

Syngenta and Kyoyu Agri partner to bring new rice herbicide to Asian markets

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The collaboration will commercialise Cyclopyranil, a novel active ingredient developed by Kyoyu Agri, targeting herbicide-resistant weeds through a different mode of action and expanding weed-management options for rice farmers



Syngenta and Japanese agrochemical manufacturer Kyoyu Agri are joining forces to bring a new herbicide technology to selected Asian rice markets, targeting one of the sector's increasingly difficult challenges: the spread of weeds resistant to established crop protection products.

The strategic collaboration will see Syngenta market herbicide products based on Cyclopyranil, a novel active ingredient developed by Kyoyu Agri, across a number of countries in Asia. The partnership combines Kyoyu Agri's proprietary chemistry with Syngenta's regional commercial reach, with the aim of expanding weed-management options for rice growers.

The timing reflects a growing concern for rice production systems worldwide. Herbicide resistance is narrowing the effectiveness of existing weed-control programmes, increasing pressure on farmers to adopt alternative modes of action and more diversified management strategies.

According to the companies, researchers have documented more than 190 cases of herbicide-resistant weeds in rice production systems globally. Among the most persistent threats is barnyard grass (*Echinochloa crus-galli*), which competes aggressively with rice for nutrients and other resources while resembling the crop during early growth, making identification and removal more difficult.

A new mode of action against resistant weeds

Cyclopyranil is Syngenta's first rice herbicide based on the protoporphyrinogen oxidase (PPO)-inhibiting mode of action, classified as Herbicide Group 14. The companies say the active ingredient controls a broad spectrum of broadleaf and grass weeds through contact activity, including weeds that have developed resistance to herbicides with other modes of action, such as acetyl-CoA carboxylase (ACCase) and acetolactate synthase (ALS) inhibitors.

The product can be used as either a pre-emergence or post-emergence herbicide, potentially giving growers greater flexibility in aligning weed control with crop development and field conditions. Its reported effectiveness at low application rates is another feature highlighted by the companies.

The introduction of a different mode of action could help farmers diversify weed-control programmes. However, the long-term value of the technology will depend on local efficacy, crop safety, application guidance and how it is incorporated into resistance-management strategies. Reliance on any single herbicide can eventually undermine its effectiveness if resistance-management practices are not followed.

Syngenta brings distribution reach to Kyoyu Agri's chemistry

For Kyoyu Agri, the partnership provides a route to expand the international reach of its proprietary technology. For Syngenta, it adds a new active ingredient to its rice weed-control portfolio at a time when resistance is placing established herbicide options under pressure.

Ioana Tudor, Syngenta Crop Protection's Global Head of Marketing, said the spread of herbicide resistance was steadily reducing the options available to rice farmers. She said the collaboration was intended to provide new tools to help farmers manage resistant weeds, protect yields and sustain rice production.

Masakazu Yamada, President of Kyoyu Agri, described the agreement as a milestone in bringing the company's proprietary technologies to international markets. He said Syngenta's distribution network would help make the herbicide available to rice growers across Asia.

The agreement covers marketing in selected Asian countries. The companies have not specified the individual markets, launch timelines or commercial targets in the announcement.

Resistance management will determine the long-term value

The collaboration highlights a wider challenge for crop protection: developing new chemistry is only one part of managing herbicide resistance. Barnyard grass and other resistant weeds can undermine productivity, particularly when they compete with rice during critical growth stages or escape early detection.

Cyclopyranil's distinct mode of action could give growers another tool for managing these threats, but its contribution will depend on how effectively it is deployed alongside other weed-control methods. Integrated weed management—including appropriate herbicide rotation, combinations of effective modes of action where permitted, and cultural and mechanical control measures—remains important to slowing the development and spread of resistance.

As Syngenta and Kyoyu Agri move towards commercialisation in Asia, the key test will be whether the technology delivers consistent field performance and practical value across different rice-growing systems. For farmers confronting increasingly difficult weed-control decisions, a new chemistry option matters most when it can be used effectively, economically and sustainably.