



RESEARCH PAPER

Effect of different growing media on growth, yield and quality of microgreens under greenhouse condition

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Abstract : The present investigation entitled “Effect of different growing media on growth, yield and quality of microgreens under greenhouse condition” was carried out at Hi-tech Horticultural Park, College of Horticulture, Junagadh Agricultural University, Junagadh during the year 2023. The experiment was laid out in Completely Randomized Design with factorial concept (FRBD) with two factors. The treatments consisted of three levels of growing media *i.e.*, Soil + Vermicompost (1:1 V/V), Cocopeat + Vermicompost (1:1 V/V) and Soil + Cocopeat + Vermicompost (1:1:1 V/V/V) with five levels of crops *i.e.*, Fenugreek, Onion, Palak, Beet root and Red cabbage. The results on interaction effect of growing media and crops indicated that the treatment combination of G_3C_5 [Soil + Cocopeat + Vermicompost (1:1:1 V/V/V)] + Red cabbage] recorded maximum germination (89.33 %), number of cells harvested per plug tray (47.67), percentage of cells harvested per plug tray (88.27 %), antioxidant activity (52.10 %), carotenoids content (12.46 mg/100 g) and minimum mortality (1.19 %). However, G_2C_2 [Cocopeat + Vermicompost (1:1 V/V)] + Onion] recorded maximum length of microgreens (9.17 cm), G_2C_1 [Cocopeat + Vermicompost (1:1 V/V)] + Fenugreek] recorded maximum root length (4.84 cm), G_2C_3 [Cocopeat + Vermicompost (1:1 V/V)] + Red cabbage] recorded maximum number of roots (5.07) and G_3C_4 [Soil + Cocopeat + Vermicompost (1:1:1 V/V/V)] + Beet root] recorded maximum yield per plug tray (19.93 g). Whereas, maximum chlorophyll content (1.21 mg/g) was noted in G_3C_3 [Soil + Cocopeat + Vermicompost (1:1:1 V/V/V)] + Palak].

Key Words : Different growing media, Growth, Yield, Quality, Microgreens, Greenhouse condition

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