Title Effect of postharvest storage period and calcium salts treatment on microbiological growth of fresh-cut cantaloupe (*Cucumis Melo L Reticulatus* cv. Glamour)

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Abstract

Microorganism growth in the fresh-cut fruits is a common biological change when they are subjected to storage for few days. By application of calcium salts as fresh-cut treatment may delay undesirable biological changes. The effect of calcium chloride and calcium lactate were observed on total plate counts (TPC) and yeast and mould (YM) of fresh-cut cantaloupe for 19 days of storage at 2°C and 87% relative humidity (RH). The cantaloupe stored for less than 24 hours and 3 weeks at 10°C and 90±5% RH were prepared into fresh-cut, which treated with 2°C of 1 % calcium chloride and I % calcium lactate. The growth rate of total plate count (TPC) and yeast and mould (YM) of the calcium treated freshcut cantaloupe were increased throughout 19 days of storage. This probably occurred due to juices and sugars leakirig from damaged tissues which would provide good condition for microbial growth. However, the TPC and YM growth of the fresh-cut cantaloupe treated with calcium lactate for both different postharvest storage period of cantaloupe were increased with slow rate. Therefore, I % of calcium lactate used was sufficient to reduce the growth rate.