

Farmers' knowledge on pesticide usage in vegetable cultivation in Badulla district, Sri Lanka

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Pesticide spraying has become a common practice in commercial vegetable cultivation with the adoption of new technologies. In spite the benefits, pesticides pose potential hazards to human health and to the ecosystem when inappropriately handled. Sri Lankan farmers often use pesticides based on their experience and misuse and overuse often lead to health and environmental threats. Hence this study was conducted to assess the farmer's knowledge and practices on safe use of pesticides among vegetable farmers in Badulla district. Vegetable farmers (n=100) were selected by using proportionate sampling, and primary data were collected from them through personal interviews. Results revealed that 92% of farmers were engaged in full time vegetable cultivation. Almost all the farmers depended on the chemical pesticide for the management of pests. About 93% of farmers used Marshal 20 SC (Carbosulfan) which is a broad spectrum carbamate pesticide that acts by inhibiting the activity of acetylcholineesterase to control insect pests. 68% of farmers used Cabrio Top (Pyraclostrobin 5%+ Metiram 55% WG), the broadspectrum fungicide. All farmers use at least one precautionary measure during the pesticide application. Only 40% of farmers used gloves during pesticide application and 79% of farmers used caps. About 90% of the farmers read the label on the pesticide bottle before using it. 96% of the farmers washed the clothes that they were wearing during pesticide application separately. Almost all farmers avoid splashing, spilling, leakage during spraying. Results of the chi-square analysis revealed that there was a highly significant association observed between the education level of the farmer and reading the label before opening the pesticide container ($\chi^2 = 11.4$, $p < 0.01$). It is recommended to conduct awareness programs to change farmers' attitudes towards judicious and safe use of pesticides.

Keywords: Agricultural safety, health hazards, pesticide spraying

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