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Syngenta Group outlines Five key trends in Artificial Intelligence that can Revolutionize Agriculture in 2025

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At the World Economic Forum (WEF) Annual Meeting heldÂ in Davos-Klosters, Switzerland from 20-24 January, Jeff Rowe, CEO of Syngenta Group, presented the five key trends in AI that will define agriculture in 2025. During a panel discussion on the topic â??From Soil to Silicon: How Advanced Technologies are Cultivating the Future of Sustainable Agâ?, he outlined how 2025 will mark the first year AI truly revolutionizes agriculture â?? from lab to field.

The five key trends in AI identified by Syngenta are:

1. **AI in R&D**: Today at Syngenta, all research projects utilize machine learning models to identify novel active ingredients â?? for synthetic and biological products.
2. **AI in the Field**: The introduction of AI-driven systems for reliably monitoring and predicting soil health, enabling high-resolution soil nutrient, texture, and carbon maps for growers.
3. **AI in Farmers' Hands**: GenAI-enabled digital tools acting as agronomic advisors to help farmers determine optimal crop management practices.
4. **AI in Pest Management**: Precision agriculture and data-driven decision-making solutions supporting farmers by targeting crop protection products only to infested areas.

5. **AI in Supply Chain Management:**Â Demand forecasting, market prediction, and the reduction of overproduction and waste to optimize logistics and improve efficiency.

Jeff Rowe, CEO of Syngenta Group, stated: â??AI and digital tools are revolutionizing farming and sustainable practices. Advanced monitoring systems integrate satellite imagery, drones, and soil maps to enable precise crop management. Predictive analytics, powered by AI and machine learning, provide farmers with actionable insights, transforming reactive practices into proactive strategies.â?•

The global AgriTech market, valued at $24.19 billion in 2023, is expected to reach $54.17 billion by 2029 according to a recent report byÂ AgriTech Market analysis.Â The global market for AI in agriculture is projected to grow from $1.7 billion in 2023 to $4.7 billion by 2028 as estimated in aÂ recent market analysis, underscoring the significant economic potential of these technologies. A WEF report estimates that digital agriculture could boost the agricultural GDP of low- and middle-income countries by $450 billion annually.

During the panel discussion with Suzanne DiBianca, Executive Vice President & Chief Impact Officer at Salesforce, both panelists emphasized the critical need for collaboration among policymakers, businesses, and other stakeholders to reduce financial and technical barriers for farmers adopting technology.

The synergy between digital technologies and sustainable farming empowers farmers to tackle climate change while improving productivity. By integrating regenerative practices with cutting-edge technology, the agricultural sector is paving the way for a resilient food system that benefits both people and the planet, the speakers concluded.