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ASCORBIC ACID HAS PRESERVED PHENOLIC COMPOUNDS IN COLD STORED FRESH WALNUT KERNEL

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Changes in total phenolic compounds of ascorbic acid treated fresh Chandler kernels were assayed during 60 days of storage at 4 ± 1 °C. Fresh walnuts were stored in even aqueous or dry environment and the phenolics were investigated every 15 days intervals by using Folin-Ciocalteu method. Total Phenol content in the primary samples were 0.38 ± 0.005 mg gallic acid equivalents g^{-1} D.W and the amount of these compounds were decreased in the course of time. Although, ascorbic acid in aqueous environment was inhibited loss of phenolics and also, ascorbic acid treated walnuts in dry environment had significantly more phenolics than untreated controls which were stored even in aqueous or dry environment. In addition, fresh kernels which were kept in aqueous environment generally had more phenolic compounds than those were stored in dry environment. This study showed the potential of using ascorbic acid in aqueous environment to develop functional foods with high phenolic compounds.

Keywords: Chandler, Postharvest, Phenolics, Storage