

**COMPARISON OF PROFITABILITY OF GREENHOUSE  
FARMING AND TRADITIONAL FARMING IN COLOMBO  
DISTRICT**



**By**

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## ABSTRACT

Sri Lanka is an agriculture-based economy with a major impact in traditional farming. However, on the other hand greenhouse farming offers numerous advantages, including controlled environment conditions, potential for year around production leads to better quality yields and higher yields. This study examines the profitability of greenhouse farming compared to traditional farming in the Colombo District. A total of 100 farmers including both greenhouse farmers and traditional farmers were selected using a simple random sampling method, and a pre-tested structured questionnaire was used to collect the data. The data were analysed using SPSS version 24 software. Descriptive statistics and multiple regression analyses were conducted to analyse the variables. The primary results indicated that individuals aged 36 – 45 were significantly engaged in both farming types in the Colombo District and a higher value of 83% had completed secondary education level. Most of the respondents (43%) experienced less than five years in farming, and 65% of farmers have fallen within the monthly income bracket of 40,000-60,000. The study compared the profitability of greenhouse farming and traditional farming in the Colombo District. The regression model for greenhouse farming had an R square value of 0.630, explaining 63% of profitability variability, while traditional farming had an R-square value of 0.825, explaining 82.5% variability. Key findings show that greenhouse farming yields higher production and better crop quality. Compared to traditional farming. Greenhouse farming has a significant advantage in market price ( $p = 0.003$ ) and demand dynamics ( $p = 0.022$ ). Traditional farming is more affected by market stability ( $p = 0.028$ ) and environmental impact ( $p = 0.033$ ), resulting in lower yields and quality. Additionally, greenhouse farming showed a higher profitability margin with significant factors such as efficient resource utilization and stable market conditions. The study also found that greenhouse farming had higher operational costs but yielded more consistent and higher profits, making it a more viable and sustainable option for farmers in the region. Overall, greenhouse farming provides more stable and predictable outcomes, making it a more viable option for farmers in the region. For better yields and stability, farmers should consider greenhouse farming despite its higher costs. It offers more consistent profits and improved quality compared to traditional method.

**Keywords:** Greenhouse farming, Market stability, Profitability, Resource utilization, Traditional farming

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