

Title Effect of etephon on ripening of cactus pear fruits
Authors F. Esparza, G. Esparza, F.J. Macias, S.J. Méndez
Citation ISHS Acta Horticulturae 728: 165-172. 2006.
Keywords fruit growth; nopal; tuna; veraison; ripening; ethrel; ethylene

Abstract

Due to the few cultivated varieties, cactus fruit harvest in southeast Zacatecas, Mexico, concentrates during August-September, with early ripen fruits gaining the best prices. The aim of this research was to explore the possibility to advance maturity and harvest of cactus fruits by means of etephon applications. Two dates (at seed color change “SCC” and one month later SCC), three doses (0, 250 and 500 ppm), and number of applications (1, 2 and 3) of etephon were tested on ‘Amarilla’ cactus pear. Although some interactions were detected for some evaluation dates, the only factor with consistent effect on the Percentage of Veraised Fruits (PVF) and Fruit Firmness was the etephon dosages. As a result of pigment synthesis, both doses (250 and 500 ppm) caused a higher PVF than the control (0 ppm) during all the evaluation period (Aug/4th to Aug/30th). 500 and 250 ppm of etephon induced the beginning of fruit veraison nine and five days before the control. By August 13th, control fruits presented 12.2% of PVF while 50% of etephon treated fruits had reached the veraison stage. Control fruits reached 50% of PVF by August 30th. Etephon applications were also associated with less fruit firmness.