

New Flagchem compound shows potential against phytophthora crop diseases

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The Jiangsu-based agrochemical company says the patented compound has shown efficacy comparable to oxathiapiprolin and could strengthen its high-end fungicide portfolio



Jiangsu Flag Chemical Industry Co., Ltd. (Flagchem) has been granted a national invention patent for a novel fungicide compound designed to control a range of destructive plant diseases caused by oomycetes. The patent was granted on August 4, 2026, and is titled “Compound Containing Chain Carboxylic Acid Amide Structure, Preparation Method and Application Thereof, and Fungicide.” It covers the compound, its preparation method, its application in crop protection and fungicidal formulations.

According to the company, the patented compounds are effective against several commercially significant oomycete diseases, including cucumber downy mildew, late blight caused by *Phytophthora infestans* and diseases caused by *Phytophthora capsici*. Research data indicate that the compounds deliver efficacy comparable to oxathiapiprolin, a leading commercial fungicide used to control oomycete pathogens.

The patent could provide Flagchem with a potential new platform for developing fungicides aimed at one of the more difficult areas of crop protection. Oomycete diseases can spread rapidly under favourable environmental conditions and are responsible for significant yield and quality losses across horticultural and field crops. Their management is also complicated by the development of resistance and the relatively limited availability of effective treatment options.

The new compound structure may therefore offer value not only as a standalone fungicide, but also as a possible tool for resistance management. If developed and commercialised, it could be used in rotation or combination programmes designed to reduce reliance on existing modes of action and extend the useful life of commercially available products. The patent’s chain carboxylic acid amide structure is central to the company’s intellectual property. Along with covering the compound itself, the patent protects its preparation and application, potentially giving Flagchem greater control over future product

development, registration and commercial deployment.

However, the patent represents an early stage in the commercialisation process. Further work will be required to evaluate field performance across crops and geographies, determine application rates, complete regulatory requirements and assess manufacturing economics. The eventual market opportunity will also depend on product registrations, farmer demand and the company's ability to establish a competitive supply and distribution network.

Flagchem's latest patent adds to a broader increase in the company's research and development activity. According to its 2025 annual report, the company invested USD 14.02 million, or RMB 95.21 million, in R&D during the year. R&D spending increased 16.42 per cent year-on-year, reflecting the company's focus on developing new active ingredients, formulations and crop-protection technologies.

The company has also secured six patents since the beginning of 2026, a 500 per cent increase over the corresponding period of 2025. The pace of patent activity suggests that Flagchem is seeking to strengthen its technology pipeline and reduce dependence on established products in an increasingly competitive agrochemical market. The new patent could support that strategy by expanding the company's presence in the high-value fungicide segment. Products with strong efficacy against oomycete diseases are commercially important because growers often have limited alternatives when outbreaks threaten crops. A compound that combines effective disease control with a differentiated mode of action could attract interest from crop-protection companies, distributors and growers.

For Flagchem, successful commercialisation would offer more than an additional product. It could help deepen the company's portfolio in premium fungicides, create opportunities for technology licensing or partnerships and support growth in domestic and international markets. The patent also reflects the wider importance of innovation in agricultural chemicals. As resistance increases, regulations become stricter and growers seek more efficient disease-management solutions, agrochemical companies are under pressure to develop products that deliver reliable performance while supporting sustainable use.

Flagchem's patented compound is not yet a commercial product, and its market impact will depend on the outcome of development and regulatory processes. Nevertheless, the technology marks a significant addition to the company's research pipeline and could become an important growth opportunity if its laboratory performance is confirmed under field conditions.