Pheronym Granted Patent for Plant-Parasitic Nematode Biocontrol Breakthrough

Pherocoat™ for Plant Parasitic Nematodes (PPNs): A Sustainable Solution to Combat $173 Billion in Annual Crop Losses

WOODLAND, CA, UNITED STATES, August 28, 2024 /EINPresswire.com/ -- Pheronym®, an ag-biotech pest management company, has been granted its second US patent, this one focused on plant-parasitic nematode (PPN) biocontrol. The patent for Pherocoat™ will help address the pressing need for a natural, non-toxic approach to PPN control. According to The Fight against Plant-Parasitic Nematodes: Current Status of Bacterial and Fungal Biocontrol Agents, PPNs pose a major threat to food security and plant health, with estimated annual global economic losses $173 billion. Up until now, chemical control with synthetic nematicides has been the most effective strategy to manage PPNs, but due to their environmental toxicity, and considerable legislative pressure to restrict them, they are progressively being phased out.

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>
> *Dr. Fatma Kaplan*

“There is a real, pressing need for sustainable alternatives to manage PPNs, and this new patent for Pherocoat validates our technology for use against these destructive pests,“ said Fatma Kaplan, CEO of Pheronym. “Now with our patents in place for both of our products, Nemastim™ and Pherocoat, we will move towards commercialization of these impactful methods to manage agricultural pests by controlling nematode behavior.”

Now, Pheronym has a patented pheromone solution, called Pherocoat, for the destructive nematodes (PPNs). PPNs are roundworms that feed on the roots of plants, sapping the plants' energy and reducing yield. The pheromone mixture changes the behavior of the PPNs,

redirecting them away and deterring them from the crop plants. The pheromone mixture will be used for seed treatments, in-furrow applications, or in irrigation water to protect plant roots from infection.

Pheronym's first patented product, Nemastim, is also a pheromone product that works on other beneficial nematodes. Beneficial nematodes are microscopic roundworms used as biocontrol agents for soil insect pests. Nemastim, a pheromone mixture, makes these beneficial nematodes better biocontrol agents for managing insect pests by controlling nematode dispersal and infectivity behavior.

Since nematode pheromones are not commercially manufactured, Pheronym is the first to develop a scalable bio-manufacturing method to produce nematode pheromones. The company has successfully transitioned its bio-manufacturing from proof-of-concept to production by fermentation in bioreactors. Pheronym plans to scale its manufacturing processes further to bring Nemastim and Pherocoat products to the market within a year.

About Pheronym
Award-winning Pheronym is an ag-biotech pest management company that enables sustainable farming through its novel platform of nematode pheromones. The company's patented solutions use a new pheromone to control the behavior of plant-parasitic nematodes (microscopic roundworms) in a climate-smart way and enhance beneficial nematodes' efficacy to eliminate pest insects. Learn more at http://www.pheronym.com

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