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Effect of Different Spacings on Growth Yield and Fruit Quality of Peach in the Sub-Tropics of India

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Abstract : Peach is primarily a temperate fruit, but its low chilling cultivars are grown quite successfully in the sub-tropical climate as well. The area under peach cultivation is picking up rapidly in the sub tropics of northern India due to higher return on a unit area basis, availability of suitable peach cultivar and their production technology. Information on the use of different training systems on peach in the sub tropics is inadequate. In this investigation, conducted at Punjab Agricultural University, Ludhiana (Punjab), India, the trees of the Shan-i-Punjab peach were planted at four different spacings i.e. 6.0x3.0m, 6.0x2.5m, 4.5x3.0m and 4.5x2.5m and were trained to central leader system. The total radiation interception and penetration in the upper and lower canopy parts were higher in 6x3.0m and 6x2.5m planted trees as compared to other spacings. Average radiation interception was maximum in the upper part of the tree canopy, and it decreased significantly with the depth of the canopy in all the spacings. Tree planted at wider spacings produced more vegetative (tree height, tree girth, tree spread and canopy volume) and reproductive growth (flower bud density, number of fruits and fruit yield) per tree but productivity was maximum in the closely planted trees. Fruits harvested from the wider spaced trees were superior in fruit quality (size, weight, colour, TSS and acidity) and matured earlier than those harvested from closed spaced trees.

Keywords : quality, radiation, spacings, yield
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