

Phoenix Biosolutions and Necton form joint venture to expand microalgae applications in agriculture

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Phoenix Biosolutions and Portugal's Necton Group have formed an exclusive joint venture to develop, produce and commercialize microalgae-based solutions for agriculture, combining industrial cultivation capabilities with extraction technology and global market access



Phoenix Biosolutions and Necton Group have established PNA, a strategic joint venture focused on bringing microalgae-based technologies into agricultural applications, particularly the growing biostimulants market.

The partnership combines Necton's expertise in microalgae strain selection and industrial cultivation with Phoenix Biosolutions' capabilities in extraction, regulatory affairs and international market development. The companies said the new venture will also operate as a platform for transferring microalgae technologies from research and development into commercial agricultural products.

Necton will serve as PNA's upstream partner. Founded in 1997, the Portuguese group operates two industrial microalgae production facilities and has developed expertise across tubular photobioreactors, vertical reactors, raceway systems and fermentation technologies. Its activities span microalgae applications in aquaculture and human nutrition.

Phoenix will contribute downstream capabilities, including enzymatic extraction technologies intended to improve the recovery and functionality of bioactive compounds derived from microalgae. The company has also developed automated hydrolysis and process-control systems for more consistent extraction at industrial scale, alongside regulatory and market-access expertise in the biostimulants sector.

The partnership also brings experience from the agricultural biostimulants industry. Two former presidents of the European Biostimulants Industry Council are among Phoenix's founders, who have been involved in the development and commercialization of microalgae technologies for agricultural applications for more than two decades.

PNA will enter the market with biostimulant products already carrying European CE marking, while its development pipeline includes new microalgae-based solutions targeting challenges such as nutrient-use efficiency and tolerance to abiotic stress.

The companies see the partnership as an opportunity to integrate industrial-scale production, intellectual property, regulatory expertise and international distribution into a single agricultural platform. They said the venture will focus on accelerating the commercialization of microalgae technologies as demand grows for biological inputs that can support crop productivity and more efficient use of agricultural resources.

The move comes as both the microalgae and biostimulants markets expand. The global microalgae market was estimated at around \$ 13.7 billion in 2025 and is projected to grow at close to 8 per cent annually over the coming decade, according to figures cited by the companies. Crop nutrition is among the faster-growing segments, with estimated annual growth of around 9–10 per cent through 2030.

The global biostimulants market, meanwhile, is estimated at approximately \$ 4.5 billion in 2025 and projected to reach \$ 7.8 billion by 2030, representing annual growth of about 10–12 per cent depending on the region.

“We have known Necton for decades through the world of microalgae research, and from that perspective I can say with confidence that they are probably the most relevant microalgae player in Europe,” said Carlos Rodríguez-Villa, CEO of Phoenix Biosolutions. “It is an honor for us to partner with an established group that, in addition to superb technologies and capabilities, shares the values and culture we have at Phoenix.”

João Navalho, CEO of the Necton Group, said Phoenix brings market experience from the early development of microalgae technologies for agriculture and would provide the expertise needed for Necton to expand into the sector. “The Phoenix team brings unique market experience as the pioneers who introduced microalgae technologies into agriculture,” Navalho said. “They give us the expert resources we needed to diversify into this sector. The fit is perfect.”

With PNA, the two companies aim to build a dedicated agricultural platform around microalgae, spanning cultivation, extraction, product development and commercialization.