

Trends in the Agriculture Sector



Emphasis on Sustainability Due to Heightened Environmental Concerns

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Farms play a key role in expanding solar, biogas, and other alternative energy sources as part of the renewable energy transition. This trend is driven by both policy incentives and the urgent need to reduce the sector's carbon footprint (Agriculture Dive).

Agricultural technology, or agritech, is a growing category of infrastructure and practices which aim to enhance soil health, reduce reliance on chemical inputs, and create a more resilient agricultural system that benefits the environment (StartUs).

In addition, MRV (Measurement, Reporting, and Verification) systems are becoming increasingly important to meet consumer and regulatory demands for environmentally friendly and transparent agricultural practices (ICL).



Climate Related Supply Chain Disruption

- Europe: Olive oil and rice prices surging after record drought in 2023 and continued dry weather in 2024
- West Africa: Cocoa, key ingredient in chocolate, has nearly doubled in price from 2023 to 2024
- Midwestern United States: soybean production down in midwest after dry 2023 season
- South America: wheat, corn, and soybean production down in 2024 due to climate related issues, especially in Argentina, resulting in greater imports in the region

(World Economic Forum)

Economic Pressures Driving Agricultural Innovation and Adaptation

Amid inflation and high demand for agricultural products across the globe, food insecurity is still a concern in many regions. The upcoming United States election will influence agricultural policies such as the Farm Bill, which is renewed every five years, and potential H-2A visa reforms, as well as anti-competitive regulation and labor policy reform (Agriculture Dive).

The “Trends Driving Automation on the Farm” article delves deeper into the specific economic challenges, pointing out that dramatic increases in input costs due to labor shortage and high-price fertilizers are squeezing profitability.



Consumer Influence

The “Trends Driving Automation on the Farm” article referenced below presents the rising consumer interest in sustainability is pushing farmers to adopt more environmentally friendly practices. The rise in demand for sustainable products is leading consumer-packaged-goods companies to make environmental commitments, such as reducing chemical use on farms and improving the traceability of raw materials.



Automation and Smart Farming

Artificial Intelligence and autonomous machinery, such as robot milkers and autonomous tractors, are becoming increasingly important to revolutionize farm operations.

Data-driven Agriculture

The use of sensors, analytics, and AI to collect and analyze data is highlighted as a way to optimize farming practices and reduce costs.

References

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