



Symbiomics and Valeouro partner to bring genome-edited biologicals to Brazil

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Brazil's fast-growing biologicals market is moving into a more technology-intensive phase, with biotechnology companies Symbiomics and Valeouro Biotec forming a strategic partnership to develop a new generation of disease-management solutions based on microorganism discovery and genome editing.



The companies aim to combine Symbiomics' proprietary microorganism discovery and genome-editing platform with Valeouro's knowledge of Brazilian agriculture, market access, technical capabilities and industrial infrastructure. The first products emerging from the partnership are expected to reach the market within two to three years.

The alliance comes as biologicals become increasingly important in Brazil's crop protection market. According to CropLife Brasil, the biologicals sector generated R\$6.2 billion in 2025, up 15 per cent from the previous year, while the area treated with biological products increased 28 per cent to 194 million hectares.

Soybean, corn and sugarcane account for more than 90 per cent of biologicals use in Brazil. Biocontrol products—including bioinsecticides, bionematicides and biofungicides—generated approximately R\$5.4 billion in revenue in 2025.

With more than 700 biological products already registered in Brazil, the next competitive frontier is increasingly likely to be differentiation rather than simply adding another product to an expanding catalogue. Genome editing could provide companies with a way to improve the characteristics of microorganisms used in agricultural biologicals and develop products designed to deliver more consistent performance under varying field conditions.

From microorganism discovery to engineered performance

Genome editing gives researchers the ability to make targeted changes to microorganisms of agricultural interest. In biological crop protection, the technology could potentially improve traits such as robustness, efficiency and stability, while helping products perform more consistently across different soil and climatic conditions.

For Symbiomics, the technology is being combined with a broader platform for discovering and selecting microorganisms.

"To develop a product that truly differentiates itself from what is already available on the market, it is necessary to expand the diversity of microorganisms explored and use technologies capable of enhancing their characteristics," says Rafael de Souza, CEO and co-founder of Symbiomics.

"Symbiomics has a proprietary collection of thousands of isolated microorganisms and combines microbiome and genome-editing technologies to develop high-performance biological products based on more robust microorganisms for biocontrol.

Our goal is to turn this capability into a product with clear differentiators and consistent field performance that contributes to growers' productivity and profitability. I see Valeouro as the ideal structure and the right partner to scale this technology and bring it to growers," he adds.

The partnership gives that discovery capability an industrial and commercial route into the Brazilian market. Founded in 2021, Valeouro has already built a portfolio of more than 20 products marketed in Brazil and has been increasing its investment in research and development, supported by Finep, Brazil's innovation funding agency.

Building the bridge to industrial scale

The partnership is also designed around a problem that can determine whether promising biological technologies ever become viable products: scaling laboratory discoveries into commercial manufacturing.

Valeouro's planned biomanufacturing facility is intended to provide the industrial capacity required to manufacture new technologies at scale, including products emerging from the Symbiomics alliance.

"Our biomanufacturing facility, scheduled to begin operations in the coming years, was designed to provide the industrial capacity required to scale up and manufacture new technologies," says Luciano Galera, CEO of Valeouro Biotec. "The facility will enable us to take disruptive products from the development stage to industrial scale, as exemplified by what is emerging from our alliance with Symbiomics, strengthening the synergy between the two companies."

The companies also see speed of development as a competitive advantage. Biological products can take years to move from discovery through optimisation, testing and commercialisation. Symbiomics says it has spent the past five years building a platform that integrates microbiome research, genomic sequencing, machine learning and genome editing to improve the selection and development process.

"In biologicals, gaining speed does not mean eliminating steps, but making better decisions earlier," says Jader Armanhi, COO and co-founder of Symbiomics.

The platform is intended to identify and improve microorganisms with greater precision, increasing the probability of developing high-performance products within shorter development cycles. Valeouro's involvement from the outset adds an industrial perspective to the process and is expected to shorten the distance between technology development and commercial production.

The next test is field performance

The commercial case for the partnership will ultimately depend on whether genome-edited microorganisms can deliver measurable advantages under real farming conditions.

The companies expect their technology to be incorporated into disease-management programmes, with the potential to improve productivity while lowering operating costs per hectare. That makes performance consistency as important as the underlying scientific novelty.

"More than developing a new product, we want to transform scientific innovation into a solution that delivers performance, consistency, and value to growers," says Flávia Camargo, Executive Manager of Research, Development, and Innovation at Valeouro Biotec. "This is our vision for the future: to contribute to building a new generation of biological products that are more efficient, competitive, and capable of generating a real impact in the field."

For Brazil's biologicals industry, the partnership signals a shift towards a more sophisticated phase of product development. As the market expands and the number of registered solutions rises, simply being biological may no longer be enough. The next advantage could come from using biotechnology to make microbial products more precise, reliable and differentiated—and from building the industrial infrastructure to get those innovations into farmers' hands.