

North America Artificial Intelligence in Agriculture Market Forecast to 2030 - Regional Analysis - by Component (Hardware, Software, and Services) and Application (Precision Farming, Drone Analytics, Agriculture Robots, Livestock Monitoring, and Others)

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Abstracts

The North America artificial intelligence in agriculture market was valued at US\$ 644.45 million in 2022 and is expected to reach US\$ 3,126.97 million by 2030; it is estimated to record a CAGR of 21.8% from 2022 to 2030.

Increasing Need for Real-Time Analytics in Agriculture Fuels North America Artificial Intelligence in Agriculture Market

Real-time data from agricultural farms enables timely decision-making for preventative measures. AI provides real-time data and insights on soil moisture, crop growth, and weather conditions, which helps farmers make informed decisions about planting, irrigation, and fertilization. For instance, using computer vision to monitor crop growth can help farmers identify issues such as disease and pest infestation early, allowing them to take action before any significant damage. Farmers in North America employ sensors, drones, and soil samples in their farms to collect data related to soil moisture and nutrient levels. Farmers and producers in the US and Canada use high-tech instruments for data collection and analysis. The collection of the right data provides appropriate calculations and optimization of several operations, allowing more precise agriculture and faster decisions. For carrying out several agricultural operations, such as spraying pest-control chemicals or other compounds, the collection of real-time data is necessary.

The fluctuation in weather conditions has also surged the need for real-time analytics.

Real-time weather monitoring assists in precise irrigation, reducing water wastage, and maximizing crop yield. It aids in effective pest control by monitoring weather conditions that favor pests, reducing the need for broad-spectrum pesticides. Thus, the increasing need for real-time analytics in agriculture drives the AI in agriculture market.

North America Artificial Intelligence in Agriculture Market Overview

The North America AI in agriculture market is segmented into the US, Canada, and Mexico. The market in North America represents a sizeable portion of the broader agricultural technology sector. The AI in agricultural market in North America has been growing at a significant rate due to the growing adoption of AI technology in the agriculture sector. The demand for precision farming techniques is growing, and factors, including the necessity for greater production and the availability of advanced infrastructure, are driving the market expansion. AI is being embraced by farmers and agricultural enterprises in North America in order to increase productivity, optimize resource allocation, and improve decision-making. Predictive analytics, automated farming systems, crop monitoring, remote sensing, precision agriculture, and automated farming are a few of the AI applications used in the region's agriculture sector. These tools assist farmers in lowering expenses, mitigating risks, increasing yields, and making data-driven decisions. The governments of North American countries are taking initiatives such as supportive laws and efforts, including regulatory frameworks, financing initiatives, and research grants, to encourage the deployment of AI in agriculture practices. Such programs support the development of resilient and sustainable agriculture practices while creating an atmosphere that is favorable for the expansion of the AI market. Furthermore, in order to leverage AI to enhance emergency response, agriculture, climate forecasting, and the electric grid, the US and the EU formed a partnership in January 2023.

Various players across North America are developing several algorithms to develop AI in agriculture. For example, in October 2022, Microsoft Research released FarmVibes as an open-source project. Such launches propelling the growth of AI in agriculture market.

North America Artificial Intelligence in Agriculture Market Revenue and Forecast to 2030 (US\$ Million)

North America Artificial Intelligence in Agriculture Market Segmentation

The North America artificial intelligence in agriculture market is categorized into components, application, and country.

Based on component, the North America artificial intelligence in agriculture market is categorized into hardware, software, and services. The software segment held the largest market share in 2022.

In terms of application, the North America artificial intelligence in agriculture market is categorized into precision farming, drone analytics, agriculture robots, livestock monitoring, and others. The precision farming segment held the largest market share in 2022.

By country, the North America artificial intelligence in agriculture market is segmented into the US, Canada, and Mexico. The US dominated the North America artificial intelligence in agriculture market share in 2022.

Deere & Co, Climate LLC, International Business Machines Corp, Microsoft Corp, and Taranis are some of the leading companies operating in the North America artificial intelligence in agriculture market.

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