Abstract:

The aim of this research work was to evaluate the influence of 1-methylcyclopropene (1-MCP) on postharvest conservation of exotic mango (Mangifera indica L.) fruits CVs ‘Rosa’, ‘Jasmim’, and ‘Espada’, harvested as mature-green and pre-climacteric maturity stages, from an orchard in Areia, Paraíba State, Brazil. Fruits, from each cultivar and maturity stage, were treated in sealed (90 x 60 – cm2) chambers with 100 ppb 1-MCP for 24 hr. Fruits were stored at room temperature (23 ± 1 °C) and 80 % RH during 16 days. Fruit weight loss, total soluble solids (TSS), total titratable acidity (TTA), skin color (1-7 scale), and external appearance (1-5 scale), were evaluated. The results show that 1-MCP was capable of delaying ethylene-induced ripening processes for all mango cultivars tested. Mature-green ‘Rosa’ and ‘Espada’ mangoes treated with 1-MCP presented lower weight losses, while maintaining TSS, TTA, and better external appearances. For ‘Jasmim’ cultivar, by the end of evaluation period, better external appearance was more evident for pre-climacteric fruits.