Title	Effect of controlled atmosphere (CA) storage on postharvest physiology of 'Hayward' kiwifruit
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Abstract

In this study, effects of controlled atmosphere (CA) storage on postharvest physiology of 'Hayward' kiwifruit were evaluated. Kiwifruits were harvested when their total soluble solids (TSS) content reached 7.5%. Harvested fruits were divided into two groups. First group were CA-stored (2%O_2; 5%CO_2) and control group were stored in normal atmosphere conditions. On the hand, in CA cabinet ethylene was removed by the help of an ethylene converter system, Both group were stored in gas-tight cabinets at 0°C and 90-95% RH for 6 months. During storage period, weight loss (%), flesh firmness (kg), total soluble solids (%), vitamin C content (%) and flesh color changes were determined by taking samples from the cold room at monthly intervals. Also, ethylene production ($\mu l C_2H_4$/kg.h) of the fruits were measured at 20°C by GC. According to results obtained, TSS content of kiwifruits were increased during most of storage but decreased slightly at the end of storage period in both groups. Flesh firmness decreased while weight loss increased during all storage periods. CA-stored fruits were significantly firmer than control fruits. After 4 months of storage fruits from control group were over-riped and soft while CA-stored were still unripened and firm. Vitamin C content were slightly decreased in both groups during storage. Generally, the rate of ethylene production was suppressed by CA storage. As a result, 'Hayward' kiwifruits can be stored more successfully at CA (2%O_2; 5%CO_2) at 0°C and 90-95% RH than normal air without losing much of their quality during storage.