Title Modified and controlled atmosphere storage of apricots

Author M. Ali Koyuncu, Tuba Dilmaçünal and Özgür Özdemir

Citation Abstracts, 10th International Controlled & Modified Atmosphere Research Conference, 4-7

April 2009, Antalya, Turkey. 80 pages.

Keyword Modified atmosphere; controlled atmosphere; apricot

Abstract

This research was carried out to determine the effects of modified atmosphere and controlled atmosphere conditions on the fruit quality of Aprikoz apricot variety during cold storage. Fruits were harvested at the optimum harvest time and transported to Postharvest Physiology Laboratory of Horticulture Department immediately. Precooling was applied by using cold air. After the precooling, fruits were divided into four groups. First group was stored in plastic boxes covered with stretch film (12, 16 and 20 μ). Second group apricots were placed in two different MAP. Third group fruits were stored at controlled atmosphere conditions. The last group apricots were only placed in plastic boxes as control. Fruits of all treatments were stored at 0°C temperature and 90 \pm 5% relative humidity conditions during 35 (first, second and fourth groups) and 50 days (third group). In addition, fruits were stored in room conditions for shelf life for two days after the end of each storage periods. Weight loss, fruit firmness, fruit colour, titratable acidity, soluble solid contents, gas compound of map, respiration rate, ethylene production and sensory analyses (external appearance, taste, internal browning) were determined during the cold storage and shelf life period. Controlled atmosphere gave better results than the other storage conditions for fruit quality and storage duration.