

Evaluate the decision of as low as reasonably practicable (ALARP) solutions for the safe use of pesticide among the pesticide handlers, paddy farm, Tanjung Karang, Selangor

ABSTRACT

Introduction: Most of the farmers encounter the similar problems such as low-financial capacity and lack of information to control over the pesticide hazards. This study highlights the importance of the approach of As Low As Reasonably Practicable (ALARP) solutions to control and reduce the identified health risks from the pesticide use. **Objective:** To evaluate the decision of ALARP solutions for the safe use of pesticide among the pesticide handlers. **Methodology:** This cross-sectional study was conducted among 85 pesticide handlers to evaluate the ALARP practical solutions. The solution shall consider the factors that could control and mitigate the health risks suitably and cost-effectively. **Result and Discussion:** Pesticide handlers were aware of the fact that using hazardous pesticides without appropriate control equipment is detrimental to their health. When ALARP solutions are considered, respondents prefer to utilize the control strategies that are less likely to incur costs. Among all, the practices of the safe system of work and administrative control are highly recommended to mitigate the potential health risks during mixing and loading, application, and drift control and decontamination. **Conclusion:** It is recommended to apply the ALARP solutions to control and mitigate the pesticide risks sustainable during mixing and loading, application, drift reduction and decontamination.

Keyword: LARP solutions; Pesticide health; Pesticide safety; Safety decision