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Syngenta Group Adds Cutting-Edge Generative Artificial Intelligence (GenAI) to Cropwise

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Syngenta Group, a global leader in agricultural innovation, announced the launch of Cropwise AI at the World AgriTech Innovation Summit in London

Cropwise AI is a cutting-edge GenAI system designed to increase the efficiency of agronomic advisors and growers to determine the best crop management practices. Leveraging advanced machine learning algorithms and data analytics, Cropwise AI empowers growers with deep insights and enhanced decision-making capabilities to optimize crop yields, improve sustainability, and drive profitability.

Cropwise AI leverages the deep library of Agronomic Models housed within Cropwise Insight Engine, including over 20 years of weather history, soil conditions, more than 80,000 observations on crop growth stages, and historical yield data from R&D and on-farm trials.

This information is then integrated with Syngentaâ??s extensive agronomic expertise. Combined with a multi-lingual conversational LLM, the system provides growers with tailored recommendations for precise input applications, product placement, and strategies for pest and disease control in easy-to-understand natural language.

The unique combination of data and models helps farmers make better decisions. Utilizing Syngentaâ??s seed recommendation models, Cropwise AI helps growers increase yields by up to 5 percent.

"Cropwise AI represents a significant milestone in our digital transformation journey," said Feroz Sheikh, Chief Information and Digital Officer at Syngenta Group. "By combining our deep agronomic knowledge with cutting-edge AI capabilities, we are bringing the power of GenAI to agriculture and empowering growers to make data-driven decisions."

Earlier this year, the launch of GHX 2.0 with Cropwise AI integration brought the full potential of farmer data to life. The updated GHX 2.0 app allows users to ask questions and get answers on products and agronomic challenges, to high-impacting diseases like Tar Spot.

Key features of Cropwise AI include:

- **Seeds recommendation and placement**: providing insights on seed products and utilizing advanced predictive machine learning algorithms to deliver tailored seed recommendations.
- **Predictive Modeling**: Leveraging machine learning algorithms to forecast crop growth, yield potential, and risk factors based on real-time and historical data.
- **Precision Agriculture**: Providing site-specific recommendations for optimized input application, minimizing waste and maximizing resource efficiency.

Looking ahead, Syngenta plans to expand Cropwise AIâ??s capabilities with innovative features that will further revolutionize agricultural practices:

- **Advanced Disease and Pest Management**: Future iterations will leverage computer vision and image recognition to detect and identify pests and diseases early, for proactive and precise management strategies.
- **Sustainability Analytics**: Syngenta will integrate sustainability analytics to quantify the environmental impact of farming practices and provide suggestions for reducing carbon footprint.

â??Cropwise AI is an industry-leading example of how GenAI can address critical agricultural issuesâ?, said Elizabeth Fastiggi, Global Head of Agriculture, AWS. â??Syngenta has revolutionized decision support, giving farmers easy access to expert advice. We're excited to partner with them to boost yields and optimize productivity across the agri-food system.â?

Cropwise AI is currently available to selected groups of customers in the United States and Brazil, with plans to expand to Europe in the near future.