Beneficial effects of kinetin on shelf life of kinnow mandarin

NIRMALJIT KAUR*, ANIL KUMAR AND P.K. MONGA
Regional Research Station (P.A.U.), ABOHAR (PUNJAB) INDIA
(Email : nirmal_physio@rediffmail.com)

Abstract : The present investigations were undertaken to extend the shelf life of Kinnow mandarin without affecting the fruit quality at Regional Research Station, Abohar. The harvested fruits were treated with different concentrations of kinetin (15 and 20 ppm). The treated fruits were stored under cold storage (4ºC, 90-95 % RH) and ambient conditions (6-21^0 C, 51-85 % RH) after packaging in CFB boxes (10 kg). The physiological loss in weight, rotting, juice, total soluble solids, vitamin C content were recorded at different times of interval of the fruits stored under different conditions. From the data it has been observed that the minimum physiological loss in weight and rotting was recorded with the application of the growth regulator as compared to control under both the conditions. The mean physiological loss in weight (5.02 %) and rotting (6.66 %) were observed to be minimum up to 60 days with the post harvest application of kinetin (20 ppm) , while these were minimum with the same treatment when stored up to 28 days under ambient conditions. The maximum retention of TSS, vitamin C and juice content was observed with the post harvest application of kinetin (20 ppm), while acidity decreased under the cold storage and ambient conditions. Therefore, the shelf life of Kinnow fruits can be extended up to 28 days and 60 days with the post harvest application of kinetin (20 ppm) under ambient and cold storage conditions, respectively without affecting the fruit quality of kinnow mandarin.

Key Words : Kinetin, Shelf life, Kinnow

* Author for correspondence