International Journal of Applied and Natural Sciences (IJANS)
ISSN (P): 2319–4014; ISSN (E): 2319–4022
Vol. 11, Issue 2, Jul–Dec 2022; 27–40

International Academy of Science, Engineering and Technology
Connecting Researchers; Nurturing Innovations

POST-HARVEST INTERVENTIONS TO EXTEND THE SHELF LIFE AND MAINTAIN THE QUALITY OF INDIAN JUJUBE CV. UMRAN UNDER AMBIENT STORAGE CONDITIONS

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ABSTRACT

An experimental study was conducted to observe the effects of post-harvest treatments which extend the shelf life and maintain the quality of Indian jujube cv. Umran under ambient storage conditions. The results revealed that calcium chloride and SA significantly reduced the physiological loss in weight during ambient storage condition in Ber fruits. Application of 1.5 per cent calcium chloride on Ber fruits packed in nelton bag exhibited minimum weight loss is during storage period in ambient storage conditions. The application of $CaCl_2$ and SA significantly influenced the pulp/stone ratio under ambient storage conditions in Ber fruits. The $CaCl_2$ @ 1.5 per cent (T3) was recorded maximum i.e., 11.51, 11.39, 11.10 and 10.29 pulp/stone ratio at 3rd, 6th, 9th and 12th days under ambient storage conditions, respectively. The maximum TSS was recorded under T3 treatment (1.5% $CaCl_2$) i.e., 13.36, 14.56, 14.89 and 13.95 °B at 3rd, 6th, 9th and 12th days of storage, respectively. The maximum acidity i.e., 0.253, 0.232, 0.221 and 0.171 per cent was recorded in T_3 (1.5% $CaCl_2$) while minimum i.e., 0.189, 0.159, 0.129 and 0.108 per cent under control at 3^{rd}, 6^{th}, 9^{th} and 12^{th} days of storage period under ambient storage conditions. The application of $CaCl_2$ at the rate 1.5 per cent decreased the TSS/acid ratio of 18.33 per cent on 12^{th} day of storage as compared to control. The reducing sugar increased during storage time up to 9^{th} day but decreased on 12^{th} day of storage in all treatment combinations of Ber fruits. This treatment of application of $CaCl_2$ showed an increased 68.60 per cent more reducing sugar over control at 12^{th} day under ambient storage conditions. The maximum non reducing sugar content in Ber fruits i.e., 4.85, 5.39, 5.55 and 4.85 per cent at 3rd, 6th, 9th and 12th days of storage was recorded under T3 (1.5% $CaCl_2$) during ambient storage conditions, respectively.

KEYWORDS: *Ambient Storage, Indian Jujube, Post-Harvest, Shelf Life*

Article History

Received: *21 Jul 2022* **|** ***Revised:*** *04 Aug 2022* **|** ***Accepted:*** *08 Aug 2022*