

Zoé de Spoelberch: leading the transition toward less pesticides worldwide

Winner of the Prince Albert Fund, Zoe is currently working in Colombia for Biobest analysing the potential for biological control and IPM (Integrated Pest Management) in the Latin American horticultural sector and developing Biobest's commercial activities from Colombia.

In the past, as a regenerative agriculture consultant she also helped develop rotational cattle grazing plans for a 15,000ha farm under SARA's (South American Regenerative Agriculture) carbon program, sequestering 50+ tons of carbon per year. She also initiated a sustainable cattle grazing project to restore 5,000 ha of farm land in Patagonia by building partnerships across The Nature Conservancy, Ovis21, government agencies, and farm workers, increasing farm production by 30% and farm profitability by 90% through carbon credits.

She also helped collect natural capital and biodiversity data across Courageous Land's agroforestry farm in São Paulo, Brazil. By conducting trials to test different natural herbicides, she contributed to the fully organic management of 5 ha of land.

Zoe also managed African bee colonies in Alajuela, Costa Rica, and collected native *Euglossa* orchid bees to contribute to research on biodiversity conservation by the University of Costa Rica. She also helped indigenous women in Bribri, Costa Rica, generate new income streams to support their community by promoting a sustainable cacao tourist tour.

As an experienced beekeeper, she's helped organizations in Belgium, her home country, with beehive maintenance and honey harvests.



Zoé de Spoelberch

Biobest business developer Latam

What is a key challenge you are tackling right now, and what are you doing concretely to move the needle?

Pesticides used in our agricultural systems degrade soil health and contribute significantly to biodiversity loss. After three years in the finance industry, engaging with multinational companies to integrate regenerative agriculture practices, I shifted toward fieldwork to create a more direct impact. I supported the development of regenerative agriculture projects across Argentina, Brazil, Uruguay, and Costa Rica, driven by the ambition to reduce pesticide use and resistance while protecting natural pollinators and surrounding ecosystems.

My work is dedicated to advancing Target 7 of the Kunming–Montreal Global Biodiversity Framework (GBF), which calls for reducing “the overall risk from pesticides and highly hazardous chemicals by at least half.” This aligns with the EU Farm to Fork and Biodiversity Strategies for 2030, targeting a 50% reduction in the use and risk of chemical pesticides and a 50% reduction in the most hazardous pesticides.

To contribute to these goals, I now focus on scaling the use of macrobials (also known as natural enemies) in production systems. These biological control tools are well-established in parts of Europe but remain nascent in much of Latin America. Based in Colombia, I am researching the biocontrol market and identifying opportunities to scale these nature-based solutions locally, supporting a transition toward safer and more resilient food systems.

Share one practice, tool or approach you have tested that delivers real results. Why would you recommend it?

Integrated Pest Management (IPM) is a sustainable, science-based strategy that combines biological, cultural, and physical tools to manage pests while minimizing risks to human and environmental health.

The overreliance on synthetic pesticides is deeply concerning because it not only kills pests but also harms beneficial insects, pollinators, soils, and water sources, accelerating biodiversity loss and driving widespread pesticide resistance – making chemical controls increasingly ineffective and underscoring the urgent need to scale safer alternatives such as biopesticides and natural enemies.

By introducing natural enemies – such as predatory mites that feed on harmful pests or parasitic wasps that suppress pest populations – IPM reduces dependence on chemical pesticides and offers an effective solution in high pesticide-resistance scenarios. As agriculture faces escalating chemical resistance, biodiversity loss, and regulatory pressure to reduce synthetic pesticide use, IPM has become increasingly essential. Its potential for adoption is especially strong in European horticulture, where consumer demand favors safer production systems. Beyond Europe, IPM represents a scalable, long-term solution capable of strengthening environmental health, farmer resilience, and overall sustainability.



From the Video: “Biobest: Natural solutions to optimise global sustainable crop yields” by TBD Media Group