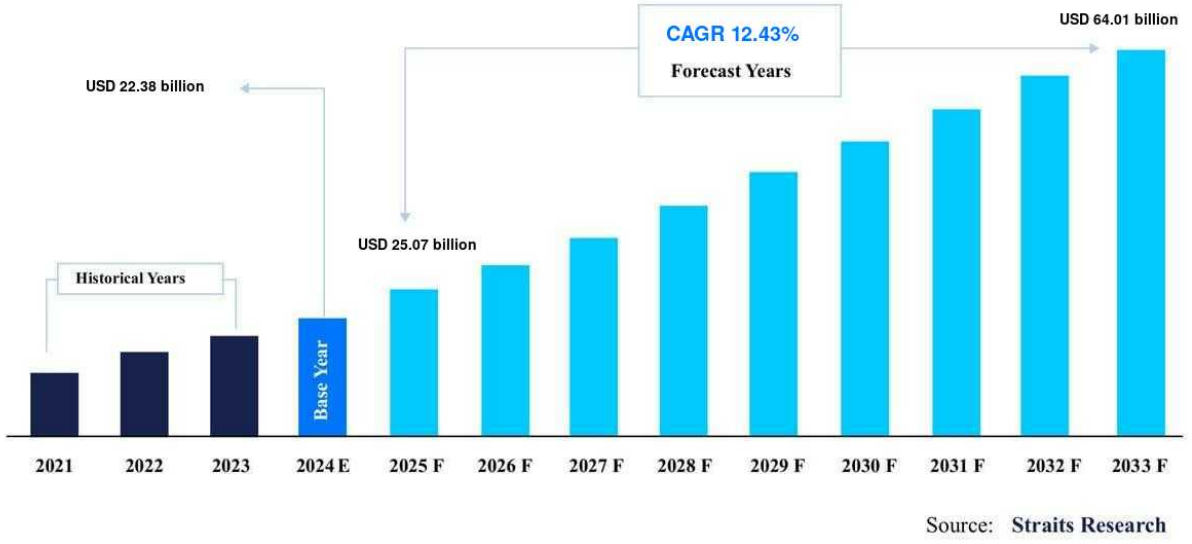
Smart Agriculture Market Study

www.straitsresearch.com

About Us

Straits Research Pvt Ltd is a leading market research firm offering comprehensive insights on market demand, trends, growth prospects and regional analysis. With over 35 years of combined experience, we provide premium qualitative insights on consumer preferences, regulatory landscape, and technological advancements along with quantitative insights on industry market size, global economic scenario and revenue opportunities. These reports are backed by high-quality data sourced from primary sources and large secondary databases. With analyst perspectives and insights included in every report, Straits Research delivers comprehensive market intelligence and detailed analysis to help clients make informed decisions.

Table of Content



Emerging Countries

United States | Germany | China

Emerging Companies

Ag Leader Technology | AGCO Corporation | AgJunction Inc

Company Profiles

Ag Leader Technology | AGCO Corporation | AgJunction, Inc. | AgEagle Aerial Systems Inc. | Autonomous Solutions | Argus Control Systems Ltd | BouMatic Robotic B.V. | CropMetrics | CLAAS KGaA | CropZilla | Deere & Company | DroneDeploy | DeLaval Inc | Farmers Edge Inc | Grownetics, Inc

Note: More company profiles available on full reports.

Top 5 Company Market Share

Total

26%

Top 5 company market share

Market Trends

Growth Trends

- Adoptions of Internet of Things (IoT) technologies in agriculture
- Growth in Precision Agriculture and Intelligent farming
- Growth in automation and mechanization in farming practises
- Shift towards sustainable and organic farming practices, integrating smart technologies
- Increasing use of AI and machine learning for crop predictions and yield improvement
- Increasing investments in agritech by private players and government bodies alike
- Rising awareness about climate change and the need for sustainable agriculture

Factors considered while calculating market size and share

- Current number of companies or players in the smart agriculture market
- Volume and value of product sales or services delivered by these companies
- Global and regional demand and consumption trends for smart agriculture technologies
- Geographical coverage of the market - number of countries/regions where smart agriculture is practised
- Market penetration and awareness of smart agriculture technologies
- Categories of products or services offered in this market

Key Market Indicators

- Rate of technology adoption and diffusion in farming and agriculture
- Investments in agri-tech startups
- Research and development expenditures in the smart agriculture sector
- Government policies and regulations promoting or hindering smart agriculture
- Commodity prices, especially for key agricultural outputs
- Population growth and food demand projections
- Climate change and environmental impact assessments

High initial investment costs

Implementing smart agriculture technologies, such as IoT devices, robotics, sensors, and data analytics software, requires substantial upfront investment. These technologies, while offering long-term benefits, often come with a steep price tag, making them difficult to access for small-scale farmers who have limited financial resources.

Even when financing options are available, the complexity of these systems can deter investment, as farmers may struggle to see the immediate returns or fully understand the long-term advantages of these technologies.

Market Trends

Rising integration of IoT technology in agriculture

The integration of Internet of Things (IoT) technology is transforming agriculture by enabling real-time monitoring of crop growth and environmental conditions. IoT devices provide farmers with detailed insights into soil moisture, temperature, and weather, allowing for precise irrigation, fertilization, and pesticide use.

This reduces waste and resource consumption, optimizing land, water, and electricity usage while ensuring better crop quality for consumers. IoT also supports precision farming, reducing the need for excessive fertilizers and pesticides.

According to the Indian Council of Agricultural Research, the adoption of IoT, along with AI/ML and precision farming technologies, is revolutionizing agriculture by fostering sustainable practices, increasing productivity, and improving profitability throughout the agricultural value chain.

Increased adoption of drones and autonomous equipment

Drones and autonomous equipment are reshaping farm operations by enabling more efficient field monitoring, precision spraying, and autonomous harvesting. These technologies significantly reduce labor costs and enhance accuracy in farming tasks, allowing farmers to apply fertilizers and pesticides precisely where needed. This targeted approach minimizes waste, cuts input costs, and reduces the environmental impact of farming activities.

Agritech startups fueling innovation and adoption

Agritech startups are playing a pivotal role in driving the growth of smart farming practices, especially in the wake of the COVID-19 pandemic. By integrating AI, IoT, remote sensing, and data analytics, these startups have revolutionized how farmers access real-time data, optimize farm operations, and enhance productivity. These technologies have empowered farmers to improve market access and secure better prices for their produce, even during the pandemic's restrictions.

- For example, as of December 31, 2023, Startup India lists nearly 2,800 agritech startups, each contributing innovative solutions that are transforming traditional agricultural practices.

These startups are not only addressing local challenges but also creating scalable solutions that have the potential to enhance farm efficiency, sustainability, and profitability, marking a significant shift in India’s agricultural landscape.

Market Segments

By Agriculture Type

Precision farming dominates the smart agriculture market with a 41-44% share, leveraging cutting-edge tech like drones and AI to boost crop yields efficiently.

41-44%

Precision farming

By Offering

Hardware leads with 50-55% share, powering smart agriculture through sensors, drones, and automation tools for real-time data collection.

50-55%

Hardware

By Application

Precision farming applications, with XX% share, lead by optimizing yields through advanced monitoring and mapping technologies.

XX%

Precision Farming Application

Regional Overview

North America

North America, with 35-40% share, leads the smart agriculture market, driven by the U.S.'s tech adoption and large-scale farming innovations.

XX%

United States Market Share

Europe

Europe holds 25-30% of the market, with Germany at the forefront, advancing smart farming through sustainability and precision tech.

XX%

Germany Market Share

APAC

APAC, with 20-25% share, grows rapidly, led by China's investments in smart agriculture to meet massive food demands.

XX%

China Market Share

Regional Overview

Middle East and Africa

The Middle East and Africa, accounting for 5-10% of the market, see Israel leading the way in smart agriculture through innovative water-saving and precision technologies.

XX%

Israel Market Share

LATAM

LATAM’s 5-10% share is propelled by Brazil, leveraging smart farming to enhance its vast agricultural output.

XX%

Brazil Market Share

Company Profiles

Companies	Websites	Headquaters	Establisheds	Key Executives	Revenues
Deere & Company	https://www.deere.com/	Moline, Illinois, USA	1837	John C. May (CEO)	USD 61.25 Billion
AGCO Corporation	https://www.agcocorp.com/int/en/home/	Duluth, Georgia, USA	1990	Eric Hansotia (CEO)	USD 12.65 Billion
Ag Leader Technology	https://www.agleader.com/	Ames, Iowa, USA	1992	Al Myers (Founder/President)	~USD 50-100 Million
AgEagle Aerial Systems Inc.	https://ageagle.com/	Wichita, Kansas, USA	2010	Bill Irby (CEO)	USD 19.1 Million
DroneDeploy	https://www.dronedeploy.com/	San Francisco, California, USA	2014	Mike Winn (CEO)	~USD 50-100 Million

Disclaimer

The information and opinions in this report were prepared by the Straits Research team. The information herein is believed to be reliable and has been obtained from authentic public sources, and as per the analyst's perspective and understanding of the market. Our customers acknowledge, when ordering, that research and analysis are for our customers 'internal use and not for general publication or disclosure to third parties', unless consent provided explicitly on email by Straits Research team. This document contains confidential information and is the exclusive property of Straits Research. Any reproduction, distribution, or quotation of its contents, in whole or in part, is strictly prohibited without prior written consent from Straits Research. This document is intended solely for the use of the purchasing client and may not be shared with any third party without explicit authorization. For further details on usage terms, please refer to the accompanying disclaimer. Quantitative market information is based primarily on interviews and therefore, is subject to fluctuation. Straits Research does not endorse any vendors, Technology or Duration depicted in their research publications. Straits Research and analysis publications consist of the opinions of research and should not be construed as statements of fact. Straits Research disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose. Straits Research takes no responsibility for any incorrect information supplied to us by manufacturers or users or by external databases. All trademarks, copyrights and other of intellectual property belong to their respective owners and may be protected by copyright. Under no circumstance may any of these be reproduced in any Technology without the prior written agreement of their owner. No part of this strategic analysis may be given, lent, resold or disclosed to non-customers without the written permission of Straits Research. Any concerns with the scope and definition of the market needs to be understood and cleared from the Straits Research team by the customer before purchasing. Furthermore, please note that any issues arising from the use of the data provided in this report shall not be the responsibility of Straits Research. Straits Research, its parent/subsidiary companies, analysts, or management shall not be held liable or accountable to any party for questions or issues arising from the data or analysis provided herein. The information presented in this report represents the perspective of our analysts and should be utilized for business decisions at your own risk. It is important to acknowledge that the content or data included in this document, whether in sample form or in the final deliverables, does not constitute financial, legal, investment, strategic, or marketing advice. The data should be regarded as a reference point for your own market study and understanding. Any losses, legal issues, or problems incurred as a result of using the information in the sample or final report shall not be attributed to Straits Research, its parent/subsidiary companies, analysts, or management.

Straits Research