

Book of Abstracts



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Effect of Growing Medium and Fertigation Management on Soilless Strawberry Quantitative and Qualitative Traits

Paolo Zucchi, Fondazione Edmund Mach, Via Mach 1, San Michele All'Adige, 38010 (TN), Italy; paolo.zucchi@fmach.it (presenting author)

Paolo Martinatti, via mach 1, san michele all'adige, Italy; paolo.martinatti@fmach.it (co-author)

Tommaso Pantezzi, via mach 1, san michele all'adige, Italy; tommaso.pantezzi@fmach.it (co-author)

Crop performances of peat-substitute growing media often give contrasting results in the low technological strawberry soilless orchard of Trentino region (Northern Italy). Therefore, determining and comparing the performances of these substrates represents an essential issue. Plants of everbearing strawberry (*Fragaria x ananassa* Duch.) cv Capri were transplanted in 3 different growing media: 85% peat and 15% coir (PC), 50% coir and 50% conifer wood (CW) and 100% coir (CC). Fertigation management consisted of 3 electrical conductivity (EC) levels (0.9; 1.2 and 1.5 dSm⁻¹) and 4 irrigation schedules (1.5 min every 15 min; 3 every 30; 4.5 every 45 and 6 every 60, with a time-window function of the leaching percentage). Twice a week ripen fruits were harvested, sorted in marketable and discard, and analysed. The three substrates had a different percolate pH, lowest for PC and highest for CW, values that increased during the first part of the trial. The marketable yield was significantly lower in plants grown on CW, while recording no difference in the total yield. PC had the best performance in the first marketable flush, followed by CC and CW, because of the differences in the mean fruit weight. The PC second flush was delayed in respect of CC and CW, letting them partially recover the gap. The 0.9 dSm⁻¹ EC level determined a lower marketable production, especially during the first part of the second flush. This effect is explained not only by the fruit weight, but also by a lower number of differentiated flowers. Irrigation scheduling did not affect the results. Organoleptic fruit analysis showed only slight differences. PC confirmed the best performance for a ready use, while CC and CW needed a more or less long period to reach the same results.

Keywords:

Everbearing strawberry, nutrient solution electrical conductivity, irrigation schedules, production