

ORIGINAL ARTICLE

The Effect of *Cordia Myxa* L. on Storage Quality of *Vitis Vinifera*

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ABSTRACT

Background: Fruits have a limited short life due to chemical changes and microbial damages. This study was conducted to determine the effect of *Cordia myxa* L. on storage quality of *Vitis vinifera*.

Methods: The grape fruits of *V. vinifera* L. were dipped with 1% and 2% of *C. myxa* L. extract (CME). The fruits were then packed in 250 g plastic containers and stored in a refrigerated incubator at $\pm 4^{\circ}\text{C}$. The weight loss, acidity, total soluble solids (TSS), and damages were assessed in addition to sensory evaluation that was undertaken during 6 weeks storage period.

Results: A good response was demonstrated by treatment with CME, while dipping with 2% of CME was superior based on less weight loss that happened during storage (0.076), together with an increased acidity and TSS and the lowest percentage of microbial damages when compared to other treatments. A significant positive correlation coefficient (≤ 0.01) was seen between TSS and acidity and damaged fruits. The correlation was negative between acidity, damage, and TSS and weight. The sensory evaluation revealed a good quality for fruit dipped with 2% of CME.

Conclusion: The importance of immersing grape fruits with CME was demonstrated to extend the storage quality; while the fruits retained their nutritional and sensory values too.

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Introduction

Cordia myxa L. extract (CME) fruit belongs to one of the largest genera in the Boraginaceae family, locally known as Bumber. About three hundred species have been described globally, mostly in the warm region, and they are important because of their therapeutic properties and the possibility to grow in poor soil and adverse climatic conditions.

These fruits have antioxidant properties and are considered nutritional goldmines; while most of them have high levels of various phytochemicals such as flavonoids, tannins, phenolic acids, terpenes, xanthones, and saponins which may account for their antioxidant potential (1, 2). Phytochemical screening of CME showed the presence of oil, glycosides, flavonoids, sterols,