COMPARATIVE STUDY OF SELECTED VEGETABLE PRODUCTION ON ROOFTOP GARDEN AND IN GROUND LEVEL

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Executive Summary

Rooftop farming in urban areas is usually done by using green roof, hydroponics, aeroponics container gardens as a source of food supply. A comparative study on selected vegetables was conducted on the roof of third floor of Biotechnology Department and Agroforestry and Environmental Science farm of Sher-e-Bangla Agricultural University, Dhaka, Bangladesh during the period from October 2018 to March 2019 to study the performance of selected vegetables of Cole crops on rooftop garden and ground level. The field experiment was conducted in RCBD and roof top experiment was done by CRD with four replications. In cabbage, cauliflower and broccoli, yield parameters value was increased with increasing days after planting for all of the traits studied like plant height, number of leaves, leaf length, leaf breadth, head height, diameter and weight were increased and the trend was significant in farm condition and roof top cultivation. In cabbage cultivation, plant height, leaf number, leaf length, leaf breadth, head height, head diameter and head weight were 36.65 cm, 12.52cm, 22.69 cm, 21.29 cm, 18.39 cm, 54.81 cm and 939.72 g, respectively at 60 DAT but in farm condition it was 27.66 cm, 9.84 cm, 18.31 cm, 17.44 cm, 16.24 cm, 50.74 cm and 865.61 g at 60 DAT. In cauliflower cultivation, plant height, leaf number, leaf length, leaf breadth, head height, head diameter and head weight were 43.19 cm, 12.32cm, 32.21 cm, 22.31 cm, 18.04 cm, 54.85 cm and 888.85 g at 60 DAT but in farm condition these were 38.64 cm, 9.96 cm, 26.43 cm, 18.21 cm, 16.15 cm, 50.26 cm and 740.43 g respectively at 60 DAT. In broccoli cultivation, plant height, leaf number, leaf length, leaf breadth, head height, head diameter and head weight were 42.98 cm, 10.44 cm, 29.67 cm, 21.69 cm, 17.60 cm, 51.85 cm and 816.48 g at 60 DAT but in farm condition they were 34.12 cm, 8.43 cm, 22.46 cm, 19.47 cm, 16.28 cm, 47.54 cm and 574.13 g were found in farm condition. Also, the highest curd length, curd diameter and yield were produced by cabbage followed by cauliflower and broccoli produced in roof top. The results clearly concluded that rooftop is suitable for vegetables production and getting better yield than field conditions.

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