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COLD STORAGE OF FRESH-CUT 'GRANNY SMITH' APPLES

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Abstract:

This research was conducted during two years. Fruits were treated with 1-MCP, lovastatin, and hot water except control group before experiments. Apples were divided into two groups for fresh-cut and cold storage. In the first group, sliced apples were packaged and stored at 0°C and 90±5% relative humidity during 14 days. In the second group apples were stored for 6 months in normal (air) atmosphere at 0°C and 90±5% RH and were then sliced. Fresh-cut apples were packaged and stored at the same conditions like the first group. Weight loss, flesh firmness, flesh colour, titratable acidity, soluble solid content, respiration rate, ethylene production, microbial activity and sensory analyses (external appearance and taste) were determined at the beginning and after 7 and 14 days of storage for all apples. Generally, 1-MCP provided a decrease in weight loss, flesh softness, ethylene production and microbial growth (weight loss: 0.04; flesh firmness: 15.58; ethylene production: 0.58; microbial growth: TMAB: 5.41b±1.17; yeast-mold: 4.91b±1.03).