

### Abstract:

'Tommy Atkins' mangoes were harvested at stage 2 of maturity and treated with gaseous 1-Methylcyclopropene (1-MCP) (100 or 500 nL.L<sup>-1</sup>) at room temperature in sealed chambers for 12 hours. Aiming to study the influence of 1-MCP and modified atmosphere, isolated or combined, on ripening, fruits were stored during 25 days at  $11.5 \pm 1.7$  °C and  $86.1 \pm 8.4$  % RH, followed by 7 days at  $25.4 \pm 0.2$  °C and  $97.6 \pm 1.2$  % RH. The lowest respiratory rates were observed in fruits treated with 100 nL.L<sup>-1</sup> of 1-MCP without MA and in those with 500 nL.L<sup>-1</sup> of 1-MCP and MA. 1-MCP kept fruits more acid and with higher vitamin C contents, especially the concentration of 100 nL.L<sup>-1</sup> of 1-MCP which showed the greatest effect on 'Tommy Atkins' ripening. There is apparently no effect of 1-MCP on total soluble solids. The isolated use of modified atmosphere by film reduced soluble solids accumulation. The use of 1-MCP alone would represent lower postharvest costs, higher number of treated fruits and less postharvest management steps.