

Effect of Pre Harvest Application of Amino Acids on Fruit Development of Sub-Tropical Peach

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Abstract : The present investigations were carried out at Fruit Research Farm, Department of Fruit Science, Punjab Agricultural University, Ludhiana during the years 2016 and 2017, with the aim of assessing the effect of amino acids on fruit development, shoot growth and yield of peach. The six-year-old peach trees of cv. Florida Prince were sprayed with 0.25 % and 0.50 % concentrations of amino acids (Peptone P1 023), 7 and 14 days after full bloom and the sprays were repeated after 15 and 30 days. Experimental findings showed that all the amino acid treatments increased fruit growth, shoot growth, fruit retention and yield and decreased fruit drop as compared to control during both the years. Maximum fruit retention (89.29 %) and minimum fruit drop (10.71 %) was observed in T8 (2 sprays @ 0.50%). Highest mean shoot growth (113.89 cm) was recorded in T12 (3 sprays @ 0.50%) while the minimum was in control plants (88.23 cm). Fruit yield was also found to be maximum (53.92 kg/tree) under double spray treatment T8 (2 sprays @ 0.50%) of amino acids and minimum in plants sprayed with triple spray of amino acids. Fruit maturity was advanced by 3-4 days by double spray treatments of amino acids as compared to control. In brief, the application of double spray of amino acids @ 0.50% (applied 14 days after full bloom and 15 days later), was found to be best to improve the fruit growth, fruit retention and yield of Florida Prince peach under Punjab conditions.

Keywords : amino acids, fruit growth, maturity, peach, shoot growth

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