AgroSpectrum ASIA
Envisaging Future | Updating Present

Bioma launches Metabolic Protection biofungicide â?? 1Âº based entirely on microbial metabolites

20 August 2026 | News

Biomaâ??s Metabolic Protection is positioned as Brazilâ??s first biofungicide based entirely on microbial metabolites, targeting soybean anthracnose and target spot while expanding the countryâ??s fast-growing biological crop protection market

Brazilian biological inputs company Bioma has registered what it describes as the country's first fungicide based entirely on microbial metabolites, opening a new segment in Brazil's rapidly expanding biological crop protection market.

The product, Metabolic Protection, was registered for the management of anthracnose, caused by Colletotrichum truncatum, and target spot, caused by Corynespora cassiicola, two important soybean diseases.

The technology was developed over five years within Cogny, described by the company as the world's largest biological inputs ecosystem. Scientific and technological development was led by Orygen, the group's research and development company, under Research Director Artur Soares, while Bioma was responsible for product development, registration and commercialization.

The product is expected to become commercially available shortly.

Metabolite-based technology

Unlike conventional microbial bioproducts formulated with living fungi or bacteria, Metabolic Protection is based exclusively on compounds produced by microorganisms.

According to Bioma, its proprietary technology stimulates the expression of specific genes involved in the production of compounds with agronomic activity. The resulting formulation contains approximately 40 metabolites, more than 20 of which have direct activity against fungi, while another 17 are intended to activate plants' natural defense mechanisms.

“The combination of different molecules and mechanisms of action addresses one of the main challenges in soybean disease management: the gradual loss of efficacy of some chemical fungicides due to pathogen resistance following repeated applications with similar modes of action,” Soares said.

The company estimates that anthracnose and target spot can cause yield losses of up to 40 percent in susceptible soybean cultivars under favorable disease conditions. According to Bioma, incorporating biological molecules into conventional disease-management programs can diversify the mechanisms used against pathogens and potentially reduce selection pressure for resistance.

Expanding biological fungicide market

The technology enters a Brazilian fungicide market estimated at US$6.5 billion in 2025, accounting for 32 percent of the country's US$20.2 billion crop protection market, according to Kynetec data cited by the National Union of Plant Protection Products Industry (Sindiveg).

Within biological inputs, biofungicides were the fastest-growing category by value in 2025. Sales increased 41 percent to R$1.4 billion (approximately US$253 million), while treated area reached 26 million hectares, up 37 percent year on year, according to CropLife Brasil.

The publicly available market data do not yet separately quantify fungicides formulated exclusively with metabolites, leaving the segment at an early stage of commercial development in Brazil.

The launch also comes as Brazil remains heavily dependent on imported crop protection products. Chemical pesticide imports totaled US$4.28 billion between January and May 2026, highlighting the strategic importance of domestic technologies amid geopolitical uncertainty, currency volatility and supply-chain disruptions.

Five years of field development

Bioma said the biofungicide was evaluated across more than 50 production regions in Brazil, covering different climatic conditions, management systems and disease-pressure levels. Trials assessed both pathogen-control performance and integration into crop protection programs already used by farmers.

The product expands a technology portfolio that includes Bioma Phos, a biological phosphorus solubilizer being expanded into the European market, and Hydratus, developed from a bacterium originating in Brazil's Caatinga biome to improve plant tolerance to water stress.

According to the company, the new fungicide represents a further step in its development strategy, moving from products based on living microorganisms toward the molecules produced by those microorganisms.

“Access to technology developed and produced in Brazil offers greater supply security, more predictability for crop planning and greater freedom to build long-term management strategies,” Soares said.

For Brazil's biological inputs industry, the registration marks a shift toward increasingly sophisticated microbial technologies in which the microorganism itself is no longer necessarily the active agricultural component, but rather the biological factory used to generate compounds with targeted agronomic functions.