

Application of 1-Methylcyclopropene on mango fruit during cold storage

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Mango fruits 'Tommy Atkins' were harvested at the stage 2 of maturation objecting to evaluate the effect of doses and times of 1-MCP application during cold storage. 1-MCP was tested as control, one application of 900 nl L⁻¹, one application of 1.200 nl L⁻¹ and two applications of 900 nl L⁻¹. A completely randomized design was used with four replicates. When 1-MCP was applied once, the application was done in the beginning of the storage. The second application was performed at the last twelve hours of the cold storage. Evaluations were carried out at 0, 7, 15, 18, 20, 22, 25 and 26 days. The fruits were kept under refrigeration until the 15th day (11.0±1.6°C and 88±7% RH), when they were transferred to ambient temperature (26.3±2.1°C and 44±6% RH). Mass loss, skin color and total titratable acidity were not affected by 1-MCP. The increase on soluble solids content was lightly slower in fruits treated with 1-MCP. Pulp firmness of fruits treated with one application of 1.200 nl L⁻¹ and two applications of 900 nl L⁻¹ was twice higher than control at the 20th day. However, the softening increased rapidly from the 22th day, indicating a transitory action of 1-MCP.