

Feasibility of Clove (*Syzygium aromaticum* (L.) Merr. & L.M. Perry) Cultivation in Gampaha District

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Cloves are important as a spice, medicine, flavoring, or fragrance in consumer products. Though Sri Lanka is the 8th largest exporter of cloves, the cultivation is basically confined to 7,618 ha in *Kandy*, *Kegalle*, and *Matale* districts. Clove has proven to be a successful crop in home gardens with its ability to provide income to families during two seasons per year at a minimum cost. The lack of suitable lands with the required soil and climatic conditions is the major constraint to further expanding the commercial cultivation of cloves in Sri Lanka. Therefore, this study aimed to study the feasibility of commercial clove cultivation in *Gampaha* district. The study was conducted in 13 Divisional Secretariat Divisions (DS). Ninety home gardens were selected for the study of which, questionnaire survey was conducted in selected 50 home gardens and soil samples were also collected for the analysis of major soil properties. Interpolated surfaces were developed for specific climatic parameters and land suitability map for Clove was developed using Geographic Information System (GIS). Results revealed that clove cultivation is feasible as monocrop, intercrop, or home garden crop in *Gampaha* district except in areas close to the coastal belt. Based on the developed climatic and soil maps, *Mirigama* and *Dompe* are the most suitable areas for clove cultivation. *Negambo*, *Waththala*, and *Katana* areas are not suitable due to their close vicinity to the coastal belt. Other DS divisions have moderate suitability for clove cultivation on a commercial scale. According to cost-benefit analysis, clove cultivation is profitable in *Gampaha* district mainly as a home garden crop, and its contribution is significant on the family income. With support from relevant government authorities and adopting good management practices, clove can be successfully cultivated in the *Gampaha* district except in areas close to the coastal belt.

Keywords: Clove, Clove farming, Distribution of clove, Feasibility, GIS, *Syzygium aromaticum*

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