

Title Ethylene absorption analysis in the modified atmosphere composition during the 'Hass' avocado conservation under different temperatures

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Abstract

The objective of the present work was to verify the ethylene absorption effect on the avocado fruit conservation stored under different temperatures and modified atmosphere. Ten fruits were packed in the plastic boxes wrapped in low density polythene bags. Two lots of samples: one without ethylene absorption but with "Green Keeper[®]" absorber, under temperatures of 3, 6 and 20°C. The bag inside air samples were taken by the use of a syringe and the CO₂ and C₂H₄ were determined through the gas chromatography process. The physical quality index was evaluated through the fruit peel resistance loss by the maximum rupture force determined by the puncture test on three equidistant equatorial zones on 15 fruits collected in the random way from the bags. The analysis were done at 0, 5, 7, 9 and 11 days under the temperature of 20°C; and 0, 11, 18, 25, 32, 39, 46, 53 and 60 days under temperatures of 3 and 6°C. From the results obtained it can be concluded that for temperatures of 20°C, the use of ethylene absorber induces the avocado ripeness process delay indicated by higher peel resistance evaluated through the maximum puncture force. For the temperature of 6°C the ethylene absorber effect occurred on the ripeness from 39th day. However, for temperature of 3°C the metabolic activity blockade occurs and the ethylene absorbing action did not happen.