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PROMOTING SUSTAINABLE SPICE CULTIVATION: THE ROLE OF GOOD AGRICULTURAL PRACTICES IN KANDY DISTRICT



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ABSTRACT

In order to solve the environmental, social, and economic issues facing contemporary food systems, sustainable agriculture is essential. Spice production is a major source of export revenue and rural lives in Sri Lanka. This study, "Promoting Sustainable Spice Cultivation: The Role of Good Agricultural Practices (GAPs) in Kandy District," evaluated how smallholder farmers' adoption of GAPs supports sustainable spice cultivation. The study concentrated on the impact of five GAP elements on views of sustainability: soil management, water management, pest control, post-harvest handling, and record keeping. One hundred smallholder farmers completed structured questionnaires as part of a quantitative approach, which was then analyzed using multiple regression, Pearson correlation, and descriptive statistics in SPSS. Results showed an ageing yet experienced farming population, with 67% above 40 years and 79% having over five years of experience, though 69% had limited GAP knowledge and 54% lacked certification. Despite this, adoption of sustainable practices was high (means > 4.0), with pest control ($M = 4.16$), post-harvest handling ($M = 4.09$), and record keeping ($M = 4.08$) leading. Strong positive correlations were found between all GAP dimensions and sustainability ($r = 0.775\text{--}0.880$, $p < 0.01$), with post-harvest handling and water management showing the highest influence. The regression model explained 86.7% of the variance of perception of sustainable cultivation ($R^2 = 0.867$), confirming all five GAP dimensions: soil management, water management, pest control, post-harvest handling and record keeping as significant predictors. Experience enhanced sustainability perceptions ($p = 0.007$), while younger farmers were more adaptable ($p = 0.034$). The study concludes that although formal GAP awareness and certification remain limited, farmers already practice many GAP principles through traditional methods. Enhancing awareness, training, and certification support, alongside institutional and market-based incentives, will strengthen environmental outcomes, product quality, and farmer livelihoods, fostering a resilient and sustainable spice industry in Sri Lanka.

Key words: Good Agricultural Practices (GAP), Kandy District, Small Holder Farmers, Spice Cultivation, SPSS, Sustainable Agriculture

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