

Agricultural Data Analytics Market Forecasts to 2032 – Global Analysis By Component (Solutions and Services), Deployment Mode (Cloud-based, and On-Premises), Farm Size, Technology, Application, and By Geography

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Abstracts

According to Statistics MRC, the Global Agricultural Data Analytics Market is accounted for \$7.5 billion in 2025 and is expected to reach \$20.6 billion by 2032 growing at a CAGR of 15.6% during the forecast period. The agricultural data analytics market leverages big data, IoT devices, AI, and predictive analytics to optimize farming practices and decision-making. By analyzing weather patterns, soil health, crop performance, and supply chain metrics, farmers can achieve precision agriculture, higher yields, and reduced resource wastage. Increasing adoption of digital farming solutions, government initiatives for smart agriculture, and rising demand for sustainable practices are driving growth. The market is becoming crucial for modern agriculture, enabling actionable insights, improved productivity, and risk management across the farming ecosystem globally.

Market Dynamics:

Driver:

Adoption of Precision Farming

Precision agriculture has moved beyond pilot projects into mainstream adoption as farmers seek higher yields and lower input costs. By combining satellite and drone imagery with in-field sensors and machine learning, growers can apply water, fertilizer, and crop protection only where needed, improving resource efficiency and margins.

Additionally, agronomic models and analytics platforms translate raw data into clear, actionable recommendations for planting, irrigation scheduling, and harvest timing. These practical benefits, paired with service models that lower technical barriers, are driving rapid uptake across commercial farms and progressive smaller operations and supporting long-term sustainability aims globally.

Restraint:

Limited Technological Infrastructure in Developing Regions

Poor broadband connectivity, unreliable power, and a shortage of local technical skills make it difficult to deploy sensors, edge devices, and cloud-based platforms at scale. Moreover, fragmented landholdings and informal data practices reduce the commercial incentive for vendors to build tailored solutions. Additionally, high upfront costs and limited financing options for smallholders slow adoption. Addressing these gaps requires coordinated public-private investment, training programs, and low-cost technology adaptations. Policy support and rural connectivity projects can bridge divides and accelerate adoption for smallholders.

Opportunity:

Development of Affordable Analytics Solutions

By designing low-cost sensors, simplified user interfaces, and subscription pricing, vendors can serve resource-constrained farms while maintaining viable business models. Furthermore, open data standards and modular platforms lower integration costs and enable local service providers to tailor offerings. Public subsidy programs and blended financing can de-risk initial purchases, and partnerships with cooperatives and input suppliers create distribution channels. It can democratize insights, raise incomes, and strengthen farm-level resilience locally.

Threat:

Cybersecurity Risks

Cybersecurity risks pose a meaningful threat to agricultural data analytics adoption and trust. Farms increasingly rely on connected sensors, telematics, and cloud platforms that collect sensitive operational and commercial data; breaches or manipulation could disrupt operations or expose competitive information. Additionally, weak security in third-

party devices and limited awareness among smallholders increase vulnerability. Moreover, regulatory scrutiny and potential liability for data misuse create commercial uncertainty.

Covid-19 Impact:

The COVID-19 pandemic accelerated interest in digital agricultural tools by exposing vulnerabilities in labor supply chains and distribution. Remote monitoring and analytics enabled some operations to maintain productivity when movement was restricted, and buyers increasingly demanded traceability and supply-chain visibility. However, interrupted capital flows and project delays slowed deployments, especially among smaller farms. Overall, the crisis both highlighted the value of analytics and created short-term funding and implementation challenges. Recovery since 2021 supported renewed investment.

The solutions (software platforms) segment is expected to be the largest during the forecast period

The solutions (software platforms) segment is expected to account for the largest market share during the forecast period as platforms support multiple use cases crop health monitoring, yield forecasting, input optimization, and compliance reporting they attract broad customer segments including growers, advisors, and agribusinesses. Additionally, subscription models generate steady revenue streams for vendors and fund continuous improvement, while APIs and partner ecosystems increase stickiness. Interoperability with equipment manufacturers and input suppliers further boosts platform value, making software solutions the natural focal point for investments and market expansion and simplify regulatory compliance workflows.

The small and medium-sized farms segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the small and medium-sized farms segment is predicted to witness the highest growth rate These farms can rapidly adopt sensor bundles, mobile advisory services, and lightweight dashboards without extensive IT investments. Moreover, targeted financing products and donor-supported digital agriculture programs lower acquisition costs, while peer-to-peer knowledge sharing spreads successful practices. Manufacturers of compact machinery integrate telematics that feed into analytics, creating immediate value. As a result, these combined enablers propel the segment's growth ahead of large-farm transformations and attract focused regional

investment from investors.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share due to well-established precision-agriculture ecosystems, high mechanization, and extensive farm consolidation that favor analytics deployment. Large commercial farms and agribusinesses have the capital and scale to invest in sensors, telematics and platform subscriptions, while strong broadband coverage and cloud infrastructure enable reliable services. Additionally, active venture investment, OEM partnerships, and mature dealer networks accelerate commercialization. Regulatory drivers for traceability and sustainability reporting further increase demand for analytics solutions. Together, these structural factors sustain North America's dominant position during the forecast period.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR because technological innovation and business model evolution continue to unlock new customer segments. Cloud services, edge computing, and advanced analytics make it economically viable for medium and smaller operations to adopt solutions. Growth is fueled by investments in agtech startups, expanding telematics in mid-sized machinery, and increasing demand for sustainability and carbon accounting. Furthermore, expanding value-added services crop insurance analytics and precision input marketplaces create fresh revenue streams, driving rapid year-over-year market expansion.

Key players in the market

Some of the key players in Agricultural Data Analytics Market include Deere & Company, Trimble Inc., Bayer AG, IBM Corporation, SAP SE, AGCO Corporation, Oracle Corporation, Microsoft Corporation, Accenture plc, Farmers Edge Inc., CropX Technologies, Taranis, Iteris, Inc., PrecisionHawk, Inc., Agrivi Ltd., SAS Institute Inc., Geosys SAS, Proagrica Ltd., and Conservis Corporation.

Key Developments:

In August 2025, Deere announced a partnership with ag-tech incubator The Reservoir, aiming to accelerate adoption of new precision/analytics solutions in specialty crops.

Under the agreement, Deere becomes the exclusive OEM partner for Reservoir's network, giving it early access to newly developed technologies.

In May 2025, John Deere announced the acquisition of Sentera, a leading provider of remote imagery solutions for agriculture headquartered in St. Paul, Minnesota. This acquisition will advance the capabilities of John Deere's existing technology offerings, providing farmers and ag service providers with a more comprehensive set of tools to generate and use data to make decisions that improve farm profitability, efficiency, and sustainability.

In January 2025, Deere unveiled new autonomous tractors, a dump truck, and a battery-electric commercial mower at CES 2025, equipping them with advanced computer vision, AI, and autonomy features.

Components Covered:

- Solutions (Software Platforms)

- Services

Deployment Modes Covered:

- Cloud-based

- On-Premises

Farm Sizes Covered:

- Large Farms

- Small and Medium-Sized Farms

Technologies Covered:

- Core Technologies

Enabling Technologies

Applications Covered:

Farm Analytics

Livestock Analytics

Aquaculture Analytics

Greenhouses & Indoor Farming Analytics

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

Agricultural Data Analytics Market Forecasts to 2032 – Global Analysis By Component (Solutions and Services),...

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)
- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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