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# FMC advances dual-mode herbicide as weed resistance intensifies

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**The U.S. EPA filing strengthens the company's crop protection pipeline as demand grows for new weed management technologies**

FMC Corporation has taken a significant step toward commercialising its latest herbicide innovation by submitting the first global regulatory dossier for rimisoxafen to the U.S. Environmental Protection Agency (EPA). The filing marks the inaugural regulatory submission for the active ingredient and covers its proposed use across corn, soybean, sunflower and selected pulse crops.

The submission represents a major milestone in FMC's crop protection innovation strategy as growers worldwide grapple with the rapid spread of herbicide-resistant weeds. Developed over more than a decade at the company's Stine Research Center, rimisoxafen introduces a new approach to weed management by combining two distinct modes of action within a single active ingredient—a first for the global herbicide industry.

According to FMC, rimisoxafen has been classified by the Global Herbicide Resistance Action Committee (HRAC) as the first herbicide active ingredient with a dual mode of action, falling under HRAC Groups 12 and 32. By targeting two separate biochemical pathways in weeds, the technology is designed to slow the development of resistance compared with conventional single-mode herbicides, an increasingly important consideration as resistant weed populations continue to expand.

The launch pipeline comes at a critical time for U.S. agriculture. Herbicide-resistant weeds remain one of the most pressing agronomic challenges facing growers, particularly in soybean production. A 2025 survey by the Weed Science Society of America identified Palmer amaranth and waterhemp as the most problematic broadleaf weeds in the country, both of which

demonstrated consistent control during extensive field and greenhouse evaluations of rimisoxafen.

The commercial opportunity is equally significant. The United States cultivates more than 70 million hectares of corn and soybeans annually, with growers collectively spending in excess of $6 billion each year on weed management solutions. New herbicide technologies capable of extending resistance management are expected to play an increasingly important role as existing chemistries lose effectiveness.

Rimisoxafen is the third novel herbicide active ingredient that FMC has advanced into the regulatory review process in recent years, following Isoflex active and Dodhylex active. The latest submission reinforces the company's strategy of strengthening its innovation pipeline through proprietary chemistry aimed at addressing emerging resistance challenges and supporting long-term crop productivity.

Beyond the United States, FMC plans to seek regulatory approvals for rimisoxafen across additional agricultural markets and crop segments as part of its global commercialisation programme. The company noted that the active ingredient has not yet been approved for sale or use in any country, with commercial availability dependent on regulatory clearances in each jurisdiction.

The EPA submission underscores a broader shift in the crop protection industry, where innovation is increasingly focused on developing differentiated modes of action rather than incremental improvements to existing chemistries. As weed resistance continues to erode the effectiveness of conventional herbicides, technologies capable of delivering multiple mechanisms of control are expected to become central to future weed management strategies.