Syngenta secures exclusive rights to novel biofungicide for Southeast Asiaâ??s rice sector

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Syngenta and U.S.-based biotechnology innovator Ascribe Bioscience have entered into a landmark development and supply agreement to commercialize PHYTALIX, a next-generation biofungicide designed to strengthen crop resistance against a broad spectrum of fungal, bacterial, and viral diseases.

The agreement grants Syngenta exclusive commercial rights to the product for rice and other major crops across Southeast Asia, with the potential to expand into additional markets over time. The collaboration marks a significant step in the accelerating integration of biological crop protection technologies into mainstream agricultural production systems.

The commercial alliance follows four years of extensive field validation conducted by Syngenta, during which PHYTALIX demonstrated strong performance against key crop diseases while delivering consistent yield improvements. Trials highlighted its effectiveness as part of integrated pest management (IPM) programs, particularly in combating Bacterial Leaf Blight, one of the most damaging diseases affecting rice cultivation across Asia.

Developed from scientific discoveries at the Boyce Thompson Institute at Cornell University, PHYTALIX works by activating plantsâ?? natural defense mechanisms rather than directly targeting pathogens. The biological solution enables crops such as rice, soybeans, maize, and wheat to enhance their own resistance to disease pressures throughout the growing season.

The partnership comes at a critical time for global rice production. Rice remains the primary food source for nearly half the worldâ??s population, yet growers are facing mounting challenges from climate variability, emerging disease threats, and increasing resistance to conventional crop protection products.

Industry experts view biological solutions as an increasingly important complement to traditional chemistries, helping farmers maintain productivity while meeting evolving sustainability expectations.

PHYTALIX has been designed to bridge the gap between conventional crop protection products and biological alternatives. The product offers a novel mode of action, broad-spectrum disease control, high stability, and low application rates, making it suitable for adoption across a wide range of farming systems and operational scales.

According to Syngenta, the technology could become an important tool for managing complex disease pressures while supporting more resilient and sustainable rice production across the region.

â??The collaboration with Ascribe reflects our commitment to bringing farmers differentiated solutions that help them implement more efficient and modern farming strategies through the combined use of conventional and biological products,â? said Emilhano Lima, Global Head of Seedcare and Biologicals at Syngenta. He added that partnerships with emerging innovators are essential to accelerating the delivery of next-generation biological technologies to farmers worldwide.

For Ascribe Bioscience, the agreement represents a major commercial milestone and validation of the technologyâ??s global potential.

â??By partnering with Syngenta in Asia, we are able to move this innovation from the laboratory into the hands of farmers seeking new and sustainable disease-management solutions,â? said Dr. Jay Farmer, Co-founder and Chief Executive Officer of Ascribe Bioscience. â??Syngentaâ??s commitment underscores the significant opportunity for PHYTALIX in global agriculture.â?

The companies will now advance regulatory registration processes and market development activities across the targeted Asian markets. Subject to approvals, the first commercial launches of PHYTALIX are expected in 2029.

The partnership reflects a broader industry shift toward biological crop protection products as agricultural producers seek solutions that combine productivity, sustainability, and resilience in an increasingly challenging farming environment. As disease pressures intensify and regulatory scrutiny of conventional chemistries grows, innovations such as PHYTALIX are expected to play an increasingly prominent role in the future of crop protection.