

Title The effect of GA₃ and CaCl₂ on the postharvest characteristics of *Prunus avium* cv. *Tak Daneh Mashhad*

Author A. Vahid, T. Alireza, K. Ahmad

Citation Program and Abstract. 2007 Australasian Postharvest Conference. Crowne Plaza Terrigal, NSW, Australia. 12 September 2007. 87 p.

Keywords sweet cherry; calcium chloride; gibberelic acid

Abstract

Sweet Cherry is one of the most popular of temperate fruit crops all over the world. Its popularity is mainly due to its color, aroma, taste, bright and shiny skin and attractive appearance. Sweet cherries are now cultivated commercially in more than 40 countries all over the world. Iran is one of the popular production of this fruit all over the world. Sweet cherry is classified with in the genus *Prunus* which is a part of Rosaceae family. *Tak Daneh* cv. is one of the most popular cultivars in Iran with a large size and red color fruits with an approximate size of 7 gr and the average yield of 29 kg per tree. This research has been conducted to inspect the effect of gibberelic acid (GA₃) and calcium chloride on the Post harvest characteristics in Lavasan region. In this research work the fruits were treated with five different levels of GA₃ and calcium chloride in a completely random design. Characteristics that measuring in this research work include: Weight , amount of sugar , size of stone and fruits , total acidity of fruits , hardness of fruits texture and color of fruits. The Results of this research show that treatments with gibberelic acid at 30 ppm produced fruit of 11 gr in average weight, which is 50 to 60 percent more than normal weight and in statistical level there is %1 significant difference with control fruit. If it is intended to produce better quality fruits with higher amount of sugar, smaller stone and decreased total acidity , application of gibberelic acid (GA₃) at 50 ppm concentration might be recommended. The results indicated that all the treatments with gibberelic acid (at 30 or 50 ppm concentrations), Calcium Chloride (1000 ppm) or both together hardened fruit texture and caused better shelf life and decreased crop losses after harvesting.