

**STUDYING THE PERFORMANCE OF CHILLI  
CROPS IN THE FARMERS FIELDS AND  
ANALYZING OF PRODUCTION AND MARKETING  
POTENTIAL IN THE SOUTHERN SECTOR OF  
KALUWANCHIKUDY VILLAGE**



**KALAIMATHY ALAGARATNAM**

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**ABSTRACT**

Chilli is a spice crop with high consumer demand and provides high return to farmers. It is used for green chilli as well as dried chilli. Although there are many chilli varieties available in Sri Lanka; PC is the only local variety commonly cultivated in Batticaloa district.

Chilli is normally open pollinated crop and to collect the seeds, there is a need to prevent cross pollination, 500 m is considered as safe isolation for their purpose. But most of the farmers do not practice the varietal isolation. They raise the next generation from seeds obtained from the uncontrolled pollinated environment causing a wide variability in morpho agronomic characters and terms a major constraint to chilli farmers to expand their cultivation.

The research was performed to study the performance of chilli crop in the farmers' fields, to analyze the production and marketing potential in the southern sector of Kaluwanchikudy village in addition to analyze the variability among chilli population. Three chilli farmers in Southern sector of Kaluwanchikudy village were selected for this study. Ten plants in each field were randomly selected to study the performance of chilli.

The plant height, branch number and weight of fruits were measured in two weeks interval. Height at 50% flowering, height at 100% flowering, height at 6<sup>th</sup> harvest were also measured. Length of fruits, girth of fruits, individual fruit weight, and number of fruits per plant were taken at third harvest. The correlation of these characters was analyzed.

Height at 50% flowering had positive correlation with height at 100% flowering and height at 6<sup>th</sup> harvest and finally with yield. Fruit length had positive correlation with yield however the fruit girth had negative correlation with yield.

The variations in the qualitative characters like plant and fruit characters and growth habit were observed between fields and within the field. Fruit shape and fruit colour showed high variations with in the field as well as between fields. Fruit set, growth habit, branching habit and nodal anthocyanin showed medium variations within field and between field at low level.

The variations in quantitative characters such as number of fruits per plant, weight, length and width of fruit, number of branches were clearly observed between plants and between fields. Such variation is attributed to differences in genotypes, field conditions and genotype and environmental interaction.

Based on the statement of these farmers, consumers and traders, the production and market potential were analyzed. The variety PC has higher consumer demand and gives higher profit to farmers.

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