

# Global IoT in Agriculture Market: Focus on System, Application, and Country-Wise Analysis - Analysis and Forecast, 2019-2026

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### Abstracts

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Market Report Coverage - IoT in Agriculture

Market Segmentation

Application - Precision Crop Farming, Livestock Monitoring and Management, Indoor Farming, Aquaculture, and Others

System Type - Sensing, Communication, Cloud Computing, and Data Management System

**Regional Segmentation** 

North America - U.S., Canada, and Mexico

South America - Argentina, Brazil, and Rest-of-South America

Europe - Germany, U.K., France, Italy, Netherlands, Spain, Denmark, and Restof-Europe

Middle East and Africa



Asia-Pacific and Japan - India, Japan, China, Australia and New Zealand, Vietnam, Malaysia, Indonesia, and Rest-of-Asia-Pacific

Market Growth Drivers

Increasing Demand for Global Food Production

Surging Use of Advanced Technologies in Agriculture

Emerging Complexities in Data-Driven Farming

Decreasing Workforce in Agricultural Sector

#### Market Challenges

Lack of Proper Internet and Network Connectivity

Cyber and Online Data Security

Huge Setup and Subscription Costs

Reluctance to Adopt and Lack of Technical Awareness

Market Opportunities

Growing Trend of Agriculture Service Economy

Increasing Investments in Agricultural Technology Sector

Increasing Market Opportunities in Developing Countries

Favorable Government Initiatives to Support IoT in Agriculture

Key Companies Profiled



DEERE & COMPANY, Microsoft Corporation, CNH Industrial NV, Robert Bosch GmbH, Agrivi, The Climate Corporation, Granular Inc., Harvest Croo Robotics, LLC, AeroFarms, OSRAM GmbH, AmHydro, Kalera, Heliospectra AB, Signify Holding (Koninklijke Philips N.V.), Connecterra B.V., DeLaval, Allflex USA Inc., Boumatic LLC, Aquabyte, Inc., AKVA Group ASA, Eruvaka Technologies

How This Report Can Add Value

This report will help with the following objectives:

Covers major regions associated with the IoT in agriculture market.

Extensive competitive benchmarking of the top 21 players has been done to offer a holistic view of the global IoT in agriculture market landscape.

Product/Innovation Strategy: The system segment helps the reader in understanding the different types of systems for the agriculture industry and their potential globally. Moreover, the study provides the reader a detailed understanding of the operation of different system categories (i.e., sensing, communication, cloud computing, data management system, etc.). These solutions enable seamless crop management, especially in large-scale commercialized farms.

Recent Developments in IoT in Agriculture Market

In June 2021, Bosch and BASF partnered to expand business in smart farming technologies.

In July 2021, John Deere and Ericson, Brazil partnered to provide mobile IoT solutions in the agricultural sector.

In August 2021, John Deere acquired Bear Flag Robotics for technology service solutions.

Key Questions Answered in the Report

What is the estimated global IoT in agriculture market size in terms of revenue for the forecast period 2021-2026, and what is the expected compound annual



growth rate (CAGR) during the forecast period 2021-2026?

What are the key trends, market drivers, and opportunities in the market pertaining to IoT in agriculture?

What are the major restraints inhibiting the growth of the global IoT in agriculture market?

What kinds of new strategies are being adopted by the existing market players to expand their market position in the industry?

What is the competitive strength of the key players in the IoT in agriculture market based on an analysis of their recent developments, product offerings, and regional presence?

How is the competitive benchmarking of the key IoT in agriculture and equipment companies in the agriculture market based on the analysis of their market coverage and market potential?

How much revenue each of the segments is expected to record during the forecast period along with the growth percentage? Following are the segments:

Systems including sensing, communication, cloud computing, data management system

Application, including precision crop farming, livestock monitoring and management, indoor farming, aquaculture, others

Which type of players and stakeholders are operating in the market ecosystem of IoT in agriculture and equipment, and what is their significance in the global market?

Which are the leading consortiums and associations in the global IoT in agriculture market, and what are their roles in the market?

How does the regulatory landscape differ in different regions for IoT in agriculture and equipment?



IoT in Agriculture

Internet of Things (IoT) is a term which refers to the connection of devices to the internet that allows the generation and transfer of massive amounts of data. IoT creates a virtuous cycle that can generate even more precise and tailored products, pushing the boundaries, which helps in digitalization for agriculture.

IoT enables devices entrenched with sensors to connect and interact with each other by using the internet. In the agriculture sector, various devices can be remotely monitored and controlled in real-time, including anything from sheds, tractors, pumps, and weather stations, and computers.

IoT enables one to monitor farm conditions and infrastructure remotely which helps reduce time on field, labor efforts, and investment capital among others allowing the farmers to focus on other things.

IoT in Agriculture Industry Overview

The global IoT in agriculture market was valued at \$21.99 billion in 2021, which is expected to grow with a CAGR of 10.1% and reach \$35.55 billion by 2026. With the recent advancements in the industry, a transformation is expected to be witnessed as more and more companies are enhancing their product portfolio by introducing data acquisition, agricultural robotics, and analytic services.

#### Impact of COVID-19

The COVID-19 pandemic has had a significant impact on almost all major industries throughout the world, including the agricultural industry. The pandemic has led to economic instability throughout the world, and the GDP for all countries declined in 2020. The pandemic's potential impact on the adoption of the Internet of Things (IoT) has increased the traction of sensing technology in the agricultural sector.

Market Segmentation

IoT in Agriculture Market by System Type

The IoT in agriculture market (by systems) was dominated by sensing systems which generated a revenue of \$6.72 billion in 2021. Sensor technology constitutes one of the most crucial parts of the development of IoT solutions.



These sensor developments aid in the measurement of various production factors such as soil moisture, nutrients in the soil, weed density, and solar radiation.

#### IoT in Agriculture Market by Application

The IoT in agriculture market (by application) was dominated by the precision crop farming application area, which generated a revenue of \$8.60 billion in 2021. The gradual adoption of smartphones, access to high-speed internet, availability of affordable and reliable satellites for positioning and imagery, and technological advancements in farming equipment have led to the high prevalence and popularity of precision crop farming techniques and equipment.

#### IoT in Agriculture Market by Region

North America was estimated to hold the highest share of about 35.7% in 2021, thereby accounting for a value of \$7.84 billion in the same year. The highest contributing country in the North America IoT in agriculture market is the U.S. due to the prevalence of advanced technology and its implications in the farming sector to increase production.

#### Key Market Players and Competition Synopsis

Key players operating in the global IoT in agriculture market analyzed and profiled in the study involve companies that provide the required technology for deployment in the agriculture industry. Moreover, a detailed competitive benchmarking of the players operating in the global IoT in agriculture market has been done to help the reader understand how players stack against each other, presenting a clear market landscape.

Some of the key players operating in the market include DEERE & COMPANY, Microsoft Corporation, CNH Industrial NV, Robert Bosch GmbH, Agrivi, The Climate Corporation, Granular Inc., Harvest Croo Robotics, LLC, AeroFarms, OSRAM GmbH, AmHydro, Kalera, Heliospectra AB, Signify Holding (Koninklijke Philips N.V.), Connecterra B.V., DeLaval, Allflex USA Inc., Boumatic LLC, Aquabyte, Inc., AKVA Group ASA, and Eruvaka Technologies.



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