

ANALYSIS OF AGROCHEMICAL USAGE IN UP-COUNTRY VEGETABLE FARMING

J.M.M.C.K. Jayasundara

Postgraduate Institute of Science, University of Peradeniya, Peradeniya, Sri Lanka

Agrochemicals have become inevitable inputs in vegetable cultivation with green revolution technologies. However indiscriminate use of pesticides causes health hazards to humans and long lasting negative effects to the environment. Upcountry vegetable farming is one of the intensive cultivated farming systems which consume a high volume of pesticides and fertilizers, especially due to short duration of crops and highly favourable humid conditions for rapid spread of pests and diseases.

The major objective of this study is to estimate the level of pesticide (insecticides, fungicides and herbicides) use and to investigate the factors affecting overuse/misuse. Primary data for the study was collected from 240 farmers randomly selected among potato, beans, cabbage and leeks cultivators from selected areas in the Badulla and Nuwara Eliya districts.

According to the findings of the study, about 5% of the active ingredients of pesticides used in the upcountry vegetable farming belong to not permitted Class (ib) type, while another 34% belong to the category of restricted use (Class (ii)). About 47% of the farmers prefer to use Organophosphate (OP) group of insecticides, as they believe these pesticides give quick results and are cheaper despite their toxicity and harmful nature on the environment. Green pesticides and Integrated Pest Management methods are not popular as they do not bring quick results.

About 40% of the farmers always apply pesticides prior to the appearance of any symptoms of pest or disease as a precautionary safety measure. The numbers of pesticide overdosing farmers are 38% and 41% in the Badulla and Nuwara Eliya respectively as they believe that recommendations and prescriptions given in the pesticide product labels are insufficient.

Most of the issues at the user's level are associated with lack of awareness, poor attitudes and behaviours of farmers and weaknesses in the extension system. Thus, there is a need for strong awareness campaigns through all possible means including print and electronic media to educate farmers and change their attitudes and to empower the farmer organizations to tackle the issues at farm level. Green band pesticides should be promoted by reducing the prices through tariff reduction and through farmer level awareness programs. As considerable proportion of the farmers had the perception of non-existence of specified strength in the pesticide label, it is recommended to carry out regular quality tests for the products available in the market by a recognized organization.