

Title Maturity indices for harvesting of low chilling peach cultivars under mid-hill conditions of Meghalaya

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Abstract

Peach (*Prunus persica* (L.) Batsch.) is an important fruit crop of temperate regions of the world. The evolving of low chilling cultivars paved the way for peach to sprawl in subtropics also. As they are precocious in nature, they attain maturity earlier. 'TA-170', 'Flordasun' and 'Shan-e-Punjab' are the most important low chilling peach cultivars suitable for growing on commercial scale and grove establishment under mid-hill altitudes of north eastern India. Because of its non-climacteric nature, fruits once picked do not improve in quality. Therefore, it becomes inevitable to fix the maturity indices for harvesting of peach for different stages of maturity viz., hard, firm, firm-ripe, tree-ripe and soft ripe. Hence, experiments were instigated to investigate maturity indices from the orchards grown at 1000 m above mean sea level. The fruit samples were drawn uniformly at weekly interval during different stages of fruit growth and development from 7 weeks after fruit set (immature green stage) to 13 weeks after set (soft-ripe stage). The outcome of the study unveiled the fact that 'TA-170' was earlier to mature and it attained maturity within 11 weeks after fruit set. This was followed by 'Flordasun' and 'Shan-e-Punjab' which attained maturity within 12 weeks after fruit set. The fruits analyzed on 11 weeks after fruit set revealed the best result for 'TA-170' with respect to fruit weight (37.20 g), fruit volume (41.20 ml), specific gravity (0.90), total soluble solids (11.90°Brix), TSS:acid ratio (16.96), vitamin-C (230.67 mg/100 g). For 'Flordasun' and 'Shan-e-Punjab', the fruits harvested on 12 weeks after fruit set secured the good score. Hence, it is advisable to harvest the fruits of peach cultivar 'TA-170' at 11 weeks after fruit set whereas 'Flordasun' and 'Shan-e-Punjab' at 12 weeks after fruit set under mid-hill altitude of Meghalaya.