

## Syngenta Crop Protection and TraitSeq collaborate to implement next-gen biostimulants for sustainable agricultural practices

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Syngenta and the pioneering artificial intelligence (AI) company TraitSeq are combining forces to use the full power of AI for the development of innovative, high-performance biostimulants.

Syngenta, a world leader in developing the next generation of biologicals products for agricultural use, will use its extensive knowledge of crop biology to complement TraitSeq's proprietary AI methods to identify highly specific indicators of a plant's cellular state called biomarkers. When activated, these biomarkers can indicate how well a plant is responding to efforts to boost its health or to block the effects of external, abiotic stressors.

Biostimulants are products applied to plants, seeds or the root environment that enhance natural plant processes, leading to an improved nutrient use efficiency, increased tolerance to abiotic stress or better crop quality. Biostimulants are a vital and growing component of sustainable agriculture, yet their performance can vary depending on environmental factors such as temperature and local climate.

Syngenta has extensive data across different branches of science – such as genomics, proteomics, metabolomics, and phenomics. Using TraitSeq's sophisticated proprietary platform, scientists from both teams hope to leverage AI to analyze complex biological big data, to uncover the intricate molecular interactions that impact a crop's ability to utilize available nutrients in the soil. Once specific biomarkers can be identified, scientists hope to be able to quickly and accurately assess the efficacy of a new biostimulant in enhancing plant health.

**Camilla Corsi, Head of Crop Protection Research at Syngenta,** said: "At Syngenta, we are accelerating the pace at which we innovate, to deliver solutions farmers urgently need. Technologies such as TraitSeq's AI-driven platform enable us to revolutionize our research, attain important data-driven insights, so that we can develop the next-generation of sustainable solutions faster while further strengthening our pipeline of innovative agricultural technologies."

The development of such biostimulants also fits in Syngenta's efforts to support farmers transition to regenerative practices and its commitment to sustainability. Syngenta's recently launched Portfolio Sustainability Framework (PSF) rates Syngenta's products for sustainability and stakeholder alignments into 3 tiers. New products are also included with the aim to shift the portfolio towards the top tier.

**Dr. Joshua Colmer, CEO of TraitSeq,** said, "This partnership highlights how TraitSeq's versatile platform can transform agricultural input development by uncovering predictive biomarkers that directly link molecular insights to biostimulant performance. By equipping Syngenta's innovation pipeline with these capabilities, we aim to optimise and accelerate the development of new biological solutions, which will support farmers in adopting more sustainable agricultural practices."

Biostimulants offer an important solution to farmers seeking to improve the sustainability of their farming operations while addressing challenges arising from an increasingly constrained toolbox of available agricultural technologies and evolving consumer demands.