Cold Storage of Cashew Apple of the BRS 189, CCP 76, END 183 and END 189 Early Dwarf Clones under Different Modified Atmospheres

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The objective of this work was to verify the postharvest storability of cashew apples under refrigeration and different modified atmospheres. Cashew apples from the early dwarf clones BRS 189, CCP 76, END 183 and END 189 were hand harvested, placed inside boxes lined with foam rubber (1 cm thick) and transported to the Laboratory of Postharvest Physiology and Technology of the Embrapa Agroindústria Tropical, Fortaleza, CE, Brazil. Cashew apples, in number of three, were placed in expanded polystyrene trays, packed with different (2, 4, 6 and 8) layers of Polyvinil Chloride (PVC) extendible film (15 μ) and stored under refrigeration (5.03 ± 1.30°C). The experiments, for each clone, were conducted in a completely randomized design, in a factorial arrangement (atmosphere x time), with three replications (trays). The peduncles were evaluated on the harvested day and on 7, 14, and 21 day, for: soluble solids (SS), titratable acidity (TA), SS/TA, pH, vitamin C, sugars, phenolics and anthocyanin. The atmosphere modification resulted in an increased CO_2 concentration inside the packages and lower mass loss of the cashew apple. The external appearance was a limiting factor for cashews postharvest conservation, mainly for those with red color. The postharvest life for cashews apple from CCP 76 clone was 16 days. For the other clones, it was observed a variation on the postharvest life depending on the package: 16 to 19 days for the BRS 189; 17 to 20 days for the END 183 and 13 to 14 days for the END 189.

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