

Koppert unveils KC2404: New biological shield against fungal threats

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In a significant stride toward sustainable agriculture, Koppert has introduced KC2404, an advanced biological fungicide poised for regulatory approval in the third quarter of 2026. First showcased at the prestigious Crop Health Days hosted at the World Horti Center, the product offers growers an early glimpse into a powerful new solution for combating powdery mildew and a spectrum of fungal diseases across high-value crops.

From Thermal Waters to Targeted Protection

At the core of KC2404 lies a unique scientific foundation—a lysate derived from *Willaertia*, a single-celled amoeba sourced from thermal waters near Lake Annecy. Cultivated in controlled bioreactor environments, this lysate is rich in bioactive compounds that not only inhibit fungal spore germination but also activate the plant's innate defense systems. The result is a dual-action mechanism that combines direct pathogen suppression with enhanced crop resilience.

Broad-Spectrum Efficacy Backed by Field Performance

KC2404 demonstrates robust activity against a wide array of pathogens, including powdery mildew, rust fungi, *Cladosporium* leaf spots, and destructive oomycetes such as *Phytophthora* and downy mildew. Trial data from 2024 cucumber studies under intense disease pressure revealed infection levels of approximately 12 per cent in treated plants—significantly lower than over 20 per cent in comparable biological treatments and more than 40 per cent in untreated controls. When paired with an adjuvant, the product's efficacy approached that of conventional chemical standards, reinforcing its commercial potential.

Operational Simplicity Meets Regulatory Advantage

Beyond performance, KC2404 offers compelling practical benefits. With no maximum residue limits and no mandated re-entry or safety intervals, it simplifies on-farm operations while aligning with increasingly stringent regulatory frameworks. Certification for organic agriculture is currently underway, positioning the product as a versatile tool for both conventional and organic growers.

Scaling Across Crops and Markets

Initial registration efforts are focused on key greenhouse crops such as cucumber, tomato, and eggplant, targeting major diseases including powdery mildew and Phytophthora. Looking ahead, Koppert plans to expand approvals across additional crops and geographies, with application programs expected to reach up to 10 treatments per cycle in cucumbers and as many as 12 annually in other crops, including ornamentals and strawberries.

A Glimpse Into the Future of Crop Protection

As agriculture pivots toward safer, residue-free solutions, KC2404 represents a compelling fusion of biology and innovation. By harnessing naturally derived compounds and translating them into high-performance crop protection, Koppert is not only advancing its product portfolio but also helping redefine the future of disease management in a more sustainable and resilient global food system.