

AI in Agriculture Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Technology (Machine Learning, Predictive Analytics and Computer Vision), By Offering (Hardware, Software and AI-As-A-Service), By Application (Precision Farming, Livestock Monitoring, Agriculture Robots, Drone and Others), By Region and Competition, 2020-2030F

Market Report | 2025-11-24 | 180 pages | TechSci Research

AVAILABLE LICENSES:

- Single User License \$4500.00
- Multi-User License \$5500.00
- Custom Research License \$8000.00

Report description:

Market Overview

The Global AI in Agriculture Market, valued at USD 1.42 Billion in 2024, is projected to grow at a CAGR of 22.68% to reach USD 4.84 Billion by 2030. AI in agriculture applies machine learning, predictive analytics, and automation to enhance productivity, optimize resource use, and support sustainable farming practices across crop management, livestock monitoring, and operational decision-making. Market growth is driven by rising global food demand, the need to improve farm efficiency, and ongoing labor shortages. Adoption is further supported by increasing integration of data-driven agricultural solutions.

Key Market Drivers

The growth of the Global AI in Agriculture Market is substantially propelled by the persistent rise in global food demand and rapid technological advancements

Expanding global population levels continue to increase pressure on agricultural systems, necessitating higher productivity and more efficient resource use. According to the United Nations World Population Prospects 2024, the global population reached 8.2 billion in 2024 and is projected to peak at 10.3 billion in 2084, driving the need for scalable agricultural solutions. Parallel advances in artificial intelligence, robotics, and sensor technologies are enabling precision farming, automated harvesting, and advanced analytics. These innovations support real-time decision-making and operational efficiency. As evidence of adoption momentum, ElectrolQ reported that global agricultural robot sales rose by 21% in 2023, totaling 20,000 units.

Key Market Challenges

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

A significant impediment to market expansion is the substantial initial investment required for AI technologies. Adopting AI-driven agricultural solutions demands considerable capital for sensors, robotics, analytics platforms, and supporting digital infrastructure. These high upfront costs limit adoption, especially for smaller farming enterprises with constrained budgets. Reduced machinery investment further reflects financial pressures in the sector. According to CEMA, agricultural tractor registrations in Europe declined by 8.1% in 2024 compared to 2023, reaching their lowest level since at least 2014 due to diminished profitability and lower government subsidies. These financial constraints suppress purchases of modern equipment increasingly embedded with AI capabilities, delaying wider market adoption and slowing integration across the agricultural value chain.

Key Market Trends

Cloud and Edge Computing Synergy in Farm Operations

Edge and cloud computing integration is reshaping farm operations by enabling real-time data processing near the point of collection. This enhances responsiveness in areas such as irrigation, fertilization, and pest control, even where internet connectivity is limited. According to Corvalent, livestock monitoring systems utilizing edge computing reduced antibiotic usage by 68-77.5% and improved operational efficiency by 20-30%. Decentralized processing minimizes latency and supports autonomous equipment. The Association of Equipment Manufacturers highlighted in April 2024 that precision agriculture-heavily supported by edge and cloud systems-resulted in 30 million fewer pounds of herbicide applied, demonstrating the sustainability benefits of these technologies.

Key Market Players

- IBM Corporation
- Granular Inc.
- Microsoft Corporation
- Deere & Company
- Climate LLC
- Agribotix LLC
- Descartes Labs Inc.
- Prospera Technologies

Report Scope:

In this report, the Global AI in Agriculture Market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

- AI in Agriculture Market, By Technology:

- o Machine Learning
- o Predictive Analytics
- o Computer Vision

- AI in Agriculture Market, By Offering:

- o Hardware
- o Software
- o AI-As-A-Service

- AI in Agriculture Market, By Application:

- o Precision Farming
- o Livestock Monitoring
- o Agriculture Robots
- o Drone
- o Others

- AI in Agriculture Market, By Region:

- o North America
 - United States
 - Canada

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- Mexico
 - o Europe
- France
- United Kingdom
- Italy
- Germany
- Spain
- o Asia Pacific
 - China
 - India
 - Japan
 - Australia
 - South Korea
- o South America
 - Brazil
 - Argentina
 - Colombia
- o Middle East & Africa
 - South Africa
 - Saudi Arabia
 - UAE

Competitive Landscape

Company Profiles: Detailed analysis of the major companies presents in the Global AI in Agriculture Market.

Available Customizations:

Global AI in Agriculture 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).

Table of 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

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 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. Voice of Customer
- 5. Global AI in Agriculture Market Outlook
 - 5.1. Market Size & Forecast
 - 5.1.1. By Value
 - 5.2. Market Share & Forecast
 - 5.2.1. By Technology (Machine Learning, Predictive Analytics, Computer Vision)
 - 5.2.2. By Offering (Hardware, Software, AI-As-A-Service)
 - 5.2.3. By Application (Precision Farming, Livestock Monitoring, Agriculture Robots, Drone, Others)
 - 5.2.4. By Region
 - 5.2.5. By Company (2024)
 - 5.3. Market Map
- 6. North America AI in Agriculture 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 Offering
 - 6.2.3. By Application
 - 6.2.4. By Country
 - 6.3. North America: Country Analysis
 - 6.3.1. United States AI in Agriculture Market Outlook
 - 6.3.1.1. Market Size & Forecast
 - 6.3.1.1.1. By Value
 - 6.3.1.2. Market Share & Forecast
 - 6.3.1.2.1. By Technology
 - 6.3.1.2.2. By Offering
 - 6.3.1.2.3. By Application
 - 6.3.2. Canada AI in Agriculture Market Outlook
 - 6.3.2.1. Market Size & Forecast
 - 6.3.2.1.1. By Value
 - 6.3.2.2. Market Share & Forecast
 - 6.3.2.2.1. By Technology
 - 6.3.2.2.2. By Offering
 - 6.3.2.2.3. By Application
 - 6.3.3. Mexico AI in Agriculture Market Outlook
 - 6.3.3.1. Market Size & Forecast
 - 6.3.3.1.1. By Value
 - 6.3.3.2. Market Share & Forecast
 - 6.3.3.2.1. By Technology
 - 6.3.3.2.2. By Offering
 - 6.3.3.2.3. By Application
- 7. Europe AI in Agriculture Market Outlook
 - 7.1. Market Size & Forecast

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 7.1.1. By Value
- 7.2. Market Share & Forecast
 - 7.2.1. By Technology
 - 7.2.2. By Offering
 - 7.2.3. By Application
 - 7.2.4. By Country
- 7.3. Europe: Country Analysis
 - 7.3.1. Germany AI in Agriculture Market Outlook
 - 7.3.1.1. Market Size & Forecast
 - 7.3.1.1.1. By Value
 - 7.3.1.2. Market Share & Forecast
 - 7.3.1.2.1. By Technology
 - 7.3.1.2.2. By Offering
 - 7.3.1.2.3. By Application
 - 7.3.2. France AI in Agriculture Market Outlook
 - 7.3.2.1. Market Size & Forecast
 - 7.3.2.1.1. By Value
 - 7.3.2.2. Market Share & Forecast
 - 7.3.2.2.1. By Technology
 - 7.3.2.2.2. By Offering
 - 7.3.2.2.3. By Application
 - 7.3.3. United Kingdom AI in Agriculture Market Outlook
 - 7.3.3.1. Market Size & Forecast
 - 7.3.3.1.1. By Value
 - 7.3.3.2. Market Share & Forecast
 - 7.3.3.2.1. By Technology
 - 7.3.3.2.2. By Offering
 - 7.3.3.2.3. By Application
 - 7.3.4. Italy AI in Agriculture Market Outlook
 - 7.3.4.1. Market Size & Forecast
 - 7.3.4.1.1. By Value
 - 7.3.4.2. Market Share & Forecast
 - 7.3.4.2.1. By Technology
 - 7.3.4.2.2. By Offering
 - 7.3.4.2.3. By Application
 - 7.3.5. Spain AI in Agriculture Market Outlook
 - 7.3.5.1. Market Size & Forecast
 - 7.3.5.1.1. By Value
 - 7.3.5.2. Market Share & Forecast
 - 7.3.5.2.1. By Technology
 - 7.3.5.2.2. By Offering
 - 7.3.5.2.3. By Application
- 8. Asia Pacific AI in Agriculture Market Outlook
 - 8.1. Market Size & Forecast
 - 8.1.1. By Value
 - 8.2. Market Share & Forecast
 - 8.2.1. By Technology

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 8.2.2. By Offering
- 8.2.3. By Application
- 8.2.4. By Country
- 8.3. Asia Pacific: Country Analysis
 - 8.3.1. China AI in Agriculture Market Outlook
 - 8.3.1.1. Market Size & Forecast
 - 8.3.1.1.1. By Value
 - 8.3.1.2. Market Share & Forecast
 - 8.3.1.2.1. By Technology
 - 8.3.1.2.2. By Offering
 - 8.3.1.2.3. By Application
 - 8.3.2. India AI in Agriculture Market Outlook
 - 8.3.2.1. Market Size & Forecast
 - 8.3.2.1.1. By Value
 - 8.3.2.2. Market Share & Forecast
 - 8.3.2.2.1. By Technology
 - 8.3.2.2.2. By Offering
 - 8.3.2.2.3. By Application
 - 8.3.3. Japan AI in Agriculture Market Outlook
 - 8.3.3.1. Market Size & Forecast
 - 8.3.3.1.1. By Value
 - 8.3.3.2. Market Share & Forecast
 - 8.3.3.2.1. By Technology
 - 8.3.3.2.2. By Offering
 - 8.3.3.2.3. By Application
 - 8.3.4. South Korea AI in Agriculture Market Outlook
 - 8.3.4.1. Market Size & Forecast
 - 8.3.4.1.1. By Value
 - 8.3.4.2. Market Share & Forecast
 - 8.3.4.2.1. By Technology
 - 8.3.4.2.2. By Offering
 - 8.3.4.2.3. By Application
 - 8.3.5. Australia AI in Agriculture Market Outlook
 - 8.3.5.1. Market Size & Forecast
 - 8.3.5.1.1. By Value
 - 8.3.5.2. Market Share & Forecast
 - 8.3.5.2.1. By Technology
 - 8.3.5.2.2. By Offering
 - 8.3.5.2.3. By Application
- 9. Middle East & Africa AI in Agriculture 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 Offering
 - 9.2.3. By Application
 - 9.2.4. By Country

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 9.3. Middle East & Africa: Country Analysis
 - 9.3.1. Saudi Arabia AI in Agriculture Market Outlook
 - 9.3.1.1. Market Size & Forecast
 - 9.3.1.1.1. By Value
 - 9.3.1.2. Market Share & Forecast
 - 9.3.1.2.1. By Technology
 - 9.3.1.2.2. By Offering
 - 9.3.1.2.3. By Application
 - 9.3.2. UAE AI in Agriculture Market Outlook
 - 9.3.2.1. Market Size & Forecast
 - 9.3.2.1.1. By Value
 - 9.3.2.2. Market Share & Forecast
 - 9.3.2.2.1. By Technology
 - 9.3.2.2.2. By Offering
 - 9.3.2.2.3. By Application
 - 9.3.3. South Africa AI in Agriculture Market Outlook
 - 9.3.3.1. Market Size & Forecast
 - 9.3.3.1.1. By Value
 - 9.3.3.2. Market Share & Forecast
 - 9.3.3.2.1. By Technology
 - 9.3.3.2.2. By Offering
 - 9.3.3.2.3. By Application
- 10. South America AI in Agriculture 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 Offering
 - 10.2.3. By Application
 - 10.2.4. By Country
 - 10.3. South America: Country Analysis
 - 10.3.1. Brazil AI in Agriculture Market Outlook
 - 10.3.1.1. Market Size & Forecast
 - 10.3.1.1.1. By Value
 - 10.3.1.2. Market Share & Forecast
 - 10.3.1.2.1. By Technology
 - 10.3.1.2.2. By Offering
 - 10.3.1.2.3. By Application
 - 10.3.2. Colombia AI in Agriculture Market Outlook
 - 10.3.2.1. Market Size & Forecast
 - 10.3.2.1.1. By Value
 - 10.3.2.2. Market Share & Forecast
 - 10.3.2.2.1. By Technology
 - 10.3.2.2.2. By Offering
 - 10.3.2.2.3. By Application
 - 10.3.3. Argentina AI in Agriculture Market Outlook
 - 10.3.3.1. Market Size & Forecast

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 10.3.3.1.1. By Value
- 10.3.3.2. Market Share & Forecast
 - 10.3.3.2.1. By Technology
 - 10.3.3.2.2. By Offering
 - 10.3.3.2.3. By Application
- 11. Market Dynamics
 - 11.1. Drivers
 - 11.2. Challenges
- 12. Market Trends & Developments
 - 12.1. Merger & Acquisition (If Any)
 - 12.2. Product Launches (If Any)
 - 12.3. Recent Developments
- 13. Global AI in Agriculture Market: SWOT Analysis
- 14. Porter's Five Forces Analysis
 - 14.1. Competition in the Industry
 - 14.2. Potential of New Entrants
 - 14.3. Power of Suppliers
 - 14.4. Power of Customers
 - 14.5. Threat of Substitute Products
- 15. Competitive Landscape
 - 15.1. IBM Corporation
 - 15.1.1. Business Overview
 - 15.1.2. Products & Services
 - 15.1.3. Recent Developments
 - 15.1.4. Key Personnel
 - 15.1.5. SWOT Analysis
 - 15.2. Granular Inc.
 - 15.3. Microsoft Corporation
 - 15.4. Deere & Company
 - 15.5. Climate LLC
 - 15.6. Agribotix LLC
 - 15.7. Descartes Labs Inc.
 - 15.8. Prospera Technologies
- 16. Strategic Recommendations
- 17. About Us & Disclaimer

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

AI in Agriculture Market - Global Industry Size, Share, Trends, Opportunity, and Forecast, Segmented By Technology (Machine Learning, Predictive Analytics and Computer Vision), By Offering (Hardware, Software and AI-As-A-Service), By Application (Precision Farming, Livestock Monitoring, Agriculture Robots, Drone and Others), By Region and Competition, 2020-2030F

Market Report | 2025-11-24 | 180 pages | TechSci Research

To place an Order with Scotts International:

- ☐ - Print this form
- ☐ - Complete the relevant blank fields and sign
- ☐ - Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4500.00
	Multi-User License	\$5500.00
	Custom Research License	\$8000.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-02-08"/>
		Signature	<input type="text"/>