

A study on the performance of four underutilized vegetable crops in Northern Province with different trellises

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Underutilized vegetables have several agronomic traits that are beneficial for farmers and consumers. Crops, which were used in the current study, are traditionally cultivated in the North Central Province and rarely in the Northern Province. Considering the importance of promoting their cultivation, this study was carried out to study the performance of four underutilized vegetables, Sikkim cucumber (*Cucumis sativus* var. *sikkimensis*), clove bean (*Ipomoea muricata*), hyacinth bean (*Lablab purpureus*), and sponge gourd (*Luffa cylindrica*), with different trellis at the Faculty of Agriculture, University of Jaffna, from April to July 2023. The trellises were selected based on their growth habits and the information collected from Anuradhapura district farmers. Sikkim cucumber was supported with horizontal and inverted “V”, clove and hyacinth beans were supported with vertical and inverted “V” and sponge gourd was supported with vertical, horizontal and inverted “V” trellis and their performance was compared with control. The experiment was conducted in a randomized complete block design with three replicates. Growth parameters; vine length, leave number, branch number and yield parameters; numbers of flower buds, fruits, pods, pod weight and total yield were recorded. All parameters were subjected to analysis of variance. The provision of the trellis significantly ($p < 0.05$) improved the yield and quality. Highest performance was observed in Sikkim cucumber with horizontal (17.8 t/ha); hyacinth and clove beans with vertical (3.01 t/ha), (4.19 t/ha) and sponge gourd with inverted “V” (11.7 t/ha) trellises. Inclusion of these crops will enthuse a nutrient-rich, climate-resilient, and sustainable agriculture in the Northern Province.

Keywords: Northern province, Parameters, Trellis, Underutilized crops

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