

Title Cold storage of fresh-cut Granny Smith apples in normal (air) and controlled atmosphere conditions

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Abstract

This research was conducted in the Postharvest Physiology Laboratory of Horticulture Department of S.D.U. during two years (2006 and 2007). Fruits were harvested at optimum harvest time and transported to laboratory immediately. Apples were divided into two groups for fresh-cut and cold storage. First group apples were sliced with an apple slicer device. Sliced and packaged apples were stored at 0°C temperature and 90 ± 5 % relative humidity during 14 days. Weight loss, fruit flesh firmness, fruit flesh colour, titratable acidity, soluble solid contents, respiration rate, ethylene production, microbial enumeration and sensory analyses (external appearance, taste and off-flavour) were determined at the beginning, 7th and 14th days of storage period. The second group apples were stored at 0°C temperature and 90 ± 5 % relative humidity conditions during 6 months in normal (air) and 10 months in controlled atmosphere conditions. After storage fruits were sliced, packaged and then fresh-cut apples were stored at the same conditions. Same analyses were repeated and results were evaluated.