

# Effects of different postharvest techniques on quality management and shelf life of 'Kinnow' mandarin fruit

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## Abstract

In present era, consumers mostly demand for fungicide or pesticide free fruit as their use may be harmful for human health as well as they degrade bioactive juice components and antioxidant profile of fruit which are beneficial to human health. Being non-climacteric fruit, mandarins have lower shelf life at ambient temperature, therefore; many postharvest treatments have been introduced to increase the shelf life along with cold storage. The present study was planned to compare different (inexpensive and effective) non-chemical techniques at their safe level which maintained the nutritional profile of fruit. Results revealed that locally prepared Hydroxypropyl Methyl Cellulose (HPMC) coating and application of 4 mM salicylic acid (SA) performed best to control the disease incidence in comparison of gamma radiation (800 Gy) during 90 days of storage. SA application had better performance to maintain total phenolic contents, antioxidant activity (%) and antioxidant enzymatic activities for longer time period.