

**Title** Effect of calcium chloride solution on physiological changes of 'Sun Lady' cantaloupe during storage

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**Citation** ISHS Acta Horticulturae 731:467-470. 2007.

**Keywords** *Cucumis melo*; partial vacuum infiltration; water soluble pectin; spatial location; fruit quality

#### **Abstract**

'Sun Lady' cantaloupe rapidly ripens after approaching physiological maturity. An attempt of prolonging postharvest life of the cantaloupe was handled using calcium application. Fruit were applied with 5 different concentrations of CaCl<sub>2</sub> at 0, 2, 4, 6 and 8% (w/v) using a partial vacuum infiltration at 460 mm Hg for 5 min and then stored at 20°C with 80 ±5% RH. Infiltrated fruit with 8% CaCl<sub>2</sub> contained high calcium contents in epidermis and hypodermal mesocarp while water soluble pectin of peel and pulp increased slowly showing firm texture. CaCl<sub>2</sub> treatments reduced weight loss and respiration rate and maintained peel colour change, but there was no effect with the pulp. The shelf life of CaCl<sub>2</sub>-treated cantaloupe was prolonged up to 20 days while non-treated fruit had only 15 days. However fruit treated with 6 and 8% CaCl<sub>2</sub> were rejected in sensory test due to bitter taste whereas 4% CaCl<sub>2</sub> treated fruit were mostly satisfied.