineering, and agronomy. This pool of talent plays a crucial role in driving the development and implementation of precision farming technologies, ensuring that London remains at the forefront of innovation in the industry.

The UK government has demonstrated unwavering support for the precision farming

sector, recognizing the vital role it plays in transforming the agricultural landscape. Through various initiatives and programs, London, as the capital city, benefits greatly from government support, which further bolsters the city's position as a hub for tech companies and research institutions in the precision farming space.

### Key Market Players

Deere & Company

AGCO Corporation

Merck & Co., Inc (Allflex)

LH Agro (UK) Limited

Vantage E & W Limited

### Report Scope:

In this report, the United Kingdom Precision Farming Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

United Kingdom Precision Farming Market, By Technology:

Guidance Technology

Remote Sensing Technology

Variable Rate Application

United Kingdom Precision Farming Market, By Application:

Yield Monitoring

Crop Scouting

Field Mapping

Weather Tracking & Forecasting

Farm Labor Management

Others

United Kingdom Precision Farming Market, By Region:

Scotland

South-East

London

South-West

East-Anglia

Yorkshire & Humberside

East Midlands

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the United Kingdom Precision Farming Market.

Available Customizations:

United Kingdom Precision Farming Market report with the given market data, TechSci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

## Contents

### 1. PRODUCT OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
  - 1.2.1. Markets Covered
  - 1.2.2. Years Considered for Study
  - 1.2.3. Key Market Segmentations

### 2. RESEARCH METHODOLOGY

- 2.1. Objective of the Study
- 2.2. Baseline Methodology
- 2.3. Key Industry Partners
- 2.4. Major Association and Secondary Sources
- 2.5. Forecasting Methodology
- 2.6. Data Triangulation & Validation
- 2.7. Assumptions and Limitations

### 3. EXECUTIVE SUMMARY

- 3.1. Overview of the Market
- 3.2. Overview of Key Market Segmentations
- 3.3. Overview of Key Market Players
- 3.4. Overview of Key Regions/Countries
- 3.5. Overview of Market Drivers, Challenges, Trends

### 4. UNITED KINGDOM PRECISION FARMING MARKET OUTLOOK

- 4.1. Market Size & Forecast
  - 4.1.1. By Value
- 4.2. Market Share & Forecast
  - 4.2.1. By Technology (Guidance Technology, Remote Sensing Technology, Variable Rate Application)
  - 4.2.2. By Application (Yield Monitoring, Crop Scouting, Field Mapping, Weather Tracking & Forecasting, Farm Labor Management, Others)
  - 4.2.3. By Region
  - 4.2.4. By Company (2023)

#### 4.3. Market Map

- 4.3.1. By Technology
- 4.3.2. By Application
- 4.3.3. By Region

### **5. SCOTLAND PRECISION FARMING MARKET OUTLOOK**

#### 5.1. Market Size & Forecast

- 5.1.1. By Value

#### 5.2. Market Share & Forecast

- 5.2.1. By Technology
- 5.2.2. By Application

### **6. SOUTH-EAST PRECISION FARMING MARKET OUTLOOK**

#### 6.1. Market Size & Forecast

- 6.1.1. By Value

#### 6.2. Market Share & Forecast

- 6.2.1. By Technology
- 6.2.2. By Application

### **7. LONDON PRECISION FARMING MARKET OUTLOOK**

#### 7.1. Market Size & Forecast

- 7.1.1. By Value

#### 7.2. Market Share & Forecast

- 7.2.1. By Technology
- 7.2.2. By Application

### **8. SOUTH-WEST PRECISION FARMING MARKET OUTLOOK**

#### 8.1. Market Size & Forecast

- 8.1.1. By Value

#### 8.2. Market Share & Forecast

- 8.2.1. By Technology
- 8.2.2. By Application

### **9. EAST-ANGLIA PRECISION FARMING MARKET OUTLOOK**

## 9.1. Market Size & Forecast

### 9.1.1. By Value

## 9.2. Market Share & Forecast

### 9.2.1. By Technology

### 9.2.2. By Application

## **10. YORKSHIRE & HUMBERSIDE PRECISION FARMING MARKET OUTLOOK**

### 10.1. Market Size & Forecast

#### 10.1.1. By Value

### 10.2. Market Share & Forecast

#### 10.2.1. By Technology

#### 10.2.2. By Application

## **11. EAST MIDLANDS PRECISION FARMING MARKET OUTLOOK**

### 11.1. Market Size & Forecast

#### 11.1.1. By Value

### 11.2. Market Share & Forecast

#### 11.2.1. By Technology

#### 11.2.2. By Application

## **12. MARKET DYNAMICS**

### 12.1. Drivers

### 12.2. Challenges

## **13. MARKET TRENDS & DEVELOPMENTS**

### 13.1. Recent Developments

### 13.2. Product Launches

### 13.3. Mergers & Acquisitions

## **14. POLICY & REGULATORY LANDSCAPE**

## **15. UNITED KINGDOM ECONOMIC PROFILE**

## **16. COMPETITIVE LANDSCAPE**

- 16.1. Deere & Company
  - 16.1.1. Business Overview
  - 16.1.2. Company Snapshot
  - 16.1.3. Products & Services
  - 16.1.4. Financials (In case of listed)
  - 16.1.5. Recent Developments
  - 16.1.6. SWOT Analysis
- 16.2. AGCO Corporation
- 16.3. Merck & Co. Inc (Allflex)
- 16.4. LH Agro (UK) Limited
- 16.5. Vantage E&W Limited

## **17. STRATEGIC RECOMMENDATIONS**

## **18. ABOUT US & DISCLAIMER**

## I would like to order

Product name: United Kingdom Precision Farming Market By Technology (Guidance Technology, Remote Sensing Technology, Variable Rate Application), By Application (Yield Monitoring, Crop Scouting, Field Mapping, Weather Tracking & Forecasting, Farm Labor Management, Others), By Region, Competition, Forecast & Opportunities, 2019-2029F

Product link: <https://marketpublishers.com/r/UF38CD6A650AEN.html>

Price: US\$ 3,500.00 (Single User License / Electronic Delivery)

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

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/UF38CD6A650AEN.html>