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The Current Situation of Chemical Pesticide Use on Crops in Cambodia: Is there Any Driving Force to Halt this Application?

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Abstract

Pests and diseases dramatically decrease yields and contribute to post-harvest losses of all crops in Cambodia. Even with limited documentation, the use of chemical pesticides (CP) among farmers has resulted in concerns on human health as well as the accompanying environmental problems. The objective of this research, therefore, was to observe the current situation of using CP in different geographical regions in Cambodia.

The survey was conducted in 3 provinces in Cambodia namely Battambang (Northern), Kampong Thom (Middle), and Takeo (Eastern) province. In these provinces the agricultural technology adaptation among farmers is influenced by Thailand, Cambodia, and Vietnam respectively. 37 Farmers using chemical and home-made plant-based pesticides were interviewed in each province.

It was observed that CP were used predominantly in Takeo (81%), following by the Battambang (65%) and the Kampong Thom (59%) provinces. Limitation of indigenous knowledge in preparing organic pesticide among farmers contributed to 44% of decision in applying CP, following by the availability of CP on the market (22%) and its quick reaction (19%), and other reasons (15%). While the 3 latter observations were not significantly different among regions, it is pointed out that limitation on indigenous knowledge was very important in Takeo (81%) and following by Kampong Thom (43%). Educations and training programs for farmers by various institutions reduced the application of CP among farmers. Overall, on average, 44% of farmers decided to abandon the use of CP due to health problems, whereas 27% stopped using CP as they knew alternative methods of pest control. 9% Stopped due to the high costs of CP and another 20% for other reasons. The latter case was mainly due to the membership of farmers in 'organic communities' active in some of the surveyed provinces. Health problems as a decision-factor to discontinue the use of CP was profoundly observed in Takeo (57%) whereas high possibility of finding alternative choice was stated highest in Kampong Thom (32%).

Remarkably, the majority of farmers are still using CP. According to the survey health problems are the main driving force for farmers to discontinue the use of CP. Because those farmers who decided to stop using CP are already the victim or even becoming disabled, caution and attention on the use of CP must be drawn.

Keywords: Cambodia, chemical pesticide, natural pesticides, health problems