Abstract:

During the 1999/00 and 2000/01 seasons, sliced 'Tommy Atkins' mangoes were packaged with three different types of polymeric films; polypropylene (PP) cups, low-density polyethylene (LPDE) bags or polyethylene terephthalate (PET) clamshell trays, and stored at 3 deg C for 2 weeks. The mango chunks were evaluated for flavor, appearance, colour, total soluble solids (TSS), total titratable acidity (TTA), ascorbic acid (AA) contents, O_2 and CO_2 concentration in the packages, as well as respiration. Shelf life based on visual appearance was 14 days, with the products showing good appearance and agreeable aroma. The TTA content in chunks packaged in PP cups or PET trays were reduced during the storage, and with the color changing from light yellow to dark yellow. The chunks respiration in PP cups or LPDE bags were 64.6 and 87.9 mL CO2.$kg^{-1}.h^{-1}$, and in PP cups or PET trays were 45.86 and 43.92 mL $CO_2.kg^{-1}.h^{-1}$, respectively for 1999/00 and 2000/01 seasons. The percentages of O_2 and CO_2 in the packages were stabilized after 2-4 hours, and the atmosphere had 11-17% and 1-10% of them. The microbiological content was lower than the allowed. No differences were observed between the seasons, and the best packages were the cups.