



Postharvest application of calcium chloride and 1-methylcyclopropene for quality conservation on organic ripe fig



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All relevant data are within the paper and its Supporting Information files.

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The authors declare no competing interests.

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Abstract: The postharvest phase is an important step in the fruit production chain. Fig is an especially perishable fruit, which has encouraged researchers to study the effects of various substances on the postharvest life of this commodity. The objective of the present work was to evaluate the effects of calcium chloride (CaCl₂) and 1-methylcyclopropene (1-MCP) on the postharvest quality of the 'Roxo-de-Valinhos' fig cultivar. This study aimed to verify the effects of applying a 4% solution of CaCl₂ and a 1% solution of 1-MCP to figs and evaluating at four different storage times (0, 2, 4, and 6 days). The results showed that a 4% solution of CaCl₂ promoted better firmness, and when CaCl₂ at 4% solution was applied in combination with 1-MCP at 10 µg l⁻¹, the maturation index increased. In contrast, the 1-MCP treatment alone did not improve the postharvest quality of 'Roxo-de-Valinhos' ripe fig. We conclude that application of 4% solution of CaCl₂ and 1-MCP at 10 µg l⁻¹ promote firmness and increase maturation index of 'Roxo-de-Valinhos' figs.

Table S1 - Sample identifications (Sample ID), local names, their meanings of the 86 86 local mango cultivar from southern of Iran

Fruit parameters	Treatment				CV
	CC		MCP		
	Untreated	Treated	Untreated	Treated	
Soluble solids (%)	9.13 * ± 1.32 a	8.48 ± 0.54 a	9.15 ± 1.08 a	3.14 ± 0.93 a	9.6
Titrateable acidity (%)	2.43 ± 0.23 a	2.48 ± 0.22 a	2.43 ± 0.20 a	2.48 ± 0.23 a	19.9
Weight loss (%)	19.35 ± 5.14 a	18.14 ± 2.66 a	19.10 ± 5.21 a	18.40 ± 2.66 a	27.3
Firmness (Lb)	2.31 ± 0.54 a	3.53 ± 2.67 * a	2.70 ± 0.88 a	3.14 ± 1.35 a	46.2
Maturation index	68.43 ± 14.29 a	62.03 ± 8.00 a	65.72 ± 12.51 a	64.75 ± 11.66 a	22.2

* Standard deviation. Values followed by the same uppercase letter in a column and lowercase letter in a row are not significantly different from each other (P<0.05).