

FACTORS INFLUENCING PESTICIDE OVERUSE: A CASE OF BRINJAL CULTIVATION IN RAMBEWA DIVISIONAL SECRETARIAT DIVISION IN ANURADHAPURA DISTRICT OF SRI LANKA

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The widespread overuse of synthetic pesticides in vegetable cultivation has caused negative effects on the cost of production, human health, and environment. This study investigates the factors influencing overuse of pesticides in brinjal cultivation in Rambewa Divisional Secretariat division of Anuradhapura district. The study used a sample of 50 randomly selected brinjal farmers from five Grama Niladhari divisions and then interviewed using a pre-tested questionnaire. Descriptive statistics, the probit model, and cross-tabular analysis were used to analyse data. The study found that eight out of 13 active ingredients were overused by the farmers, i.e., Acetamiprid (24%), Imidacloprid (32%), Abamectin (52%), Chlorantraniliprole (36%), Thimethoxam 20%+Chlorantraniliprole 20% (16%), Captan (48%), Propineb (10%), and Thiram (8%). The probit analysis revealed that educational level ($p < 0.001$) and farming experience ($p < 0.05$) are negatively related while land extent ($p < 0.05$) is positively related to pesticide overuse. The cross-tabular analysis also found the similar results except association between pesticide training and overuse which is insignificant but the negative sign in probit analysis. Sixty-two per cent of farmers apply pesticide before the appearance of any symptoms of pest or disease as a precautionary method. Although, 96% of farmers store pesticide containers in a safe location, 32% of farmers dispose pesticide containers by dumping into the garbage and putting into the rock bays damaging the environment. Similarly, majority of farmers do not follow safety measures such as protective cloths (80%), masks (52%), and gloves (72%). The study concludes that educational level, farming experience, and pesticide training are the key factors influencing overuse of pesticide. Training of farmers especially low educated and higher land extent cultivated are recommended with special reference to harmfulness and handling of pesticides through launching effective pesticide training programs and to promote alternative pest management strategies such as use of bio-pesticides and integrated pest management

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