



Renaissance BioScience named by AgTech Breakthrough Global Awards 2024 as “Crop Protection Solution of the Year”

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Renaissance BioScience, a leader in yeast bioengineering, announced that it has been selected as the winner of the “Crop Protection Solution of the Year” award in the fifth annual Global Awards program conducted by AgTech Breakthrough, a leading market intelligence organization that recognizes the top companies, technologies, innovations and products in today’s global agriculture and food technology markets.

In the area of global agricultural crop protection, Renaissance has developed and is commercializing through collaborative partnerships the world’s first yeast-based RNA interference (RNAi) precision biopesticide platform technology that can be individually customized to target many different pests. This technology offers a sustainable, environmentally friendly alternative to chemical pesticides by targeting specific essential genes in the pest of interest with precision and efficacy.

RNAi biopesticide platform technology can precisely target many different pests

Renaissance’s platform technology can be used to express specific RNAi bioeffector molecules in yeast strains. Target sequences for different pests of interest can be developed and inserted, resulting in the ability to create customized and unique strains. These strains are inactivated prior to product formulation and can be manufactured at scale for low cost. The biopesticide can be seamlessly integrated into traditional crop protection application processes, helping to streamline adoption by farmers and agricultural industries worldwide.

The biopesticide product is applied to the crop plants using traditional application methods. Once the inert yeast are consumed by the target pest, the RNAi bioeffectors are released inside the insect, effectively silencing the target genes and killing the pest. Any residual yeast degrades in the environment without harming humans, plants or other insects. One initial pest successfully targeted using this platform is the Colorado potato beetle (CPB), a notorious threat to the global potato

industry due to its accumulated resistance to many pesticides. The company's customized yeast strains are a practical, sustainable solution for large-scale agricultural use, and Renaissance is actively working with industry leaders to develop innovative crop protection solutions for other devastating pests.