

Abstract

Fytofend S.A. is a Belgian biotechnology company located in Isnes, specializing in the development of natural biosolutions for crop protection. Founded in 2009, the company focuses on innovative technologies that enhance plant health and resistance while reducing the need for synthetic pesticides. Through its activities in biocontrol and biostimulation, Fytofend contributes to addressing major challenges in sustainable agriculture, environmental protection and food safety.

The core of Fytofend's expertise lies in the development and commercialization of products based on COS-OGA, a patented natural active substance derived from biopolymers. This molecule acts as an elicitor, meaning it stimulates the plant's own natural defense mechanisms rather than directly attacking pathogens. This technology protects crops against major fungal diseases such as powdery mildew and downy mildew. By activating the plant's immune system, Fytofend's products help crops better resist infections while leaving no harmful residues on harvested crops.

In addition to biocontrol solutions, Fytofend also develops biostimulants designed to improve plant vigor, growth and resilience to environmental stress, which are becoming increasingly common due to climate change. These solutions support overall crop health and can contribute to more stable yields under challenging growing conditions.

The benefits of Fytofend's products extend across agriculture, food production and the environment. In agriculture, they enable farmers to reduce the use of synthetic fungicides while preserving crop performance and profitability. From an environmental perspective, these natural, biodegradable and non-toxic products help protect soil health, water quality and biodiversity, including beneficial insects such as pollinators. For food production, the reduced use of chemical inputs contributes to lower pesticide residues on crops, supporting safer and more sustainable food systems.

Biography

Géraldine Van Aubel is a bioengineer and PhD in Biological Sciences, specialized in natural plant protection. She obtained her PhD from the University of Namur with an award-winning thesis on elicitors of plant immunity. Her expertise bridges fundamental research and practical applications for sustainable agriculture. Since 2017, she has been working as Research Manager at FytoFend SA, leading the development and mode-of-action studies of innovative biopesticides that stimulate plants' natural defense mechanisms.