





Q&A WITH PETRA LAUX, CHIEF SUSTAINABILITY OFFICER, SYNGENTA



Ahead of the Regenerative
Agriculture Summit Europe, we
caught up with Petra Laux, CSO,
Syngenta to hear about how they
are embedding regenerative
agriculture principles, supporting
farmers in adopting regenerative
practices, and much more.
The Syngenta Team are joining us
at the event on the 8-10
September in Amsterdam.
Book your place today to join
them.



How is Syngenta embedding regenerative agriculture principles into its business, from R&D through to farmer advisory and commercial strategies?

Farming challenges vary dramatically across regions, climates, and cultures. We develop solutions for farmers that adapt to local conditions because regenerative agriculture demands context-specific approaches, not universal prescriptions.

Our business integrates regenerative principles through R&D investments to develop technologies supporting minimal soil disturbance and other sustainable agricultural practices.. For example, EPIVIO™ biological seed treatments improve root and shoot growth supporting excellent emergence and crop uniformity while reducing environmental stress damage. It increased corn yields by 4.5% in field trials under drought stress conditions and by 5% under normal conditions.

Another example is our biostimulant VIVA™ which supports effective soil management by revitalizing and improving the structure and biochemical activity of the rhizosphere. In field trials, VIVA™ supported a 38% increase in measured biomass and a 64% increase in leaf area vs. untreated crops.

Our <u>Portfolio Sustainability Framework</u> (PSF) provides increased transparency to external stakeholders and captures internal progress on portfolio sustainability. Regenerative agricultural practices are one of the many criteria taken into account as part of the seeds field crops of the PSF methodology.

Worldwide we support hundreds of demonstration farms where we research and evaluate regenerative farming practices. In the North China Plain, the Run Tian project operates through a network of Modern Agriculture Platform (MAP) centers providing education on soil restoration techniques.

In the U.S., Syngenta collaborates with a 152-acre <u>Farm of the Future</u> located on the corn and soybean farm that the McDonnell family has operated for more than 100 years, where now emerging technologies are being evaluated to advance agricultural solutions with high potential for improving yield and sustainability.

In Europe, Syngenta's collaboration with local research partners focuses on a long-term conservation agriculture project. Since 2017, we have compared plough, min-till, and light-till across various soil types. This research helps understand which practices deliver the highest profitability, reduce carbon footprint per ton of crop, and enhance biodiversity.

What are the biggest agronomic or scientific challenges you're trying to solve to make regenerative practices viable at scale?

Soil health is at the forefront of our scientific efforts and at the heart of Syngenta Group's <u>Sustainability Priorities</u>. We know that scaling regenerative agriculture faces critical agronomic and scientific hurdles, with soil regeneration timelines creating one of the biggest barriers. Rebuilding degraded soil typically takes 5-10 years—too long for many farmers facing economic pressure.

Since 2020, Syngenta has invested USD 1.85 billion in sustainable agriculture breakthroughs—92.5% of our target—putting us well ahead of schedule also in doing research which is fundamental to developing a range of proven solutions that can support soil health, as is the case for our market-leading <u>biologicals</u> which protect plant roots from soil-borne diseases, while strengthening root systems, improving nutrient use efficiency, and enhancing crop resilience.







Examples of investments to address the challenges around soil health also include our work at the <u>LaSalle Soil Health Research Center in Colorado, US</u> and our <u>Soil Health Center in Stein</u> in Switzerland.

The LaSalle Research Center tests soil management strategies—like tillage, crop rotation, and cover crops—to improve soil health in dry conditions, amongst other things.

The Stein Soil Health Research Center turns soil science into farmer-ready solutions, improving yields and resilience through soil microbiome research, smarter nitrogen use, and innovations like TYMIRIUM® technology, which protects crops from pests without harming beneficial organisms.

Syngenta's Award-Winning, 3-part soil science series:

<u>Understanding Earth's Most Valuable Resource</u>

<u>A Holistic Approach to Unlocking Soil Science</u>

<u>The Next Frontier in Agriculture</u>

With mounting scrutiny on greenwashing, how is Syngenta ensuring its regenerative agriculture claims are credible, measurable, and independently validated?

As part of our broader efforts to regenerate soil and nature, we aim to support the verified adoption of regenerative agriculture practices across 50 million hectares of farmland by the end of 2030. We report on the number of hectares of farmland benefited by regenerative agriculture practices in our <u>Syngenta Group ESG report</u>, which has had



Petra Laux with Syngenta Chief Information Officer, Feroz Sheikh



limited assurance engagement on key performance indicators, commonly used for ESG reporting, providing verification of our claim by an independent assurance provider.

Through our REVERTE® program in Brazil, we currently have more than 260,000 hectares of degraded pasturelands in the process of being restored. To assure credible, measurable claims, some of these farms are currently being evaluated through the Farm Sustainability Assessment (FSA), an initiative by the SAI Platform.

Another project is our delivery of sustainably certified sunflower oil to PepsiCo in Argentina, with third-party validation. Together with our partners we developed an innovative approach that makes regenerative agriculture financially viable for farmers by combining premium pricing incentives with technical support. In the end, we delivered 4,000 tons of sunflower oil grown with verifiably sustainable sunflowers from farmers who earned 2% above the average rate, which is high, especially in the project area.

Profit in the Pampas Making regenerative agriculture pay in Argentina

What role do Syngenta's digital tools, such as precision agriculture and decision-support platforms, play in helping farmers manage complexity and make regenerative decisions more confidently?

At Syngenta, we very much work "bottom up, not top down", meaning that our primary focus and goal is the support of farmers, with whom we have regular, direct connection.

We know farmers need to bring farm data potential to life, and we can support them by providing technology that unifies, integrates, and analyses data inputs to simplify their decisions.



One example is our cutting edge, AI-supported platform CROPWISE™ (a suite of related tools) that instantly integrates field-level data, weather patterns, and agronomic insights to help farmers and advisors make more informed decisions about sustainable practices.

A little over a year ago, we integrated Cool Farm Tool into <u>CROPWISE™ Sustainability</u>, a digital solution that enables farmers to track, measure, and validate their sustainable farming practices. This integration provides farmers with precise measurements of their greenhouse gas (GHG) emissions, helping them identify key opportunities for reduction in their operations.

Currently, 100 million hectares in 30+ countries use Syngenta's digital tools, which are supported by 750+ employees worldwide, with CROPWISE™ accounting for over 70 million hectares, showing how well it has been adopted by both large scale and smallholder farms.

In addition to CROPWISE™ in Europe we have INTERRA® Scan, one of the world's highest resolution soil mapping services that delivers comprehensive soil health insights through high-resolution mapping, that captures over 800 data points per hectare across 27 information layers, providing detailed analysis of texture, nutrients, and carbon content to optimize farm management decisions and develop continuous improvement plans to enhance soil health.

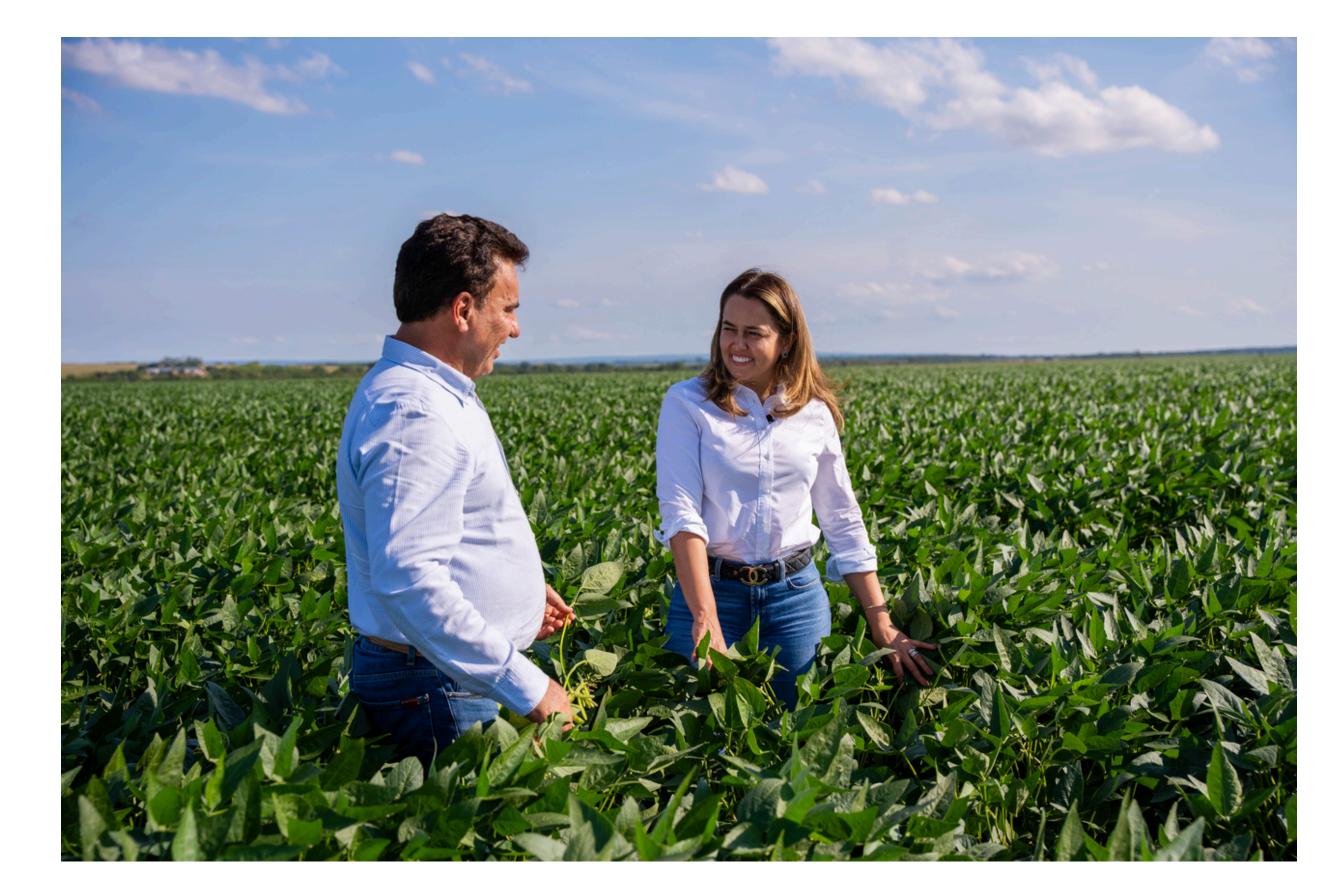
Once the individual profile of a farm is developed, farmers can also choose to employ Variable Rate Technologies (VRT) to apply ag inputs at varying rates across a field. By using VRT in the UK, for example, farmers saved up to 90 USD/Ha on mineral fertilizers. In Argentina and Uruguay, farmers using variable rate seeding achieved two benefits: they reduced nitrogen application by 23% while simultaneously increasing yields. This resulted in a 50 USD/Ha increase in gross margin.

Overall these digital farming solutions demonstrate consistent benefits: reducing input costs, optimizing resource use, and increasing profitability while supporting more sustainable agricultural practices.

How is Syngenta working with partners across the food & agriculture value system to accelerate farmer adoption of regenerative practices?

Partnership is at the heart of what we do at Syngenta.

In addition to our work with PepsiCo in Argentina, our collaborative work in China demonstrates the power of strategic partnerships in advancing regenerative agriculture. Working alongside the United Nations Development Program, China's Ministry of Agriculture and Rural Affairs, and The Nature Conservancy, we focused on soil regeneration in the Hung-Huai-Hai region.



Through comprehensive training programs, we reached 36,000 farmers, through trainings around essential practices including reduced tillage, straw incorporation, precision fertilizer application, water management, and integrated pest management. These interventions not only improved soil health but also delivered tangible results for farmers, leading to a 4% increase in crop yields.

In North America, our team delivers <u>Sustainable Solutions</u> through strategic partnerships, including collaborations with the SAI Platform, Potato Sustainability Alliance, America's Conservation Ag Movement, The Sustainability Consortium, Ducks Unlimited, and others. And in support of Vietnam's COP26 commitment to achieving net-zero emissions by 2050, we are working with the Vietnam Partnership for Sustainable Agriculture and PepsiCo to achieve a 20-20-20 goal of increasing productivity by 20%, reducing poverty by 20%, and cutting emissions by 20%.

These partnerships exemplify how collaboration across sectors and borders is essential to creating a more sustainable future for agriculture and our planet.

Farmers often cite financial risk and market uncertainty as barriers to transition. How is Syngenta supporting economic resilience during the shift to regenerative systems?

Working alongside farmers every day, we understand the economic realities of transitioning to regenerative practices.

As an illustration of addressing financial challenges, in the REVERTE® program mentioned above, we recognized an early hurdle of financing and so we worked with Itaú Bank, a significant player in financing and supporting the agriculture sector in Brazil, to make credit lines available to participating farms. To date the program has achieved 290M+ USD in farmer support for equipment, inputs, and infrastructure. More than 90% of the participating farms achieved an increase in yield in the first 3 years of the program and more than 85% of the farms experienced an increase in soil organic matter.

Our goal is to partner with farmers at every step of their journey—from planning and planting through harvest and market—to help maximize both their success and sustainability.

What role do you think Ag Tech companies like Syngenta play in shaping policy frameworks around regenerative agriculture?

As a leader in agricultural innovation with global reach and deep scientific expertise, we provide crucial insights into policy discussions through dialogue and participation in public consultations, engagements in public-private research partnerships supporting sustainable agriculture, and memberships in multistakeholder platforms such as the World Business Council for Sustainable Development. We demonstrate practical climate



solutions through initiatives such as SAI Platform's Regenerating Together framework, which focuses on reducing emissions and improving carbon sequestration through better soil management. Our extensive field trial data helps bridge the gap between environmental goals and farming realities.

Our comprehensive real-world data helps us advocate for frameworks that encourage sustainable innovation while ensuring farmers' economic viability.

Looking ahead, what innovations (biologicals, trait development, decision-support systems) are you most excited about in accelerating regenerative agriculture in mainstream production systems?

The recent integration of precision ag and biologicals is a very exciting development! We can now, for example, treat seeds and coat them with biologicals, which offers multiple benefits like protection against against diseases, improved nutrient uptake, and enhanced plant health and growth.

Syngenta's advances in biological solutions and digital platforms represent promising tools that help farmers maintain productivity while building much-needed resilience. Our acquisition of Intrinsyx Bio, a California start-up that develops products to help crops use nutrients more efficiently, demonstrates this commitment.

Additionally, in early 2025, we integrated Novartis' Strains and Natural Products Collection, a large library of natural compounds and genetic strains for agriculture. These strategic additions accelerate our work on biologicals and bring new solutions to farmers faster.





On the digital front, <u>CROPWISE™</u> is an example of a promising tool which uses over 20 years of weather and soil data, 80,000+ crop growth observations, and yield results from R&D and farm trials to give tailored, site-specific recommendations. It can help farmers—especially those in row crops like corn, soy, and cereals—optimize seed placement, input timing, and pest or disease control, with seed models shown to boost yields by up to 5% while reducing waste and improving sustainability.

By combining proven methods with innovative technologies, we can enhance food security, which needs to increase 50% by 2050 to feed the world's growing population, while actively improving environmental health. This isn't just about producing more—it's about producing smarter.

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8-10 SEPTEMBER, 2025 | AMSTERDAM



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