

Promising Performance Of Exotic Strawberry Cultivar Under Open Condition In Kathmandu Valley

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Abstract

Strawberry (*Fragaria × ananassa* Duch.) is one the most important fruits in the world and relatively new fruit crop for commercialization in Nepal. Aiming to evaluate the performance of Strawberry cultivars in open and protected condition (two sites were apart by ~5 km) of Kathmandu valley, this study was conducted with five exotic cvs. (Emco 33, Emco 32, Sweet Sensation, Florida Beauty, Florida Fortuna) and one commercially established cv. (Tochiotome) in Nepal from November, 2018 to April, 2019. Cultivars were arranged in Randomized Block Design with same management practices in each condition. Plant growth, yield attributing and fruit quality related observations were considered to evaluate the performance of cultivars. Analysis was made for each site considering RBD. There were significant differences among cultivars in both locations. All the cultivars performed better in open than in protected condition. Under open condition, Emco 33 was the tallest (37.39 cm) and most spreaded one (54.29 cm canopy cover) followed by Emco 32 whereas- Emco 32 showed maximum number of leaves (62) followed by Emco 33 (57). However, Tochiotome showed maximum number of flowers in both open (20.3) and protected condition (16.0). Fruit size was significantly higher in open condition than in protected condition by both Emco 33 (23.18 g) and Emco 32 (23.45 g). Similarly, fruit yield per plant was highest in both cvs. Emco 33 (402 g) and Emco 32 (400 g) under open condition which was 2.24 times more than cv. Tochiotome in same condition. Overall fruit yield per plant was 2.33 times higher in open than in protected condition. Keeping view of overall performance, Emco 33 and Emco 32 proved to be promising cultivars for general recommendation for strawberry cultivation in Kathmandu valley. Altering planting season is highly recommended to see the yield potential of the cultivars in both conditions.

Keywords: Evaluation, Genotypes, Tochiotome, Variety, Protected cultivation