I refer to your article on the weedy rice problem in Malaysia ("Rice crops under siege" - NST, Feb 5).

Weedy rice is one of the most noxious weed species found not only in Malaysia, but also worldwide. In order to effectively manage weedy rice, efficient weed control approaches must be implemented.

Weed and weedy rice control using herbicides under the Clearfield production system is the latest weedy rice control technology developed by BASF and the Malaysian Agricultural Research and Development Institute (MARDI). It consists of four components: certified herbicide-tolerant rice seeds (MR220CL1 and MR220CL2), registered pre-mix imidazolinone herbicides + (OnDuty® brand) and surfactant, and Clearfield Rice Cultivation Product Stewardship Guideline.

To ensure high and continuous efficacy of the Clearfield production system in controlling weedy rice, it is compulsory for farmers to use all four components in the package.

Development of resistance to herbicides in weed species is an inevitable phenomenon all over the world, including in Malaysia. Resistance to herbicides occurs when the herbicide with similar mode of action is used continuously to control weeds. The resistance risk is escalated when farmers do not apply herbicides at the recommended rates.

To reduce the risk of herbicide resistance in weedy rice species, it is crucial for farmers to rotate herbicides with different modes of action, and not dependent on a single herbicide (or herbicide with similar mode of action) to manage weeds on their farms, and to use the herbicides at the recommended rates.

Herbicides are among the highly effective weed management tools available today. However, one must follow the guidelines and information stated on the herbicide label, from mixing to spraying, spray-tank cleaning, storage and container disposal. To maintain their efficacy, it is mandatory to use herbicides at the recommended rates and at the correct crop and weed growth stages, and to purchase only registered herbicides. It is also equally important to integrate herbicides with other non-chemical control methods (that is, cultural, mechanical and biological) to achieve better and more sustainable weed control results.

Under the Clearfield Rice Cultivation Product Stewardship Guideline, it is clearly stated that all four components be followed accordingly. This package must also be rotated with non-Clearfield production system (non-Clearfield rice variety and herbicide) to reduce the risk of herbicide resistance development in weedy rice and other weed species.

Farmers are also advised to purchase only registered Clearfield production system from authorised dealers or padi agents to guarantee its purity and efficacy in controlling weedy rice and weeds in rice fields.

Herbicide resistance in weedy rice is occurring in rice fields in Peninsular Malaysia. However, solid evidence, together with a series of quantitative analyses, must be available to confirm herbicide resistance development in weed species.

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